"Commercialization of non-timber forest products: factors influencing success"

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Methodological Procedures

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Tables and Boxes

1. INTRODUCTION

The purpose of this document is to describe and justify how the various types of data collected by the project "Commercialization of non-timber forest products: factors influencing success" (CEPFOR) were analysed to support or refute the project's research hypotheses. This document begins by providing a brief summary of the project's background, research hypotheses and research approach. It then provides an overview of the specific data collection tools and sampling procedures for each. The different types of data analysis are then described with literature references and worked examples where possible.

This document was originally written to guide the project's research and has been through many iterations during the course of the project. The current version presents the methods as they were carried out, indicating where – and why – changes were made to original plans.

2. PROJECT CONTEXT

2.1 Background to the Project

This 5-year project was funded by the Forestry Research Programme (FRP) of the UK Department for International Development (DFID). DFID has a mission to eradicate poverty and, in this context, is interested in understanding whether, and if so how, commercialization of NTFPs contributes to poverty alleviation. The four target groups of FRP are: small-scale poor farmers; landless poor families; small-scale traders and entrepreneurs; urban and peri-urban poor families. The CEPFOR project focused on the first three of these groups.

The CEPFOR project aimed to analyse the opportunities and constraints to commercialization of NTFPs at the household and community level, through comparative analysis of case studies in Mexico and Bolivia (both FRP priority countries[1]). Market structure was analysed for selected NTFPs, to identify interventions necessary for successful commercialization. Gender issues and community perceptions of success received particular attention.

2.2 Recommendation domains

Broadly speaking there are two types of recommendation domain for the conclusions resulting from this project. Some of the data collection focuses on specific NTFPs, examining their whole market chain from the various source communities to the final consumer (or a clearly defined intermediary point in the case of internationally traded products). Conclusions and recommendations relating to products and how successfully they are traded relative to other products are potentially relevant to the whole area in which that particular product is being produced and marketed. Actual relevance depends on how homogeneous the marketing experience (supply, demand, marketing strategies, etc.) is across this area, which varies from case to case.

The second body of data collection is concentrated within source communities, looking at the relative success of different types of people involved in the NTFP commercialization chain. The recommendation domains are limited, therefore, to other communities (or people within them) who share key characteristics with those in which the data were collected.

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[1] During the course of the research, Mexico was dropped from FRP's priority list. However, work in Oaxaca and Guerrero, two of the country's most impoverished states, was still considered to be of relevance by FRP for neighbouring countries.

Maps were produced for each case study product to show the distribution of the species (i.e. maximum potential recommendation domain), the main production sites in the country, the case study communities (minimum recommendation domain), and the principal marketing routes (all presented in Marshall *et al.*, 2006a).

2.3 Project research hypotheses

Our research builds upon previous research undertaken by CIFOR (Ruiz Perez and Byron, 1999), which concluded that development potential of NTFPs is associated with:

(i) positive state-sponsored regulations that offer clear rights to people
(ii) a harvesting intensity / technique that does not put excessive pressure on the resource
(iii) a transparent market
(iv) well-organized gatherers
(v) existence of external support groups

The links between these conditions was unclear, and their relative importance had not been evaluated. These were issues that the CEPFOR project intended to address.

The project also drew on the work of IFPRI and NRI in Brazil and Cameroon (Vosti and Witcover, 1997), which investigated the domestic potential for tree products from farms and rural communities. The IFPRI/NRI report made suggestions for future research including an emphasis on understanding the potential impact of increased commercialization. The CEPFOR project therefore investigated not only the factors that underlie successful commercialization but also the impacts that changes in commercialization can have upon communities and the natural resource base.

To help focus our research, we formulated six key research hypotheses[2]:
   1. Changes in trade in NTFPs have a greater impact on the poorest producers, processors and traders.
   2. Changes in trade in NTFPs have a greater impact on women's livelihoods.
   3. Increase in the volume of NTFP trade leads to forest overexploitation and/or domestication.
   4. Changes in the volume of NTFP trade lead to reduced rights/access to the resource for the poorest producers.
   5. The successful commercialization of an NTFP depends critically on the existence of an accessible market, potential demand, and the access by producers, processors and traders to market information.
   6. The number of demanders and suppliers, the exertion of market power, barriers to entry, and the degree of vertical and horizontal integration determine how competitively poor producers, processors and traders can participate in NTFP commercializtion.

The first four are predominantly concerned with the impact of NTFP commercialization on different groups of participants in the commercialization process (both within communities and along the market chain) as well as on the environment. The latter two are focused on understanding the different types of market structure that exist for NTFPs and, in conjunction with the earlier hypotheses, their relative impact on participants. The hypotheses were developed at the start of the project during a one-day workshop of the core research team plus external experts on the basis of extensive knowledge of the literature and own experience. Each of the hypotheses contains within it a number of sub-questions (see section 4) on which the project hoped to throw some light. Both the questions and the

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[2] Definitions of key terms in the hypotheses are dealt with in section 4.

hypotheses were a guide and their wording changed over the course of the project as understanding of the issues increased and became more complex.

The detailed discussion of the data analysis required to support/refute the hypotheses, including definitions of key concepts, is provided in section 4. The results of the research are presented in Marshall *et al.* (2006a).

2.4 Planned outputs

The project intended to produce two main outputs:
- *An Expert System* for use by decision-makers to evaluate the potential for successful NTFP commercialization. The CEPFOR Decision Support Tool (CDST) is available on the CEPFOR CD-ROM.
- *A manual* developed and tested with rural communities, to provide tools for successfully developing NTFP resources. The final manual (Marshall *et al.*, 2006b) was produced in electronic format only and is available on the CEPFOR CD-ROM. In addition to supporting people helping communities to improve their NTFP commercialization activities, it also guides users of the CDST through methods required to obtain the data for the CDST.

In addition to these two outputs, the project produced a book (Marshall *et al.*, 2006a) outlining the results of the research.

3.   METHODOLOGICAL APPROACH AND SAMPLING

3.1 Combining a variety of methods

As indicated above, the project was interested both in identifying the factors that contribute to successful commercialization and in looking at the impact of (different types of) commercialization on communities.

Research was broadly divided into two areas – community-level work investigating the impact of NTFP commercialization, and market chain research on selected traded NTFPs. Field data to evaluate the research hypotheses was collected in two different areas each of Mexico and Bolivia.

The project collected *a mixture* of quantitative and qualitative information. At this point it is useful to note the distinction between the *methods* of data collection and the *type* of data that is collected (Booth *et al.*, 1998; Hentschel, 1999). Data can be qualitative or quantitative but this should not be confused with the methods used to obtain them. Thus methods typically considered to be 'quantitative', such as surveys, can also produce qualitative data (e.g. why children aren't going to school), while more 'qualitative' methods can equally well produce quantitative data. Hentschel (2001) argues that it is better to think of methods lying on a spectrum of being more or less 'contextual' – with those at the most contextual end attempting to understand human behaviour within the social, cultural, economic and political environment of a locality. Participatory methods are a sub-class of those at the more contextual end of the spectrum (Booth 2001).

The combined approach is a difficult but essential one for a project which is both aiming to produce evidence-based and academically acceptable research results of broader relevance as well as working with local NGOs and communities to improve the information base upon which they develop their activities (Schreckenberg *et al.*, 2005).

The 'conventional academic' approach (for want of a better term) required the project to use fairly standardized methods, the results of which could be compared across communities and the relevance of which could be extrapolated with a specified degree of certainty to other communities/products. This approach is associated with the logical positivism school of thought which considers that there exists a single, external reality which the analyst should capture as closely as possible (Christiaensen, 2001). Our 'community' approach is more closely associated with the interpretivist and the constructivist traditions. Christiaensen (2001) describes these as starting from the recognition of a multitude of realities and the belief that objectivity and value-free science are simply impossible. "To fully understand the topic of interest within its context, the inquiry methods used seek to involve many stakeholders and to obtain multiple perspectives on the subject of research and the meaning of concepts, through semi- or unstructured, exploratory data collection methods. In the constructivist tradition, the analyst does not only aim to provide and facilitate an understanding of the subject, but also seeks to bring about change and empowerment of the stakeholders in the process" (Christiaensen 2001). While FRP did not explicitly require the project team to empower stakeholders, it did expect communities involved in the research to be compensated for and, ideally, to benefit from the research.

As Uphoff (2001) points out "Decimal points are no guarantee of precision, any more than words give us assurance of validity". Qualitative and quantitative data must therefore go hand-in-hand. In this project, we saw the value of quantitative and qualitative data as being as follows:

Quantitative information
- Includes qualitative data that can be quantified;
- Collection can be standardized more easily;
- Helpful for statistical analysis;
- Useful for any kind of economic analysis;
- Valuable for baseline monitoring (e.g. of impact of a project);
- Can be easier to compare across communities and or products;
- Numerical results can be easier to communicate to non-participants and may carry more weight with decision-makers.

Qualitative information
- Good to provide an in-depth understanding of the context in each case-study community;
- Important for understanding why a particular situation is as it is;
- Contextual information allows for clearer specification of quantitative data needs;
- If well analysed, it can be easy to communicate to non-participants.

Three key data collection tools were employed in the project.

Community report: One was written for each community. Their aim was to collate all the information relating to NTFP commercialization in a particular community, including a preliminary assessment of the local relevance of the research hypotheses. Although predominantly qualitative, some of the data included in the report was of a quantitative nature and could be codified for entry into a database. A secondary aim of the community reports was to provide sufficient contextual background to allow for the development of a precise and locally acceptable survey tool. As pointed out by Barrett (2001), "'ethnography' precedes 'sampling' in the dictionary and ought to in the field, as well." The structure for the community reports is attached in Appendix 1. In addition to the outline structure, NGO partners were provided with suggestions and detailed activity guidelines (for everything from the use of secondary data to how to implement a range of participatory research techniques) on how to obtain the necessary information (Schreckenberg and Marshall, 2001). A late addition to the reports was a discussion by the authors of how representative these communities were in relation to other communities in our target population.

Market report: One was written for each product. The focus was on the overall marketing chain for the product, concentrating in particular on elements outside the study communities. The market report, in effect, started at the point where the community report ended. As with the community report, it was mostly qualitative but also included some quantitative data, which could be extracted into the database. The structure for the market reports is attached as annex 2. An explanation of terms and suggested sources for some of the required information was provided to NGO partners (Bojanic *et al.*, 2001, *Spanish only*), who also received a two-day training in the key concepts in October 2001.

Questionnaires: Four questionnaires were developed (attached in annexes 3-6), all with the same basic structure. The first was directed at community members involved in any aspect of NTFP production to sale with a second directed at a control group of community members not involved with NTFPs. A separate form of the questionnaire targeted people outside the community who were involved with the case study NTFP (e.g. processors, traders), and a final version targeted a control group of non-community members. Together, the four forms of the questionnaire aimed to interview households in and outside the case study communities involved in NTFP activities at different stages (Production (cultivation), Collection, Processing, Storage, Transport, Sale). Questions related to individual characteristics (education, access to assets, gender, past experience, etc.), quantitative information about costs and benefits of typical transactions by households at each stage of the marketing chain, quantitative and qualitative information about importance and success of NTFP commercialization to households, access to information and qualitative barriers to entry to NTFP or other trade, etc. Given the emphasis of the research hypotheses on determining the impacts of changes in commercialization, particular attention was paid to obtaining information on any changes that had occurred in the last 10 years. The questionnaires were developed together with the NGO partners in an iterative manner including interaction at two workshops (Bojanic *et al.*, 2001; Guadarrama *et al.*, 2002). The resulting questionnaires were then field-tested for several communities/products (around 60 interviews in all) during April/May 2002, leading to a final revision in June 2002.

In addition to these three principal data collection tools, the project commissioned a policy paper for Bolivia (Bojanic, 2002) and Mexico (García-Peña Valenzuela, 2002). These outlined the legal and policy context within which NTFP commercialization was taking place. They also highlighted questions that needed to be explored at community level (and incorporated in the community and market reports as appropriate) to determine the degree to which existing regulations were being enforced.

Finally, with a view to informing the content and format of the project's final outputs, an information-needs assessment was carried out by project partners in Bolivia and Mexico and by a consultant in Central America. This involved interviewing representatives from a range of government and non-government development and research organizations, which both finance and implement projects to determine:
• The key questions they were asked by communities about NTFP commercialization;
• The main queries they themselves had about NTFP commercialization;
• The format in which they would most like to receive any information resulting from the CEPFOR project.

3.2 Sampling procedures

Uphoff (2001) makes a plea for qualitative data to be put into enough of a quantitative framework so that they can be meaningfully interpreted. In the case of this project, sampling decisions were required at various stages from the choice of products to be included in the research, to the selection of the study communities and the focus groups and households

within the communities. Instructions on how to go about sampling were provided to the NGO partners in Schreckenberg and Marshall (2001).

3.2.1 Selection of the products
Product selection was the first step in the research process. The following criteria determined the selection:
- The total number of products per country had to be manageable, i.e. 4-6.
- Products had to be commercialized, defined as being sold for money (rather than exchanged for other goods), and had to leave the community of origin. In Bolivia it was specifically decided to exclude brazil nuts and palm heart, both of which had been the subject of extensive research.
- Each product potentially had to illustrate some of the factors we felt were important for ensuring successful commercialization: e.g. length of time product had been commercialized; form in which the product was being commercialized (local, national or international markets; different degrees of value-added; different degrees of vertical and horizontal market integration; etc); involvement of different groups in society (e.g. men and women; poor and rich); source of product (e.g. forest, farm, varying types of land tenure).
- Overall, the range of products selected in the two countries had to illustrate a range of these key issues.
- For each product, it had to be possible to identify two case-study communities in which the product was commercialized.

See Table 1 for the products selected.

3.2.2 Selection of the communities
Community selection was the second step in the research process. The selection was carried out as follows:
- Once the products were finalized, each NGO suggested a number of communities in which the product was commercialized, and which might be interested in participating in the research (based on the NGO's own knowledge of the constraints faced by the community). NGOs were asked to pay special attention to selecting communities that were representative (in terms of social homogeneity, resource tenure and market access) of the wider set of communities commercializing each product.
- At least two communities were pre-selected (by NGO and UK-team) for each product. The two (or more) communities per product differed in a key attribute (e.g. length of time they had been commercializing the product, manner in which they commercialized the product, access to the resource and/or the market, etc).
- Overall, the number of communities per NGO could not exceed their capacity to carry out the research (i.e. 2 per staff member involved in the project).
- Consultation meetings were then arranged in all the pre-selected communities to discuss their information needs and how the project might help meet them.
- Final decisions were taken by NGO partners and the UK-team on the basis of the community meeting reports.

Table 1 shows the selected case study products and communities in Bolivia and Mexico, and the key reasons they were selected. In the case of incense a second community was originally selected but research was not able to proceed due to complicated local politics (not directly to do with the project). In La Esperanza and Topiltepec (Mexico), both the products (maguey and Soyate palm) were studied. This gave a total of 18 communities.

Table 1. Case study products and communities

NTFP English	NTFP Spanish	Scientific name	Community	Key reasons selected
Bolivia				
Organic Cocoa	Cacao	*Theobroma cacao*	• Carmen del Emero • San Silvestre	Comparison between production of cocoa beans and paste
Natural Rubber	Goma	*Hevea brasiliensis*	• Santa Rosa de Challana • Tomachi	Comparison between local sale of rubber products and sale of latex to La Paz
Incense and copal	Incienso /copal	*Clusia and Protium* spp.	• Pucasucho	Complementarity of two products (incense and copal), providing sole cash income
Jipi Japa palm	Palma jipi japa	*Carludovica palmata*	• El Carmen Surutu • Candelaria • San Rafael	Product of particular interest to women, very different marketing strategies (direct to local market or to tourist market via small company)
Mexico				
Soyate palm	Palma soyate	Brahea dulcis	• La Esperanza • Topiltepec	Important source of income for local people but inequitable distribution of benefits along the chain.
Maguey	Maguey papalote	Agave *cupreata*	• La Esperanza • Topiltepec	Differences in resource management and distribution of benefits
Mushrooms	Hongos	*Boletus edulis, Tricholoma magnivelare Amanita caesarea, Cantharellus cibarius*	• Cuajimoloyas • Latuvi	Very different products and markets (local sale of fresh mushrooms, national sale of dried mushrooms or export of fresh mushrooms)
Pita	Pita	*Aechmea magdalenae*	• Agua Pescadito • Arroyo Blanco	Comparison of trade of traditional unbleached fibre and recent introduction of bleaching; and different marketing via intermediaries or a cooperative
Camedora palm	Palma camedora	*Chamaedorea elegans, etc.*	• Monte Tinta • Nueva Santa Flor	International trade of leaves, failed in one community
Tepejilote palm	Tepejilote	*Chamaedorea tepejilote*	• San Miguel Tiltepec • Santa Cruz Yagavila	Different sourcing of resource (mainly wild or mainly cultivated) and marketing

3.2.3 Selection of the '*barrio*' or part of the community

In all but two of the case-study communities the total size of the community was either less than 100 or the number of people involved in the selected NTFP activity was small enough that the whole community could be involved in the study. In the two exceptions (Topiltepec

and La Esperanza in Mexico) the majority of the 350-400 people in the communities were involved in the NTFP activity so some selection was necessary.

Local authorities and key informants were consulted to help select an administratively or physically defined *barrio* in which to work, ideally with 20-50 households. Criteria considered when selecting the *barrio* included:

- Whether the people engaged in NTFP commercialization activities;
- Homogeneity of the population (e.g. in terms of ethnic group and shared general history);
- How representative the people were of the whole community (i.e. they should not all be the richest or the poorest, but represent a reasonable mix of wealth groups);
- Availability of secondary data (e.g. household lists, well-being ranking, seasonal calendars, etc.);
- Possibility of obtaining a list of all the households in order to carry out a well-being ranking.

In addition to household-level work in the selected barrio, researchers also spoke to people from elsewhere in the community as key informants on particular aspects of NTFP collection, processing or trade.

3.2.4 Selection of focal groups for participatory research

All partners were required to hold a community-level meeting to inform the population about the research and obtain their written consent. In addition partners were provided with guidelines (Schreckenberg and Marshall, 2001) suggesting how they should obtain community-level data through a combination of secondary data and primary research with groups (using participatory techniques) and individual key informants. Given the different levels of experience the NGO partners already had in 'their' communities, we did not insist on a certain set of methods. Some NGOs had, for example, already carried out well-being ranking exercises and some had also carried out mapping, seasonal calendars, etc. It was up to the NGO to determine whether they could complete the community reports based on existing (mostly participatory) research or whether they needed to carry out supplementary group work. For further group work, we suggested that:

- Group size be restricted to 4-8 people to facilitate interaction;
- Women should be fairly represented or, if appropriate, separate women-only sessions should be organized;
- The same people did not need to be involved in all the exercises, but all participants should understand the overall process they are part of (i.e. be invited to the introductory and feedback meetings);
- An effort should be made to ensure that the groups were fairly randomly selected from the whole *barrio* or community. Names of participants in group exercises should be recorded;
- If, during the process of the research, certain people had still not been involved in group exercises, an attempt should be made to meet them or invite them specifically to take part in a particular activity.

3.2.5 Selection of interviewees for household questionnaires within the community

From a descriptive point of view, we were interested in understanding how the 'average' person acts and why. However, we were also interested in finding out why some people were doing better than others. For this we needed to include 'extremes'. From an analytical point of view, the more variation the better. For instance, if one trader was monopolizing trade in an NTFP, we would certainly want to interview this person.

While we wanted to have a reasonable number of households in order to have confidence in the research results, our main concern was to avoid sample selection bias, i.e. interviewing

only the poorer (or female) traders, or those closest to a forest. Where we had a choice of people to interview, therefore, we were more concerned with who we interviewed than the final number. Ideally we wanted as many households as possible with as many different characteristics (e.g. poor and rich, with and without access to credit and transport, etc.) as possible.

A well-being ranking exercise was carried out in each community. In addition to providing the means for exploring the concepts of well-being and how these might be related to NTFP trade, the resultant grouping of households into 4 or 5 well-being categories enabled us to ensure that interviewees were selected across the well-being spectrum (as described by Booth, 2001). It is important to note, however, that "findings from well-being rankings conducted in different communities do not facilitate interpersonal comparisons because there is no common well-being referent across the domain of the comparison. As a consequence, aggregating results from well-being rankings to arrive at an average across communities of 'poor' or 'worse-off' persons is misleading, …" (Shaffer 2001). To get around the problem of not being able to compare well-being groups from different communities, we included some questions in the questionnaire relating to a household's perception of its relative success.

In addition to well-being groups, community members could be differentiated according to which aspects of NTFP commercialization they were involved in (i.e. collectors from the wild, producers of the cultivated plant, processors, traders).

For the 'NTFP' group, we wanted the sample to be as representative of both NTFP activities and well-being groups as possible, i.e. we had a 2-way matrix of well-being and type of NTFP involvement. This could be slightly complicated where people were involved in more than one aspect of the NTFP, leading to a sampling frame as shown in Table 2

Table 2. Possible sampling frame for selection of NTFP and control groups in communities

		People not involved in any NTFP activity	People involved in NTFP activity				
			Wild collection and sale	Wild collection, production and sale	Production and sale	Wild collection, processing and sale	*Etc, columns added for all existing combinations*
Well-being category	1 Highest						
	2						
	3						
	4						
	5 Lowest						

To increase the confidence in our conclusions, we aimed to interview 2-5 households in each relevant 'cell' of the matrix. Where there were just a few specialists in one particular aspect of the trade, we aimed to talk to all of them. Overall, our aim was to interview around 25 NTFP households in each community.

For the control group, we had to decide between spreading the sample across all classes in order to determine whether NTFP households were more or less poor than the average. However, as this information was already available through the well-being ranking and we also wanted to look at behavioural issues, it was more important to have a matching control in all aspects except the NTFP activity (i.e. if NTFP people were all clustered in the 2nd well-being group, then the control should be similarly clustered). We also made a special effort to include people who had ceased involvement in NTFP activities, particularly in those communities in which only a small number of people were actively engaged in the NTFP of interest.

Table 3 provides a summary of the number of questionnaires carried out in each country and by NTFP activity. Details for each community are provided in te Velde (2005).

Table 3. Number of household questionnaires by country and NTFP activity.

	Involved in NTFP activities		Controls		Total
	Households	Traders	Households	Traders	
Bolivia	142	25	46	25	238
Mexico	147	21	45	1	214
Total	289	46	91	26	452

3.2.6 Selection of interviewees for household questionnaires outside the community

In addition to people within the communities, we were interested in following the commercialization chain out of the community and all the way to the consumer (or last point of national exchange for internationally traded products). Data from traders outside the community were particularly important for answering hypotheses 5 and 6, which are concerned with describing the market structure for the different products and analysing how different structures affect different groups of people. Although we were predominantly dealing with traders here, some also engaged in processing. The questionnaires in appendices 5 and 6 were designed to capture the same kind of information from these non-community members as from those within the community.

Based on the initial market reports, it became clear that the numbers of people involved in the marketing chain were very limited – often only two or three people at any one 'stage' in the marketing chain. Partners therefore tried to interview all traders along the chain, with one interviewee providing information about where the next one could be contacted and so on. Given that the numbers were so small, less emphasis was put on trying to identify suitable 'control' interviewees. Nevertheless, several non-NTFP traders were interviewed particularly if they had ceased NTFP trade in order to understand the reasons for their decisions.

3.3 Development and management of the database

A database was developed in Access 2000 to hold all the information from the questionnaire survey. The data entry windows mirror the structure of the questionnaires exactly, providing drop-down boxes for pre-defined categories, as well as larger boxes for entering the answers to open-ended questions. The aim was to include all the information from the paper forms in the database.

The database together with a user's manual was designed by one of the partners in Bolivia in close discussion with the UK-based research team. In its final stages, two of the Mexican partners were also involved in trialling it. There was a debate about how best to carry out data entry. In retrospect, data entry would probably have been more consistent if it had been carried out by a single person. However, in the interests of partner capacity-building and data ownership, it was decided to let partners enter their own set of data, thus providing each partner with a complete database for 'their' products and communities. The separate databases were then merged to provide an overall project database. The empty database shell is available on the CEPFOR CD-ROM. With a view to protecting the anonymity of interviewees, and because a great deal of data cleaning had to take place before analysis, the questionnaire data are not provided in their raw form[3].

3.3.1 Ensuring data quality

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[3] Some of the primary data are provided in spreadsheets associated with the value chain analysis report by Rushton et al. (2004). Any reader wishing to access the full set of raw data should contact the principal authors.

Data collection. All partners were closely involved in developing the questionnaires and several were involved in trialling different versions. Elaine Marshall had the opportunity to collect data in the field with each of the partners thus ensuring standardized application of the questionnaires (and understanding of terms) across all partners. The intention was that partners would apply the questionnaires during the period August-October 2002 and send a set of copies of their paper questionnaires to UNEP-WCM at the end of each month during this period for spot-checking by Elaine Marshall at the same time as data entry was being checked (see next point). In the first month, 10-20% of forms were to be checked (depending on reliability of the partner concerned), decreasing to 5-10% in the following months (again depending on the level of errors encountered). In practice, the application of the questionnaires was spread over a much longer period and none of the partners sent in copies of their paper questionnaires in spite of multiple reminders (they were later collected in person but at this point the time for spot-checking had passed). The unfortunate consequence of this lack of spot-checking was that several differences in understanding of key terms did arise between partners. Most importantly, different interviewers interpreted the concept of 'total household income' in different ways, some including the value of subsistence production (as we had specified) and others only considering cash income. This critical factor only came to light during the preliminary data analysis. At this point it was possible to determine with each interviewer which definition they had used and to work around this, but some comparisons between products could simply not be made.

Data entry. All partners received a user's manual. Partners in Bolivia received training in data entry from the database designer, while those in Mexico received it from Elaine Marshall. One of the collaborators was appointed to act as a quality controller for all the data entry in Mexico. It had been intended that Elaine Marshall would combine her monthly spot-checking of the questionnaire forms with a check of how the forms had been entered but the lack of spot-checking (see above) rendered this impossible. The failure to check data entry meant that some problems with the database itself did not become apparent until fairly late in the process (e.g. that there was no space for qualitative comments to be entered, that some drop-downs were open-ended when they should have had a fixed set of options (or vice-versa) and that some questions did not specify the units to be used (e.g. currency, time, weight)). Some of these problems were rectified early enough so that only some re-entry was required. In other cases, it was necessary to carry out a great deal of data-cleaning during the analysis stage (see later).

4. DATA ANALYSIS

4.1 Analytical frameworks

As outlined above, we had three principal data collection tools: Community reports (CR); Market reports (MR); Questionnaires (Q). The information from these three data sources was analysed in a number of ways described in more detail below:

1. Text analysis
2. Tables, Graphs and Summary statistics
3. Regression
4. Value chain analysis
5. Bayesian Belief Networks

As the different types of analysis were carried out by different people, the project team began by creating a table (see Annex 7) which highlighted the most relevant sources of data and types of analysis for each of the research sub-questions. Most sub-questions could be answered by using more than one analytical tool allowing for some triangulation. Inevitably

there were also some questions for which the data requirements were not sufficiently met to carry out the intended analyses (or the analyses had to be limited to a subset of products or communities).

Two issues that needed to be dealt with by all analysts were to determine what constituted 'success' and what kind of 'changes' in commercialization had been observed. These are discussed below.

4.1.1 Defining successful commercialization

Past NTFP research has tended to define successful commercialization in terms of the levels of household income generated by a product. A desire to gain a more differentiated understanding of what constituted success was a prime motivator for this project.

Successful commercialization can be defined in different ways at different levels:

- Product level – NTFPs, particularly those traded internationally, are well-known for their 'boom and bust' market characteristics. 'Busts' can come about due to changes in fashion and substitution by alternative products. Typical examples are wild rubber and vegetable ivory (tagua), both of which have gone through dramatic declines though a small niche market recovery is now underway. Other products appear to have a more promising future. Assessment at this level drew on the market reports and secondary data.

- Community level – Certain communities are more successful at commercializing a particular product than others. 'Success' at this level can be defined in many ways (e.g. proportion of the population involved, proportion of the community income derived from the NTFP, degree of control over the product, etc.). A list of possible definitions was identified by participants at the project's two inception workshops (Marshall *et al.*, 2003).

- Household level – Just as at community level, there are a number of different ways in which household level success could be defined. Regardless of the definition used, we must bear in mind that *sustainable* success at individual level should make reference to product and community level. Taking into account the literature focus on income success, the list of definitions identified by partners (Marshall *et al.*, 2003), and considering they type of data that might be obtained at household level, the questionnaires were designed to gather data enabling us to look at several different definitions of success (Box 1).

Box 1 Definitions of success at household level elicited from the questionnaire

Success at household/trader level can be defined in quantitative terms as:

→ Level of income for those involved in NTFP activity
→ Share of income derived from NTFP
→ Labour returns (= total sales / hours to collect * frequency of such trips)
→ Profit margins at each stage (total revenues minus total costs at each stage)

Success can also be a matter of qualitative perception:
→ How important have NTFPs been in your livelihood strategy?
→ How successful do you regard yourself (ability to meet basic needs)?
→ How successful do you consider yourself in relation to your peers?

In addition to using measures of success identified within the project, we also applied a set of 'livelihood indicators' developed by CIFOR (http://www.cifor.org) as part of their project 'Assessment of the Potential for Non-Timber Forest Products Based Development'. The approach focuses on assessing the impacts of NTFP commercialization on people's

livelihoods considered at three scales: household, community and national. Impacts are considered on a range of assets that are grouped into five types of capital: natural, physical, environmental, human and social. CIFOR developed a range of indicators according to this framework, which were applied in our case using the expert judgement of researchers familiar with each product and community. Our interest in using the CIFOR indicators was both to assess the usefulness of this approach and to enable us to compare our results (and share data) with the CIFOR project. Some difficulties were encountered in their application. In particular, it was often difficult to attribute changes in a specific livelihood indicator directly to commercialization of an NTFP, rather than other livelihood activities.

For each of the main forms of analysis below, different definitions of success were more or less relevant. The results were brought together within the framework of the BBN (see below).

4.1.2   Assessing the impacts of changes in commercialization
The first four hypotheses all required us to look at the impacts of changes in the commercialization. In two cases, the hypotheses specifically referred to changes in volume. Other types of change were, however, also identified at the interim data analysis workshop in Oaxaca (Guadarrama, 2002) including changes in the value or the quality of the product, changes in resource productivity, and a change in the legal (formal or informal) status of the product. Both the structure of the community report and several of the questions in the questionnaire were designed to elicit information about what kinds of changes had occurred in the past (ten years was taken as the standard reference period) and the impact they had had. We were less concerned with obtaining quantitative measures of change than with getting a qualitative estimate of trends (e.g. of volumes traded and status of the resource) and identifying any sudden (unexpected) changes that might have affected poor and vulnerable households.

4.2 Text analysis – Community reports

4.2.1 Analysis within each community
The community reports were structured in such a way that the final section drew together information relating to the first four research hypotheses. In this section, the NGO partners had an opportunity to analyse the situation in 'their' communities based on the information they had collected through community-level work with key informants and focal groups, as well as from secondary data.

In the UK, Elaine Marshall checked that all sections of the report had been completed and that the conclusions drawn in the final section of each report could be justified on the basis of the preceding text.

As described by Petesch (2001), "Rigorous analysis of qualitative data often requires an iterative drafting process of constantly returning to the data to identify and then cross-check key messages and the most helpful supporting evidence…Moving from the very large qualitative data sets that are generated in the field to a synthetic document requires extensive training in qualitative data analysis and report writing." There are no 'shortcuts' and use of local researchers has been found to produce mixed results as some findings are oversimplified. (Petesch, 2001).

As suggested by Petesch, our community reports went through many cycles of iteration. Interim versions of the community reports were discussed at a full project workshop in April 2002. They served a useful purpose in providing the background information for each NGO to contribute fully to the design of the questionnaires. Furthermore, detailed discussions around each of the hypotheses clarified where information was missing in individual reports

allowing authors to return to their communities to update reports in the following months. Further iteration took place by email and at the next full workshop in early 2003. Finally, more rewriting was required as gaps came to light during the cross-community comparison (see below).

4.2.2   Cross-community comparison

While some of the cross-community comparison was carried out at full project workshops (starting in April 2002), this served primarily to highlight areas in which the community reports needed to be improved or the data necessary for responding to the hypotheses had to be collected in other ways (e.g. through the questionnaire). The more systematic cross-community comparison was carried out by Elaine Marshall once all the reports were finalized (Marshall, 2005).

The main aim of this analysis was to highlight any factors influencing success (of different kinds) in NTFP commercialization. It was not intended to obtain a quantitative measure of the relative importance of these factors across all communities. Nevertheless, where simple categorization was possible it was considered useful to describe to what extent particular factors were important in many communities or very rarely.

It was decided to use the hypotheses and sub-questions as the structure for the comparative analysis. Each of the 18 reports was read and all text relating to the six hypotheses was colour-coded (highlighted). Footnotes were added to relate information to specific sub-questions. The footnotes and highlighted text were then transferred to a large spreadsheet organized by community and sub-question. This facilitated identification of commonalities and patterns across the data as well as specific outliers. Some of the factors that were identified as being important in determining success, and that could be easily grouped into categories, were scored for use in the Bayesian Belief Network (see below). Most of the scoring was completed by Elaine Marshall, with reference to the report authors where necessary, and checked by Kate Schreckenberg.

4.3   Text analysis – Market reports

4.3.1   Analysis by product

The initial analysis of the market reports proceeded in much the same way as that of the community reports with a great deal of iteration between the authors and the project team. The interim market reports (each dedicated to just one product) were important in providing NGO partners with sufficient background information to contribute to the drafting of a standardized trader questionnaire that could be applied across all products.

4.3.2   Cross-product comparison

The role of the market reports was to complement (and often provide an explanation for) data collected in the household questionnaires. They were used by Jonathan Rushton in his value chain analysis (see below) as well as by Dirk Willem te Velde to support the statistical and regression analysis (see below). As for the community reports, some of the factors that were identified as being important in determining success, and that could be easily grouped into categories, were scored for use in the Bayesian Belief Network (see below). Most of this scoring was completed by Kate Schreckenberg in discussion with Jonathan Rushton and Elaine Marshall.

4.4   Quantitative description: tables, graphs and summary statistics

Table 3 showed the total number of household questionnaires that were entered into the Access database. Together, these data were presented in the form of tables and graphs with

simple summary statistics as comments on various parts of the research hypotheses (te Velde, 2005). Most of this analysis was carried out with the software package Stata.

The use of tables is a simple tool to test hypotheses. For instance, a table can provide means of variables across all households involved in trading a particular product (use the *tabulate* command in STATA). With respect to hypothesis 1 (looking at impacts of commercialization on the poorest), simple charts and tabulations were useful for obtaining associations between average income, access to finance/land, gender, on the one hand and the share of NTFP activities in total income on the other hand. It was also possible to test for differences in mean amongst groups, for instance to test whether the mean income differed by type of NTFP activity (production, collecting, processing, trade) carried out. For this we used the *oneway* command in STATA, and the p-value for the F-test indicated whether there was more variation in mean income across groups than variation within groups.

4.5   Regression analysis

While tabulations are informative and relatively straightforward to construct, they do not allow for the influence and interdependence of multiple factors or for explaining continuous variables such as the profit measure of success. For this, one can use a statistical modelling procedure which allows the study of the relationship between a key response of interest and one or more explanatory variables. For instance, it can show to what extent a particular selling strategy (e.g. selling at a formal market) or access to finance is associated with being successful in NTFP commercialization.

Modelling involves first defining a dependent variable *y* whose variation is to be explained by one or more explanatory variables. For example, *y* may be a measure of the success of commercialization. This variable can be quantitative (e.g. an interval scale variable such as income, or an ordered index variable). Alternatively, it may be a binary variable. In the former case, the model fitting process, i.e. the estimation of the parameters of the model, can be done using ordinary least squares (OLS). When the response y is binary, a logit estimation is needed or an ordered logit estimation if the dependent variable is discrete but ordered (ranked).

In this project, factors influencing success of commercialization (y) were explored using a logistic regression modelling procedure. For this purpose, we first identified (say N) explanatory variables which could potentially influence y, e.g. characteristics of individuals (such as education and experience; or having contacts beyond community level) and other (source of market information, selling strategies, marketing conditions etc.). Some of these were determined from the NTFP literature while others were identified during the analysis of the community and market reports and in discussion with partners during project workshops. These explanatory variables included both quantitative and categorical variables.

Where each variable was measured for a number of individuals, we could use regression analysis to assess the significance of each of these variables in determining success.

In theory it would have been possible to use information from at least two dimensions: communities and products but in practice we used only product information because this was closely linked to the community (and hence it would have been difficult to identify separate effects). More background to regression modeling and the results of the range of analyses undertaken are provided in te Velde (2005).

4.6 Value chain analysis

Based on the data collected from the cost sections of the questionnaire supplemented by the descriptions in the market reports and the community reports, as well as further interviews with the report authors, Jonathan Rushton *et al.* (2004) carried out a value chain analysis for each of the products. This involved the identification and, where possible, the quantification, of:

- The supply chain;
- Commercialization margins;
- Percentage of the end price taken by the different actors in the chain; and
- The profitability of the activity carried out by each actor (including returns to labour).

A complete analysis was carried out for five products for which sufficient data were available and which provided some interesting comparisons between communities (mushrooms, pita, Soyate palm, wild rubber and wild cocoa). Less detailed analyses were carried out for the remaining products. All quantitative analysis was carried out using a spreadsheet model. Although there was no time within the project to carry out any sensitivity analysis, the spreadsheet is available on the CEPFOR CD-ROM and is a tool that could be used:

1. To test "what if" scenarios for price changes; and

2. As a policy tool to examine what is happening when prices change over time and how this links back to smallholder producers.

4.6.1 Supply chains

Supply chains were described for each product in the form of an annotated flow chart showing the types of actors carrying out different functions in different locations. All supply chains are presented in Marshall *et al.* (2006a). The supply chains related to the study communities and did not attempt to identify all the actors in the general supply chain for the products. The analysis also tried to identify which parts of the chain were the most important in terms of the:

1. Number of collector/producers using the different routes within a chain.

2. The volume of product that moves through the different routes of the chain.

3. The monetary value that moves through the different routes of the chain.

A combination of 2 and 3 permitted the calculation of the prices paid per unit, but this information had to be combined with information about product quality as some market routes paid more per unit, but demanded different qualities.

4.6.2 Commercialization margins

Commercialization margins are based on information on the final unit price for a product. The formula for calculating the margin is shown below

$$\text{Commercialization Margin} = \frac{\text{Difference between sale and purchase price of the product}}{\text{Consumer Price}} \times 100$$

The calculation of the margin is difficult for products that are processed or transformed when passing through the supply chain, and also for products which do not have a standard unit of measure throughout the supply chain. Therefore, it was not possible to present this type of analysis for every product.

4.6.3 Proportion of the final price taken by different actors in the chain

Similar to the commercialization margins, the estimation of the proportion of the final price taken by the different actors in the chain requires information on the end price for the product. There are difficulties in calculating these proportions if the product is processed or

transformed when passing through the supply chain and if the unit of measure for a product changes.

Neither the commercialization margins nor the proportion of the final price taken by the different actors in the chain take account of the costs of the activities carried out by the different actors in their role in the supply chain. Therefore, where there are significant costs, be they transaction, transport or processing costs, these measures from the marketing chain can give distorted information about the apparent "profitability" of each actor in the chain.

4.6.4 Economic profitability of each actor in the chain

In order to overcome the problems associated with the previous two measures, data on the costs of each actor were combined with the expected annual sales to estimate the economic profitability of the actors in the chain. The analysis structure used was an enterprise budget where costs were split into:

1. Variable costs;

2. Labour costs (this was divided into men, women and children); and

3. Fixed costs (where equipment was used and this equipment had a usable life, straight line depreciation was used to calculate the costs plus an interest cost calculated from the value of the equipment multiplied by the lending interest rate).

Profitability was calculated per activity and per unit of sale in:

- local currency;

- US dollars; and

- PPP (purchasing power parity) dollars – these allow for comparison between countries with different living standards. In 2001, at the time of the field research, a dollar in the United States was worth 150% more in Bolivia and 40% more in Mexico (US$1=PPP$2.5 in Bolivia; US$1=PPP$1.4 in Mexico)

There was much discussion about the difficulties of determining the correct labour rates to form a part of the profitability calculations. This was particularly acute in communities where there were few if any wage-earning opportunities (and hence no generic daily labour rate) and in the case of products where much of the work was done by family labour (often uncosted). In order to address this problem, particularly at the collector/producer level, further calculations were made to estimate the returns per labour day employed. Again these returns were calculated in local currency, US dollars and PPP dollars. Not every product had sufficient data to carry out economic profitability estimates for each actor in each route in the supply chain.

5 ENSURING INTEGRATION

Integration of the different research approaches and analytical tools was a continuous process from the start of the project.

Carvalho and White (1997) discuss three ways of combining the best of qualitative and quantitative approaches:
- **Integrating** the quantitative and qualitative methodologies
- **Examining, explaining, confirming, refuting and/or enriching** information from one approach with that from the other [includes triangulation]; and
- **Merging the findings** from the two approaches into one set of policy recommendations.

5.1 Integrating data collection methodologies
This project managed to achieve a large degree of integration of its qualitative and quantitative methodologies. All of the three main data collection tools (community reports, market reports and questionnaires) provided both qualitative and quantitative information. They were designed by a multidisciplinary team and implemented by NGO partners who came from a range of disciplinary backgrounds.

This approach was not without its challenges. While some of these related to theoretical differences between disciplines, some of the most difficult to manage were actually logistical in nature (see Schreckenberg *et al.*, 2005):

- *Timing of methods.* Our questionnaire could only be developed once the draft community and market reports were ready. It was then developed in a very participatory manner over the course of several project workshops. By the time it had been completed, tested and revised, the pressure to implement it quickly was very great if the project was to finish on time. Unfortunately, of the ten NTFPs studied, several were highly seasonal and some of the communities were only accessible for part of the year. Implementation of the questionnaire in some communities was therefore substantially delayed with knock-on effects on the timing of data analysis.

- *Meeting all disciplinary needs.* Given that the various data collection tools had to meet the information needs of different specialists, there was a constant danger that they might be 'inflated' beyond what was necessary to answer the six hypotheses. Conversely there was also a danger that certain key questions might be left out. The best way to avoid this was to have frequent meetings for which there was neither enough time nor money. The resulting development by email was often frustrating and could only be carried out with a restricted number of individuals leading to lack of ownership by the broader team.

- *Bringing the team together.* As for many multi-disciplinary projects, our team was often large and had only one full-time researcher (who was also the project manager). When all of a project's researchers are dividing their time between several activities, it is hard enough to schedule fieldwork let alone the cross-disciplinary project meetings that are essential for successful integration of qualitative and quantitative approaches.

- *Working with local NGOs.* Collaboration with NGOs was not only a requirement of the funder but also desirable from the point of view of providing an entry-point into communities, ensuring a more in-depth understanding of the issues, and assuring ownership of the final results. Most of the NGO partners had either a strongly qualitative development focus or a more quantitative conservation focus. While this caused some difficulties with respect to how receptive they were to multidisciplinary approaches, a more fundamental issue was their lack of experience in carrying out rigorous research. It was a constant and finally unresolved problem to ensure that all NGO partners collected both quantitative and qualitative information in a rigorous and consistent manner.

We took a number of steps to try to ensure a sufficient level of integration. These included:

- *Joint development of hypotheses.* These were developed by the core project team at an early stage and refined with project partners. Based heavily on the international literature, these turned out to be an excellent way of introducing national partners to this body of theory. More importantly, they were an essential tool for ensuring that different components of the research focused on the same issues and fed into each other's analysis. They were also helpful when we were faced with difficult budget

constraints. A detailed quantitative market analysis, for example, was only carried out for those products which appeared to contribute most to the understanding of the project's hypotheses.

- *Capacity.building.* The project provided a great deal of training to its partners both on specific subjects (e.g. market research workshops) and on general research 'best practice' through workshops, individual visits, email correspondence and mentoring on particular issues. Ongoing capacity-building was vital not just for the field staff but also for the core planning team to ensure that they understood and respected each other's approaches. This was achieved through frequent team meetings and mini seminars by each specialist enabling participants to begin to understand each other's disciplinary languages and appreciate both the potential and the limitations of different analytical approaches.

- *Frequent project meetings.* It is almost impossible for a project crossing disciplinary, institutional and usually also national boundaries to have too many opportunities to feed ideas from one research team/component to the other(s). As much as Email has revolutionized communications, crossing disciplinary boundaries requires a great deal of trust between collaborators, which can best be fostered through frequent face-to face meetings. In our case, meetings built rapport and enabled all collaborators to question, doubt and explore issues directly with other partners, fuelling learning curves, increasing transparency and reducing any potential confusion, misunderstanding or resentment in achieving joint project goals.

- *Frequent project visits.* The project manager played an essential role by visiting each of the study sites (some several times) and therefore helping to ensure consistent approaches. It also gave her the ability to evaluate the quality of the data collected at each site.

5.2 Examining, explaining, confirming, refuting and/or enriching information from different sources

As has been described in other sections, much of the qualitative analysis was carried out – at least in a trial manner – during project workshops involving all partners. For some of the quantitative analysis and the cross-community qualitative analysis, it was decided, however, that individual experts had to take on the whole task.

Once most of the data had been collected, an early joint analysis workshop was held to which each analyst brought a summary of key points or some preliminary findings. This was a very important meeting as it:

- Clarified the analytical tools that each analyst intended to use and the extent to which they were dependent on receiving data from another part of the project. Thus the regression analysis needed to have information about important factors to use as explanatory variables from the text analysis of the community reports.
- Identified some problems with the data. Conclusions based on the quantitative data were challenged by the qualitative information, and further inspection revealed an error in the original data.
- Highlighted which of the project's hypotheses and research questions were not being sufficiently tackled by any analysis.

The final analysis gave rise to three major documents on the community reports (Marshall, 2005), value chain analysis (Rushton *et al.*, 2004) and quantitative household and trader analysis (te Velde, 2005). Each of these reports was structured around the six hypotheses and sub-questions. The three reports were read by Kate Schreckenberg and the results combined. This involved:

- Examining for each sub-question whether the results from the different authors complemented, supplemented or contradicted each other.
- Explaining conclusions made by one analyst using information from another. This was particularly true for the quantitative analysis of the household data which sometimes gave rise to conclusions which would have appeared strange had the community reports not provided an explanation. Where there was contradiction, it was sometimes necessary to go back to the original data (i.e. the individual community reports or household questionnaires) to resolve the issue.
- Confirming the conclusions made by one analyst with additional evidence from another. Thus the community reports tend to reflect the *stated preference* for the community as a whole (e.g. of which factors are important in determining success), whereas the quantitative description using tabulation and regression analysis can determine the *revealed preference* on the basis of household level data.
- Refuting conclusions made by different analysts. In practice the main issue that caused problems was the differing definition of household incomes used by different interviewers. Unless supporting evidence was available from another source, it was therefore decided to ignore any conclusions that depended solely on comparisons of income between different communities (unless the interviewers in the communities in question were known to have used the same definitions).
- Enriching individual conclusions by providing supporting evidence from other parts of the analysis (sometimes the relevant information was located under different sub-questions in the different reports. Where only one author had an interesting point to make, checking to see if further information might be available for analysis by the other authors.

To avoid duplication and save time, it was decided not to prepare a fourth 'integrated' report following the hypothesis and sub-question structure. Instead, based on those sub-questions which had given rise to useful information concerning the factors that determine successful commercialisation, the combined results were presented as thematic chapters for the project's book see below.

5.3 Merging the findings

5.3.1. Project Book
A book (Marshall *et al.*, 2006a) was written to present the project's combined results in a thematic manner. It was structured to provide an overview of the project's research objectives and methods, followed by a brief review of each product case study and a number of chapters dealing with the results relating to each of the project's research hypotheses. A final chapter made recommendations for policy interventions that could improve the success of NTFP commercialization under specified conditions. As outlined above, the analysis presented in the book drew on and integrated the separate analyses carried out by Marshall (2005), Rushton *et al.* (2004) and te Velde (2005) using the project's six research hypotheses as an organizing framework.

5.3.2 Development of a probabilistic model
Integration of qualitative and quantitative information can usefully be achieved by representing both kinds of variable as probabilities. The CEPFOR study used the development of a probabilistic model as a novel approach to data integration and analysis, and for the development of an analytical framework enabling different case studies to be compared. The model was constructed as a Bayesian belief network or BBN (Neapolitan 1990, Pearl 1988), which enables the probabilistic relationships between variables to be represented and examined graphically. Specifically, the BBN was designed to enable the impact of different factors on the success of NTFP commercialization to be evaluated.

Marshall *et al.* (2003) describe how a Bayesian Belief Network (BBN) was constructed using NETICA software (Norsys 1998) to further explore the results of the project inception workshops relating to definitions of success. To construct a belief network, nodes are used to represent variables. Nodes are connected by directed links, which are indications of conditional dependence, and are related by Bayes theorem that states:

$$p\langle y|x\rangle = \frac{p\langle x|y\rangle . p\langle y\rangle}{p\langle x\rangle}$$

where y and x take the values of the possible states of the nodes A and B. When networks are compiled, the application of Bayes theorem results in appropriate changes in the probability distribution of linked nodes if further knowledge is acquired. After the inception workshops, two BBNs were constructed (using data from the case studies profiled at the Mexican and Bolivian workshops respectively) by considering the factors that influenced the probability of each process in the commercialization of an NTFP (i.e. production, transport, storage, processing, marketing, sale) being undertaken successfully as separate nodes in the network. The overall success of NTFP commercialization was then considered as a node to which all of the processes were linked. In this way, the overall probability of success could be predicted as a function of the probability of each process being performed successfully. Each of the factors was weighted equally in terms of its impact on a given process. The two BBNs provided very similar results.

During the course of the research, it became clear that the factors that affect the success of the different processes that make up the overall activity of NTFP commercialization are not sufficiently distinct or unique to make this a useful basis for the final analysis. Taking into consideration the project's particular interest in the impact of NTFP commercialization on livelihoods, it was therefore decided to use the sustainable livelihoods framework as an organizing structure for a new BBN drawing on all the project data. Newton *et al.* (submitted) describe how the BBN was constructed according to a livelihoods framework, which considers the different assets – physical, natural, human, social and financial – that are required for living.

The BBN was based on the concept that the impacts of NTFP commercialization on the different assets required by people to support their livelihoods are influenced by a variety of different factors. These factors include the characteristics of the product to be commercialized, but also include the socio-economic characteristics of the communities involved, and the characteristics of the value chain. A large number of factors could potentially influence the success of NTFP commercialization. The list of factors that could be important varies among products and among the socio-economic circumstances under which commercialization takes place. The research results generated by the CEPFOR project were used to identify a total of 66 factors that were found to be important in the case studies examined. Each of these factors was then scored by the project team, to indicate the relative influence of the factor on each of the case studies considered by the project.

The BBN was validated by independently assessing the impact of NTFP commercialization on livelihoods using the CIFOR scoring approach described in section 4.1.1. Further details of how the BBN was developed, tested and deployed are provided on the accompanying CD-ROM (Newton, 2006).

An electronic decision support tool was constructed based on the BBN, to enable NTFPs with high potential for commercialization to be identified, and to help determine how successful commercialization might be achieved in practice. The CEPFOR Decision Support Tool and an accompanying User Guide (Newton *et al.*, 2006) are both available on the CEPFOR CD-ROM.

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Annex 1: COMMUNITY REPORT – PROPOSED TABLE OF CONTENTS

[Note: throughout it would be useful to include relevant maps, diagrams and photos, and to make reference to further literature (e.g. secondary data) that exists as appropriate]

Section heading:	To include information on:	Possible sources:
1. Summary of findings		
2. Introduction and context		
2.1 Geography	- Location (longitude, latitude, altitude) - Natural resource base - Administrative district - Changes over time (e.g. boundary changes)	Published maps, participatory maps, key informants
2.2 History [Note: try to identify reference dates for use in other discussions]	- Ethnic group(s) within community and neighbouring areas - History of settlement (community and/or barrio), impact of major national/state events - Current population (census)	Historical timeline, census, key informants,
2.3 Infrastructure	- Road, water, school, church, meeting house, health services, mill, other – all with approx dates of establishment - Access (distance, means of transport, time, cost) to all markets used by the community	Participatory map, key informants
2.4 Social structure	- Well-being indicators with a description of each - List of households in different well-being categories - General education levels - General health of the community	Key informants, household survey; Teacher, health worker, school enrolment figures,
2.5 Support services	- Community organisations, self-help groups, women's groups, youth groups, church groups; age of organisation; level of participation in each - Government extension services - NGOs - Private sector - Other	Key informants, focus groups, Venn diagrams, govt reports, NGO staff and reports, company reports
3. Land use		
3.1 Tree and land tenure	- Different types of land tenure (and tree tenure/access) - Variation by ethnic group, gender, age - Changes over time	Participatory maps of different tenure types;

3.2 Main land use types	• Different land use types (main crops, cropping patterns) and location in the community • Access to, and tenure of, each land use type (who takes decisions about them?) • Changes over time	Participatory maps, historical bar charts, participatory transect
3.3 Access to all NTFP resources (with specific focus on selected NTFP)	• Where are the NTFP resources located? • Does quality of the selected NTFP differ between locations? • Who has access (tenure) to different NTFPs? Do different groups of people have different patterns of access? • Impact of national regulations on community norms • Changes over time	Participatory maps and transects, focus group (of collectors or 'landowners')
3.4 Management/cultivation of all NTFP resources (with specific focus on selected NTFP) [Note: management includes thinning, natural regeneration, weeding, mulching, planting, pruning, etc]	• How are the different NTFP resources managed? Is there any cultivation of NTFPs? If so, what kind and since when? • Where are the resources managed/cultivated? • Who by? What proportion of the selected NTFP is collected/cultivated (by different groups of people, e.g. women/men, rich/poor)? • Changes over time	Participant observation, focus groups (of resource managers)
4. Income and expenditure		
4.1 Main income-generating activities	• List of main income-generating activities for different groups of people (gender, wealth group, ethnic group, age) • Seasonal variation (are there any periods when there is no or little income?) • Where do NTFP activities fit in? Is there any variability from year to year (e.g. relative proportions consumed/sold)? • Changes over time	Key informants, calendars, matrices, bar-charts,
4.2 Main items of expenditure	• List of main items of expenditure (e.g. agricultural inputs, food, entertainment, education, health, transport, household goods and building materials, etc) for different groups of people (gender, wealth group, ethnic group, age) • Seasonal variation (is there a period when expenditure exceeds income?) • Changes over time	Key informants, calendars, matrices, bar-charts,
5. Labour		
5.1 Overview of activities within the community	• List of main activities in the community • Who (gender, well-being groups, ethnic groups) is involved in which	

	• activities? • How are labour-allocation decisions taken in the household?	
5.1 Seasonality of employment	• Labour use by different groups of people over the year • Are there labour shortages at any time of year (e.g. due to too many activities or emigration of workforce)? If so, how are they resolved? • Where do NTFP activities (from collection to sale) fit in? Is there any variability from year to year?	Key informants, calendars, matrices, bar-charts,
5.2 Availability of hired labour	• Is hired labour used? What for? • Opportunity cost of time (average local daily wage)	Key informants, calendars,
6. Selected NTFP		
6.1 Range of NTFPs used	• List of all NTFPs collected by the community • Preferences and their relative importance (e.g. market and/or consumption value, medicinal value, availability of resource, reliability of production, ease of harvesting/processing) for different NTFPs by gender, well-being, ethnic group, etc	
6.2 Characteristics of selected NTFP	• Advantages/disadvantages relative to other NTFP and non-NTFP activities (in terms of income, labour use, etc) • History of use including types of people involved • Variability in quality of the selected NTFP	Key informants, matrices, income and labour calendars
6.3 Management of selected NTFP resource [If not already covered in 3.3 and 3.4]	• Location of resource • Does quality of the selected NTFP differ between locations? • Who has access (tenure) to the selected NTFP? Do different groups of people have different patterns of access? • Impact of national regulations on community norms • Is there any management or cultivation of the selected NTFP? If so, what kind and since when? Where? Who by? • What proportion of the selected NTFP is collected/cultivated (by different groups of people, e.g. women/men, rich/poor)? • Changes over time	Participant observation, focus group of resource managers
6.4 Harvesting the selected NTFP	• Proportion harvested from the wild and from farmland if partially domesticated • Cost-benefit analysis of each step (labour, permits, information, material inputs, transport, etc) for different groups of people • Changes over time	Participant observation, focus group of resource harvesters
6.5 Processing the selected NTFP	• Different forms of processing (by different people, and for different final products)	Participant observation, focus group of NTFP processors

	• Cost-benefit analysis of each step (labour, permits, information, material inputs, transport, etc) for different groups of people • Changes over time	
6.6 Storage of the selected NTFP/processed product	• Different forms of storage • Cost-benefit analysis of each step (labour, permits, information, material inputs, transport, etc) for different groups of people • Changes over time	Participant observation, focus group of processors/traders
6.7 Sources of information	• Where do different community members obtain information on resource management, harvesting, processing, product specifications, (for all products and specifically for selected NTFP)?	Key informants, focus groups, flow diagrams
7. Trade		
7.1 Available marketing avenues for different products	• By what route does the community market its produce (including agricultural and processed products)? • Characteristics of nearby markets (e.g. numbers of sellers, buyers, intermediaries; types of product (locally produced and/or imports); cost of access (incl. taxes)) • Changes over time	Key informants, focus groups, flow diagrams
7.2 Sources of support (information, credit, other)	• Where do different community members obtain information on processing, marketing, product specifications, market prices, (for all products and specifically for the selected NTFP)? • Quantity and quality (timing, accuracy, etc) of information • Sources of credit for NTFP commercialisation • Sources of other support, e.g logistics • Are there any NTFP marketing organisations (internal and external to the community)? If yes, how effective are they (Who is involved in decision-making? Who benefits?) • Changes over time	Key informants, focus groups, Venn diagrams
7.3 Specific marketing of selected NTFP	• What different marketing routes exist for the NTFP? (advantages or disadvantages of each) • What does the market chain look like? • Contact between producer and consumer? • Impact of market prices of the NTFP and substitutes on income obtained • Cost-benefit analysis (costs of access, permits, rent, accommodation, etc; benefits such as income, contacts with other traders and consumers, etc) for different actors • Key constraints	Key informants, focus groups, flow diagrams

	Changes over time (within and between years)	
7.4 Policy/legal context	• Local understanding of national/state policies and legislation; degree to which they are actual constraints or opportunities; • Degree to which national/state system supports/contradicts traditional practice	Key informants, focus groups, govt agents, NGO and private sector staff
8. Impact of changes in commercialisation		
8.1 Concepts of success	• How do different community members define 'successful' commercialisation? (list different definitions and locally-defined indicators)	Community meeting, focus groups, key informants
8.2 Social impact	• Impact of commercialisation on different community members (e.g. status of women, poor, old) and on community organisation • Impact on labour use • Changes over time	Focus groups, key informants, Venn diagrams
8.3 Gender impact	• Impact on women (e.g. economic and social status, empowerment) • Impact on men • Changes over time	Focus groups, key informants
8.4 Environmental impact	• Impact on natural resource base • Community (or individual) initiatives to monitor impact of harvesting • Moves to domesticate (i.e. intensify management)	Participatory maps, key informants, focus group with harvesters
9. References	List of all secondary data available	
Appendix 1: Record of community consultation meeting	• Countersigned minutes of meeting between NGO and community representatives listing the community's research needs related to NTFP commercialisation	
Appendix 2: Detailed description of all research methods used	For each research activity: • Date • Researchers and community members involved • Methods • Analysis of effectiveness of the method (with a view to inclusion of the method in the final manual)	
Appendix 3: Proposed household questionnaire	Based on the analysis of the community-level data, make proposals for additional specific questions to be incorporated into the household questionnaire outlined in Section G of the 'Methodological guidelines for socio-economic fieldwork at community and household level)	

Annex 2: Market report structure (Spanish version)

Encabezado:	Para incluir la información sobre:	Indicar fuentes de información	Comentarios sobre la metodología
Contenidos del informe			
Resumen ejecutivo	Puntos claves en términos del comercio de <u>PFNMs fuera de la comunidad</u> con un enfoque específicamente en aceptar o rechazar las hipótesis de investigación.		
1. Descripción de sus características comerciales:	- Forma de venta y presentación, grado de procesamiento, valor por unidad de peso, usos, relación entre consumo domestico y venta, lugares de venta, escasez, perecibilidad/durabilidad, marca (?), tiempo de regeneración, intensidad en mano de obra	Formulario, conocimientos del investigador y bibliografía sobre el producto	No requiere mayor elaboración
2. La cadena o red de comercialización del producto	Visualización de conjunto de la red, identificación de eslabones, y actores primarios y secundarios en cada eslabón y sus funciones de mercado; situación de los intermediarios, lugares donde operan, factores de control del mercado, barreras al ingreso, capacidades, nivel de integracion, cambios en los 10 ultimos anos	Formulario para intermediarios, conocimientos del investigador e informantes clave	Para barrearas al ingreso es posible utilizar grupos focales
3 La oferta	- Cantidades ofertadas y distribución de la oferta (fuentes); - Forma de pago (resulta un saldo de efectivo o credito)	Informe de la comunidad, formulario, estadísticas, conocimientos del investigador e informantes clave	Buscar las estadísticas más confiables
4. La demanda	El consumo, tipo de consumidores, territorios de ventas - *Variaciones en la demanda durante el año y durante los ultimos 10 años;* - Stocks (cantidad acopiado), productos sustitutos, tendencias de la demanda, potencialidad de demanda; - Teoria de Homma	Formulario de intermediarios, estadísticas, conocimientos del investigador e informantes clave	
5. Análisis de precios	- Formación del precio	Formulario de intermediarios, estadísticas,	Analizar los factores que más influyen

	- El comportamiento y estacionalidad de los precios y de los factores que influyen	conocimientos del investigador e informantes clave	en el precio
6. Procesamiento y agregación de valor	Donde, quien (es), fases del procesamiento, insumos adicionales, proveedores de insumos, instalaciones, tecnología, estándares de calidad, medidas y pesos, producto resultante, variación de las características primarias	Formulario de intermediarios, conocimientos del investigador e informantes clave	Relación de insumos empleados y costos
7. Análisis económico (márgenes de comercialización y retornos en cada eslabón)	Estimación de los márgenes, costos por eslabón, ganancias, acumulación, análisis de costo beneficio en casos especiales, ganancias súper normales	Formulario de intermediarios, informantes clave y comparar con literatura (sí hubiese este tipo de análisis)	Costos y beneficios
8. Análisis de costos de transacción	Instituciones sociales que gobiernan las transacciones, sistemas de confianza, relaciones contractuales, costumbres comerciales, costos difíciles de medir (ej.padrinazgo), ocurrencia de oportunismo, inversiones sociales para establecer contratos, safety nets.	Formulario de intermediarios, informe de la comunidad, grupos focales, experiencia de los investigadores e informantes clave.	Valorizar costos y beneficios difíciles de medir
9. Análisis de las estructuras de mercado para el producto (oligopolicas, monopólicos, etc.)	Integración vertical y horizontal; cantidad de actores por eslabón y sus funciones; influencia sobre el precio competidores, barreras al ingreso (acceso a información clave, financiamiento, escala de producción y transporte, estándares de calidad, normas, historia de vida); diversificación de ingresos, ganancias relacionadas con ejercicio de poder de mercado, cap. de asumir riesgos	Formulario de intermediarios, grupos focales, informe de la comunidad, experiencia de los investigadores e informantes clave	Efectos sobre el precio en cada eslabón
10. Rol del sector publico	Políticas, normas formales y leyes que impiden o facilitan el comercio de PFNM	Documento de políticas y su relación con cada producto en particular. Algunas preguntas del formulario	Difícil de medir – relacionar resultados de formulario con documento de políticas
11. Replanteamiento de los factores de éxito o fracaso sobre la base de la veracidad de las Ho5 y Ho6.	Revisión de cada hipótesis y sus preguntas en función de los resultados y el análisis de los puntos anteriores. Extraer los factores de éxito o fracaso de cada uno de los puntos.	El estudio en su conjunto en base a grupos focales con los investigadores; taller de análisis de datos y taller final del proyecto.	Ver donde es pertinente probar cuantitativamente la pregunta de investigación.

ENCUESTA COMUNIDAD (para los que están involucrados en actividades PFNM)

PFNM – indica el producto del estudio

Introducción

Pregunte si en el hogar hay cualquier involucramiento relacionado al PFNM (PFNM se refiere al producto del Caso de Estudio).
Entreviste cada miembro del hogar, que efectue un actividad diferenciada del resto. Trabajando con el cuestionario desde sección 1, se puede pasar por las secciones que sean relevante, dejando a un lado las que no se applican (p.ej: si estas preguntando a una unidad domestica que solo hace recolección y venta, tocarias a las secciones 1, 2, 5 y 6). En cada caso de que haya involucramiento relacionado al PFNM, tendrías pasar por las secciones 1, 6 y por lo minimo una más de las secciones 2, 3, 4, 5.

Si hay un comerciante en el hogar, hay que entrevistarle también con su propio versión de este cuestionario.

Cuando dice " durante los ultimos años" se refiere (más o menos) a los ultimos 10 años.

SECCION 1: CARACTERISTICAS DEL HOGAR

SECCION 2: PRODUCCION / RECOLECCION DEL PFNM

SECCION 3: LA COMPRA

SECCION 4: TRANSFORMACION

SECCION 5: LA VENTA

SECCION 6: INGRESOS Y FACTORES DE ÉXITO

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[4] This is the version of the questionnaire used by the CEPFOR Project. A slightly revised version, which improves on some difficult areas is provided on the CEPFOR CD-ROM.

SECCION 1 CARACTERISTICAS DEL HOGAR

¿Quiénes son los miembros (más de 12 años) de la unidad domestica?

NOMBRE (citar los que tenga edad >12 años; y de los niños, solo ponga # total)	EDAD	GENERO (F) (M)	Edo. CIVIL (casado) (union libre) (soltero) (viudo) (divorciado)	Nivel de Educación (ninguna) (primaria) (secondaria (superior)	Dónde nacido? (comunidad misma) (mismo Edo / Dept) (Afuera del Edo / dept) (Afuera del pais)	¿Tiempo que lleva residiendo en la comunidad?	Grupo Etnía	Idiomas hablado (español) (lengua indigena) (ambos)	¿Participa en actividad PFNM? (recolección) (cultivo) (transformación (transporte) (compra) (venta)

1.2 HACER DIAGRAMA DE UBICACIÓN DE TERRENOS DE PRODUCCIÓN y RECOLECCION (al reves de esta hoja):
(Pregunte por todo tipo de terreno, incluso usufructo hasta comunal)

Tipo de tenencia	Propio / usufructo/ comunitario / de uso colectivo/ otro	
Superficie y uso de suelo	En Ha (hectareas)	
Distancia al punto de producción y recoleccion (recorrido)	Horas y minutos	
Tenencia del PFNM;	Propio / usufructo/ comunitario / de uso colectivo/ otro	
Cantidad de PFNM en cada lugar	Proporcion de area / o numero de individuos.	

1.3 ¿Cuáles son las principales actividades y / o fuentes de ingreso de la familia (agricolas y no-agricolas anualmente)?
(GUION DE ACTIVIDADES: *Agricola; Subsidios; Remesas/envios de dinero; Jornal; Caza; Ganado; PFNM; Comercio; Costura;Otros).*

Nivel de importancia			
Actividad	Ingreso $	% de ingresos totales	% Tiempo (días / mes) dedicados
	TOTAL	TOTAL	TOTAL

1.4 ¿Tiene acceso al crédito?   No   ☐   SI   ☐

¿De dónde?   ONG ☐   Banco ☐   Intermediario ☐   Amigo ☐   Pariente ☐   Otro ☐

Para el encuestador: *Favor describir lo siguiente:*

Techo de casa	*Tejido (palma / paja...)*	☐	*Tile*	☐	*Laminated / zinco*	☐
Piso	*Tierra*	☐	*Madera*	☐	*Cemento* ☐ *Mosaico*	☐
Luz electrica	*SI*	☐	*NO*	☐		
Agua potable	*SI*	☐	*NO*	☐		
Letrina	*SI*	☐	*NO*	☐		
Carro / Camioneta	*SI*	☐	*NO*	☐		

SECCION 2: PRODUCCION/RECOLECCION DEL PFNM

2.1 Recoleccion silvestre
Obtiene su PFNM a partir de recoleccion silvestre en el bosque?   NO ⌐   (sigue con la 2.2)   SI   ⌐

2.2 ¿Durante cuántos años ha estado usted recolectando ?

2.3 ¿De donde mayormente recolecta usted su PFNM en la actualidad?
 (tipo de tenencia – propia, comunal/colectivo, area protegida, otro.................)?

a) ¿Esto ha cambiado en los ultimos años?
SI   ☐   No   ☐   Si si, entonces indique hacia que tipo de tenencia:

b) ¿A qué atribuye usted esto cambio?

2.4 ¿Cuanto tiempo demora en llegar a los sitios de recoleccion?

a) ¿Cómo ha cambiado esto en los ultimos años?
    Ha disminuido   ⌐
    La misma   ⌐
    Ha aumentado   ⌐

b) ¿A qué atribuye usted esto cambio?

2.5 ¿Qué volumen / peso obtiene en promedio anualmente en unidades tradicionales?

a) ¿Cómo ha cambiado para usted esto en los ultimos años?
Ha disminuido ⌐
El mismo ⌐
Ha aumentado ⌐

b) ¿A qué atribuye usted esto cambio?

2.6 ¿Qué calidades de productos recolecta?

Breve descripción de cada calidad	Cómo ha cambiado esto en los ultimos 10 años	
	Proporciones actuales	**Proporciones desde hace 10 años**

b) ¿A qué atribuye usted esto(s) cambio(s)?

2.7 Cultivo

2.7 ¿Obtiene su PFNM a partir del cultivo? SI ⌐ NO ⌐ (sigue con la 2.3)

2.8 ¿Durante cuántos años ha estado usted cultivando este producto ?

a) ¿Dónde mayormente cultiva usted su PFNM?
(tenencia:- tierras propias (huerto, agricolas, otras); comunales / colectivo, otros)?

b) ¿Esto ha cambiado en los ultimos años?   SI   ΐ   NO   ΐ

b) ¿A qué atribuye usted estos cambios?

2.9 ¿Qué volumen / peso obtiene en promedio anualmente, en unidades tradicionales?

a) ¿Cómo ha cambiado esto en los ultimos 10 años?
    Ha disminuido   ☐
    La misma   ☐   Ha aumentado   ☐

c) ¿A qué atribuye usted estos cambios?

☐ Enfermedades   ☐ Manejo   ☐ Edad de la plantación   ☐ Clima
☐ Incendios/desastres   ☐ Precios   ☐ Sobre-extraccion   ☐ Ampliación de la frontera agricola
☐ Otros (breve descripción)

2.10 ¿Otras fuentes de obtención del producto   &   en qué volumen?

Compra   ☐   ------------------------
Como forma de pago   ☐   ------------------------
Trueque   ☐   ------------------------
Otros   ☐   ------------------------

2.11   ¿Mano de obra

a) ¿Usted contrata mano de obra: NO ☐   SI ☐

ACTIVIDAD	CANTIDAD DIA HOMBRE (JORNAL)	¿En que época del año?
¿Para la recolección?		
¿Para el cultivo?		

b) ¿Usted vende su mano de obra en la recolección/producción de PFNM: NO ☐   SI ☐

ACTIVIDAD	CANTIDAD DIA HOMBRE (JORNAL)	¿En que época del año?
¿Para la recolección?		
¿Para el cultivo?		

2.12 Costos de transacción para la forma de recolección / producción y/o cultivo más importante
(*Calcular con el entrevistado para el volumen/peso de una compra típica*)

Factor	Unidades		Precio por unidad		Costo total (N$ / Bs)	
	recolección	producción	recolección	producción	recolección	producción
Transporte para llegar al punto de recolecta /cosecha para esta volumen						
# días involucrados en esta recolecta / cosecha						
Insumos (fertilizante, insecticida, equipo como machete, bolsas, cajas)						
Viveres para los provedores						
Permisos						
Otros……….						

2.13 a)¿Usted conoce alguna asociación de productores / recolectores?   NO ☐   Si   ☐

b) ¿Usted es miembro? NO   ☐   Si   ☐

c) ¿En cuáles maneras le ayuda?

2.14 ¿Tiene usted acceso a información para mejorar su forma de producción (recolección y cultivo)?   NO ☐

<div align="center">

SI ☐ ¿De dónde?
</div>

(GUION DE FUENTES: instituto de extensión; Radio; ONG; Academia; Asociación Cooperativa; Parientes; Intermediarios; OTROS)

RECOLECCION	CULTIVO

2.15 ¿Cuáles son los principales obstáculos que usted enfrenta en la producción (recolección y cultivo)?
   PONGAN 1, 2 &3 de MAS IMPORTANCIA
(GUION DE Calidad Cantidad de oferta; Normas legales; Tenencia; Abundancia del recurso; Enfermedades; Crédito; Costo de transporte; Vías de acceso; Insumos; Otros…)

PRINCIPALES OBSTACULOS	RECOLECCION	CULTIVO

2.16 ¿Se consume / utiliza el producto? SI ☐   NO ☐
   a) ¿Proporciones vendidas? ....   b) ¿Proporciones consumidas? ....

2.17 ¿y si ya no se comsume / utiliza porqué, y desde hace cuando?

2.18 ¿Qué norma(s) ha establecido la comunidad para regular el aprovechamiento del PFNM?

SECCION 3. LA COMPRA

3.1 ¿Qué formas de compra tiene para este mismo producto ?   *(Describir en el siguiente cuadro)*

	FORMA DE COMPRA MAS IMPORTANTE	**FORMA QUE SIGUE EN SEGUNDO PLAZO**
¿Dónde se efectua? (bosque; comunidad de orígen del producto; otra comunidad; mercado intermediaro; otro......		
¿Quién le provee el producto? (recolector; acopiador; transformador; distribuidor; otro..............		
¿ Descripción de la calidad?		
¿Tipo de unidades en que usted compran el producto?		
¿Precio promedio por unidad?		
¿Qué cantidad compra usted en una sola transacción típica?		
¿Cuál es el valor total de la transacción típica?		
¿Qué es la frecuencia de esa transacción típica? (por día, semana, mes, estación o año)		
¿Cuánto compra usted de este producto en esta manera por año? *(calcular con el entrevistado)*		
¿ De qué manera usted le paga a su proveedor? (efectivo; en especie or alimentos; a crédito/pago deferido; pagos por adelantado; a medias; otros.....)		

3.2 ¿ Por lo tanto que cantidad compra anualmente de este PFNM?

3.3 Costos de transacción para la forma de compra más importante

(*Calcular con el entrevistado para el volumen/peso de una compra típica*)

Factor	Unidades	Precio por unidad	Costo total (N$ / Bs)
Transporte para llegar al punto de compra para esta volumen			
# días involucrados en esta compra			
Insumos (bolsas, cajas, latas,)			
Viveres para los provedores			
Pagos por adelantado			
Permisos			
Almacenaje			
Transporte al punto de transformación (si aplicable) o al punto de venta (costos / km)			
Perdidas en el almacenamiento o transporte			
Otros……….			

3.4 a)¿Usted conoce alguna asociación de compradores?   NO ☐   Si   ☐

b) ¿Usted es miembro? NO   ☐   Si   ☐

c) ¿En cuáles maneras le ayuda?

3.5 Procedimientos / estrategías de regateo en la compra (breve descripción)

3.6 ¿De donde Ud. obtiene información de precios para comprar su producto?

3.7 ¿Qué obstaculos usted enfrenta para comprar su producto, y qué alternativas existen?

PONGAN 1, 2 &3 de MAS IMPORTANCIA

(GUION DE OBSTACULOS: Acceso al producto; Normatividad; Falta de capital de trabajo; Falta organización de los proveedores; Dispersión de proveedores; Comunicación; Perecibilidad del producto; Confianza/seriedad del provedor; Calidad de producto que compra; Cantidades insuficiente; OTROS - describir).

Breve descripción del obstaculo	¿Qué alternativas usted cree que necesitan para superar sus obstaculos?

SECCION 4. LA TRANSFORMACIÓN

4.1 ¿Qué formas de transformación hace usted para este mismo producto?
(Describa brevemente abajo el tipo transformación / tratamiento / clasificación (valor agregado) que recibe el producto)

	FORMA MAS IMPORTANTE	**FORMA EN SEGUNDO PLAZO**
¿Dónde se efectua? (bosque; casa; taller; punto de venta; otro......)		
¿Quién lo hace? (usted; esposa; niños; empleados; otros..............)		
¿ Descripción del proceso? (seleccionar, limpiar, lavar, secar, peinar, empacar, otros).		
¿Qué cantidad transforma usted? (por día/ semana/ mes)		

4.2 Costos de transacción para la forma de transformación mas importante

(Calcular con el entrevistado para el volumen/peso de una transformación típica)

Factor	Unidades	Precio por unidad	Costo total
Mano de obra permanente			
Mano de obra eventual			
Insumos (bolsas, cajas, latas,)			
Herramientas			
Almacenaje			

Costos fijos (luz, agua, taller....) – si conocidos			
Perdidas de almacenamiento o por la selección			
Transporte al punto de venta			
Otros……….			

4.3 a)¿Usted conoce alguna asociación de transformadores?   NO ☐   Si ☐

b) ¿Usted es miembro? NO   ☐   Si   ☐

c) ¿En cuales maneras le ayuda?

4.4 ¿De donde Ud. obtiene información sobre la transformación de su producto?

**4.5 ¿Qué obstaculos usted enfrenta para transformar su producto, y qué alternativas existen?
PONGAN 1, 2 &3 de MAS IMPORTANCIA**

(GUION DE OBSTACULOS: Acceso al producto;Normatividad;Falta de capital de trabajo;Falta de organización de los transformadores; Perecibilidad del producto; Falta de capacidad técnica; Calidad de producto que transforma; Otros - describir).

Breve descripción del obstaculo	¿Qué alternativas usted cree que necesitan para superar sus obstaculos?

4.6 ¿Conoce usted que se hace finalmente con el producto que comercia? Qué?

SECCION 5. LA VENTA

5.1 ¿Qué formas de venta tiene para este mismo producto? *(Describir en el cuadro abajo)*

	FORMA DE VENTA MAS IMPORTANTE	FORMA QUE SIGUE EN SEGUNDO PLAZO
¿Dónde se efectua (bosque; comunidad de orígen del producto; otra comunidad; mercado intermediaro; ciudad; otro......		
¿Qué tipo de comprador tiene usted (a quien vende)? (acopiador/coyote/rescatista; distribuidor transformador;; consumidor; otro..............		
¿ Descripción de la calidad?		
¿Tipo de unidades en que usted venden el producto?		
¿Precio promedio por unidad?		
¿Qué cantidad venden usted en una sola transacción típica?		
¿Cuál es el valor total de la transacción típica?		
¿Qué es la frecuencia de esa transacción típica? (por día, semana, mes, estación o año)		
¿Cuánto venden usted del producto de esta manera anualmente? *(calcular con el entrevistado)*		
¿ Cuál es la forma en que recibe usted el pago? (efectivo; en especie or alimentos; a crédito/pago deferido; pagos por adelantado; a medias; otros.....)		

5.2 ¿Por lo tanto cual es el valor total de sus ventas anuales ……..?

5.3 Costos de transacción para la forma de venta mas importante
(Calcular con el entrevistado para el volumen/peso de una venta típica)

Factor	Unidades	Precio por unidad	Costo total
Permisos o impuestos			
Mordidas/Coimas			
Alquileres			
Propaganda			
Comunicaciones, reuniones			
Cabildeo			
Pertenecer a las asociaciones			
Otros……….(*describir*)			

5.4 a)¿Usted conoce alguna asociación de vendedores?   NO ☐   Si   ☐

b) ¿Usted es miembro?   NO   ☐   Si   ☐

c) ¿En cuales maneras le ayuda?

5.5 ¿Qué Procedimientos / estrategías de regateo usa usted en la venta de su producto?
(p.ej: decir que el precio ha bajado; o que cada vez el producto esta mas escaso, o retribuir con alguna otra cosa)

5.6 ¿De dónde Ud. obtiene información de precios para vender su producto?

5.7 Qué obstaculos usted enfrenta para vender su producto, y qué alternativas existen? PONGAN 1, 2 &3 de MAS IMPORTANCIA
(GUION DE OBSTACULOS: Acceso al mercado; Normatividad; Organización de los compradores; Dispersión de compradores; Acceso a gremio; Forma de pago; Exigencia/preferencia del mercado; Existencia de sustitutos; Capacidad de promoción; Acceso a información de otro nivel; Confianza/seriedad del cliente; Perecibilidad; Comunicación; OTROS – describir).

Breve descripción del obstaculo	¿Qué alternativas usted cree que necesitan para superar sus obstaculos? (p.ej. diversificar su cadena de clientes

5.8 ¿Qué dificultades impiden que otros comerciantes ingresen al negocio de este producto?

Falta de financiamiento ☐
Situación familiar ☐
Infraestructura transporte ☐
Impuestos/NORMATIVIDAD ☐
Falta de información ☐
Capacidad TECNICA ☐
Monopolio o "Mafia" GREMIACION ☐
Contactos de mercado ☐
CONOCIMIENTO DE MERCADO ☐
OTROS ☐

5.9 ¿Conoce usted que se hace finalmente con el producto que comercia?   Si   ☐   Qué?
                        No   ☐

SECCION 6. INGRESOS Y FACTORES DE ÉXITO

6.1 ¿El ingreso bruto total del año pasado fue ....(ver a 1.3)

6.2 ¿Qué porcentaje representa la recolección o la comercialización del PFNM (del estudio)de su ingreso anual?

    0-25% ☐   26-50%   ☐   51-75% ☐   76-100% ☐

6.3 ¿Eso es un ingreso regular todo el año?   SI ☐   (sigue con 6.4)
    NO, por cuántos meses en el año esto le ingenera ingresos?

6.4 ¿Como se ha cambiado la contribución del producto PFNM a su ingreso con los años?
    Menos que antes ☐
    Igual   ☐
    Más que antes   ☐

6.5 ¿Cómo se compara usted en tamaño con los demas productores, transformadores, compradores y vendedores del PFNM?
    Menor que el promedio ☐
    Promedio   ☐
    Mayor que el promedio ☐

6.6 ¿Cuán exitoso Ud. se considera?
    No muy exitoso (a veces no tiene suficiente para cubrir sus necesidades)   ☐
    Más o menos exitoso (cubre sus necesidades básicas)   ☐
    Muy exitoso (tiene excedentes además de cubrir sus necesidades)   ☐

6.7 ¿Qué tan importante ha sido el PFNM (del estudio)como alternativa dentro de su estrategia de trabajo campesino?
Mejor que antes   ☐
Igual como siempre   ☐
Menos que antes   ☐

6.8 Como ve el futuro del mercado para este producto?

En declive   ☐

Estable   ☐

En incrementó   ☐

6.9 Ud. quiere seguir vendiendo esto producto forestales como actualmente?

Si   ☐   No   ☐

Porque?

6.10 Le interesaría ser un comerciante a otro nivel?:

Si: ¿porque?

No: ¿entonces porque no lo hace?

6.11 Preferiría vender otra cosa?

No   ☐

Si   ☐   ¿Qué cosa y porque no lo hace?

6.12 ¿Qué requisitos oficiales son los que más le perjudican en el comercio de sus PFNMs?

6.13 ¿Qué otras obligaciones de la comunidad usted debe cumplir para comercializar sus PFNMs?

SECCION 1
CARACTERISTICAS DEL HOGAR

1.1 ¿Quiénes son los miembros de la unidad domestica?

NOMBRE	EDAD	GENERO (F) (M)	Edo. CIVIL (casado) (union libre) (soltero) (viudo) (divorciado)	Nivel de Educación (ninguna) (primaria) (secondaria (superior)	Dónde nacido? (comunidad misma) (mismo Edo / Dept) (Afuera del Edo / dept) (Afuera del pais)	¿Tiempo que lleva residiendo en la comunidad?	Grupo Etnía	Idiomas hablado (español) (lengua indigena) (ambos)

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[5] This is the version of the questionnaire used by the CEPFOR Project. A slightly revised version, which improves on some difficult areas is provided on the CEPFOR CD-ROM.

1.2 HACER DIAGRAMA DE UBICACIÓN DE TERRENOS DE PRODUCCIÓN y RECOLECCION:
(Pregunte por todo tipo de terreno, incluso usufructo hasta comunal)

- Tipo de tenencia (propio / usufructo; comunitario / de uso colectivo);
- Superficie y uso de suelo;
- Distancia (horas) al punto de producción y recoleccion (recorrido);

1.3 ¿Cuáles son las principales actividades y / o fuentes de ingreso de la familia (agricolas y no-agricolas)?

Actividades	Nivel de importancia	
	% de Ingreso $	% Tiempo (días / mes)
Agricola		
Subsidios		
Remesas/envios de dinero		
Jornal		
Caza		
Ganado		
PFNM (other than CS NTFP)		
Comercio		
Otros		

1.4 ¿Tiene acceso al crédito?   NO ☐   SI ☐

¿De dónde? ONG ☐   Banco ☐   Intermediario ☐ Amigo ☐   Pariente ☐ Otro ☐

2. Categoria de ingreso *(del ejercicio DRP: estratificación económica).*

Para el encuestador: *Favor describir lo siguiente: (techo de casa, piso, luz, agua potable, latrina, vehiculos, ganado).*

2.1 ¿Ud. sabe su ingreso medio? (No insista si la gente no sabe)

    Por Día..
    Por Mes.......................................….
    Por Año...

2.2 ¿Como se compara Ud. con otros en su gremio o miembro de la comunidad¿

Menor que el promedio ☐
Promedio ☐
Mayor que el promedio ☐

2.3 ¿Ud. alguna vez hacia actividades PFNM en el pasado?
Si ☐   No ☐

Si la respuesta es sí, cuales?

2.4 Por cuanto tiempo?

2.5 Cuando Ud. se detuvo de producir?

2.6 Por qué Ud. dejo?

2.7 ¿Porque nunca trabajo con PFNM?

ENCUESTA PARA COMERCIANTES DE AFUERA DE LA COMUNIDAD

Introducción

SECCION 1: CÁRACTERISTICAS DE PUNTO DE VENTA

SECCION 2: CÁRACTERISTICAS DE COMERCIANTE

SECCION 3: LA COMPRA

SECCION 4: TRANSFORMACIÓN

SECCION 5: LA VENTA

SECCION 6: INGRESOS Y FACTORES DE ÉXITO

Cuando dice " durante los ultimos años" se refiere (más o menos) a los ultimos 10 años.

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[6] This is the version of the questionnaire used by the CEPFOR Project. A slightly revised version, which improves on some difficult areas is provided on the CEPFOR CD-ROM.

SECCION 1
1.1 DESCRIPCION DEL PUNTO DE VENTA EN LA CADENA DE PFNM

Graficar la cadena de comercialización (del orígen del producto al consumidor) y marcar dónde se encuentra el entrevistado.

	Descripción
Nombre de punto de venta	
Departamento	
Provincia	
Municipio	
Central	
Cantón	
Comunidad	
Distancia al proximo centro de venta	
Punto de venta • permanente • temporal • tiempo de existencia	
Estimación del numero de comerciantes del producto en ese punto de venta	
Numero de comerciantes de otros productos en ese punto de venta.	

SECCION 2: CARACTERISTICAS PERSONALES DE COMERCIANTES:

2. 1 Origen (comunidad) :……………………………………………..................

2.2 Estado civil (Marque con X): soltero ☐   casado ☐   viudo ☐   separado ☐   union libre ☐

2.3 Genero: masculino ☐   femenino ☐

2.4 Nivel de educación: nada ☐   primario ☐   secundario ☐   superior ☐

2.5 ¿Tiene acceso al crédito? NO ☐
SI ☐   ¿De dónde?   ONG ☐   Banco ☐   Intermediario ☐   Amigo ☐   Pariente ☐   Otro ☐

2.6 Gama de productos comercializados:

PRODUCTO	EPOCA DE VENTA (meses)	¿Desde hace cuanto tiempo se empezó a comercializar estos productos?	Tipo de comerciante (acopiador 1, acopiador 2, transformador, distribuidor, detallista, otro.............)

2.7 ¿Qué tipo de actividades usted realizan con el PFNM?

Transporte ☐   Transformación ☐   Almacenaje ☐   Selección ☐   Empaque ☐   Otro.....   ☐

SECCION 3. LA COMPRA

3.1 ¿Qué formas de compra tiene para este mismo producto ?   *(Describir en el siguiente cuadro)*

	FORMA DE COMPRA MAS IMPORTANTE	**FORMA QUE SIGUE EN SEGUNDO PLAZO**
¿Dónde se efectua? (bosque; comunidad de orígen del producto; otra comunidad; mercado intermediaro; otro......		
¿Quién le provee el producto? (recolector; acopiador; transformador; distribuidor; otro..............		
¿ Descripción de la calidad?		
¿Tipo de unidades en que usted compran el producto?		
¿Precio promedio por unidad?		
¿Qué cantidad compra usted en una sola transacción típica?		
¿Cuál es el valor total de la transacción típica?		
¿Qué es la frecuencia de esa transacción típica? (por día, semana, mes, estación o año)		
¿Cuánto compra usted de este producto en esta manera por año? *(calcular con el entrevistado)*		
¿ De qué manera usted le paga a su proveedor? (efectivo; en especie or alimentos; a crédito/pago deferido; pagos por adelantado; a medias; otros.....)		

3.2 ¿Por lo tanto sus compras anuales de este producto son de ………..?

3.3 Costos de transacción para la forma de compra mas importante

(*Calcular con el entrevistado para el volumen/peso de una compra típica*)

Factor	Unidades	Precio por unidad	Costo total (N$ / Bs)
Transporte para llegar al punto de compra para esta volumen			
# días involucrados en esta compra			
Insumos (bolsas, cajas, latas,)			
Viveres para los provedores			
Pagos por adelantado			
Permisos			
Almacenaje			
Transporte al punto de transformación (si aplicable) o al punto de venta (costos / km)			
Perdidas en el almacenamiento o transporte			
Otros……….			

3.3 a)¿Usted conoce alguna asociación de compradores?   NO ☐   Si   ☐

b) ¿Usted es miembro? NO ☐   Si   ☐

c) ¿En cuáles maneras le ayuda?

3.4 Procedimientos / estrategías de regateo en la compra

3.5 ¿De donde Ud. obtiene información de precios para comprar su producto?

3.6 ¿Qué obstaculos usted enfrenta para comprar su producto, y qué alternativas existen?

PONGAN 1, 2 &3 de MAS IMPORTANCIA

(GUION DE OBSTACULOS: Acceso al producto; Normatividad; Falta de capital de trabajo; Falta organización de los proveedores; Dispersión de proveedores; Comunicación; Perecibilidad del producto; Confianza/seriedad del provedor; Calidad de producto que compra; Cantidades insuficiente; OTROS - describir).

Breve descripción del obstaculo	¿Qué alternativas usted cree que necesitan para superar sus obstaculos?

3.7 ¿Cuantos provedores de producto tiene?

SECCION 4. LA TRANSFORMACIÓN

4.1 ¿Qué formas de transformación hace usted para este mismo producto?
(Describa brevemente abajo el tipo transformación / tratamiento / clasificación (valor agregado) que recibe el producto)

	FORMA MAS IMPORTANTE	FORMA EN SEGUNDO PLAZO
¿Dónde se efectua? (bosque; casa; taller; punto de venta; otro......)		
¿Quién lo hace? (usted; esposa; niños; empleados; otros...............)		
¿ Descripción del proceso? (seleccionar, limpiar, lavar, secar, peinar, empacar, otros).		
¿Qué cantidad transforma usted? (por día/ semana/ mes)		

4.2 Costos de transacción para la forma de transformación mas importante
(Calcular con el entrevistado para el volumen/peso de una transformación típica)

Factor	Unidades	Precio por unidad	Costo total
Mano de obra permanente			
Mano de obra eventual			
Insumos (bolsas, cajas, latas,)			
Herramientas			
Almacenaje			
Costos fijos (luz, agua, taller....) – si conocidos			
Perdidas de almacenamiento o por la selección			
Transporte al punto de venta			
Otros……….			

4.3 a)¿Usted conoce alguna asociación de transformadores? NO ☐ Si ☐

b) ¿Usted es miembro? NO ☐ Si ☐

c) ¿En cuales maneras le ayuda?

4.4 ¿De donde Ud. obtiene información sobre la transformación de su producto?

4.5 ¿Qué obstaculos usted enfrenta para transformar su producto, y qué alternativas existen?
PONGAN 1, 2 &3 de MAS IMPORTANCIA

(GUION DE OBSTACULOS: Acceso al producto;Normatividad;Falta de capital de trabajo;Falta de organización de los transformadores; Perecibilidad del producto; Falta de capacidad técnica; Calidad de producto que transforma; Otros - describir).

Breve descripción del obstaculo	¿Qué alternativas usted cree que necesitan para superar sus obstaculos?

4.6 ¿Conoce usted que se hace finalmente con el producto que comercia? ¿Qué?

SECCION 5. LA VENTA

5.1 ¿Qué formas de venta tiene para este mismo producto?   *(Describir en el cuadro abajo)*

	FORMA DE VENTA MAS IMPORTANTE	**FORMA QUE SIGUE EN SEGUNDO PLAZO**
¿Dónde se efectua (bosque; comunidad de orígen del producto; otra comunidad; mercado intermediaro; ciudad; otro......		
¿Qué tipo de comprador tiene usted (a quien vende)? (acopiador/coyote/rescatista; distribuidor transformador;; consumidor; otro..............		
¿ Descripción de la calidad?		
¿Tipo de unidades en que usted venden el producto?		
¿Precio promedio por unidad?		
¿Qué cantidad venden usted en una sola transacción típica?		
¿Cuál es el valor total de la transacción típica?		
¿Qué es la frecuencia de esa transacción típica? (por día, semana, mes, estación o año)		
¿Cuánto venden usted del producto de esta manera anualmente? *(calcular con el entrevistado)*		
¿ Cuál es la forma en que recibe usted el pago? (efectivo; en especie or alimentos; a crédito/pago deferido; pagos por adelantado; a medias; otros.....)		

5.2 ¿Por lo tanto sus ventas anuales son de……..?

5.3 Costos de transacción para la forma de venta mas importante
(Calcular con el entrevistado para el volumen/peso de una venta típica)

Factor	Unidades	Precio por unidad	Costo total
Permisos o impuestos			
Mordidas/Coimas			
Alquileres			
Propaganda			
Comunicaciones, reuniones			
Cabildeo			
Pertenecer a las asociaciones			
Otros……….(*describir*)			

5.4 a)¿Usted conoce alguna asociación de vendedores?   NO ☐   Si ☐

b) ¿Usted es miembro?   NO ☐   Si   ☐

c) ¿En cuales maneras le ayuda?

Schreckenberg et al. (2005) CEPFOR Methodological Procedures   65

5.5 ¿Procedimientos / estrategías de regateo en la venta?

5.6 ¿De dónde Ud. obtiene información de precios para vender su producto?

5.7 ¿Qué obstaculos usted enfrenta para vender su producto, y qué alternativas existen? PONGAN 1, 2 &3 de MAS IMPORTANCIA
(GUION DE OBSTACULOS: Acceso al mercado; Normatividad; Organización de los compradores; Dispersión de compradores; Acceso a gremio; Forma de pago; Exigencia/preferencia del mercado; Existencia de sustitutos; Capacidad de promoción; Acceso a información de otro nivel; Confianza/seriedad del cliente; Perecibilidad; Comunicación; OTROS – describir).

Breve descripción del obstaculo	¿Qué alternativas usted cree que necesitan para superar sus obstaculos? (p.ej. diversificar su cadena de clientes

5.8 ¿Qué barreras al ingreso observa Ud. para el comercio de este producto? Ponga en 1, 2 & 3 de mayor importancia:

Falta de financiamiento ☐
Situación familiar ☐
Infraestructura transporte ☐
Impuestos/NORMATIVIDAD ☐
Falta de información ☐
Capacidad TECNICA ☐
Monopolio o "Mafia" GREMIACION ☐
Contactos de mercado ☐
CONOCIMIENTO DE MERCADO ☐
OTROS ☐

5.9 ¿Conoce usted que se hace finalmente con el producto que comercia? ¿Qué?

SECCION 6. Ingresos y factores de éxito

6.1 ¿Cual es su ingreso bruto promedio en total (de todas sus actividades, remesas, etc en Bs / N$)?
- Por día..........................

- Por mes ....

- Por año..........................

6.2 ¿Qué porcentaje representa la comercialización del PFNM (DEL ESTUDIO) de su ingreso total?

   0-25% ☐   26-50% ☐   51-75% ☐   76-100% ☐

6.3 ¿Eso es un ingreso regular todo el año?   SI ☐   (sigue con 6.4)
   NO, por cuántos meses en el año esto le ingenera ingresos?

6.6 ¿Como se ha cambiado la contribución del producto PFNM a su ingreso con los años?

Menos que antes ☐
Igual   ☐
Más que antes   ☐

¿Cómo se compara usted en tamaño con otros quienes identifica como de su mismo gremio?

Menor que el promedio ☐
Promedio   ☐
Mayor que el promedio ☐

6.7 Cuán exitoso Ud. se considera como comerciante del PFNM? –

No muy exitoso (a veces no tiene suficiente para cubrir sus necesidades)   ☐
Más o menos exitoso (cubre sus necesidades básicas)   ☐
Muy exitoso (tiene excedentes además de cubrir sus necesidades)   ☐

6.8 ¿Qué tan importante ha sido el PFNM (DEL ESTUDIO) en contribuir a estrategías de sobrevivir?

Mejor que antes ☐
Igual como siempre ☐
Menos que antes ☐

6.8 ¿Como ve el futuro del mercado para este producto?

En declive ☐
Estable ☐
En incrementó ☐

6.9 ¿Ud. quiere seguir vendiendo esto producto forestales como actualmente?

Si ☐   No ☐
Porque?

6.10 ¿Le interesaría ser un comerciante a otro nivel?:
Si: porque no lo hace?

No: entonces porque no?

6.11 ¿Preferiría vender otra cosa?

No ☐
Si ☐   ¿Qué cosa y porque no lo hace?

6.12 ¿Qué requisitos oficiales son los que más le perjudican en el comercio de sus PFNMs?

6.14 ¿Qué otras obligaciones (p.ej. comunitarios) usted debe cumplir para comercializar sus PFNMs?

Intermediarios EN LA CADENA <u>QUE NO VENDEN</u> PFNM del Estudio

SECCION 1
1.1 DESCRIPCION DEL PUNTO DE VENTA

Graficar la cadena de comercialización (del orígen del producto al consumidor) y marcar dónde se encuentra el entrevistado.

	Descripción
Nombre de punto de venta	
Departamento	
Provincia	
Municipio	
Central	
Cantón	
Comunidad	
Distancia al proximo centro de venta	
Punto de venta • permanente • temporal • tiempo de existencia	
Estimación del numero de comerciantes en ese punto de venta	

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[7] This is the version of the questionnaire used by the CEPFOR Project. A slightly revised version, which improves on some difficult areas is provided on the CEPFOR CD-ROM.

SECCION 2: CARACTERISTICAS DE COMERCIANTES DE AFUERA DE LA COMUNIDAD:
Detalles del entrevistado

2. 1 Origen (comunidad)   :…………………………………………...............

2.2 Estado civil (Marque con X): soltero ☐ casado ☐   viudo ☐   separado ☐   union libre ☐

2.3 Genero: masculino ☐ femenino   ☐

2.4 Nivel de educación: nada ☐   primario ☐   secundario ☐   superior ☐

2.5 ¿Tiene acceso al crédito? NO   ☐
                              SI   ☐   ¿De dónde?   ONG ☐   Banco ☐   Intermediario ☐   Amigo ☐   Pariente ☐ Otro ☐

2.6 Gama de productos comercializados:

PRODUCTO	EPOCA DE VENTA (meses)	Desde hace cuanto tiempo se empezó a comercializar estos productos?	Tipo de comerciante (acopiador 1, acopiador 2, transformador, distribuidor, detallista, otro.............)

3. Ingreso y éxito del comerciante

3.1 ¿Ud. sabe su ingreso medio? (No insista si la gente no sabe)

    Por Día..

    Por Mes..

    Por Año...

3.2 ¿Como se compara Ud. con otros comerciantes?

Menor que el promedio   ☐
Promedio   ☐
Mayor que el promedio   ☐

3.3 ¿Ud. alguna vez vendió PFNM (del Estudio de caso) en el pasado?

Si ☐   No ☐

Si la respuesta es sí, cuales?

¿Porque no lo hace?

3.4 ¿Por cuanto tiempo Ud. Comercializó PFNMs?

3.5 ¿Cuando Ud. se detuvo de vender PFNMs?

3.6 ¿Por qué Ud. dejo de vender?

3.7 ¿Qué le represento en su estrategia de vida los PFNM (categorías)?

Annex 7 Table of research hypotheses, sub-questions and proposed forms of data analysis

1. Changes in commercialisation in NTFPs have a greater impact on the poorest producers[8], processors and traders.	Data source [MR= market report CR=Community reports Q= hhd questionnaire]	Form of analysis	Responsibility
		General comments – household analysis Key variables (source hhd ques) We aim to include significance levels and where possible disaggregate the analysis by stage/community/product	DWtV
1.1 What changes in commercialisation have occurred in the last 10 years?	MR2; CR9	Text analysis	EM
1.2 Are the same individuals involved in production (wild collection and cultivation), processing and trade?	Q 1.1; CR7.5, 7.6	Tabulation by products and communities Text analysis	DWtV EM
1.3 What is the level of poverty of those involved in NTFP extraction – is it true that it is the poorest that are most involved, and what share of income do they derive from NTFP trade?	CR 2.4 Q1.3 and 6.1 on income Q6.2 on share of income from NTFP	Text analysis Relating income (and wealth ranks) to NTFP involvement (using tabulations) including stage of involvement. May also be possible to do Chi-Square.	EM DWtV
1.4 Do people engage in NTFP extraction because they are poor or are they poor because they are dependent on extraction for their livelihoods?	Q6.9 - 6.11 on exit from NTFP trade	• Model decision to be involved in NTFP (logit regression); need to include control group (non-NTFP traders may have different characteristics from NTFP traders) and determine explanatory variables • Determine what type of households want to move out of NTFP trade	DWtV
1.5 Do NTFP extraction activities primarily make up shortfalls in income or do they provide a path to socio-economic advancement? In other words, are they alleviating poverty or just providing a means of survival?	CR7.2; 5.1 Exit questions in Q6	Text analysis Identify products with a Shortfall scenario (i.e. only engage when situation economically bad) and those that are Alleviating poverty (look at whether NTFPs help people to move onto better things)	EM

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[8] 'Producers' here refers both to people who collect from the wild and those who cultivate the plant.

1.6 Does reliance on NTFPs perpetuate poverty, e.g. by increasing debt?	MR3 & 4 Q3.1, 5.1 CR 8.2	Text analysis, Tabulation of forms of payment: proportion of credit vs cash	EM DWtV

2. Changes in commercialisation of NTFPs have a greater impact on women's livelihoods.	Data source [MR= market report CR=Community reports Q= hhd questionnaire]	Form of analysis	Responsibility
		General comments – household analysis Key variables (source hhd ques) We aim to include significance levels and where possible disaggregate the analysis by stage/community/product	DWtV
2.1 To what extent are women involved in harvesting, processing, transport and marketing the NTFP?	CR3.4 and 7.3-7.7 Q1.1 (by gender)	Text analysis Relate income (and wealth ranks) to NTFP involvement by men and women separately (using tabulations). We can distinguish between female only, male only and joint households, and we could examine joint households more closely to see whether females dominate certain stages. Tabulate percentage (type of activity and gender)	EM DWtV
2.2 To what extent do women have control of the income derived from NTFPs, and therefore, to what extent do they benefit from their sale?	CR7.7	Text analysis	EM
2.3 Are women displaced by men when new technologies for NTFP processing are introduced?	CR7.5 and CR 9.4	Text analysis	EM
2.4 Is women's social, political and economic status being helped or harmed by NTFP commercialisation?	CR 9.4 Q6.2, 6.3, 6.4 and 6.7 and link to Q1.1	Text analysis. Economic status: Tabulate the percentage of women for whom NTFPs make a contribution to their livelihoods – see also Ho 2.1	EM DWtV

3. **Increase in the volume of NTFP commercialisation leads to (i) forest overexploitation, (ii) domestication and/or (iii) management strategies for the wild resource.**	**Data source** [MR= market report CR=Community reports Q= hhd questionnaire]	**Form of analysis** (Note: Undertake an analysis for each product separately)	**Responsibility**
3.1 Is there any evidence of an increase in the volume of NTFP trade in the last 10 years: overall & for the community? And if so, why?	MR4; CR9.1	Text analysis	EM
3.2 Is there evidence of resource depletion? What are social, economic or biological causes of any depletion observed?	CR9.5 Q1.3, 2.3 and 2.4	Text analysis Tabulation of transport times	EM DWtV
3.3 Is there evidence of harvesting moving to different areas in response to depletion?	CR 7.3	Text analysis Tabulation of transport times	EM DWtV
3.4 Is there any relationship between property regimes / institutional conditions and forest overexploitation, domestication or development of management strategies for the wild resource?	CR7.3; (3.3 & 3.4); 4.1	Text analysis	EM
3.5 Is there a relationship between biological characteristics of the NTFP and whether increased NTFP trade leads to domestication?	CR7.4, 9.5	Text analysis	EM
3.6 Are there biological / ecological constraints to successful commercialisation? E.g. low or variable productivity? etc.	CR 7.3 Q3.4	Text analysis	EM
3.7 Is there a relationship between poverty and domestication, and poverty and distance to resource?	Q2.4, 2.5 and 2.9	Tabulation. Link individual variable on distance to individual variable of success in regression analysis. Individual variable of success VS proportion of product obtained from wild / cultivated source	DWtV

4. Changes in the volume of NTFP commercialisation lead to reduced rights/access to the resource for the poorest producers.	**Data source** [MR= market report CR=Community reports Q= hhd questionnaire]	**Form of analysis**	**Responsibility**
Note: refer to Ho 3.1 for any evidence of an increase in the volume of NTFP trade in the last 10 years: overall & for the community			
4.1 Has the change in commercialisation had an impact on rights/access to the resource?	CR 3.1 & 3.3; 9.5; 7.3 (& 3.3, 3.4)	Text analysis	EM
4.2 Does the type of access to, or ownership regime of resource constrain successful commercialisation?	CR 7.3 Q3.4	Text analysis	EM

5. The successful commercialisation of an NTFP depends critically on: the existence of an accessible market; potential demand; the absence of substitutes; capacity to innovate; access by producers, processors and traders to market information; technical management capacity; organisation; high value / unit wt; trader characteristics (age, experience, education, etc.)	Data source [MR= market report CR=Community reports Q= hhd questionnaire]	Form of analysis	Responsibility
5.1 Does the successful commercialisation of an NTFP depend critically on the existence of an accessible market? (levels of access, physical market or access via an intermediary]	CR 2.3 MR2 Q5.5, Q5.6	Text Regression. Accessible markets: individual variable based on categorisation of answers to Q5.5 and 5.6 on distance to markets.	EM JR DWtV
5.2 Does the successful commercialisation of an NTFP depend critically on potential demand?	Q6.8, MR4	Regression and Text	JR DWtV
5.3 Does the successful commercialisation of an NTFP depend critically on the absence of substitutes?	MR 4	Text	JR
5.4 Does the successful commercialisation of an NTFP depend on the capacity to innovate?	MR CR	Text	JR EM
5.5 Does the successful commercialisation of an NTFP depend critically on access by producers, processors and traders to market information?	CR 7.8, 8.2 MR 9 Q5.6 and Q3.4	Text Regression on access to information: individual variables based on classification of Q5.6; or member of association, Q3.4	EM JR DWtV
5.6 Does the successful commercialisation of an NTFP depend critically on technical management capacity?	CR 3.4, 7.8 MR	Text	EM JR
5.7 Does the successful commercialisation of an NTFP depend critically on organisation (concerted action)?	CR 8.2, 9.3, 4.1, 4.2 MR	Text	EM JR
5.8 Does the successful commercialisation of an NTFP depend critically on high value / unit wt?	MR 1	Text	JR
5.9 Does the successful commercialisation of an NTFP depend critically on trader characteristics (age, experience, negotiating skills, market contacts, education, gender, etc)?	CR8.3, 9.3 MR Q1.1	Text Regression of Trader characteristics: individual variables from Q1.1	EM JR DWtV

6. The success of poor producers, collectors, processors and traders in NTFP commercialisation depends critically on the number of suppliers and demanders (market structure); capacity to exert market power; barriers to entry; degree of vertical and horizontal integration.	Data source [MR= market report CR=Community reports Q= hhd questionnaire]	Form of analysis	Responsibility
6.1 What is the equitability of profit distribution along the market chain?	MR 7, & 8 All transaction cost questions, eg Q2.?, 3.3, 4.2, 5.3,	Text. Determine profit based on Q3, 4 and 5 and examine average across different stages: output in table. Compare average profit margins at different stages	JR
6.2 Who gains and how is sales revenue controlled and distributed?	CR 7.7 Q3, Q4, Q5	Text. See 6.1 above: profit flows, identification of key indivuals in the value chain	EM JR
6.3 Are markets for NTFPs perfect (e.g. are prices closely linked to the cost of production?)	MR 5 CR 8.3	Text.	JR EM
6.4 What is the demand, and are the demand curves inelastic? What is the likely trend in future demand? Is there a link between price and resource depletion as Homma suggests?	MR	Need to know about overall trends in consumption /production, but may only be possible for a few products with good secondary data. (also in relation to increases in income) Link to Q6.8 (expectation of demand) and to demand variables in MR.	JR
6.5 How does the marketing network (more precisely: a trading network) function? Do they result in the exploitation of extractors? Does the network change over time?	MR 2	Text. Value chain description.	JR
6.6 Are there actually a variety of trading networks for different NTFPs?	MR 2, CR 8.1	Value chain analysis Text.	JR EM
6.7 Is there monopolization (eg of transport, information) at various NTFP stages and how does this affect success at previous stages?	MR 9	Text. Regression analysis: determine effect of no. of traders in successive stages on success.	JR DWtV
6.8 Is there a lack of access to credit, transportation, information on price fluctuations, storage facilities?	CR 8.2 MR Q1.4, 5.5, 5.6	Text. Explanatory variables in regression analyses determining success (see also hyp 5 above)	EM JR DWtV
6.9 To what extent do prices fluctuate (at local and international level, over the last 5 years) and to what extent does this represent a risk to producers and traders?	MR 5 CR 8.3	Text.	JR EM
6.10 Do state (or non-state) institutions play a role in marketing?	MR 10 CR 4, 8.2, 8.4 Q4.3, 5.4	Text. Explanatory variables in regression analyses determining success	JR EM DWtV