

Researching factors that influence successful commercialisation of Non timber forest products (NTFPs).

Investigación hacia factores de influencia en terminus de lograr comercialización exitosa de productos forestales no maderables (PFNMs).

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Abstract

The commercialisation of NTFPs is not consistently successful in alleviating poverty by providing benefits to producers, processors and traders. In order to determine the characteristics associated with success in terms of NTFP commercialisation, this project will evaluate the opportunities and constraints to commercialisation of NTFPs at the community and household level, through comparative analysis of case studies. In addition, market structure will be analysed for selected NTFPs, to identify interventions necessary for successful commercialisation. Gender issues and community perceptions of success will receive particular attention. The selection of two countries, Bolivia and Mexico, that differ in social and cultural structures will enable comparative analysis of the factors influencing NTFP commercialisation, thereby permitting implications for other countries in the region to be drawn.

Resumen

La comercialización de PFNMs no siempre contribuye efectivamente a aliviar la pobreza a través de los beneficios que brinda a los productores, comercializadores y procesadores. Para determinar las características asociadas con el éxito en la comercialización de estos productos, este proyecto evalúa las oportunidades y restricciones a nivel de las comunidades recolectoras y de los hogares involucrados mediante estudios de caso. Adicionalmente se analizan las estructuras de mercado de productos seleccionados, y se identifica los tipos de intervenciones que se requieren para hacer proyectos exitosos. Aspectos de género y las percepciones de las comunidades son debidamente analizadas. El hecho de haber seleccionado a Bolivia y a México permitiera analizar estos factores bajo condiciones socio-culturales diferentes, y por lo tanto se derivaran las implicaciones para otros países o regiones con condiciones relacionadas.

Research project objectives and collaborators

This 3 year research project (November 2000 - October 2003), funded by the Forestry Research Programme of the UK Department for International Development, will explore the relationship between poverty, gender and successful commercialisation of NTFPs. It will provide an important understanding of how domestic markets function and identify the type of information necessary to provide the basis for designing market interventions, which result in increasing benefits to rural communities.

NTFPs differ in a number of characteristics including yield, perishability, value, and seasonality of availability etc. In addition, the local communities harvesting these resources differ in social structures (including gender influence), culture, degree of marginalisation, as does access to capital resources. A comparative analysis of different NTFPs, considering such variables can therefore enable key criteria for successful commercialisation to be identified.

The main collaborators on this project are the UNEP World Conservation Monitoring Centre and the Overseas Development Institute in the UK; Grupo de Estudios Ambientales, Grupo Mesófilo, Methodus Consultora, SEMARNAP and PROCYMAF in Mexico; Universidad Nur, Care-Bolivia and the Super Intendencia Forestal in Bolivia; and Fauna & Flora International in Nicaragua.

The role of NTFPs in promoting forest resource conservation and poverty alleviation

Non-timber forest products (NTFPs) are biological resources derived from both natural and managed forests and other wooded areas (Peters, 1996). NTFPs are an important tool in addressing poverty issues for marginalised, forest dependant communities, by contributing to livelihood outcomes, including food security, health and well being, and income (FAO, 1995; Falconer, 1997). In many parts of the world these resources are critical, especially for the rural poor and women, and may provide them with the only source of personal income (Rodda, 1993; Falconer, 1997). It is the socially most marginalised people who are the main actors in NTFP extraction (Ros-Tonen, 1999). Despite this, the contribution of women, especially from indigenous populations, to rural development in Latin America, remains largely undervalued and understudied.

Interest in NTFPs has grown with increasing awareness of tropical forest deforestation and increasing recognition of the need to add value to forest resources, in order to compete with other land uses. Through the holistic management of NTFPs, an attempt is made to maintain and sustain the resource and its users; contribute to sustainable development; conserve forests and biodiversity, and to promote non-traditional enterprises to improve local economies and diversify the economic base of the rural poor (Falconer, 1997).

There are at least five distinctive features of forest product conservation and development initiatives which were identified as needing further research to promote successful NTFP commercialisation, from a CIFOR meeting sponsored by the NTFP network (adapted from Wollenberg and Ingles, 1998):

- Forest products are often managed under sensitive and complex social arrangements, or with

- multiple management objectives.
- Forest products usually involve strategies based on multiple products, therefore the costs of collecting the information can be high relative to the benefits gained
- Forest products are often collected in remote areas requiring high transport costs, and production and collection can be irregular.
- There is often a lack of formal skills in business, ecological and impact social assessment.
- The ecology, management and demand for many forest products is poorly understood, and many forest products have not been well studied or documented.

Constraints to successful commercialisation

Within the scope of this research project, we have chosen to define commercialisation as an exchange of money resulting from the sale of a product outside the community of origin. Although NTFP commercialisation has been widely promoted by development organisations, success of such initiatives has been highly variable. Existing research suggests that the main constraints to successful NTFP development are related to limited access to the following types of capital asset by small-scale poor farmers and landless poor families (especially women):

- *natural*: secure tenure or usufruct rights over land and resources (Clay, 1992; Richards, 1993; Ruiz-Perez and Byron, 1999);
- *human*: labour constraints (especially time spent away from home by women), awareness of the commercialisation potential of some products, knowledge about processing and storage, and market information and marketing know-how (Southeimer, 1991; Falconer, 1997; Tommich, 1998; Banana, 1998);
- *financial*: to invest in improved physical capital (FAO, 1991; ILO, 1995; Verheij and Reindeers, 1998);
- *physical*: market access (especially transport), inputs for new processing/ storage techniques (Dixon, 1991; Clay, 1992; Paddock, 1992, Falconer, 1997; Fontana, 1998; van Dick, 1998; Tommich, 1998);
- *social*: negotiating power (especially for female producers with respect to male market intermediaries), and willingness to collaborate in order to secure improved marketing outcomes (Arnold and Ruiz Perez, 1999; Marshall and Newton, 2000);

Available evidence indicates that information pertaining to marketing processes and structures is one of the most significant constraints to successful development of NTFP activities as part of livelihood strategies (Tommich, 1998; Ruiz-Perez and Byron, 1999).

Research project case studies

We are collaboratively undertaking research with the following partners in Bolivia and Mexico, in case study communities where NTFPs are already commercialised to some extent, and with varying degrees of success, and as an activity, represent one of the most important income generating options available.

MEXICO

- **Grupo de Estudios Ambientales**, State of Guerrero - *Brahea dulcis* (Palma soyote) & *Agave*

cupreata Maguey);

- **Grupo Mesofilo**, State of Oaxaca - *Chamaedorea tepejilote* & *Chamaedorea elegans*, *C. concolor*, *C. Oblongata*;
- **Methodus consultora**, State of Oaxaca - *Tricholoma magnivelare* (White mushroom, *Boletus edulis* (Boletus) and *Amonita coesarea* (Yellow mushroom), & *Aechaemia magdalanae*, Pita.

BOLIVIA

- **CARE** project Amboró, Department of Santa Cruz: *Carludovica Palmata* (Jipi Japa palm)
- **CARE** project Madidi, Department of La Paz: *Theobroma sp* (Wild cocoa);
- **CARE** project Mirna, Department of La Paz: *Himeneae sp Estirax ovatus*, & *Microcarpus frondosus* (inscence) & *Goma silvestre* (natural rubber).

Defining “success” in successful commercialisation

During workshops held earlier in 2001, in both Bolivia and Mexico, participants drawn from the conservation, development and research communities within each country, were invited to consider and define the main constraints to successful NTFP commercialisation faced by communities in these regions.

However, we decided first of all to take an innovative approach to considering the factors which influence successful commercialisation of NTFPs, and using a combination of literature sources and participant experience in both Bolivia and Mexico, we collectively defined a variety of different ways in which success may be defined. Participants were then asked to rank how successful NTFP commercialisation had been for their case study communities.

Table 1 illustrates the 18 definitions of success with their mean rank, and in descending order, the overall measures of success considered most frequently achieved (combined results from Bolivia and Mexico). We can see that participants from both countries considered that the NTFP commercialisation projects with which they had had contact had been most successful in terms of increasing income to the community, improving the economic status of women within communities, strengthening local culture, and improving the conservation of forest resources. We may therefore conclude from these results, that the commercialisation of NTFPs has the potential to provide a diverse set of benefits to local communities and their natural resources.

However, we can also see that participants did not consider NTFP commercialisation to have been successful in improving social justice, in terms of increasing transparency and equitable gains distribution, nor in strengthening NTFP markets. This outcome further substantiates research findings that the most common reason for such failures, is a widespread lack of information within communities about local, national and international markets, and in particular, the structure and function of marketing networks. The fact that some communities benefit from successful commercialisation, may in part be explained by the existence of more equitable and transparent trading conditions, and the increased ability to be able to exert market power. The aim of this project, therefore, is to help small-scale producers to supply markets more successfully, by provision of practical tools for market analysis and product development.

Factors influencing success throughout the marketing chain

Following on from defining success, we used the workshops to consider the stages of commercialisation for a NTFP, and the limiting factors which constrained this process, at various steps in the network. We reached consensus on the structure of the chain, likely to be common to most NTFPs, and it included the following distinct phases:

- **Production**
- **Collection**
- **Processing**
- **Storage**
- **Transport**
- **Marketing (promotion of product)**
- **Sale**

Tables 2 and 3 illustrate the collective workshop evaluations of the factors influencing success throughout the commercialisation network, and which factors were most limiting in Bolivia and Mexico respectively.

Table 4 clearly illustrates a trend between both Bolivia and Mexico in terms of the importance and location of limiting factors in the commercialisation network. It may be interpreted from these results that there exists a research need to address commercialisation obstacles in marketing and sale sectors. The current project has therefore been designed to directly meet the needs identified at the workshops, and our research hypotheses designed to reflect these priority research areas.

The work programme we have collaboratively developed to answer our research hypotheses, places an emphasis on two research foci:

- A. The impact of NTFP commercialisation on different groups of participants in the commercialisation process (both within communities and along the market chain) as well as on the environment (Hypotheses 1-4).
- B. The understanding the different types of market structure that exist for NTFPs and, in conjunction with the earlier hypotheses, their relative impact on participants (Hypothesis 5-6).

Research hypotheses and foci

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 commercialisation 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 commercialisation.

SOCIO-ECONOMIC IMPACT FOCUS

We are currently underway with our first stage of socio economic research which aims to assess the impact of commercialisation on communities. This entails the collection of contextual information on each case study community. We have jointly developed a framework by which research collaborators will generate (through the implementation of participative research tools), comparable information about communities on the following areas: geography; history; infrastructure; social structure; land use; income and expenditure; labour resources; the NTFP resource itself; trade; and impact of changes in commercialisation.

This information will be collaboratively analysed in a project workshop, and then used to refine a semi structured survey tool which will be implemented as the second stage of socio economic research, in the same case study communities, but at the household level. The methodology has been designed to generate information that will facilitate further understanding of the patterns and trends in NTFP use, income generation, and factors which contribute to success or failure, and how these differ between and within communities, with a specific focus on gender and differing levels of poverty. This data will then be in part cross checked, and related to the information generated in the marketing component of the research.

MARKET ANALYSIS FOCUS

We have also collaboratively developed a marketing research methodology which will be implemented along all the known marketing chains for selected case study NTFPs. There exists a lack of quantitative information pertaining to marketing networks, and a need to document the process of commercialisation throughout the chain, or network. This methodology includes the following steps:

- Identifying the chain;
- Describing the principle and secondary actors;
- Analysis of demand;
- Validation of the Homma model (growth curves exhibited by natural resources in relation to their management and use and the potential consequential phases of domestication and product substitution);
- Property and resource access rights;
- Processing;
- Actual and potential demand;
- Cost benefit analysis (CBA) and product valuation at each marketing stage;
- Social informal institutions and transaction costs;
- The role of the public sector;
- Analysis of market structure;
- Final analysis of factors influencing success and failure.

Research project outputs

Following the implementation of this research plan, the research project aims to deliver the following outputs:

- a methodology for comparative analysis of the factors influencing success of NTFP commercialisation
- a decision-support tool (manual) for local communities, developed and tested with their participation, for successfully developing NTFP resources
- a decision-support tool (Expert System) for use by decision-makers to evaluate the potential for successful NTFP commercialisation.

The community manual, or set of guidelines will be designed to enable marginalised communities to evaluate the market potential of locally and regionally important NTFPs, and to develop suitable marketing strategies for these. The manual will be piloted in selected communities in Mexico, Bolivia, and in Central America. Following the closure of the project, it will be disseminated at a project maturation workshop (expected to be held in Nicaragua) in the form of a published manual, and consequently via the internet.

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Table 1. Definitions of success.

Definitions of success	Success rank 1 least & 4 most successful				Mexico Work shop results	Bolivia Work shop results
	Original origin of definition	1	2	3		
Increasing family income within the community	Literature				3.21	3.1
Improving the economic status of women within communities	Literature				3.05	3.18
Strengthening local culture	Literature				3.22	3
Improving the conservation of forest resources	Literature				3.37	2.8
Improving local capacity	Literature				3.26	2.87
Improving the control and ownership of forest resources within the community	Literature				3.26	2.8
Improving consumer well being (Mexico 5 blanks)	Literature				3.07	2.9
Increasing the proportion of community members with paid work	Literature				2.84	2.91
Strengthening community organization	Mexico				3.05	2.61
Improving well being - education, health, diet etc, within communities	Mexico				2.88	2.69
Improving the economic status of the poorest members of the community	Mexico				2.55	2.8
Improving social justice - transparency and equitable distribution (Mexico 6 blanks)	Mexico				2.54	2.76
Strengthening markets	Mexico				2.89	2.14
Increased ability to meet consumer preferences	Bolivia					2.78
Increasing value added locally	Bolivia					2.73
Increasing income generated to businesses	Bolivia					2.71
Increasing income generated to governments	Bolivia					2.57
Ability to adhere to international norms	Bolivia					2.3

Source: Marshall, E. (ed). (2001a) and (2001b).

Table 2. Key factors limiting success in Bolivia.

COMMERCIALISATION STAGE	LIMITING FACTOR
Processing	Lack of adequate technical support Lack of access to information and exchange of commercialisation experiences
Transport	Large distances to point of sale Lack of infrastructure
Marketing	Demand Lack of community / marketing group organization Lack of management capacity (deemed the most limiting factor of all) Lack of access to marketing information
Sale	•Product price •Lack of appropriate technical support •Lack of community / selling group organisation

Table 3: Key factors limiting success in Mexico.

COMMERCIALISATION STAGE	LIMITING FACTOR
Marketing	Lack of information
All stages	Lack of financial instruments
Transport	Lack of infrastructure
All stages	Lack of community organisation
Sale	Low product price

Table 4: The importance of constraining factors throughout the commercialisation network.

IMPORTANCE OF CONSTRAINING FACTOR		
COMMERCIALISATION STAGE	BOLIVIA	MEXICO
Marketing	***	***
Sale	***	***
Processing	***	***
Transport	***	**
Production	**	**
Collecting / Harvesting	**	*
Storage	*	*