

## Useful tools for PMCA

*“Good tools that are not applied correctly are useless.”*

**Content of this chapter** This chapter describes seven different tools that could prove helpful when planning and implementing activities as part of the PMCA process.

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### Introduction

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**A methodological  
Swiss Army knife**

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PMCA is designed to be adaptable, so that it can be used in the context of different market chains. It is the facilitator’s task to convert the three phases of PMCA into a set of activities that allow the objectives of each phase to be achieved (see **Figure 7**). During this process of defining, analyzing and setting in place new market opportunities, different tools might be useful to improve the quality of the work done at each stage.

**New guidance  
using old tools**

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The tools presented here provide practical guidance for different aspects of the PMCA process. Most of them are not new; rather they are existing tools with the potential to increase the quality of PMCA activities undertaken at different stages during the process (see **Table 1**).

**Step by step**

How many times have we blamed a tool for not working properly because we weren’t using it correctly? To enhance your understanding of when each tool should be used and how, each is outlined in detail with the individual steps involved.

**Helpful in different  
situations**

The tools presented in this chapter are not only relevant for the work done with PMCA. On the contrary, we very much hope that these tools are also helpful to guide other types of R&D activities as well. You must decide what tool to use when and for what purpose!

- ⇒ p. 63 **Tool 1 Impact Filter**  
The Impact Filter allows a qualitative evaluation of expected impacts that result from different market opportunities, including the impact on poverty and social and environmental objectives.
- ⇒ p. 69 **Tool 2 Market Chain Sketch**  
The Market Chain Sketch is an amusing role play performed by R&D staff as part of a workshop or large event. It is used to illustrate the need for better collaboration throughout a specific market chain.
- ⇒ p. 75 **Tool 3 Rapid Market Appraisal**  
The Rapid Market Appraisal provides a way of quickly assessing a specific market in order to determine the commercial potential of new products or market opportunities.
- ⇒ p. 77 **Tool 4 Quantitative Market Study**  
The Quantitative Market Study is used to measure the market potential and size of a specific business proposal.
- ⇒ p. 85 **Tool 5 Focus Groups**  
Focus Groups help to evaluate and shape products and services through structured group discussions involving six to eight target consumers.
- ⇒ p. 95 **Tool 6 Marketing Concept Development**  
Marketing Concept Development allows one to determine, evaluate, prioritize and visualize those elements that are valuable in the eyes of target consumers.
- ⇒ p. 101 **Tool 7 Business Plan**  
The Business Plan is a strategic document that briefly describes all aspects of a proposed market opportunity.

**Tool 1**

**Impact Filter**

André Devaux, Thomas Bernet

**Overview**

**When:** Phases 1 & 2  
**Who:** Facilitators  
**Preparation:** 1/2 day  
**Duration:** 1 day

**Brief description**

The Impact Filter provides a rapid qualitative evaluation of the expected impact that different market opportunities are likely to have on poverty, and on social and environmental objectives.

**Purpose**

The Impact Filter is a tool that enables R&D organizations to plan and guide interventions more effectively. This allows them to promote those market opportunities that promise to have the most positive impact. The tool explicitly takes into account the following dimensions of impact (see **Application A1**):

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- ▶ Economic-poverty reduction and income risk
- ▶ Social-empowerment and gender
- ▶ Environmental-natural resource management.

The Impact Filter can be used in the context of a project to define areas of action and supporting interventions. Being a rapid, qualitative tool, it can also be applied in participatory processes. In the latter case, actors with different professional backgrounds and experiences would jointly evaluate the potential impact of different market opportunities.


**Use in PMCA**

When used as part of PMCA, the Impact Filter allows the facilitating R&D organization to take strategic decisions. The participatory process can be guided in such a way that it addresses those innovations that promise



Tools

best impact with regard to the different impact dimensions mentioned above. In the context of PMCA, the Impact Filter may be used in Phase 1, to form thematic groups, or in Phase 2, as part of the thematic group discussions, to focus the group's activities on those potential innovations that are most likely to produce the desired development impact.

**Step 1** 

**Developing a simple evaluation chart**

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
The first step is to identify the different market opportunities to be evaluated. A matrix is prepared to characterize the different products according to qualitative criteria, such as market size, target population, production zones, etc. (see **Table 5**).

**Step 2** 

**Defining development objectives**

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To compare the impact of the selected market opportunities in more detail, a more complete chart is developed. This chart is used to evaluate targeted development objectives which interventions should achieve (e.g. poverty alleviation, empowerment of small producers, sustainable use of natural resources, etc.). This finer grained analysis of impact is achieved by attributing sub-criteria to each of the three general objectives: economic, social and environmental (see **Table 6**).

**Step 3** 

**Weighting of general and specific objectives**

To ensure that each overall objective and its sub-criteria are assigned the correct level of importance, these criteria are weighted in two steps (see **Table 6**):

1. Weighting of each general objective: the relative importance of each overall objective is defined by assigning a percentage representing its respective "weight" (total sum = 100%).
2. Weighting of each sub-criterion: the relative importance of each sub-criterion is defined by assigning a percentage that represents its relative weight at the level of each general objective (total sum = 100%).

**Step 4**

**Rating different market opportunities**

To determine which market opportunity would contribute best to the development objectives, each opportunity is evaluated: each sub-criterion is rated by assigning it a number ranging from 1 to 10 using the following approximate scale:

- ▶ 1 = "impact is very negative"
- ▶ 5 = "impact is neutral"
- ▶ 10 = "impact is very positive".

The process used to obtain this rating may vary from case to case, depending on whether this tool is used in a participatory setting or not (see **Box T20**).


**T20. Designing the evaluation process**

A potential impact can be evaluated in different ways. One way is to evaluate it by working in a small team made up of people who know the sector well – both in terms of production and the market. Such an assessment could be done jointly or individually. If done individually, average values would be derived from individual assessments.

Another way is to undertake the evaluation within a bigger group, as part of a participatory process where different market chain actors are involved. In this case, however, it will be important to consider the fact that personal, institutional and commercial interests may distort the process.

**Step 5**

**Calculating potential impact**

For each business option, coefficients are calculated for each sub-criterion by multiplying  $A \times B \times C$  where:

- ▶ A = Weighting factor of general objective (%)
- ▶ B = Weighting factor of sub-criterion (%)
- ▶ C = Rating of impact at the sub-criterion level (1-10).

To compare the overall expected impact across market opportunities, the coefficients calculated for each sub-criteria are totaled for each case (see **Table 6**).

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**Step 6**

**Interpreting the results**

In order to consider the results as fully as possible, it is recommended that you discuss and interpret the outcome as a team.

If the evaluation chart is prepared using average values obtained from individual evaluations, it will be

interesting to discuss both the final results and the differences obvious among the individual evaluations. The latter will allow you to discuss if and why there is consensus among evaluators, or, if consensus was lacking, why that was the case. In certain cases, it might be necessary to readjust the evaluation chart, as certain impact sub-criteria may not be clear enough.

### Step



### Drawing sound conclusions

Which market opportunities should be prioritized is obviously a decision that will depend on the final score in each application.

Nevertheless, it will also be important to consider other issues that have not already been taken into account, particularly if the assessed market opportunities receive similar scores. So, for example, certain market chain opportunities might better capitalize on assets that are already available (e.g. market information, production know-how and business contacts, etc.).

Strategic issues might also be of relevance. So, for example, the R&D organization using this tool might want to support a business that generates specific skills that are of strategic interest to the organization; or, it might be concluded that it would not be wise to focus on an export market without first launching the product in the domestic market.

### Considerations when adapting the tool



Devaux A. and Thiele G. 2005. Filtros de pobreza para identificar oportunidades de mercado favorable para pequeños productores. In: *Conceptos, Pautas y Herramientas*. CIP, Papa Andina. p. 84-88.

The Impact Filter is flexible. As a tool, it can be adjusted to any context in which an impact assessment is relevant, either *ex ante* (i.e. assessing potential impact prior to interventions) or *ex post* (i.e. assessing the outcome of completed interventions). In either case, when adapting the tool, those using it need to redefine the development objectives and the weighting of the three impact dimensions and their sub-criteria. The Impact Filter is derived from the poverty filter (Devaux & Thiele, 2004) and is still under development, as it needs further testing under different conditions to validate its adjustability and usefulness in different contexts.



### A1. Initial application of the Impact Filter

In 2001, when the INCOPA project started, there was a need to prioritize lines of action that would benefit small potato growers. The objective was to improve the competitiveness of Peru's potato sector while empowering poor Andean potato farmers. There was also a need to identify and target existing or new market opportunities in order to improve potato farmers' incomes.

As a first step, three market opportunities were considered: potato chips, mini yellow potatoes and white chuño or tunta (naturally dehydrated potatoes). These were characterized using a simple table (see Table 5).

**Table 5** Matrix for characterizing different market opportunities

Business opportunity	Production zone	Type of producer	Principal markets	Principal purchasers
Potato chips (Industrial)	Coast and highlands	Large and medium	Urban (supermarkets and shops)	Housewives, youths and children
Mini yellow potatoes (export)	Highlands	Small	Urban and export	Adults abroad
Tunta (white chuño)	High altitude (Altiplano)	Small	Urban markets	Housewives descended from highland families

As all three of these market opportunities seemed attractive, the project team decided to screen them more systematically to determine their potential to benefit small-scale potato growers. Consequently, the initial table was transformed into a matrix to assess the potential of these market opportunities to produce the "right type of impact", as requested by the project. This matrix mutated into a detailed MS Excel spreadsheet, in which the main impact dimensions of the project (economic, social and environmental) were specified, along with relevant sub-criteria, and then weighted to reflect their overall and relative importance (see Table 6).

Then, a numerical ranking from 1 (a very negative impact) to 10 (a very positive impact) was used to rate the expected effect each market opportunity would have on the different impact dimensions. Finally, the weighted results from all impact sub-criteria were summed to allow comparison of the overall impact potential of the three market opportunities (see Table 6).

The yellow mini potatoes for export and tunta ("chuño blanco") received equally high ratings, as both are produced by small-scale farmers in the Andean highlands, implying a better impact potential to contribute to the project's objective (which is poverty alleviation and rural development). As a consequence of this exercise, and the fact that tunta can easily be stored and traded, compared to fresh potatoes for export, tunta was prioritized in the first stages of the INCOPA project.

**Table 6** Example chart: evaluating different business opportunities in the INCOPA project

Overall objectives and sub-criteria		Weighting		Potato chips (Industrial)	Mini yellow potatoes (export)	Tunta (white chuño)
<b>Economic Impact</b> (poverty alleviation)		40%	100%	Evaluation (between 1 & 10*) / weighted results		
1.1	Potential to increase incomes in rural areas in the short term (direct or indirect)	30%		6 0.72	8 0.96	7 0.84
1.2	Potential to increase incomes in rural areas in the long term	40%		8 1.28	9 1.44	8 1.28
1.3	Potential to reduce the income risks faced by small-scale producers	30%		3 0.36	7 0.84	10 1.20
<i>Total of weighted coefficients</i>				2.36	3.24	3.32
<b>Social Impact</b> (empowerment of the poor)		30%	100%	Evaluation (between 1 & 10*) / weighted results		
2.1	Potential to increase small-scale producers' self-esteem	20%		7 0.42	8 0.48	10 0.60
2.2	Potential to generate knowledge and contacts that foster long-term development	50%		6 0.90	8 1.20	8 1.20
2.3	Potential to empower persons who need special attention (e.g. youths, women, the elderly)	30%		7 0.63	7 0.63	10 0.90
<i>Total of weighted coefficients</i>				1.95	2.31	2.7
<b>Environmental Impact</b> (sustainable use of natural resources)		30%	100%	Evaluation (between 1 & 10*) / weighted results		
3.1	Potential for the sustainable use of water and soil	50%		4 0.60	7 1.05	4 0.60
3.2	Potential to renew peoples' appreciation of the value and the need to conserve of traditional varieties (biodiversity)	50%		1 0.15	7 1.05	9 1.35
<i>Total of weighted coefficients</i>				0.75	2.10	1.95
<b>Result of the Evaluation</b>				<b>Potato chips (Industrial)</b>	<b>Mini yellow potatoes (export)</b>	<b>Tunta (white chuño)</b>
<b>Economic Impact</b> (poverty relief)				2.36	3.24	3.32
<b>Social Impact</b> (empowerment of the poor)				1.95	2.31	2.70
<b>Environmental Impact</b> (sustainable use of natural resources)				0.75	2.10	1.95
<b>TOTAL</b>				<b>5.06</b>	<b>7.65</b>	<b>7.97</b>

\* Evaluation Scale: 1 = very negative effect, 5 = no effect, 10 = very positive effect



**Tool 2**

**Market Chain Sketch**

Cristina Fonseca, Kurt Manrique

**Overview** **When:** Final events of Phases 1 & 2  
**Who:** Facilitators  
**Preparation:** 1 day  
**Duration:** 10–15 minutes

**Brief description** The Market Chain Sketch is performed by the facilitators of a participatory R&D process at a large event, in order to illustrate the need for better collaboration along a specific market chain.

**Purpose** The Market Chain Sketch should be used during an event, when the goal is to develop a common vision among different actors involved in a market chain. In a very visual and innovative way, the tool:


- ▶ Illustrates a real problem affecting the chain, such as inefficiency, inequality and informality, all of which distort the relationships that exist among the links of the market chain.
- ▶ Introduces a potential solution by improving existing relationships and building new ones, allowing the actors to collaborate effectively when working together to achieve a common objective.
- ▶ Stimulates active involvement on the part of the observing stakeholders in a participatory process.
- ▶ Relieves the tension that can occur when antagonistic actors in the chain are first brought together.
- ▶ Promotes a closer relationship between the facilitators and fosters a sense of group identity among the participants.

Overall, this motivational sketch is used to make the audience more aware of the need to enhance collaboration along the whole chain by improved coordination of activities at different points in the chain.



**Use in PMCA** The use of the Market Chain Sketch helps to clarify ideas, concepts and proposals that grow out of the PMCA process. In this sense, it is extremely useful for the final event of Phase 1, when a variety of actors involved in the chain meet for the first time and are confronted with the results of the market chain survey. The dramatization of the main problem and its potential solution should encourage stakeholders to begin sharing their ideas and working together (see **Application A2**).


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**Step 1** 

**Defining the theme and planning**

The sketch must be planned by a group of R&D staff who have a good knowledge of the characteristics, limitations and opportunities of the market chain in question. When the sketch is used as a part of PMCA's Phase 1 event, this group may involve those persons who have conducted the market chain survey.

During the planning stage, the group should brainstorm the key message of the sketch and consider how it could be dramatized. This key message must be relevant to all the actors of the chain and reflect the need for collaboration along the chain. The use of symbolic elements, such as costumes and other props, should also be discussed, as these can be used to illustrate better certain situations and persons – however, care should be taken not to hurt anyone's feelings when doing so!

**Step 2** 

**Selecting the actors and preparing the script**

The actors should all be R&D staff; none of the actors should be part of the chain, as a clear distinction must be drawn between the dramatization and reality!

In addition, a narrator might be needed to explain the context of the sketch, scene by scene. When the sketch is over, the narrator might want to reinforce the key message with some final thoughts.

The sketch should be structured in acts or scenes. Each act should have a script that is written down by one or two people drawing on the ideas of the group discussion. Such a script serves as a guide for the actors, allowing creative improvisation, as long as the main argument of the sketch and the script is followed!

The sketch should not be more than 10 minutes long, as this will (1) ensure that the audience does not become bored and (2) force the actors to communicate their key message in a very concise and clear way!

**Step 3**  
**Performing the sketch**

The performance of such a sketch requires at least one rehearsal, so that the actors become familiar with their characters and the script. If the sketch will be performed in front of a large audience, microphones should be used during rehearsal. This helps actors get used to the microphone, and make sure that it is passed along to the next actor before he or she starts to talk.

The actors must use simple, local language and wear costumes that help the audience identify the characters they portray. To guarantee optimal understanding on the part of the audience, it might also be useful to use simple signs (e.g. "producer", "processor", "wholesaler") to identify each character and his or her specific location in the market chain.

In most cases, simple scenery will do, and it will not be worthwhile setting up a more sophisticated backdrop for the sketch.



PMCA facilitators dealing with a "Square Potato"



## A2. "The Square Potato"

In 2002, when PMCA was first applied in Peru, a sketch was used to visualize Peru's potato market chain. The sketch was used initially to confront the different market chain actors with the key message of PMCA: all the actors involved in the chain must collaborate in order to take advantage of new market opportunities! The four-act dramatization clarified the fact that it is the consumer who decides what will sell and that the chain will only be successful if everyone collaborates with the spirit to respond to this demand.

### Act 1

In a monologue, the potato producer laments about the technical difficulties of producing good-quality potatoes and always receiving low prices. The wholesaler-intermediary comes in and bargains with the farmer, making him accept a low price – again. Then he goes to the seller and offers him the sack of potatoes he just purchased. The seller, in a corner of the stage, also negotiating a low price, complains to the wholesaler about the poor quality of the product (lack of uniformity, dirt and inadequate packaging), warning him to do better next time. The seller then delivers the potatoes to a supermarket supervisor, who is not pleased either and offers to pay the seller in only 30 days, with a low price, too!

### Act 2

A little later, a shopper arrives at the supermarket. The shopper goes to the supermarket supervisor, complains and demands a special type of potato, for which she is willing to pay a very good price: a square potato! The supervisor takes the request to the seller, who, disconcerted, passes it along to the wholesaler-intermediary, who asks the farmer for a sack of square potatoes.

### Act 3

The farmer tries to respond to the request, but the product (a rectangular potato which is passed on to the wholesaler, and then to the seller and the supermarket) does not completely meet the requirements of a "square potato," and the shopper rejects it.

### Act 4

Because of this unsatisfactory situation, one of the characters suggests that all the members of the chain get together to work jointly on the development of a "square potato". Consequently, all actors line up, giving the impression of a more organized, orderly chain. They discuss the problem and apparently find the solution: one by one, they pass the "square potato" along the chain, from the farmer to the shopper, who is very happy with the product.

Having seen that the market chain has responded well, the shopper makes a new request, offering an even higher price for a "blue square potato" – a real challenge...

**Tool 3****Rapid Market Appraisal**

Maria Elena Alva, Thomas Bernet and Gastón López

**Overview**

**When:** Phase 2  
**Who:** R&D staff  
**Preparation:** 2-3 hours  
**Duration:** 2-3 days

**Brief description**

The Rapid Market Appraisal allows a rapid assessment of a specific market, in order to determine the commercial potential of new or existing products or services.

**Purpose**

In general, this tool helps to qualitatively assess market opportunities. The tool enables the user to:

- ▶ Gain an overview of supply and demand regarding a certain product.
- ▶ Analyze competing products and the way they are sold.
- ▶ Detect attributes that add value to the product.
- ▶ Determine uses, preferences and expectations for a specific product.
- ▶ Define possible research and marketing strategies (for product design, production planning, and positioning strategies, etc.).

**Use in PMCA**

When used as part of PMCA, the Rapid Market Appraisal is especially helpful during Phase 2, when different commercial innovations suggested by thematic groups need to be assessed, rapidly and at a low cost. The results of such rapid appraisal may not always be conclusive; sometimes new working hypothesis emerge, which can be targeted with other tools detailed later in this guide: the Quantitative Market Study (see **Tool 4**), Focus Groups (see **Tool 5**), Marketing Concept Development (see **Tool 6**), or the Business Plan (see **Tool 7**).

↗ p. 77  
 ↗ p. 85  
 ↗ p. 95, p. 101



**Step 1** 

**Defining expected research results**

Although a Rapid Market Appraisal provides qualitative results, it is still important to specify what outcomes are expected from using this tool. This will allow efficient planning and guide the user through the mass of information available, some of which will be irrelevant!

**Step 2** 

**Defining information sources**

If the Rapid Market Appraisal is conducted as part of a participatory process, an initial brainstorming session might help to define potential sources of information (e.g. market statistics, research documents, interviews with key actors, etc.).

Once all the different information sources have been listed, they should rapidly be prioritized within the group based on the following three questions:

- ▶ How relevant is this information source for the purpose of the study?
- ▶ How easily and quickly can the information be accessed and analyzed?
- ▶ With what sources of information should the study start?

**Step 3** 

**Analyzing the information**

As a rule, the person in charge of the Rapid Market Appraisal should start to gather information which is (1) easy to access, (2) is up-to-date, (3) provides relevant insights and (4) requires little time for analysis. The aim is to obtain a fast overview and first key insights, in order to make optimum use of time. Sources of information that require more time to access and analyze should only be considered in a second round and only if there is a good reason to believe that they provide important additional insight. The following activities will help the user to become more familiar with the product that is assessed and its market:

- ▶ Visiting locations where the product is traded and sold – to determine what alternative products are available, studying uses, prices, forms of presentation and branding etc.
- ▶ Questioning family members and friends – to gather opinions about the product's potential uses and their perceptions of competing products.

- ▶ Searching the Internet – to gather both general and specific information about the product.
- ▶ Visiting research centers – to access expert knowledge (e.g. on production and processing).

To complement the information, follow-up activities might require a little bit more effort and creativity. For instance, individual in-depth interviews could be conducted, enquiring where and how consumers, processors or other key actors perceive the potential of new products. Such interviews could also include product sampling. Good ideas for structuring these interviews or group sessions are provided by the Focus Group tool (see **Tool 5**).

↗ p. 85

**Step 4**

**Presenting the study's results**

↗ p. 38

It is a good idea to prepare a brief summary report (2-4 pages) containing the most relevant findings. Placing the main findings in a logical order on paper will guarantee that the results are well communicated, and that sound conclusions are drawn. Another interesting option to structure the main findings is to use SWOT-Analysis (see **Box C9**).

The report should be complemented with an oral presentation, where findings can be discussed in a bigger group. When used in the PMCA process, findings should be presented and discussed in thematic groups. When used outside of the PMCA, other R&D specialists might be invited to the presentation of the results. Further R&D steps should then be defined during such a meeting if the findings outlined are positive.



Screening to determine the export potential of native potatoes at a trade fair



**Tools**

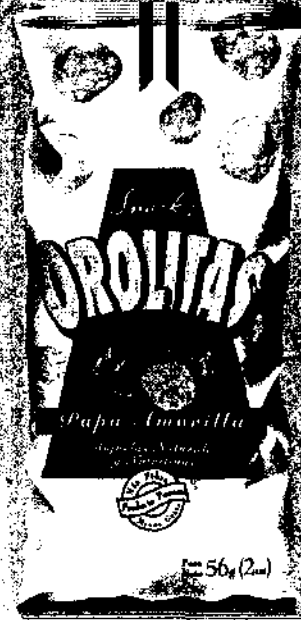


### A3. Assessing consumers' perceptions of potato chips made from native yellow potatoes

During the first application of PMCA in Peru, a new product for children was developed: chips made from yellow-fleshed native potatoes. Since yellow-fleshed potatoes are sold in supermarkets at a higher price than conventional white potatoes, doubt arose whether these chips would also sell well to richer consumers in Peru, if a different marketing concept was used.

Because the International Potato Center (CIP) had been invited to participate in an export fair at which different new products were exhibited, it was decided to make use of this opportunity to assess the yellow potato chips being developed. As the product was being sampled, visitors to the fair were asked for their opinion on the chips' taste and their presentation; they were also asked how much market potential they felt the product had.

This rapid assessment confirmed that these chips are, in fact, very much appreciated by potential consumers (1) because they taste good and (2) because they are made from what is considered to be a gourmet Peruvian potato. These findings were used as the starting point to develop an additional marketing concept for "Orolitas", gourmet potato chips targeted at an adult market.



Packaging of yellow potato chips to target adults in supermarkets



**Tool 4**

**Quantitative Market Study**

Gastón López

<b>Overview</b>	<b>When:</b> Phases 2 & 3 <b>Who:</b> Consultant <b>Preparation:</b> 1 week <b>Duration:</b> 4-7 weeks
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**Brief description** The Quantitative Market Study is used to measure the potential and size of a market or product opportunity.

**Purpose** The purpose of the Quantitative Market Study is to:


- ▶ Understand the characteristics, trends, and composition of the market associated with a specific product.
- ▶ Identify the consumer habits of a certain population group (i.e. target consumers) in relation to a product or set of competing products.
- ▶ Assess the size of the potential market for a product in order to estimate investment costs and expected profits.

**Use in PMCA** The Quantitative Market Study might prove especially useful in Phase 2 of PMCA, when market opportunities are assessed (see **Table 1**). The Quantitative Market Study provides the “hard facts” of a market opportunity, including estimates of volumes and profitability, which can later be fed into a sound Business Plan (see **Tool 7**). Results of the quantitative study should be complemented with “soft facts” from prior qualitative research into product positioning, definition of product characteristics and target consumers, etc. (see **Tools 3, 5, 6**).

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↗ p. 72, p. 85, p. 95

**Step** 


**Defining the study objective**

↗ p. 73, p. 85

The first step is to determine the study objective:

- ▶ What market opportunity or product should be analyzed?
- ▶ What type of consumers are being targeted?
- ▶ What exactly needs to be measured?

Qualitative information from secondary sources (such as published statistics, reports, theses, etc.) or from qualitative work undertaken previously might be consulted to answer these initial questions (see **Tools 3 and 5**). Particular care should be taken to understand differences in socio-economic status, which imply varying consumption patterns and different perceptions, to determine consumer segments that value a specific product.


**Step** 

**Determining the research variables**

Once the objective of the study is clear, all the variables that have to be determined through the study are compiled into a list. This is fundamental, as it helps to ensure that no important data will be missing later on! In general, these variables clarify purchase and consumption behavior:

- ▶ Purchase – who, where, amount, frequency, brands, preferences.
- ▶ Use and consumption – for what, amount, frequency, who, where.

Since price and quality strongly influence people's purchase and consumption behavior, these two aspects must always be considered.

**Step** 

**Determining sample size and structure**


The next step is to determine the sample size. In general, the more factors (consumer habits, education, sex, age, etc.) influencing the variables that need to be measured, the bigger the sample will need to be.

The size and structure of the sample also depends on how homogenous the population is and how accurate the results must be, especially when considering the interaction between variables (e.g. preference for brands x product use, etc.). If the research results must be statistically significant, the sample size should be calculated using the standard formulas that take

into account the margin of error. Marketing books state that as a general rule a minimum of around 250 interviews are required for a Quantitative Market Study to give statistically significant results.

↗ p. 83

The process of selecting interviewees may vary, depending to a great extent on what product is being studied. One way is to randomly select interviewees that have the characteristics of the target consumer (see **Application A4**). Another way forward is to find a database containing the details of potential consumers. People can then be selected from this and asked if they would be willing to participate in an interview. It is important to remember that the selection process should not distort the representativeness of the sample!

**Step** 


**Designing the questionnaire**

The questionnaire must cover all the variables that need to be considered (see Step 2). Questions must be asked in a logical sequence using straightforward (everyday) language, as this will help the person being interviewed to easily understand the questions.

The questionnaire can include different types of questions: closed (those requiring only “yes” or “no” answers), open (those requiring the interviewee to explain their answer more fully, for example, “why do you consume this product?”) and those that require the interviewee to respond according to attitude measurement scales (“a little,” “a lot”, etc.). The questions must be clear and direct, avoiding any ambiguity that could bias the information gathered, a problem which can easily occur when asking leading questions.

Unless the participants are being paid, interviews should take less than 30 minutes, to avoid the quality of the answers being affected by the interviewees becoming bored.

Care must be taken to formulate questions which capture the relationship between price and quality, making it possible to make realistic sales projections for different price scenarios.

**Step**   
**Pilot testing of  
the questionnaire**

The questionnaire should be tested before it is used "in the field". A few persons already known to interviewers can be used for this purpose, as they may have more patience if the interview takes too long or if questions are a little confusing (and so need to be revised)! At the same time, these persons might be more open and willing to share other interesting and relevant information related to the product, which might not be explicitly considered in the questionnaire – the questionnaire can then be revised to ensure that such issues are addressed with later respondents.

Based on the comments and insights gained from this initial experience, the questionnaire should be improved and then photocopied, so that the interviewers recruited for the study can use it.

**Step**   
**Recruiting  
interviewers**

The profile of the interviewer (age, social class, sex) should be appropriate for the product being studied. For instance, men should not conduct interviews concerning lipstick!

Interviewers should be carefully trained. The training should include a presentation of the objectives of the study and how the interviews should be conducted. Emphasis must be given to the following aspects of the study:

- ▶ Good interviewer–interviewee interaction.
- ▶ The best way to ask the questions.
- ▶ The correct way of recording the information.

If the interviewers are inexperienced, it might be useful for them to assist in an interview conducted by an experienced interviewer.

**Step**   
**Carrying out the  
interviews**

The interviews should be held at times and in places that are convenient for the interviewees.

Because such a market study will involve various interviewers, the process needs to be supervised to ensure the consistency of responses. To ensure that interviewees were actually interviewed and that the correct protocol was followed a random follow-up of those interviewed could be carried out by the supervisor.

**Step 8**  
**Reviewing data entry**

Once the interviews have been conducted, the data from each questionnaire should be reviewed, to verify the quality and consistency of the information provided by the interviewees. Each questionnaire must also be coded to indicate who did the interview.

To facilitate data entry, each question and its possible responses must be assigned numbers. A codebook must be prepared, containing the different numbers assigned to the responses to each question. Using these codes, the responses are then entered into a database, question by question. Microsoft Excel is an ideal program for this, as it is very user-friendly with regard to data processing and makes the subsequent visualization of key data very easy.

**Step 9**  
**Analyzing the information**

During an initial review of the results, it is useful to analyze the differences in responses, question by question, across the whole sample. To get a fast visual impression, the preparation of tables or graphs can be helpful at this point.

Based on the general tendencies and conclusions, the questions are analyzed in greater detail, comparing key information across different subgroups of the sample. For instance, there may be significant “gender differences”, in terms of age and sex, or with regard to certain product aspects. It may be appropriate to verify these differences later on statistically.

**Step 10**  
**Market size projections**

To calculate the potential market size for the product being investigated, the results from the study sample must be extrapolated to the total number of potential consumers. The accuracy of this approximation may vary, depending on the data available. Overall, the following calculations need to be done to assess the potential market size in terms of the numbers of consumers and expected total consumption:

- ▶ **Potential consumers** = % of potential consumers of sample x total consumers with characteristics of the sample.



- ▶ **Potential consumption** = potential consumers x average consumption found in the sample.

In many cases, these consumer and consumption estimates will be far too high, as it will be unlikely that all these consumers will be able to access the product being studied. Thus, this number might need to be adjusted, using information about product distribution to make a more realistic estimate of the real market potential.

**Step****Presenting the results**

↗ p. 81

To document and illustrate the results of the study, charts should be prepared showing the responses to each question. Whenever possible, statistical evidence should be used to back up the differences in perceptions among sample sub-groups (for instance, differences of consumption behavior between men, and women or older and younger consumers). Clear thinking will be needed to explain and derive the potential market size of the product (see **Step 10**), taking into account different price scenarios.

The final report must make clear the objectives of the study, the way the sample was selected, the process used to analyze the results of the study and the conclusions drawn. The study will be more credible if the conclusions can be backed up statistically and significance levels included. Since the report might be rather extensive, a one- or two-page executive summary is helpful to allow the reader to quickly grasp key results.



#### **A4. Assessing the potential market size for potato chips made from native potatoes**

Once the qualitative study showed that consumers had a positive attitude toward native potato chips, a quantitative market study was conducted as part of Peru's first application of PMCA. The objective was to examine the structure of the potato chip market in the city of Lima and estimate the market potential for potato chips made from native yellow potatoes.

Based on the standard recommendations for marketing studies such as this, 250 personal interviews were conducted. A structured, standardized questionnaire was designed which contained open and closed questions and attitude measurement scales. Interviews were conducted over a two-week period by six interviewers, who were specifically trained for this task. The sample was made up of people of both sexes, aged between 8 and 25 and living in the city of Lima; by selecting the interviewed persons randomly from different parts of the city.

The study found that 96 percent of the interviewees customarily buy potato chips. Projecting that figure to the total number of possible consumers, it was estimated that the potato chip market in Lima consists of approximately 2,650,000 people. The analysis of the results showed that consumption patterns were similar in all social classes. In all social groups, most chips are purchased from small shops and street kiosks, and not in supermarkets.

Information was also obtained concerning the preferred package size, the quantity of chips purchased on each occasion, the frequency of purchase, brand influence, and the image and positioning of the main brands.

As a result, it was found that 78 percent of consumers would be open to the idea of purchasing potato chips made from native yellow potatoes, given the positive image of the yellow potatoes, the novelty of the project and the particular taste of this potato chip. In addition, 16 percent of consumers said they would not purchase such chips under any circumstances, while 6 percent said they would need to sample the product first.

**Tool 5**

**Focus Groups**

Maria Elena Alva, Thomas Bernet

**Overview**      **When:**      Phases 2 & 3  
                          **Who:**      R&D staff or consultant  
                          **Preparation:** 1-2 days  
                          **Duration:** 45-90 minutes

**Brief description**      Focus Groups help to evaluate the different marketing aspects associated with products and services, through structured group discussions involving six to eight people who represent the target consumer market.

**Purpose**      Focus Groups are used to evaluate new or existing products based on the perceptions and ideas of actual, or potential, consumers. Working with small groups makes it possible to validate individual and group perceptions, and:

- ▶ Understand consumer habits with regard to certain products.
- ▶ Identify and evaluate consumers' reasons for purchase and consumption, or factors that add value to the product being analyzed (i.e. purchase factors).
- ▶ Evaluate marketing concepts (i.e. the combination and prioritization or weighting of purchase factors) and promotional strategies.
- ▶ Assess label designs, product packaging, publicity material, etc.

**Use in PMCA**      In the case of PMCA, Focus Groups are especially useful in Phase 2, to rapidly assess the commercial potential of certain market opportunities; in Phase 3, the tool can help generate key information concerning the development of marketing concepts and validate draft versions of labels, product packages and promotional materials (see Tool 6).

↗ p. 95





**Step****General  
planning**

↗ p. 73

In order to obtain good results, a Focus Group must be well planned. First, it must be clear what type of information is needed and who should be invited to attend the interview sessions. This might require qualitative research before proceeding with the Focus Groups, to specify the market segment and potential consumers (see **Tool 3**).

Often, focus groups are conducted in special rooms that contain two-way mirrors, which allows marketing specialists to observe group interactions. However, a "normal" environment should function just as well, as long as the room is welcoming and the participants are able to sit down in a way that allows all of them to see and hear each other clearly. To make participants feel comfortable and so participate well, it may be useful to provide refreshments or snacks – making sure that they don't interfere with the interaction of the group and distort the research results (a point which it is especially important when products are being sampled).

Videotaping may help to evaluate the responses of the group, but it should only be done if active participation is not hampered. Having observers sitting in the back part of the room should not cause any problems, as long as they don't intervene and participants know why they are there!

**Step****Planning  
a session**

In order to obtain all the information needed, each Focus Group session must be well structured and consider the key issues to be discussed in a logical sequence. The art of facilitation is to ensure that this pre-defined structure is followed during the session without the participants realizing it!

A homogeneous group of 6 to 8 potential consumers will be invited to each session. Ideally, they should be of the same sex and have the same socio-economic status, and similar consumer preferences. Hence, the type of persons to be invited will vary depending upon the product being discussed.

A facilitator with the capacity to guide such discussions should be chosen for the meeting. The facilitator must have an affinity with the type of people attend-

ing the meeting. If different Focus Group sessions are conducted on the same topic, the same facilitator should be used, so that the results are not biased because of differences in facilitation style or the sequence in which issues are raised.

The facilitator should have an assistant, who will help to organize and distribute materials. This person should also take notes on a flipchart during the session, in legible writing, and remind the facilitator if key issues are omitted by mistake.

A Focus Group session should not last longer than an hour and a half. The meetings should be planned at a convenient time for those invited, to avoid the risk of the participants feeling rushed or leaving early!

**Step**  **3**  
**Conducting the session**

 p. 95

The general sequence for group work given below (1 to 6) is helpful if a new product or marketing concept (see Tool 6) is being evaluated. If the Focus Group is being used to obtain initial insights (for instance, to define a new working hypothesis) the structure of the meeting may be less rigid, giving more room for the discussion of the topics raised by the participants themselves.

Facilitators must carefully plan the session, to ensure that they do not influence participants' perceptions. For instance, confronting participants with the product too early in the session might cause them to make premature statements before they have sufficient information to voice a sound opinion (see Box T21).



**T21. Be careful not to influence perceptions**

It is very important to undertake product sampling after the marketing concept for a product is presented. If the product is sampled first, consumers could draw misleading conclusions because they lack information, and might misinterpret certain product aspects. As a result, a positive factor might actually be perceived as a negative one, simply because the consumer did not have enough information about the product. For example, people might think a purple potato is spoiled if they don't know that its colour comes from a natural pigment that helps to prevent cancer!

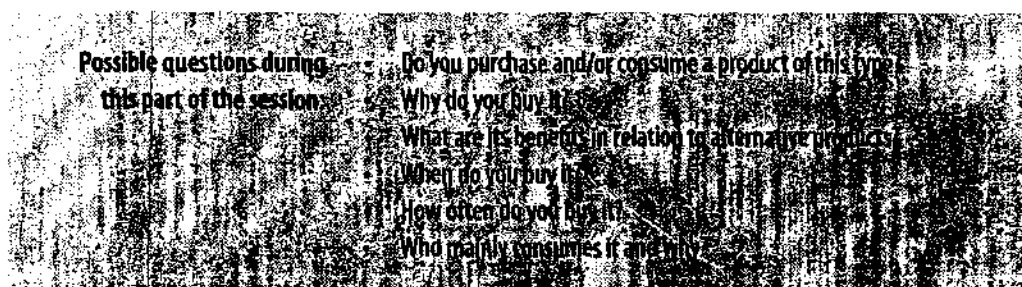
**1 Introduction** A good introduction to the meeting is important as it creates a friendly environment from the beginning. This makes participants feel comfortable and encourages them to share their ideas. Every person should introduce her or himself simply by saying their name, and nothing more – to prevent preconceived perceptions or hierarchy within the group that might hinder free participation.

During the introduction, the goal of the meeting and the “rules of the game” must be explained: every comment is welcome, because it is important to gather different viewpoints. People’s opinions will not be judged!

**2 Understanding general perceptions** Without showing the product being analyzed, the facilitator should begin asking general and open questions about the product, with the aim of understanding the general perceptions and habits of the consumers participating.

All individual answers and comments should be summarized on the flipchart. This will stimulate new ideas and will prove helpful when the facilitator or the group wants to return to certain comments. Also, after the meeting, the flipchart sheets make evaluation easier, since all the relevant information is already recorded.

Based on the comments made, the facilitator’s aim is to identify the most relevant elements from the participants’ standpoint. The facilitator seeks to understand the group’s shared view on the reasons why the product or service might be purchased (i.e. identification of “purchase factors”).



**3 Understanding the visual logic**

At this stage, the facilitator should present a product label or package. Now, the facilitator wants to know how participants perceive the visual marketing concept and if it is congruent with the ideas and important “purchase factors” mentioned before the participants saw the product (see **2**).

The facilitator might want to focus the group’s attention on both the physical characteristics of the product’s packaging (size, shape, material, etc.) and the graphic elements (logo, colours, design, etc.) that communicate the product’s value. The key issue is to determine whether the packaging helps the participants to perceive the product’s real value and its comparative advantages.

In order to generate the necessary feedback, the facilitator must use precise questions and stimulate conclusive answers. For instance, it is not enough for the participants to simply say that the packaging “is pretty” or to state “I like it”; the facilitator needs to know exactly how each element is perceived and if it enhances the “purchase factors” that should be communicated to consumers. For instance the facilitator might ask questions such as: “What is the most relevant information on the package – and why?”

Also, with the product in front of them, it is important to determine how much the participants would be willing to pay. To make sure that each person expresses his or her opinion, everyone is asked to write the price they would pay on a piece of paper without letting others see it.

<p><b>Possible questions during this part of the session:</b></p>	<ul style="list-style-type: none"> <li>• What do you think of this product?</li> <li>• Do the size and shape of the package seem appropriate?</li> <li>• Does the packaging reflect the product’s advantages?</li> <li>• Is it clearly distinguishable from other products?</li> <li>• Is there anything you don’t like about the packaging and that you feel should be improved?</li> <li>• Where should this product be sold?</li> <li>• How much would you pay for it?</li> </ul>
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#### 4 Evaluating the "perception gap"

When analyzing a product that will be consumed, particularly a food, sampling is a very helpful way of assessing if the product is what it promises to be. In other words, the facilitator needs to find out if the consumer's perception at the moment of consumption matches his or her expectations at the moment of purchase. If there are differences, the marketing concept needs to be changed, or the product improved:

- ▶ If the product is better than the packaging promises, many potential consumers will never know the real value of the product, as they won't buy it...
- ▶ If the package oversells the content, the result is guaranteed: a frustrated consumer who will not purchase the product again and will provide bad publicity for it.

An important index of satisfaction is the price that each participant would be willing to pay at this point (i.e. after having tasted the product). So, the facilitator should again ask the participants to write down the price they would now be willing to pay, below the price they have written down before.

#### Possible questions during this part of the session:

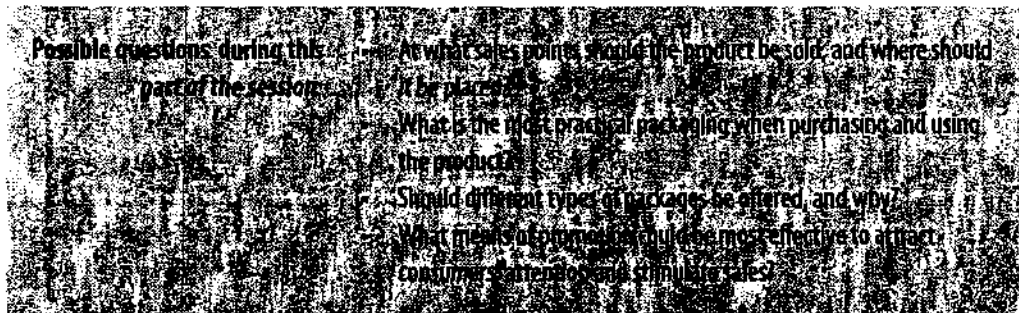
- What do you think of the taste, consistency, colour, and size of the product?
- Do these elements correspond to what the packaging promises?
- Is there a conflict between what the packaging promises and what the product really offers?
- Should other elements be mentioned on the package?
- Does the price mentioned earlier seem appropriate, or should it be higher or lower?

**5 Evaluating merchandising options**

Since by this point the participants know the product fairly well, they can now be asked to share their opinions regarding how the packaging could be improved and where and when the product should be sold. Also, they might give interesting advice on promotion, or how to best orient the product so that it appeals to the target consumers.

Very practical aspects should also be discussed at this point. Examples include: what type of packaging would be most practical to use, where the product should be located in the store or market, and what measures might be taken to ensure it attracts attention. So, for instance, participants might consider its location on the shelf (e.g. category and height on the display rack) and its graphic elements (e.g. letters, colours, drawings, photos), both of which are of critical importance in allowing the product to effectively communicate its value to potential consumers in a few seconds.

Effective strategies for publicity might also be discussed at this stage. Are special sales people and stands, posters or pamphlets feasible and cost effective options to stimulate sales? It may also be possible to promote the product by linking it with other products. So, for example, new sauces could be sold and promoted alongside known brands of potato chips. But participants may come up with other creative ways of promoting a product.



**6** Closing the session

At the end of the meeting, it is important to thank the Focus Group participants, not just with words, but also with a little gift. The ideal gift is the product that they have been evaluating – but only if they like it!

In addition, giving the product to the participants as a gift also allows you to conduct a follow-up survey, in which you can ask more detailed questions about the practical use of the product at home, for example.

**Step 4**  
**Evaluating the meeting**

The Focus Group session should be evaluated as soon as it ends. The facilitator, together with the assistant, should rapidly evaluate the information obtained from the flip-chart sheets and any notes that were taken. The main conclusions should be written down. The prices that participants were prepared to pay at different times should be analyzed to determine their willingness to pay for the product:

- ▶ If the second price (noted at the moment of consumption) is higher than the first (noted at the moment of seeing/purchasing the product), the conclusion is that the product actually delivers more than the marketing concept and packaging promise it would.
- ▶ If the second price is lower than the first, the expectations raised by the marketing concept and packaging are too high compared to the perceived quality of the product when consumed.

In either case, it is important to analyze what would be the best way to readjust the marketing concept for the product, in order to ensure that the consumer's perception of the product at the time of purchase matches their perception at the time of consumption.

Finally, it is important to write a good concise report that documents the structure of the Focus Group, its results and conclusions. This report will help keep in mind the main results and conclusions when follow-up activities are defined or the product is assessed again later on.



### A5. Evaluating the marketing concept for yellow potato chips

To evaluate two marketing concepts for yellow potato chips, a Focus Group session was organized with six women who have children between the ages of 3 and 8.

After asking their general opinions about this type of product, a marketing concept aimed at children – “Papy Boom” – was presented. The participants were asked to comment upon how they perceived the packaging. This provided a variety of useful information. For instance, they mentioned that the generic brand used on the package “Top Chips” did not make sense to them, and that the design did not inspire confidence. They also noted that it is extremely important for them to know that a product is natural and nutritious while containing as little fat as possible. For them, these were the “purchase factors” that mattered when they considered buying a product for their children.

Then, they were presented with an improved concept for “Papy Boom”. All liked this packaging better, although they still insisted that nutritional information was lacking. They also commented that, because they were not familiar with the company mentioned on the package (A&L), it would be good to place the International Potato Center’s logo on the package, as it would inspire greater confidence.

In general, the opinions given after sampling the product reflected the value perceived when viewing the packaging. This was confirmed by the fact that the prices noted before and after sampling were consistent. The participants mentioned that they would like to purchase the product in supermarkets, gas stations and kiosks. Ideally, there should be different sized packages: small, for lunchboxes; medium-sized, for family gatherings; and large, for birthday parties.

In the end, the participants were thanked and given several bags of the products as a gift. All agreed to take home a questionnaire to gather their children’s opinions – these would be filled out at home and the sheet would then be returned to the facilitator. One striking result of this additional research was the fact that children over the age of 6 did not like the picture of the boy on the first package, stating “he looks like a little kid!”

All of this information led to a refined concept that was well received by those that had participated in this Focus Group.



Initial and improved versions of “Papy Boom” packaging



**Tool 6**

**Marketing Concept Development**

Alain Barrero, Thomas Bernet

<b>Overview</b>	<b>When:</b> Phase 3
	<b>Who:</b> Consultant
	<b>Preparation:</b> 2-3 days
	<b>Duration:</b> 2-3 weeks

**Brief description** Marketing Concept Development is the process of identifying, weighting and visualizing those elements that cause target consumers to perceive the real value of a specific product or service. In this sense, a marketing concept is a construct made up of different aspects of a product (such as package size and form, label information, price, etc.) all of which communicate in the best possible way its value for the consumer.

**Purpose** Marketing Concept Development seeks to differentiate a product from its competitors through a sound commercial strategy, clarifying:

1. The target consumer population.
2. The points of sale for the product.
3. The elements that add value to the product in the eyes of consumers (i.e. purchase factors).
4. The ways in which the different valuable attributes of the product can be communicated.

**Use in PMCA** When used with PMCA, this tool can be of great help in Phases 2 and 3 to shape "market" opportunities for both the private and the public sector (see **Table 1**). In either case, a well-constructed marketing concept will play a key role in increasing the chances of "market success" of a new product:

↗ p. 21



- ▶ For the **private sector**, marketing concepts are powerful tools for focusing product sales towards particular market segments or target consumers, while differentiating the products from others by emphasizing its distinctive qualities.
- ▶ For the **public sector**, marketing concepts can be an interesting way of fostering rural development by promoting products and services that enhance collaboration and incomes in disadvantaged areas (e.g. food products with local brand names).

**Step**
**Identifying interesting product attributes**

➤ p. 73  
➤ p. 85

The starting point for any marketing concept is the identification of product attributes that add value to a product, on the one hand, and differentiate the product from competing products, on the other hand.

To ensure that a product is really pleasing to consumers, Rapid Market Appraisal (see **Tool 3**) or Focus Group research (see **Tool 5**) may be conducted before the market concept is developed. Whatever method used, those asked for their opinion must feel that they are being looked on as “experts”, and should feel that their perceptions are valuable, even if they are negative!

**Step**
**Achieving greater value at a lower cost**

➤ p. 85

If Step 1 confirms that a product has interesting product attributes (i.e. purchase factors, which add value to the product in the eyes of consumers), production options need to be identified that can deliver these unique product attributes at the lowest possible cost. This will enhance the product’s competitiveness in the market when launched.

To draw on the valuable information that can be provided by consumers, Focus Group research (see **Tool 5**) might be very helpful at this stage, involving consumers who represent the market segments that best appreciate the initially identified purchase factors.

The Focus Group should be conducted so that participants can appreciate a clear hierarchical relationship among the different purchase factors. In other words, the researcher must understand consumers’ perception, how they prioritize the different purchase

factors, and how they are related. The fact is that a product's principal advantage must be emphasized to bring across the main reason why it should be purchased; other advantages might help to add value to the product, but they should be communicated less forcefully.

Applying such a clear ranking of product values will inspire confidence when the product is being purchased: by briefly looking at the product package, the consumer should know what it is good for! For instance, a consumer will be confused if a product is sold as being nutritious, easy to use and cheap, all at the same time; however, they will feel comfortable if a package "tells" them that the product is, first of all, nutritious, and, additionally, it is also easy to use and not too expensive!

**Step**  **Designing the marketing concept**

Once the hierarchy of different product attributes has been defined, the task is to convert this information into a viable design that reflects these values and communicates them effectively to the target consumers. In other words, the hierarchy of "purchase factors" needs to be transformed into package design. A key element in this work is the use of trademarks or brand names, which help to differentiate the product by giving it its own identity, with a name and "face" (see **Box T22**).

 **T22. Using brand names for differentiation**

When creating new brands, it is essential that they respect and reinforce the hierarchy of product values. Moreover, the brand name chosen must be easy to read, pronounce and memorize – so that the consumer becomes familiar with it and is able to relate it to the set of values that stand behind the product. In general, brand names should be registered to prevent others from simply copying the product and its marketing concept, where the brand is key. This is especially true when the brand is well-known to consumers.

The graphic designer's task will be to bring all important product elements into visual harmony. The packaging alone should attract consumers' attention,



through its use of shape, colour and design. The fact is that a supermarket shopper, for instance, looks at dozens of products in a few seconds! Therefore, the product only has a very short amount of time in which to be seen and attract attention!

Overall, a valid package design must respond to three key moments when “interacting” with potential consumers:

- ▶ Attracting attention with its appearance.
- ▶ Forcing the consumer to study the package more closely.
- ▶ Convincing the consumer to buy it because he or she detects additional information that makes the product even more valuable.

When designing the packaging for the product, it is also important to take into account the efficient distribution and display of the product. For example, a product for children should not have a design which forces the retailer to place it at the top of the display rack, where it cannot be seen, or away from similar products elsewhere in the store, just because its packaging won't fit on the right rack!

Because the success of a product sold in a supermarket depends greatly on the quality of the design (i.e. the visual implementation of a sound marketing concept), it is advisable to work with a good designer who has a good knowledge of marketing. The fact is that not every graphic designer is capable of converting a marketing concept into an attractive commercial package!

#### Step



#### Evaluating the visual marketing concept

↗ p. 85

The “moment of truth” comes once the marketing concept has been transformed into the first prototype packaging. The ideal tool for evaluating the quality of this work is the Focus Group (see Tool 5).

Based on the conclusions of Focus Group sessions, the designer will correct and improve the marketing concept. The goal is to obtain an attractive but honest product package. Once the final design of the product has been completed, it might be worth asking those

people who participated in the Focus Group to reevaluate it.

Later on, once the product is on the market, it would be ideal to conduct a survey of those buying the product, to ask them if the product's packaging reflects the "real" value of the product and if they perceived the product differently at the moment of purchase and at the moment of consumption.



### A6. Creating "Puré Andino"

When PMCA was applied for the second time in Peru, a new potato product was developed. Spurred by a company's interest in developing an instant soup made from native potatoes, those involved in PMCA discussed how to process these potatoes, taking into consideration the fact that many native potatoes have very deep eyes. In order to reduce processing losses, it was suggested that the potatoes should be processed into flakes without being peeled, thus retaining more fibre and more nutrients. This suggestion was interesting from an economic standpoint as it both increases the amount of raw material that can be utilized and keeps costs low. It was suggested that these flakes could also be used to produce mashed potatoes; however, it was necessary to find out how such a product might be received by consumers.

A rapid search of the internet, as part of a Rapid Market Appraisal (see Tool 3), revealed that similar types of instant mashed potatoes already existed in the United States. Retaining the skin could provide an interesting factor that would differentiate the product and motivate people to buy it, if they were aware that it added nutritional value in a natural way. Preliminary tasting tests indicated that the product might be well received if the consumers were not put off by the fact that it looked different from other types of mashed potatoes because the skin had been retained.

With this information and the help of a graphic designer, a prototype package was prepared. This was then evaluated by two Focus Groups (see Tool 5). It was concluded that the marketing concept used to sell the new "Puré Andino" instant mashed potato should focus more strongly on shoppers who prefer natural products, as it contains neither preservatives nor artificial colouring. The package should also make clear that the product is ideal for housewives, who appreciate that the product is quick and easy to prepare, but still has a great taste!



Final packaging for "Puré Andino", an instant mashed potato product made from native potatoes

**Tool 7**

**Business Plan**

Miguel Ordinola, Thomas Bernet

<b>Overview</b>	<b>When:</b>	Phase 3
	<b>Who:</b>	Facilitator or hired consultant
	<b>Preparation:</b>	1-2 days
	<b>Duration:</b>	2-3 weeks

**Brief description** The Business Plan is a strategic document that describes all aspects of the development of a market opportunity, and which includes a projection of the expected profitability of a venture once implemented.

**Purpose** A Business Plan presents all aspects of a new business in a simple, comprehensive way. In this sense, it serves as the basis for decision-making among promoters and can be used to persuade new actors to get involved, particularly new financial partners.

Operationally, the Business Plan helps to plan, take the steps necessary to implement operations and define the roles partners should play.

**Use in PMCA** When used with PMCA, the Business Plan enriches the participatory process and forces stakeholders to analyze and describe in detail, on the basis of consensus and specific commitments, all the components needed to take advantage of a market opportunity. In this sense, the Business Plan can serve as a guide when participants are working to address all the relevant aspects of a proposed business venture during Phases 2 and 3 of PMCA (see Table 1).

↗ p. 21

**Step****Summarizing  
the main idea**

p. 104

As a first step, it is advisable to think through a business idea "in theory", and then summarize the key points in a short document. The Business Plan structure (see **Application A7**) can be used as a guide for briefly covering the different aspects.

If the market opportunity is shared among several actors, an in-depth discussion among all of them is necessary to clarify all the details related to this business idea. Finally, this summary will serve as a "baseline agreement" for the business idea.

**Step****Agreeing on how to  
prepare the document**

Once the summary has been agreed upon, those involved must decide who will take the lead in developing the whole Business Plan. This person should have experience with this tool. In addition, he or she should be able to analyze complex information and translate it into a concise and logical document.

Ideally, one of those involved in the business venture should take on this task because they have a clear understanding of the business idea and are aware of previous research findings. However, if the necessary time or skills are lacking, a consultant could be hired to undertake this task. One considerable advantage if working with consultants is that it is easier to ensure that deadlines are met – this is more difficult when the person doing the work is not being paid! In a consultancy contract, responsibilities for both the consultant and the promoters must be defined, in terms of providing the information required and work supervision. But when hiring a consultant, be sure he or she is really capable of doing the work required (see **Box T23**).

**T23. Checking first the  
quality of work**

Before hiring a consultant, it is advisable to screen different candidates to determine their experience and their ability to develop a business plan. To do this, it is best to ask candidates to provide one or two examples of business plans that they have prepared previously. These examples will show if the person in question is capable of taking on this important task. Let's be clear: a bad business plan is the first important step on the road to losing a lot of money!

**Step 3**  
**Analyzing all relevant data**

- ↗ p. 104
- ↗ p. 73
- ↗ p. 85

The person in charge of developing the Business Plan must ensure that all relevant information is on hand. For that, the Business Plan structure (see **Application A7**) can be used as a checklist. Additional information might need to be obtained through further research, including individual and group interviews (see **Tools 3 and 5**).

- ↗ p. 102

After the data has been thoroughly analyzed, the different sections of the Business Plan are prepared, taking care that the different parts of the document are consistent. The initial summary of the business idea (see **Step 1**) can be used as a starting point when developing the entire Business Plan, as it provides all the key information needed for each section of the full Business Plan.

The initial summary can also serve as the basis for the executive summary, which is written last and then placed at the beginning of the document. The entire document, including appendices with cash flows and profitability calculations, should not exceed 25 pages.

**Step 4**  
**Presenting the document**

The draft of the document should only be shared with those actually involved in the business proposal; their comments will reveal if the document is good enough, or if adjustments are needed. Also, this first round of revision will help those involved in the venture consolidate their main business idea, enhancing consensus and commitment.

If the key actors of the business venture do not consider the Business Plan to be confidential, it can also be presented to a larger group for discussion, in the hope that new actors get involved and help to “catalyze” the implementation of the business proposal. When used as part of PMCA, such a Business Plan could be presented at the final large event of PMCA, with the aim of attracting additional partners or potential investors.



Tools





## A7. Structure of a Business Plan

### 1. Executive summary [1 page]

This section summarizes concisely the different aspects of a Business Plan.

- ▶ Sources of information: The different sections of the Business Plan.

### 2. Name and brief description of the product [1-2 paragraphs]

This section gives the name of the product and a brief description of it. It also explains which consumers will be targeted and why the product is valuable for them.

- ▶ Sources of information: Discussions and agreements among those involved in the business, and use of the Rapid Market Appraisal (see Tool 3) and Focus Groups (see Tool 5).

### 3. Description of the commercial potential of the product [1-2 pages]

This section provides a detailed description of the market in which the product will be positioned and how it will compete against its competitors. Prior qualitative or quantitative research must be used (1) to indicate why the product provides value for its target consumers (i.e. discussion of purchase factors) and (2) to estimate the size of the potential market.

- ▶ Sources of information: Qualitative and quantitative market studies (see Tools 3, 4, and 5).

### 4. Description of the production process and its advantages [1-2 pages]

This section describes all the stages of the production process up to consumption, as well as all the actors who will participate in the business along the market chain. The information reveals how the process takes advantage of synergies along the market chain and how the process is complemented by other activities that keep costs down. At all points in this review the product must be compared with its competitors.

- ▶ Sources of information: In-depth Interviews, Focus Groups (see Tool 5) and SWOT-Analysis (see Box C9).

### 5. Description of the advantages created for society [1-2 pages]

This section is not part of an ordinary Business Plan. However, it is included here to make explicit the justification for public sector support. The section should include a qualitative description and explanation of how the business will benefit society (for example, by alleviating poverty, fostering rural development, conserving biodiversity, etc.).

- ▶ Sources of Information: Impact Filter (see Tool 1), In-depth interviews with key stakeholders.

**6. Description of actors involved and of their roles** [1-2 pages]

This section presents the actors who will participate in the business (i.e. business partners), emphasizing the specific role of each one and the skills they have. It must also indicate how the actors will work as a team, keeping interaction costs as low as possible.

- ▶ Sources of information: Discussions among promoters.

**7. Evaluation of critical factors** [1-2 pages]

This section reflects on critical factors that may stimulate or jeopardize business success. These factors may be internal (under the control of those involved in the business) or external (outside their control). The reader must understand the degree of uncertainty associated with these factors, how they interrelate and how the business partners might influence each one.

- ▶ Sources of information: SWOT-analysis (see Box C9), in-depth interviews.

**8. Profitability estimates based on different scenarios** [2-3 pages]

This section considers the economic side of the business. When the exact size of the market is uncertain, three reasonable scenarios might be considered. If the Business Plan is simple, expected profitability levels can be derived from income and cost estimates; if it is well prepared – and especially if considerable initial investments are needed to start up the business – an expected cash flow stream must be derived from estimated annual income and expenditures, making visible the capital needs at the different stages of the business. In this latter case, profitability is calculated based on the Internal Rate of Return (IRR), which can easily be calculated if Microsoft Excel is used for data analysis. Also the Net Present Value (NPV) can be calculated with Microsoft Excel indicating how much monetary value the business is likely to create in the future.

- ▶ Sources of information: Quantitative Market Study (see Tool 4), in-depth interviews, cost calculations.

**9. Investment plan and promotion strategy** [1-2 pages]

This section tells the reader how much financial capital the business requires and specifies investment needs, including those for product promotion. If strategic partnerships are established as part of the marketing strategy, these will be described in detail here. If the product creates benefits for the public (see Section 5), this section must also explain how R&D organizations or the government will support the business and its promotion activities.

- ▶ Sources of information: Previous sections of the business plan (see Sections 7 and 8), discussions among promoters.

# First applications of PMCA

*"Learn from others what you need to learn."*

**Content of this chapter** This chapter describes the first applications of PMCA, illustrating how the basic theoretical concepts of PMCA were transformed into practice in each situation.

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## Introduction

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**A learning experience** PMCA was developed only recently, within the context of national potato projects in Peru and Bolivia. These projects have helped to shape and validate PMCA, while PMCA has provided them with important methodological guidance that has allowed them to strategically involve market chain actors in a demand-oriented R&D process.

**From the Andes to Africa** The use of PMCA in Peru and Bolivia has already generated considerable interest within the R&D community. And, because PMCA is flexible and adaptable, it is now also being applied in Uganda where different R&D organizations have expressed an interest in applying this method to the potato, sweetpotato and vegetable sectors.

**Need for new applications** We hope that the lessons learnt from the first applications of PMCA will inspire others to apply this method in new contexts, so allowing it to be further fine-tuned! Thus, we hope to soon expand this section of the manual by adding examples of PMCA from different parts of the world.

**Summary of described PMCA applications**

- ▶ **Promoting innovation in Peru's potato sector** recounts the first time PMCA was applied to improve market linkages and the competitiveness of Peru's potato producers.



- ▶ **Promoting the use of native potatoes in Peru** describes the second application of PMCA in Peru, when the PMCA process focused on native potatoes in order to more directly benefit small-scale farmers in the Andes.
- ▶ **Generating new products in the Bolivian potato sector** describes the first application of PMCA in Bolivia, when it was used to create new market opportunities for native potato producers.
- ▶ **Creating collaboration and trust along market chains in Uganda** outlines how PMCA has been taken up by R&D organizations in Uganda, where it has been used to foster market chain collaboration in the potato, sweetpotato and vegetable sectors.



R&D staff from Uganda  
assessing PMCA

**PMCA Application 1****Promoting innovation in Peru's potato sector**

Thomas Bernet, Gastón López, Kurt Manrique

**Overview**    **Purpose:** To improve the competitiveness of the Peruvian potato sector  
**Who:** INCOPA Project, CIP  
**Duration:** March 2002 to June 2003

**Context** Since 2002, the International Potato Center (CIP) has been developing and applying PMCA as part of its INCOPA Project, in order to create new market opportunities that would be of particular benefit to small-scale potato producers in Peru.

It was clear to the project managers that small-scale potato producers would only be able to take advantage of new market opportunities if they were able to collaborate successfully with other actors in the market chain. The question was: how could such collaboration be stimulated?



Engel P. and Salomon M., 1995. Facilitating innovation for development: a RAAKS resource box. Kit Publications, Amsterdam, the Netherlands (available at [www.kit.nl](http://www.kit.nl)).

In order to build collaboration, the RAAKS methodology (Rapid Appraisal of Agricultural Knowledge Systems) was applied to the market chain, emphasizing the joint development of new business opportunities. This particular application of RAAKS gave birth to PMCA, a market chain method specifically designed to stimulate joint innovations.

**PMCA Phase 1** As a first step, a market chain survey was conducted. This involved 24 qualitative interviews with different actors in the market chain. For three weeks, the interviewers spoke with farmers, NGOs, merchants, processors and distributors.

The assessment revealed that the potato market chain in Peru is highly informal, and that trust is lacking along the whole chain: it is common for both providers

and clients to be deliberately deceived with regard to product quality and quantity!

The assessment revealed that it is a very common practice to mix poor-quality potatoes with better quality produce within large sacks and to sell buyers short-weight sacks; many actors expressed an interest in developing a standardized bag which would contain well-graded potatoes. Most were also eager to explore other marketing opportunities associated with the production of processed potatoes.

### Final event

All these survey results were presented at a major event in CIP's auditorium (i.e. final event of Phase 1). This was attended by the actors who were interviewed as well as others from the sector, including representatives of governmental and non-governmental organizations (NGOs). After a PowerPoint presentation on the survey's results, a plenary discussion and a motivational sketch (see **Tool 2**), three thematic groups were formed to analyze potential joint business opportunities:

- ▶ "Selected Potatoes"
- ▶ "Processed Potatoes"
- ▶ "Potatoes for Export".

After a coffee break, each group facilitator began the participatory work with a round of introductions, in which the participants stated their names and their reason for participating. Cards were placed on a blackboard so that participants could indicate what activity of the market chain they represent, from production (left) to consumption (right) (see **Box T5**). This led to an initial discussion about what market opportunities could be approached in each group, based on the interests expressed by the individual participants.

Each thematic group informed the others of its main conclusions. A sign-up sheet was then passed around to allow those present to indicate in which group they would like to participate in the near future. The meeting closed with a relaxed lunch.

↗ p. 69

↗ p. 30

**PMCA Phase 2**

Because the “Processed Potatoes” and “Potatoes for Export” groups reached similar conclusions during this first event, it was decided to merge them. Consequently, the participatory process continued with two thematic groups: one focusing on “Selected Potatoes” and the other evaluating options for “Processed Potatoes”.

**Selected Potatoes**



Traditional work of a cargo hauler

At its first meeting, the “Selected Potatoes” group concluded that a high-quality product was needed. The suggestion was a standardized 50-kilogram bag containing potatoes that would be selected and classified by producers applying strict selection criteria. Such a quality product would contrast with the produce of the informal marketing system, which uses 120-kilogram sacks that contain, besides usable potatoes, rotten and damaged ones, as well as dirt and even stones!

Over the next three months, the group met eight times to evaluate and define the details of the new business proposition. The last meeting was held at the wholesale market, in the offices of the Cargo Haulers Union. At that time, the PMCA facilitator realized that such a change of environment enhances learning and reinforces the group’s identity.

**Processed Potatoes**



Processing trial using yellow potatoes

The “Processed Potatoes” group initially had more trouble focusing on a specific product. The participants proposed different options for adding value to the potatoes. But, only after several meetings did they finally settle on one option, when one processor expressed his willingness to invest if the group would help him develop the option of potato chips made from native yellow potatoes.

The group began to analyze the frying characteristics of different potato varieties and complemented this work with a Quantitative Market Study (see Tool 4). For CIP, the idea of working with native potatoes was extremely interesting, as it would be of particular benefit to small-scale producers in the Andean highlands, where these potatoes are grown.

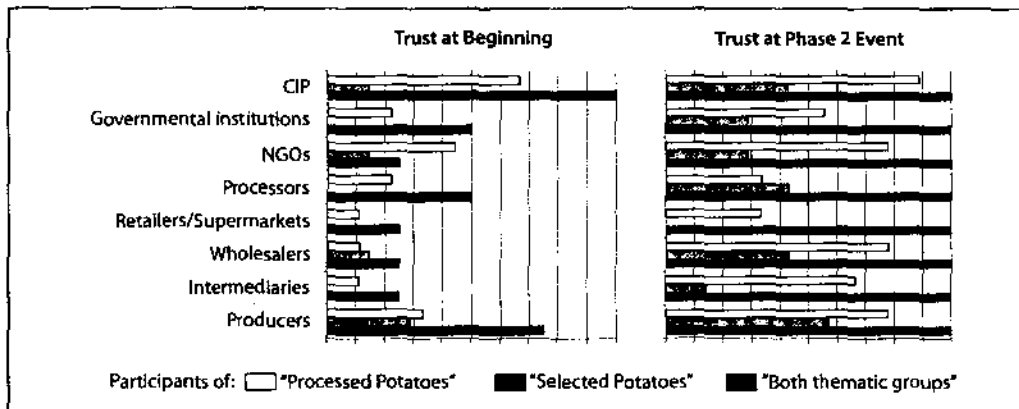


**Final event** After about four months of group meetings, the members of both thematic groups presented their results at a second major event (i.e. final event of Phase 2). Around 80 people from the sector were present. Their feedback helped to ensure that the two thematic groups were taking the right steps to move forwards.

Both thematic groups also took advantage of this opportunity to indicate the additional persons or capacities that they would need to implement their proposals in Phase 3. As a result, the "Selected Potatoes" group was able to contact a lawyer to assist the group with legal issues.

The event was also attended by several new actors who later joined the thematic groups. Special guests were invited from two organizations that manage agricultural information, who were asked to present their work and products. A fruitful discussion concerning the possibility of collaboration followed, and one of the two organizations joined the thematic group meetings in Phase 3.

At the end of the event, a survey form was distributed to evaluate how efficiently PMCA was able to generate interest, trust and collaboration among the different actors. The summary of these responses confirmed what facilitators had hoped: PMCA effectively builds mutual trust through the intense interaction that occurs as a result of participation (see Figure 8).



**Figure 8** Rating of trust levels from when PMCA started until the end of Phase 2



### PMCA Phase 3 Selected Potatoes

Thanks to the final event of Phase 2, which “energized” the thematic groups by providing them with new skills, the “Selected Potatoes” group gained the necessary capacity to help them to implement the proposed commercial system to produce and deliver the new 50-kilogram sacks of potatoes. The company which dealt in information, which joined at this stage, was of particular help. This new collaboration allowed the group to prepare two potato marketing bulletins, one detailing prices and the other wholesale supply volumes.

Based on a rapid market survey, the “Selected Potatoes” group chose the brand name “Mi Papa” or “My Potato” for their product. As a result of discussions about who should own the brand name, the actors involved in this thematic group agreed to create a new association called “Cadenas Productivas de Calidad en el Perú” (“Quality Market Chains in Peru”) or CAPAC Peru. This would oversee the proper use of the brand name and provide other services designed to promote quality production and the commercialization of potatoes and other agricultural products in Peru. Here, the expert support from a lawyer was essential to identify and dealing legal issues.

Moreover, based on the interest expressed by a participating NGO, part of the group also devoted a considerable amount of time to developing a new potato grader, intended to support the new “Mi Papa” commercialization system in rural areas.

### Processed Potatoes

➤ p. 85

The “Processed Potatoes” group carried out Focus Group research (see **Tool 5**) to improve the design and packaging of “Papy Boom”, the native yellow potato chips (crisps) aimed at children. Further processing trials were also conducted to optimize chip production.

To ensure a supply of clean, uniform yellow potatoes, the processor also began to participate in the other thematic group, “Selected Potatoes”.

**Final event** After five months of thematic group meetings, the final event of Phase 3 was held on June 11, 2003. The event was carefully organized and carried out with the aid of CIP's Communication Department. More than 100 different actors were invited, not including the media who received a special welcome.

During the first part of the event, the thematic groups presented their progress and achievements, after which a video about Peru's potato commercialization was shown.

The second part of the event was held in CIP's garden, where the potato market chain was displayed using special exhibition booths illustrating the different activities that occur along the chain. With this as a pleasing backdrop, the market chain actors played out their real-life roles, with each one explaining the daily challenges they face, and what the innovations obtained as a result of PMCA meant to them. The demonstration was well received by everyone, providing an excellent opportunity for the market chain actors to come forward and present the innovative products they had produced.

In the days that followed, various interviews were requested and the information was disseminated in newspapers and through radio and TV programs at the national level.

#### **Innovations achieved**

The following products were presented and launched to the public at the final PMCA event:

- ▶ "Papy Boom"- a brand of yellow potato chips.
- ▶ "CAPAC Peru"- a new market chain association designed to improve potato production quality and the commercialization of potato and other crops in Peru.
- ▶ "Mi Papa"- a registered brand of selected, classified potatoes packaged in 50-kilogram sacks, which can be used to distribute different varieties of potatoes.
- ▶ "Papa al Día" ("Potato Update") and "La Madrugada" ("Early Morning")- two daily bulletins providing prices and supply volumes for more than 20 of the classes of potato sold at Lima's Wholesale Market.

- ▶ A semi-portable potato grader- a flexible, low-cost machine that can be used in different production areas to classify potatoes of different sizes.

### Follow-up and consolidation



CAPAC Peru poster displayed at a national trade fair

After the final event, CIP's role as the facilitating entity changed considerably. It was no longer CIP's responsibility to lead the meetings; instead, CAPAC Peru took the lead in calling the meetings needed to continue with the "Mi Papa" commercialization scheme. The PMCA facilitators changed their role to one of advisors.

INCOPIA (which led the PMCA process) continued to offer specific support to increase the marketplace success of the innovations developed. For instance, it supported a consultancy to help CAPAC Peru develop a business plan and helped to finance the pilot launch of CAPAC's products: "Mi Papa" and its information bulletins from Lima's Wholesale Market. Additional assistance was provided to reinforce the links between CAPAC Peru, the Ministry of Agriculture, the Municipality of Lima (which manages the wholesale market), and other organizations interested in potato commercialization.

In the case of the yellow potato chips, the chip processor and CIP re-evaluated the marketing concept for "Papy Boom" at an export fair with a Rapid Market Appraisal (see Tool 3). This study resulted in hiring a new designer who quickly improved the packaging and created an additional marketing concept which was aimed at adults. Both concepts were then evaluated in a Focus Group (see Tool 5).

With regard to the potato selection and classification machine, a series of tests involving different potato varieties was run and several adjustments were made to the initial design. The machine's efficiency was then tested with the help of small-scale farmers. All this information was later used to document the machine's design and operation in an international scientific journal.

➤ p. 73

➤ p. 85



Butler G., Bernet T., and Manrique K. 2004. Mechanization of Potato Grading on Small-Scale Farms: A Case Study from Peru. *Experimental Agriculture* Vol. 41, 1-12.

**Brief evaluation of the experience**

The question we must ask when evaluating the process as a whole is: how do the results achieved compare with what would have been achieved using a traditional approach?

Altogether, the innovations achieved within one year through the use of PMCA seem to be significant. The investment in time and funding have been worthwhile, both in terms of the quantity and quality of the innovations produced as well as in terms of the information acquired and the contacts made. For both the participants and for CIP, these have borne fruit in areas beyond the scope of PMCA. Even before the participatory process was finished, for example, the new friendships developed among the participants helped them to initiate business deals.

Thanks to this multi-stakeholder interaction, CIP was able to establish important contacts with the private sector, which opened new doors for collaboration in other research areas. Thus, for example, CIP scientists have taken advantage of links with a processor to evaluate the frying quality of new potato varieties. CIP's relationship with the Ministry of Agriculture has also improved thanks to the PMCA experience, which has allowed both organizations to collaborate on other occasions.

Perhaps the greatest weakness of the experience was the fact that small-scale producers were only marginally involved in the thematic group meetings. This was because of the distances involved in actually attending the meeting (i.e. getting to the meetings took potato producers at least one day!). Since INCOPA only paid travel expenses for small-scale producers for attending the major events, most production-related issues were dealt with by NGOs who work directly with these farmers. As a result, high levels of trust were not developed between the potato producers and the other market chain actors. However, this deficiency is now being addressed through CAPAC Peru's work which facilitates access to information and market opportunities.

**PMCA Application 2**

**Promoting the use of native potatoes in Peru**

Kurt Manrique, Cristina Fonseca, Thomas Bernet

**Overview**

**Purpose:** To improve the image of native potatoes in Peru  
**Who:** INEOPA Project (CIP), in conjunction with the Ministry of Agriculture  
**Duration:** June 2003 to September 2004

**Context**

Native potatoes, unlike improved varieties, are the result of potato domestication by pre-Incan cultures over hundreds of years. Peru lays claim to around 2,500 different native potato varieties – more than any other country! They are part of the cultural heritage of the country’s highland communities, which have conserved them as part of their ancestral legacy along with indigenous knowledge associated with this marvellous diversity.

Although Peru’s native potato varieties represent nearly 80 percent of this crop’s diversity, only six of them have a real presence in Lima’s markets. The other native varieties fell by the wayside as urbanization boosted the commercial development of other agricultural products. As a result, the majority of native potatoes produced are consumed by those Andean communities that produce them.

One of the most important products of native potatoes is “tunta” or “white chuño”, which is naturally freeze-dried and processed by small-scale farmers living on the Altiplano, the high plains of southern Peru and northern Bolivia.



Applications

"Tunta" production in  
Southern Peru



### PMCA Phase 1

PMCA began with a survey to assess chefs' knowledge and preferences for using "tunta" in Lima, Peru's largest market with 10 million inhabitants. In one month, 34 interviews were carried out. These involved mainly chefs working in restaurants and cooking schools, but also a few potato traders who deliver potato to restaurants and other commercial users.

### Final event

Based on the results of this survey, the first PMCA event was organized in close collaboration with the Ministry of Agriculture's General Office for Agricultural Promotion (DGPA). About 60 participants from the potato sector were present at this event, including producers, traders, processors, retailers, chefs, researchers and tourist agents.

The survey's results, presented during the first part of the event, together with the discussion which followed this presentation, confirmed that there was general interest in promoting the use of native varieties particularly through improved packaging and novel dishes. However, survey results also revealed certain limitations in relation to the use of native potatoes: (1) a lack of knowledge about cooking times and how to prepare native potatoes, (2) the fact that they are difficult to peel, and (3) the pronounced seasonality of supply (May to August).

The survey found that "tunta" is mainly consumed by people whose roots are in the Altiplano and south-

ern highlands, and mainly by the older generations of immigrants; the younger generations are losing the habit of consuming “tunta”. Only a few restaurants offer “tunta” as a regional specialty from the regions of Puno, Cuzco and Arequipa; however, these were having difficulties obtaining quality produce with a good flavour and smell. Overall, the product is little used in Lima’s gourmet cuisine. Some chefs mentioned that “tunta” has major shortcomings, such as an apparent lack of versatility and a strong smell and taste which consumers in Lima tend to shun.

After the presentation of the survey results, the PMCA facilitators performed a sketch (see Tool 2), to emphasize the need for collaboration among market chain actors to promote native potatoes.

After a break, guided by PMCA facilitators, the participants divided into two thematic groups: the “Native Potatoes” group and the “Tunta” group. The various actors then introduced themselves and mentioned the main reason why they were interested in participating in these activities. Based on those interests, possibilities for collaboration were discussed.

The “Native Potatoes” group came up with the following potential innovations: the production of a recipe book about native potatoes, the development of a marketing concept which could be used to sell native potatoes in supermarkets, and the formulation of instant soups based on native varieties. The “Tunta” group concluded that new recipes for using this traditional, but forgotten, product should be promoted with catering schools. They identified the need for a permanent supply of high-quality “tunta” to satisfy the demanding market in Lima. Both groups expressed interest in knowing more about CIP’s activities in relation to native potatoes and in having access to available literature.

After a brief report from a representative of each group on what had been discussed in the individual meetings, the event ended with a tasty lunch that included the sampling of different native potato varieties.



Applications

Thematic group discussion  
during first event



### PMCA Phase 2

After the first event, the two thematic groups held parallel meetings every two weeks for nearly six weeks, in order to discuss and analyze the different commercial options identified by both groups.

### "Tunta" group

The "Tunta" group included chefs from catering schools and restaurants who specialize in "nouveau Andean cuisine". From the outset, the group was mainly interested in researching and creating new dishes using "tunta". These research activities were made possible by shipments of high-quality "tunta" produced by farmers in the community of Ullacachi in the Altiplano region of southern Peru.

The results of this culinary research were surprising: the chefs quickly developed culinary creations that pleased the most demanding diners, even those unaccustomed to eating "tunta" and unfamiliar with its particular taste! Encouraged by this progress, the chefs expressed an interest in creating a cookbook containing both traditional and new recipes.

To ensure a supply of high-quality "tunta", the group decided to work with the "tunta" producers in llave who could supply quality produce. With support from the NGO PIWANDES, INCOPA's local partner, the Association of Tunta Producers of Ullacachi was formed to help its members access new regional markets, including Lima and La Paz.

During Phase 2 of the PMCA the group also expressed an interest in developing products that would allow them to sell "tunta" with modern packaging. The



first initiative was to develop a marketing concept for selected and graded "tunta", to be sold in plastic bags with its own brand.

Based on interest expressed by a private company, research was also done to determine whether "tunta" could be used for the industrial production of instant soups. This gave rise to various research activities to determine quality standards for processing and using "tunta".



Catering school students doing culinary research using "tunta"

### "Native Potatoes"

The "Native Potatoes" group included producers, processors, chefs, communication experts, researchers and extension agents. Because of the interest expressed by the actors during the first event, and to get everyone up to speed as quickly as possible, the group work began with presentations by different CIP scientists, who explained their work with native potatoes. The group then began to discuss options for promoting native potato consumption. One idea that won approval was the publication of a recipe book that would also describe the history, cultural importance and the enormous diversity of native potato varieties in Peru. After several meetings, this initiative was enriched with ideas from the "Tunta" group, who wanted to include their culinary innovations in this book. Another idea that was taken up was the preparation of a catalogue of "Peruvian potatoes" to provide practical informa-

tion about native varieties with the greatest culinary potential.

The "Native Potato" group was also interested in capitalizing on the fact that native potatoes are a natural product. A designer was hired to develop a package to sell fresh native potatoes in supermarkets. The group agreed on "T'ikapapa" ("t'ika" means "flower" in Quechua) as a generic brand name for 1.5-kilogram bags which could be used for different, little known, varieties of potato.

At the same time, the group analyzed how the supply of these potatoes could be made less seasonal through better crop planning across different production areas.

Based on one company's demand for the development of soups made from native potatoes, the group also began to think about ways to dehydrate native potatoes. To avoid the excessive losses that result from peeling native potatoes, which have very deep eyes, it was decided to develop a natural, nutritious and healthy whole-potato product: instant mashed potato flakes made from unpeeled native potatoes. The group asked a processing expert from the Ministry of Agriculture to help with the first tests, when several varieties were evaluated, each with a different colour and flavour.



Processing trial to produce instant mashed potatoes

**Final event** At the second public event, which ended Phase 2, both thematic groups presented their progress and specific work plans for Phase 3. New actors were also invited to the event, to reinforce the capacity of the two working groups to implement their plans.

The event ended with an outstanding luncheon prepared by two catering schools and a restaurant, which had participated in the PMCA process. They presented different dishes using "tunta" and instant mashed native potatoes as the main ingredients.

Presentation of product ideas during the final event



**PMCA Phase 3** Over the final six months of PMCA, which led up to the final event of Phase 3, most of the ideas proposed were transformed into reality. While important decisions were made during group meetings, specific tasks were contracted out to specialist consultants, including the preparation of marketing concepts, the design of brands and packaging, processing trials and shelf-life studies.

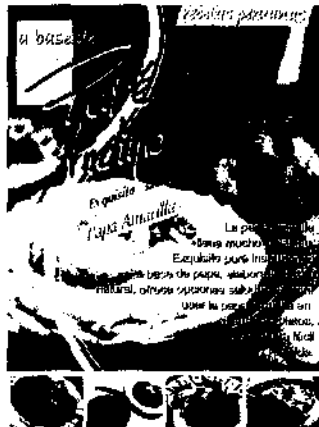
**"Tunta" group** Thanks to the culinary research undertaken by the "Tunta" group, more than 30 new recipes were developed that used "tunta" in appetizers, entrees, soups, main dishes and desserts. The participants' enthusiasm and their media contacts led to the publication of these recipes in newspapers and magazines. In addi-





Recipe booklet for "tunta"

### "Native Potatoes" group



Recipe booklet for "Puré Andino"

tion, with the help of a designer, five different "tunta" recipe booklets were produced and printed.

At the same time, two chefs in the group worked with a food science expert to develop various types of instant soups. A taste panel then helped to identify the four most promising formulations for commercial soups.

A marketing expert evaluated commercial names that could be used for the instant soup and the packaged "tunta". The preliminary brand names chosen were "Del Cheff" and "Tunta Andina," respectively. Just before the final event, draft labels and draft commercial packaging were prepared, so that the products could be presented to the public with a more professional "look".

The "Native Potatoes" group held smaller meetings on particular topics to move ahead simultaneously in different areas. Concrete steps were taken to involve a publishing house in the production of the book on Peruvian potatoes. Unfortunately, however, the launch of a similar book by another author during this phase brought this initiative to a temporary standstill.

More successful was the development of "Puré Andino" (the mashed potato product made from native varieties) and "T'ikapapa". Since a Lima supermarket chain expressed considerable interest in selling fresh native potatoes, the "T'ikapapa" marketing concept was quickly completed and the product was actually launched commercially before the final PMCA event!

This said, further Focus Group research was still conducted (see Tool 5) to refine the final presentation and to determine an appropriate sale price. To ensure continuity of supply, the trading company involved reached purchase and sales agreements with potato producers. In collaboration with the D'Gallia Catering School, an active participant in this thematic group, promotional activities were planned in supermarket stores.

After several industrial tests of the instant mashed potato products made from native varieties, process-



Package of the instant mashed potatoes produced

ing was fine-tuned using the yellow potato variety “Amarilla Tumbay”. This variety was outstanding in taste tests, including those conducted in Switzerland and Germany. Work on this product also involved a market study, carried out by three University students which included two Focus Groups, one focusing on Peruvian consumers and one on U.S. citizens living in Lima. This work helped to optimize the marketing concept, which was later realized by a graphic designer who was supervised by the group’s PMCA facilitator.

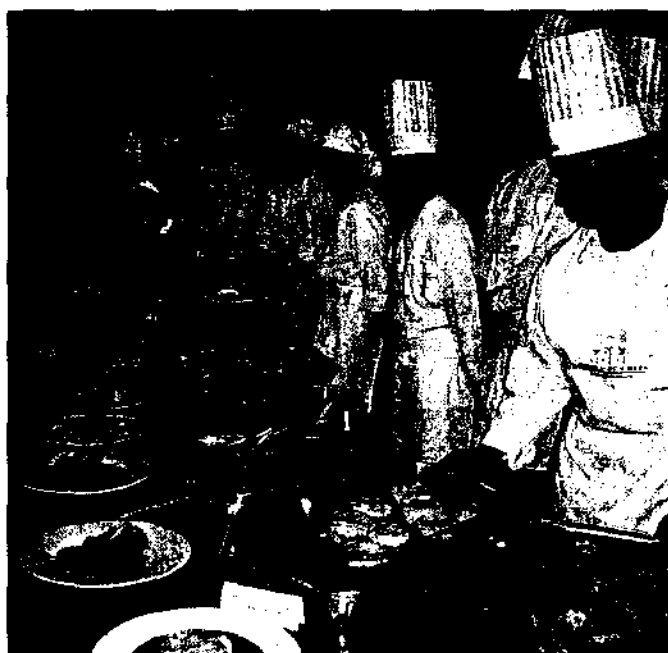
Just before the final event, various publications were produced, including two information sheets (one on “T’ikapapa” and another on “Puré Andino”), and a booklet of recipes for the new instant mashed potato, including well-known Peruvian recipes such as “causa rellena” and stuffed potatoes.

### Final event

The final event of Phase 3 was held at CIP’s headquarters in Lima and involved nearly 200 participants, including producers, processors, exporters, chefs, researchers and representatives of government agencies and non-governmental organizations. About 30 journalists from television stations, newspapers and specialist magazines also attended. The program included a brief review of PMCA’s achievements by the Minister of Production and 28 tasty dishes prepared and presented by four distinguished catering schools using “tunta” and native potatoes.

The program consisted of two parts. The first was held in CIP’s auditorium, where the market chain actors of each thematic group presented their activities and achievements. The second part of the program took place in a special tent set up in CIP’s gardens, where the four cooking schools displayed their “star recipes” and the two thematic groups presented their innovations in a display that represented the market chain (see Box T16). The event ended with a social luncheon featuring “pacha manca” (potatoes and meat cooked in a pit with hot stones) and the dishes developed by the cooking schools.

⇒ p. 53



Presentation of "star recipes"  
at the final big event

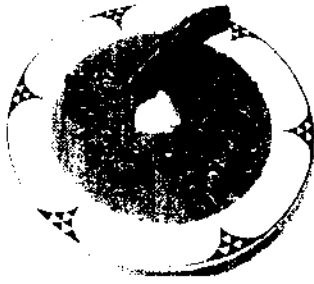
### **Innovations achieved**

The following products were presented and publicly launched at the final PMCA event:

- ▶ "Tunta Andina": a bag containing selected, classified "tunta" and designed to be sold in supermarkets accompanied by appropriate recipes.
- ▶ "Del Cheff": an instant soup made from "tunta" flour and other Andean ingredients.
- ▶ "T'ikapapa": the first commercial brand of native potatoes sold in Peruvian supermarkets.
- ▶ "Puré Andino": a natural instant mashed potato made from unpeeled native potatoes.
- ▶ Recipe pamphlets: different booklets containing recipes for new dishes that use "tunta" and the instant mashed potato "Puré Andino".

### **Follow-up and consolidation**

The activities that followed PMCA mainly involved the consolidation of the products presented at the final event. The labels for "Tunta Andina", "Puré Andino" and "T'ikapapa" were finalized and an additional recipe booklet was created with the help of a German chef. This used the instant native mashed potato flakes



"Puré Andino" soup  
developed by a German chef

produced by the project in international dishes such as gnocchi, croquettes, cream of potato soup and desserts. More work was also needed to refine the instant soups produced, in order to improve their flavour and reduce costs.

The work of balancing supply and demand in order to ensure that "T'ikapapa" was commercially viable was spearheaded by the company that sold the product in supermarkets. However, supply problems due to the strong seasonality of Peru's native potatoes led CIP to step up its research into post-harvest issues. As a consequence, the INCOPA project sponsored a thesis designed to evaluate the use of sprout inhibitors in the storage of native potatoes. The native potato catalogue suggested by those involved in PMCA was also taken on by CIP; this catalogue highlights those varieties that show most promise for commercialization under the "T'ikapapa" brand.

### Brief evaluation of the experience

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Without doubt, this second application of PMCA benefited a great deal from the first one (see **Application 1**). It had access to a number of highly motivated participants who already trusted each other and were familiar with PMCA as a mode of work, and facilitators who knew the potato sector well and felt secure about applying PMCA to this new situation.

Moreover, focusing PMCA on the use and commercialization of native potatoes was highly consistent with CIP's mandate. Any success resulting from this work would benefit poor producers in the Andean highlands, both directly (through income generation) and indirectly (by promoting the value of neglected crop).

To ensure a steady supply of native potatoes, stronger links were established with potato producers during this application of PMCA. In the case of "tunta", a special event held in Puno, the main production area of "tunta" in Southern Peru, helped to inform producers about PMCA and thus involve them in the



Celebrating the 1st National Potato Day in Peru at CIP's headquarters



Revamping people's perception of potato on National Potato Day

participatory process. This spurred the creation of the Association of Tunta Producers of Ullacachi which was designed to meet the market demand for high-quality "tunta". In the case of native potatoes, the commercialization of "T'ikapapa" created close ties with Andean communities who began to sell their potatoes to those running this new business.

While two companies took an interest in bringing forward "Puré Andino" (the instant mashed native potato product) the "Tunta" group lacked a company eager to invest in the launch of an instant "tunta" soup. One entrepreneur was interested initially, but pulled out because the product development process appeared to him too slow and too complicated; moreover, he was not comfortable with the fact that the product and processing information were not strictly confidential.

The issue of confidentiality in particular demonstrates that there are critical issues which need to be taken into account when dealing with the private sector. So far, PMCA has no concrete answers to this, and relies rather on very capable facilitators who are able to manage such issues on a case-by-case basis. Hopefully future applications will provide more insight into how PMCA can better attract companies able to co-invest and successfully launch and promote new products in the market.

Not all of the ideas finally led to new products, as is generally the case in any innovation process. The most important outcome of this work was the very wide promotion of native potatoes through TV, radio and press that led to the institution of the National Potato Day, which was celebrated for the first time on May 30, 2005 amidst great publicity!



**PMCA Application 3****Generating new products in the Bolivian potato sector**

Augusto Guidi, Pablo Mammani, Claudio Velasco

**Overview**

**Purpose:** To generate new market opportunities for the Bolivian potato sector, especially with native potatoes  
**Who:** PROINPA Foundation  
**Duration:** 2003 to 2004

**Context**

In Bolivia, the PROINPA Foundation is working on various projects designed to link small farmers to markets. In 2003, through the Papa Andina Initiative, staff from PROINPA were introduced to PMCA and saw evidence of its initial successful application in Peru. It was agreed that applying this method would be useful in Bolivia, so giving impetus to work already in place and taking advantage of new market opportunities in the potato sector. It was hoped that PMCA could be effectively used to promote the development of strategic partnerships between producers and other actors in the market chain.

Since PROINPA already had several projects underway, PMCA was mainly used to enhance the quality of the interaction among market chain actors and to foster the establishment of agricultural businesses. For example, PROINPA had already conducted two studies which it was able to use as the basis for applying PCMA: one on the potato food chain in Bolivia and one on the market chain associated with “chuño” and “tunta” (two forms of dehydrated potato) in Bolivia’s Central Altiplano.

**PMCA Phase 1** As part of PCMA's initial market chain survey, around 50 interviews were undertaken involving different actors from the potato sector to gather qualitative information about the commercialization of native potatoes in Bolivia's major cities: La Paz, Cochabamba and Santa Cruz. The results of these interviews raised interesting ideas for potential agribusinesses; however, they also revealed the limitations of PROINPA's existing activities in relation to the market chain.

**Final event** With this information in hand, the final event of Phase 1 was held. This involved different actors from the potato market chain and supporting R&D organizations. After being informed about the results of the survey, participants were asked to join a thematic group to examine the potential of different kinds of agribusinesses based on their interests. Participants agreed to work on the following:

- ▶ **Native potatoes** in the community of Candelaria, in collaboration with APROTAC, a local farmers' association which was already conducting research on local native potato varieties and ways to commercialize them.
- ▶ **"Chuño" and "tunta"** in the area of Qollana, in the central Altiplano, where producers make these traditional foods from native potatoes and are eager to improve their production technologies in order to obtain a quality product that can be exported.
- ▶ **Seed potatoes** in the municipalities of Pocona and Morochata, where different farmer groups seek to provide high-quality potato seed to producers in the mesothermic valleys of Santa Cruz.
- ▶ **High-quality potatoes** in the area of Comarapa and Saipina, where farmers are interested in supplying potatoes to supermarkets, the potato chip industry, fast food outlets, specialty chicken restaurants and snack shops.



Stakeholder meeting with APROTAC, in Cochabamba

### PMCA Phase 2

Based on the first public event, APROTAC farmers in Candelaria, who were already working with native potatoes, became very involved in the PMCA process to identify new market opportunities for these varieties. PROINPA had already provided organizational support and training to help farmers meet market demand by providing an adequate supply of produce. In addition, a previous project had provided equipment for potato selection, washing and packaging. Despite these efforts, options for marketing native potatoes remained limited. Producers therefore hoped that PMCA would help them to make their potato business more dynamic.

During three meetings of different market chain actors, the best agribusiness options were identified. Based on the interests expressed by the actors involved, the following was done:

- ▶ Work was initiated with the Slam supermarket in Santa Cruz and the Econatural store in Cochabamba, both of which had expressed an interest in promoting and selling native potatoes in 2-kilogram packages under their own labels. The stores decided to test the market, and began by selling small volumes of the product.
- ▶ Frying tests were conducted by LUCANA Industries using different varieties of native potatoes. These showed that the best varieties for frying were “Candelerero” and “Pinta Boca”. LUCANA Industries was interested in producing chips to expand its own snack line. Pilot studies were therefore run to explore the commercialization of small lots of

“native potato chips” in retail stores such as “ECOFERIA” and “NATUREX”. This involved the production of test packaging and labeling.

- ▶ The “Q’rica papa” brand of native potatoes was established to sell packaged fresh potatoes to supermarkets and specialty shops. This brand was owned by Candelaria’s APROTAC farmers.
- ▶ Support was provided to establish APROTAC as a legally recognized organization. This enabled them to sign supply contracts with LUCANA. Moreover, PROINPA agreed to support the market promotion of both native potato chips and the potatoes sold in supermarkets.

### **PMCA Phase 3**

Because many of the project’s activities progressed more rapidly than expected, and because consumers demonstrated considerable interest in acquiring such products, Phase 3 continued directly from Phase 2, without a final event. Different activities were undertaken simultaneously:

- ▶ Special aluminium-foiled packages were designed, to avoid spoilage.
- ▶ Bags were designed for the native potatoes sold at supermarkets.
- ▶ Promotional materials were produced, such as posters, a TV commercial and special leaflets.

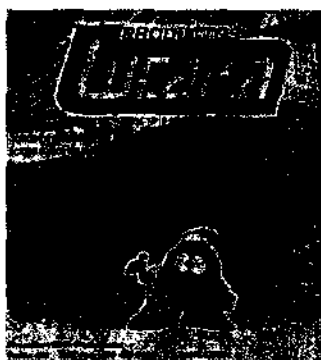
Another important activity involved organizing APROTAC’s potato production and the delivery of its produce to the chip processor LUCANA. The two parties agreed on the volumes, dates and delivery prices for the 2003-2004 growing season. Another activity was designed to help APROTAC farmers improve potato storage and selection, as a way of improving the quality of the potatoes delivered to their new clients.

### **Final event**

To increase the impact of the innovations developed through PMCA, a public product launch was held on July 23, 2003 at the Departmental Chamber of Industry in Cochabamba. The products’ benefits were explained to those present at the launch, as was the way in which

PMCA had stimulated organizational processes and the development of shared business opportunities. Participants were also able to taste the new potato products which had resulted from PMCA and to take home sample packages. When the event was over, reporters interviewed the different actors in the chain, paying particular attention to the owner of LUCANA Industries and the president of APROTAC.

### Innovations achieved



Marketing concept for native potato chips

The following “products” were developed during this application of PMCA:

- ▶ **Potato chips** in a specially designed opaque, lightproof, metallic-colored packaging in a size that responded to market demand (100 g).
- ▶ **Native potatoes for sale in supermarkets** with labels that emphasize the diversity and virtues of native potatoes grown by small farmers. The label includes a distinctive caricature potato-man and the logo of the PROINPA Foundation next to its web site address, from which consumers can obtain additional information.
- ▶ **A television commercial**, which was aired for a month immediately after the product launch to promote LUCANA’s new native potato chips.
- ▶ **Two types of publicity posters** demonstrating the products’ benefits, to stimulate consumer interest.

### Follow-up and consolidation

The process of supplying potatoes to both the market and industry posed difficulties. The follow-up actions therefore included:

- ▶ Helping APROTAC farmers to supply high-quality seed from different native potato varieties.
- ▶ Providing training in administration and business management to APROTAC.
- ▶ Conducting further frying trials with native potatoes in order to reduce oil absorption.
- ▶ Conducting a market study to better define the profile of native potato consumers and determine those characteristics that help improve customer satisfaction.



**Evaluation  
of the experience**

This initial application of PMCA in Bolivia helped the PROINPA Foundation to refine its objectives and link small-scale farmers efficiently with new markets. Thanks to these ties, farmers have learned to respond to the need for a higher quality product within the market, so enhancing their income.

Based on their shared interest of promoting native potatoes as a commercial and technological innovation, PMCA also built important levels of trust between APROTAC farmers, LUCANA (the potato chip processing company), and supermarkets.

At the final large event, when the products were launched, PMCA's success benefited both the market chain actors involved and PROINPA as an R&D organization. In all, the event sparked interest not only in these new products, but also in the use of PMCA as a mechanism to improve market linkages in other contexts. As a consequence of this experience, different R&D organizations have approached PROINPA eager to learn more about PMCA. In response to this demand, a special PMCA training workshop was conducted in 2005 with support from CIP. This reconfirmed the potential PMCA has for development in Bolivia, both for export crops and crops oriented towards the domestic market.



Packaging for native  
potato chips

**PMCA Application 4****Starting to use PMCA in Uganda**

Immaculate Sekitto, Berga Lemaga

<b>Overview</b>	<b>Purpose:</b>	To generate innovative market opportunities for potato, sweetpotato and vegetables in Uganda
	<b>Who:</b>	A coalition of 15 R&D organizations with PRAPACE as the Coordinating Partner
	<b>Duration:</b>	January – December 2005 (up to PMCA Phase 1)

**Context** Sweetpotato is an important food and cash crop in Uganda. In fact, Uganda is the second largest producer of sweetpotato in the world after China, and its production levels continue to increase. In 2003, the UK's Department for International Development (DFID) financed a project with the objective of improving farmers' livelihoods by improving their access to the sweetpotato market. In this project, farmers were connected to various local markets and significant strides were made in increasing the export of fresh storage roots to Europe by sea. During the process, it was discovered that a more participatory approach would be needed to create effective collaboration between sweetpotato farmers and other market chain actors. However, the coalition partners lacked the expertise required to implement such an approach.

In January 2005, DFID approved a one-year joint research pilot project to synthesize PMCA's achievements in Peru and Bolivia and test, adapt and promote this approach in a participatory manner for use in the Ugandan context. Knowledge and experiences of PMCA from the Andes were shared with Uganda through human and institutional capacity building. In consultation with project partners, it was agreed that the use of PMCA should not be limited to sweetpotato

but also be used in the potato and vegetable sector. In order to come up with the most suitable approach for Uganda and the region, the experiences with PMCA in the Andes were analyzed by project participants and compared with other market chain approaches existing in the region. This collaborative learning process involved training workshops and the implementation of three small-scale PMCA projects led by different R&D organizations that have been participating in the project. Progress with these activities is described below.

### **Initial visit to Peru by Ugandan partners**

In March 2005 a Ugandan team visited Peru to get a firsthand impression of PMCA before embarking on project activities in Uganda. Three persons became acquainted with PMCA work in Peru, learning exactly how it was used to bring together the different stakeholders in order to help them work towards a common goal. The team visited a number of players in the market chain (including farmers' groups, markets, supermarkets and researchers) and interacted with different staff from Papa Andina, a Partnership Program of the International Potato Center (CIP), which has promoted the development of PMCA. The Ugandan team drew the following conclusions from their visit:

- ▶ The market chain was well organized – the players in the market chain were known to each other and the prices of the commodities were determined at all stages.
- ▶ Market and income possibilities are the drivers for change in production and commercialization, and genetic diversity has a special place in making this happen.
- ▶ The frankness and readiness of each party to freely share information made clear the confidence and trust the parties had in each other.
- ▶ With appropriate empowering and follow-up, farmers can become effective and practical researchers, enhancing technology adoption and utilization.
- ▶ Researchers working very closely with market chain actors can create an exciting innovation framework,



which has the potential to change traditions in a way that benefits different actors.

### **Survey of R&D organizations in Uganda**

Activities in Uganda started in April 2005 with a survey of organizations. The purpose was to determine which R&D organizations had experience of market chain activities and which would be willing to be involved in this project. Out of the 44 institutions identified, 20 were interviewed and invited to participate in the project. The following selection criteria were applied:

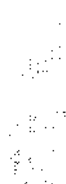
- ▶ Availability of activities related to market chains.
- ▶ Interest and availability of competent staff to implement PMCA.
- ▶ Reputation in working with other institutions and market chain actors.

The survey showed that most of these organizations faced similar bottlenecks when helping farmers to access markets. They lacked:

- ▶ Staff with marketing skills.
- ▶ Sound methodologies designed to improve the efficiency of market chains that benefit the poor.
- ▶ Cohesive farmer groups able to maintain continuous supplies.
- ▶ A system that generates and diffuses market information.

### **Three PMCA training workshops**

20 participants from 15 R&D organizations were trained at the first workshop held in Kampala in April 2005. Participants were introduced to PMCA principles and concepts and evaluated a draft PMCA user guide with the objective of improving it. In a participatory process they selected four crops to which PMCA could be applied: potato, sweetpotato, vegetables and banana. For each of these commodities a proposal was formulated. Proposals were evaluated after the workshop. Because of limited funds, it was agreed to apply PMCA only in the potato, sweetpotato and vegetable sectors.





Field visit to Bolivia

The organizations involved in planning PMCA's Phase 1 application were then invited to the Andes, for a second workshop, in July 2005, to strengthen their knowledge and help them better understand the principles and concepts of PMCA. Face-to-face interactions with Bolivian and Peruvian farmers and processors helped enhance their practical understanding of the method. This was of great relevance for the commodity groups, who then formulated their work plans for PMCA Phase 1.

In December 2005, a third workshop was held, in Uganda, to assess the PMCA experience in Kampala and the method's development potential in this new context. Participants also made suggestions and identified elements and mechanisms that could be used to expand the use of PMCA in Uganda and beyond.

### **PMCA Phase 1 applications**

Phase 1 of PMCA began in August 2005. The participating R&D organizations conducted dozens of interviews with the different market chain actors, including farmers, processors, traders/brokers, transporters, supermarkets, hotels, fast food restaurants, R&D organizations, schools, service providers and consumers. Specifically, 86 interviews were undertaken with various potato market chain actors in the districts of Kampala and Kabale. The vegetable group interviewed 60 different market chain actors focusing on tomatoes and hot pepper in the districts of Kampala and Wakiso. In addition, 55 interviews were conducted with sweet-potato market chain actors from the districts of Kumi, Soroti, Mpigi, Luwero and Kampala. The purpose of these surveys was to understand the different market chain actors and their activities including issues like: levels of governance in the chain, collaboration within the chain and problems encountered in activities, as well as possible solutions and innovations that could be implemented along the chain.

All this information gathered from this survey was analyzed and the results were used to help plan the first event for each of the commodity groups. All the

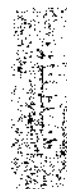
actors interviewed with other interested groups were invited to this first event, where survey results were presented and discussed in smaller thematic groups based on the possible business opportunities interviewees mentioned in the survey (see **Application A8**).

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**Follow-up** The commodity groups' Phase 1 events have energized the actors and encouraged them to continue PMCA work in Uganda. At this stage, the challenge remains to obtain further funding to implement Phases 2 and 3 in order to complete the PMCA cycle. To this end, each commodity group will develop a proposal that specifies the planned activities for these two phases, so helping to continue the work and capitalize on the achievements of Phase 1.

**Brief evaluation of the experience** The facilitators and actors realized that many challenges have to be faced when focusing R&D work on the entire market chain. All were convinced that collaborative activities need to be strengthened in order to face these challenges and ensure that business opportunities are identified, pursued and implemented in a fair, transparent and equitable manner.

All the actors involved have already learned much from this initial PMCA experience. The first event has already enabled small-scale farmers to collaborate directly with processors. Concerning the institutional setting, the close collaboration that occurred during Phase 1 has improved trust and the exchange of information. Individual researchers, for example, have mentioned that this new way of working together has already changed their way of thinking. They now realize that it is market demand that should drive their technology and variety development activities. However, the PMCA process must continue into Phases 2 and 3 in order to consolidate the learning, skills development and new contacts achieved so far.



Applications



## A8. Implementation of PMCA Phase 1 in Uganda

### Potato market chain

The first potato market chain event was held on November 28 2005. In all, 26 actors participated. After identifying themselves with certain market chain activities, the participants identified the following major constraints:

- Poor access to clean seed, especially that of improved varieties.
- Poor access to market information.
- Insufficient capital and poor extension services.
- Poor quality of the potatoes sold to end users, due to improper harvesting, sorting and grading.
- Inadequate packaging of both fresh and processed products and a lack of storage facilities, especially at the trader level.



The actors concluded that they must work together to overcome these challenges. They agreed to focus on the following areas to improve the Ugandan potato market chain: (1) the creation of a farmer organization for the collective marketing of quality potatoes, (2) the improvement of the flow of market information along the chain, (3) the better organization of wholesale marketing and (4) the development of improved packaging materials and the identification of the best varieties for use when making chips and crisps.

### Vegetable market chain

The vegetable market chain event was held on November 29 2005. In all, 46 actors linked to the production and commercialization of tomatoes and hot pepper participated. After the findings of the vegetable market chain survey were presented, the actors expressed an interest in improving the chain in order to:

- Obtain a stronger presence on the worldwide market throughout the year.
- Match supply with demand for vegetable products with differing quality standards.
- Minimize unnecessary losses by applying proper post-harvest practices and product development.
- Improve competitiveness and compliance with EUREPGAP standards (framework for exports towards Europe based on product traceability).

Based on the desired impacts outlined above, the actors formed two groups: the "Uganda Reliable Vegetable Market Suppliers" group and the "Uganda Market Link" group. Once in these groups, the actors continued to interact, getting to know each other better and discussing future plans and opportunities.



The first group developed its own vision: all actors in the chain would buy and process the produce, working as a group to add value by improving quality and better balancing supply and demand. The group expressed a need for information on the right variety of crops for processing, as well as a need to learn about production and value addition, and methods of ensuring a good flow of information and of strengthening linkages in the chain.

The second group emphasized the need to improve the quality of tomato and hot pepper products and the need to train farmers and enhance their understanding of quality standards and seasonal demands from the market. Both groups realized that the opportunity exists for networking, training and the sourcing of funds if they worked as a team in the chain.

### **Sweetpotato market chain**

The sweetpotato market chain event was held on November 30 2005 and was attended by 83 actors. After presenting the results of the market chain survey and a market chain sketch (see Tool 2), participants formed two groups according to their interests: The "Orange-Fleshed Sweetpotato" (OFSP) group and the "Non-orange Sweetpotato" group.

In the case of the OFSP group, the producers complained that OFSP varieties were not very popular, and were very difficult to sell on local markets in comparison to other varieties (as urban consumers are unaware of the health benefits offered by these  $\beta$ -carotene-rich varieties). Moreover, consumers like sweetpotatoes that stay firm when cooked, a characteristic of varieties with a high dry matter content. In addition, the vines produced are of a poor quality and are difficult to access, especially during the dry season. Many farmers also find it difficult to differentiate correctly between the different OFSP varieties, as they lack opportunities to learn more about these varieties from each other and other market chain actors and researchers. In general, limited market demand and low prices imply low adoption rates. The processors of OFSP mentioned that very few processing machines are available, partly because of a lack of capital.

In the "Non-orange Sweetpotato" group, producers complained of the scarcity/un-availability of desirable varieties such as Kyebandula. They also complained that the vines produced were of poor quality, and that diseases and pests caused productivity losses.

The processors were not aware of technologies that could be used to add value and improve

processing. The service providers and researchers said they had many proven technologies that needed to be scaled up and out, but that demand and adoption rates were low. The exporters said that they lacked packaging materials, and complained that the products they receive were poorly labeled, came in poor packaging, and consisted of a mixture of different qualities. The consumers were not happy with what goes on in the market: the price was high for the poor-quality sweetpotatoes that are available at the market. In addition, they also stated that sweetpotatoes are often sold when they are already hard or rotten. Consumers also lack the knowledge necessary to differentiate between varieties, and were not aware that processed products were available.

The actors appreciated being brought together, as this helped them to understand better the players in the chain and the challenges faced by those working in each category. Thus, all agreed to continue this work in upcoming meetings, in PMCA Phase 2.

