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# Enterprise Development for Natural Products Manual

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# Table of Contents

<b>-Introduction-</b> .....	<b>1</b>
Natural Products .....	2
The Importance of Natural Products .....	3
Natural Product Enterprise Issues .....	4
<b>-Chapter One-</b>	
Enterprise Opportunity Overview: Subsector and Value Chain Analysis.....	5
Requirements for Enterprise Success .....	7
Subsector Analysis .....	8
Subsector Overview Worksheet .....	9
Functions, Participants, and Technology Chart- Aromatic Plants for Essential Oils .....	10
Example Value Chain .....	11
<b>-Chapter Two-</b>	
Sustainable Supply of Natural Products .....	12
Case Example - How a Community Obtained Resource	
Supply Information .....	15
Biologically Sustainable Harvesting .....	16
Harvesting Impact on Population Dynamics.....	17
Establishing Sampling Areas .....	18
Developing a Raw Material Sourcing Plan .....	19
<b>-Chapter Three-</b>	
Regulatory Environment and Forest User Groups (FUGs).....	20
The Regulatory Environment .....	22
Regulatory Environment & Natural Product Enterprises.....	23
Organizations Involved in Regulatory Functions.....	24
Community Forestry in Nepal .....	25
Integrating Natural Product Management within a FUG	
Operational Plan .....	26
Benefits of a Forest User Group .....	27
FUGs and Natural Product Enterprises.....	28

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**-Chapter Four-**

<b>Technology, Management and Finance.....</b>	<b>29</b>
<b>Technology .....</b>	<b>32</b>
<b>Technology Continued - Production and Marketing Balance .....</b>	<b>33</b>
<b>Management .....</b>	<b>34</b>
<b>Finance .....</b>	<b>35</b>
<b>Biological and Financial Sustainability .....</b>	<b>36</b>
<b>Can the Enterprise Make Money and be Sustainable? .....</b>	<b>37</b>

**-Chapter Five-**

<b>Marketing and Sales .....</b>	<b>38</b>
<b>The Marketing Concept .....</b>	<b>40</b>
<b>Step 1      Market Research</b>	
<b>Is the Natural Product Established or Non-Established?.....</b>	<b>42</b>
<b>Step 2      Market Research</b>	
<b>Understand the Market .....</b>	<b>43</b>
<b>Step 3      Market Research</b>	
<b>Collect Information from Customers.....</b>	<b>44</b>
<b>Step 4      Marketing Strategy</b>	
<b>Market Segmentation and Target Marketing .....</b>	<b>45</b>
<b>Step 5      Target Market</b>	
<b>Position the Product .....</b>	<b>46</b>
<b>Step 6      The Market Mix and Product Sales.....</b>	<b>47</b>

**-Chapter Six-**

<b>Enterprise Development Plan.....</b>	<b>49</b>
---	-----------

**-Additional Resources-**

<b>Available at the Business Services Center.....</b>	<b>51</b>
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# -Introduction-

## About the manual

This manual provides practical tools to explore and develop natural product enterprises. The manual promotes a strategy for natural product enterprise design that enhances a region's biodiversity and promotes social equity.

## Who is this manual for?

- Entrepreneurs
- Enterprise managers
- Enterprise development  
Personnel in NGOs and the government
- Community groups interested in launching an enterprise
- Private companies

### What is in the manual?

- ✓ Requirements for enterprise success
- ✓ Assessment and management strategies for natural products
- ✓ Overview of regulatory environment
- ✓ Business fundamentals: technology, management and finance
- ✓ Markets and marketing
- ✓ Sample contents of a business plan

## How to use the manual

The manual gives a basic overview of the issues involved in *sustainable* natural product enterprise development. Chapters 1-6 discuss the required ingredients for a successful enterprise. After reading the manual, the reader will:

- Know the range of issues to consider when developing a natural product enterprise
- Understand strategies for dealing with enterprise issues that allow natural product enterprises to prosper and promote biodiversity conservation and social equity

Each chapter includes the following five components, which provide an introduction to the subject:

1. **A Story from the Field**
2. **The Lesson Learned**
3. **Strategies for Use**
4. **When to Use**
5. **Chapter Tools**

Charts, checklists and example worksheets are throughout the manual. These tools help to investigate and manage the operations of an enterprise. More detailed resources are housed in Kathmandu at ANSAB's Business Service Center.

# Natural Products

This manual concentrates on Natural Products (NPs) but many enterprise principles are applicable to all types of non-timber forest products (NTFPs). NTFPs are defined as natural outputs, other than timber, of the forests or adjoining pastures. NTFPs are also known as minor forest products, nonwood forest products (NWFPs) and wild crafted products.

## Examples of Natural Products in the NTFP sector

- Bamboo
- Rattan and Other Vines
- Medicinal and Aromatic Plants (MAPs)
- Nuts, Fruits, Mushrooms
- Tubers
- Grasses and Leaves
- Resins
- Insects and Byproducts (Honey, Silk)

In addition to being an integral part of the forest ecosystem, natural products fill nutritional, medicinal, and ritualistic roles in people's livelihoods. Increasingly, natural products provide subsistence and cash income for local communities. Balancing environmental, social, and

economic considerations is a must for a sustainable enterprise.

Environment, social, and economic themes appear repeatedly throughout the manual. To better understand the three themes, review the different classifications in the chart below.

### Different Ways to Classify Natural Products

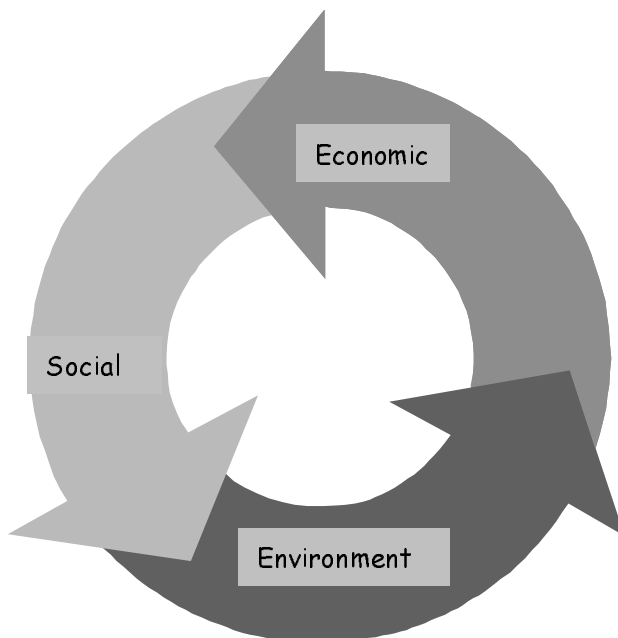
Environment	Social	Economic
<p><b>Biological</b> - same genes or species</p> <ul style="list-style-type: none"> <li>• Example: all types of rattan</li> </ul>	<p><b>Use</b> -similar use</p> <ul style="list-style-type: none"> <li>• Example: all edible plants</li> </ul>	<p><b>Market</b> - similar markets</p> <ul style="list-style-type: none"> <li>• Example: furniture markets that demand rattan, bamboo, vines</li> </ul>
<p><b>Biodiversity</b> – overall role in ecosystem</p> <ul style="list-style-type: none"> <li>• Example: all pollinators</li> </ul>	<p><b>Culture</b>– all natural products used in local rituals</p> <ul style="list-style-type: none"> <li>• Example: plants used in Buddhist Ceremonies</li> </ul>	<p><b>Processing Method</b> –similar processing</p> <ul style="list-style-type: none"> <li>• Example: all plants distilled into essential oils</li> </ul>

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# The Importance of Natural Products

From the three groupings (environment, social and economic), the importance of natural products in daily life becomes clear. The supply of natural products is directly tied to the overall health of an ecosystem. Therefore, a natural product enterprise will not be sustainable unless it balances environment, social and economic issues. An enterprise activity that balances the three issues can yield multiple benefits.

**Environmentally**, the development of natural product enterprises can alleviate threats to biodiversity by providing alternative income sources from the natural forest.



**Socially**, rural populations living near the forest use natural products for their livelihood. It is not only the absolute value of the natural product, but also the proportion of natural products in the incomes of rural people that is important.

**Economically**, market growth for natural products in local and export markets generates interest in policy initiatives that support sustainable economic growth.

## Common Characteristics of Natural Product Enterprises

- Use renewable natural resources
- Raw materials found in remote locations; transport costs could become an issue
- Raw materials are seasonal
- Large number of collectors/suppliers with small quantity of raw materials
- Difficult to maintain consistent quality and quantity of products
- Competition from illegal activities results in pricing information and distribution distortions

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# Natural Product Enterprise Issues

The manual covers six areas (see box to the right). Concentrate on understanding all six areas and how, holistically, they fit together to produce a sustainable natural product enterprise. No single area is more important than another area. Instead, it is the balance and blend of all the areas that yields success. In each section, consider the strategies suggested and how to use them in enterprise activities.

This manual provides an overview of what is required to start or improve a natural product enterprise. The checklists and charts throughout the manual are guides to examine specific subjects and gather information needed to complete business plans and manage the enterprise. Remember to consider *how* the six areas fit together and *why* each area is important for a sustainable natural product enterprise. Each specific area is broken down to make the overall enterprise development task easier.

## Chapters

1. **Enterprise Opportunity Overview**
2. **Sustainable Supply of Natural Products**
3. **Regulatory Environment and Forest User Groups (FUGs)**
4. **Technology, Management and Finance**
5. **Marketing and Sales**
6. **Enterprise Development Plan**





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# -Chapter One-

## Enterprise Opportunity Overview: Subsector and Value Chain Analysis

### A Story from the Field

A community started a natural product enterprise that processed bamboo and rattan into handbags. They knew they needed a sustainable supply of rattan and bamboo, should make good quality bags, and find buyers for the bags. The people needed training in dying and weaving. They also had a need for working capital. While there were managers involved that knew the requirements for running a successful enterprise, they were addressing enterprise issues and problems as they occurred, rather than implementing a system. The managers planned trainings for the workers and went on market investigation trips to find buyers. However, the individual activities were not well coordinated with an overall plan.

Finally, the enterprise managers met with a subsector specialist and completed a subsector overview sheet in a single afternoon. This helped the managers organize their knowledge and identify potential partners and competition by listing the actors in the sector. The managers completed a more detailed subsector study that focused their enterprise management efforts on the most critical components while keeping track of all the functions. Before the subsector overview, the managers reacted to problems as they arose instead of planning proactively. Using the subsector methodology, the managers planned proactively, placing them in better control of the enterprise's development.

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## **The Lesson Learned**

Knowledge is power. Organized knowledge generates even more power. Take time to understand all the components that make a successful enterprise and make a plan for coordinating the components. The subsector analysis tool helps to form an organized, holistic perspective of an enterprise.

## **Strategies for Use**

When considering a potential enterprise, use the “Requirements for Enterprise Success” listed on page 7 to pre-test the feasibility of enterprise ideas. Put the potential enterprise activities into two categories: 1. not feasible or 2. possibly feasible. Complete the “Subsector Overview Worksheets” for the list of possibly feasible enterprises and reevaluate the findings against the requirements for enterprise success. Any natural product enterprise considered should have favorable conditions for each “Requirement for Enterprise Success” item. If the enterprise does not have a good strategy to tackle one of the items, perhaps the targeted enterprise activity is not suited for the proposed community.

Of the products that meet the requirements for enterprise success, complete detailed feasibility studies using the subsector methodology.

## **When to Use**

Subsector analysis can assess the feasibility of an enterprise before activities start or help an existing enterprise better manage itself like in the story from the field.

### **Chapter Tools**

The tools for this chapter start with a checklist of “Requirements for Enterprise Success”. This covers all the major elements in the manual. In start-up and ongoing enterprise activities, it is useful to refer back to this checklist. The subsector analysis information includes a “Subsector Overview Worksheet” and “Functions, Participants, and Technology Chart”. These tools help the entrepreneur view the major players of a product’s sector. The Value Chain illustrates the stages of a product from raw material through to sales.

## Requirements for Enterprise Success

- ✓ **Raw material availability** – A long-term biologically sustainable supply of the targeted natural product in sufficient quantities is necessary for the enterprise activity to be financially viable. *Chapter Two*
- ✓ **Legal access to and control over the natural resources** – Collectors should be able to manage natural products harvesting and incorporate the enterprise activity into their overall forest management plans. Enterprise activities must comply with a range of legal requirements. *Chapter Three*
- ✓ **Equitable distribution of benefits** - If community members do not feel the benefits are being distributed fairly there will be less incentive to protect the natural resources. The overall raw material source could become threatened as well as the commercial activity and the ecosystem's biodiversity. *Chapter Three*
- ✓ **Appropriate processing technology** – Is the technology compatible with the prevailing infrastructure and human resource conditions at the chosen location? Conditions to be considered include: transport and storage facilities; equipment/ machinery availability; power or fuel required for the processing activity; and technical skills available. *Chapter Four*
- ✓ **Good management** — People with knowledge of, and experience with managing proposed activities should be available to run the enterprise or they should be closely involved in its operations. *Chapter Four*
- ✓ **Commercial sustainability** (also known as economic or financial viability) - Commercial Sustainability is a simple concept. Sell the product at a price and volume that covers all the costs associated with the natural product enterprise with enough money leftover as profit. *Chapter Four*
- ✓ **Access to capital** – Start-up capital and ongoing working capital is needed for the enterprise. *Chapter Four*
- ✓ **Available and accessible market for the products** - Is there a market for the available quantity and quality of product? Is there adequate demand at the expected selling price? Who will buy the products? *Chapter Five*

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# Subsector Analysis

Subsector analysis is a method for discovering all the functions (*activities*) and actors (*participants*) in a subsector, as well as how they interact with each other in:

- Natural product regulation and conservation
- Natural product collection
- Product production
- Product processing
- Product marketing

Exploring options for enterprise opportunities can be overwhelming at first. However, groups discover they know more than they think, while discovering a need to learn more about certain areas.

Subsector methodology helps organize necessary information to explore natural product enterprise opportunities. The main objectives of subsector analysis are to:

1. Link the product to an expanding market
2. Make strategic functional enterprise interventions
3. Create beneficial links among key subsector participants

Subsector analysis provides a complete overview of the processes and activities involved in an enterprise.

## **A full subsector study follows nine steps.**

1. Select a subsector for study
2. Become familiar with the subsector
3. Draw a preliminary subsector map
4. Specify the environment affecting participants
5. Refine the subsector map
6. Quantify overlays of particular interest
7. Analyze dynamics
8. Identify sources of leverage
9. Explore opportunities for leveraged intervention

Completing all nine subsector steps requires a month or longer. However, some subsector exercises can be done in several hours to several days. These quick exercises can provide basic information on an enterprise opportunity for a particular natural product. One exercise is the “Functions, Participants, and Technology” (p. 10) overview worksheet for the potential natural product. The following pages provide an essential oil example of the overview worksheet, matrix and value chain. The value chain illustrates how a natural product is transformed from a raw material to a retail product.

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## Subsector Overview Worksheet

### Steps to Complete Functions, Participants and Technology Chart

**FIRST STEP:** -- *List all the functions or activities involved in the selected natural product enterprise*

Define the end market. For example, bamboo can be processed into handbags for a European market; Jatamansi essential oil can be processed into cosmetics and perfumes for export markets in India and Europe; and rattan can be processed into furniture and handicraft markets for both local and export markets. Visualize what happens to the natural product from the time it grows in the forest and is harvested until the time it reaches a user (downstream processor or manufacturer) or final consumer in some processed form. These are the functions and should be listed on the left-hand side of the chart. These steps are also referred to as the value chain for the natural product. Why? Because as the natural product moves through these function steps it increases in value.

**SECOND STEP:** -- *List all the actors or participants involved in the natural product activity*

Think about who performs each function. Researchers, collectors, processors, government agencies, NGOs, packers, traders, transporters, market agents, manufacturers, wholesalers or retailers. List all the actors along the top of the chart.

**THIRD STEP:** -- *List all technologies (interventions) required to do each function*

Look at each function listed on the left-hand side of the chart. What is required to be able to complete each function, e.g. a certain type of equipment, working capital, some sort of skill or particular knowledge, etc. List these items on the right hand side of the chart. This list helps to identify potential intervention in the natural product value chain.

**FOURTH STEP:** -- *Identify the functions for each participant*

After completing steps 1-3, look at each function and identify which participants are doing what function and shade boxes appropriately. This step shows who is doing what, where the potential competition is and who the potential allies are in the enterprise.

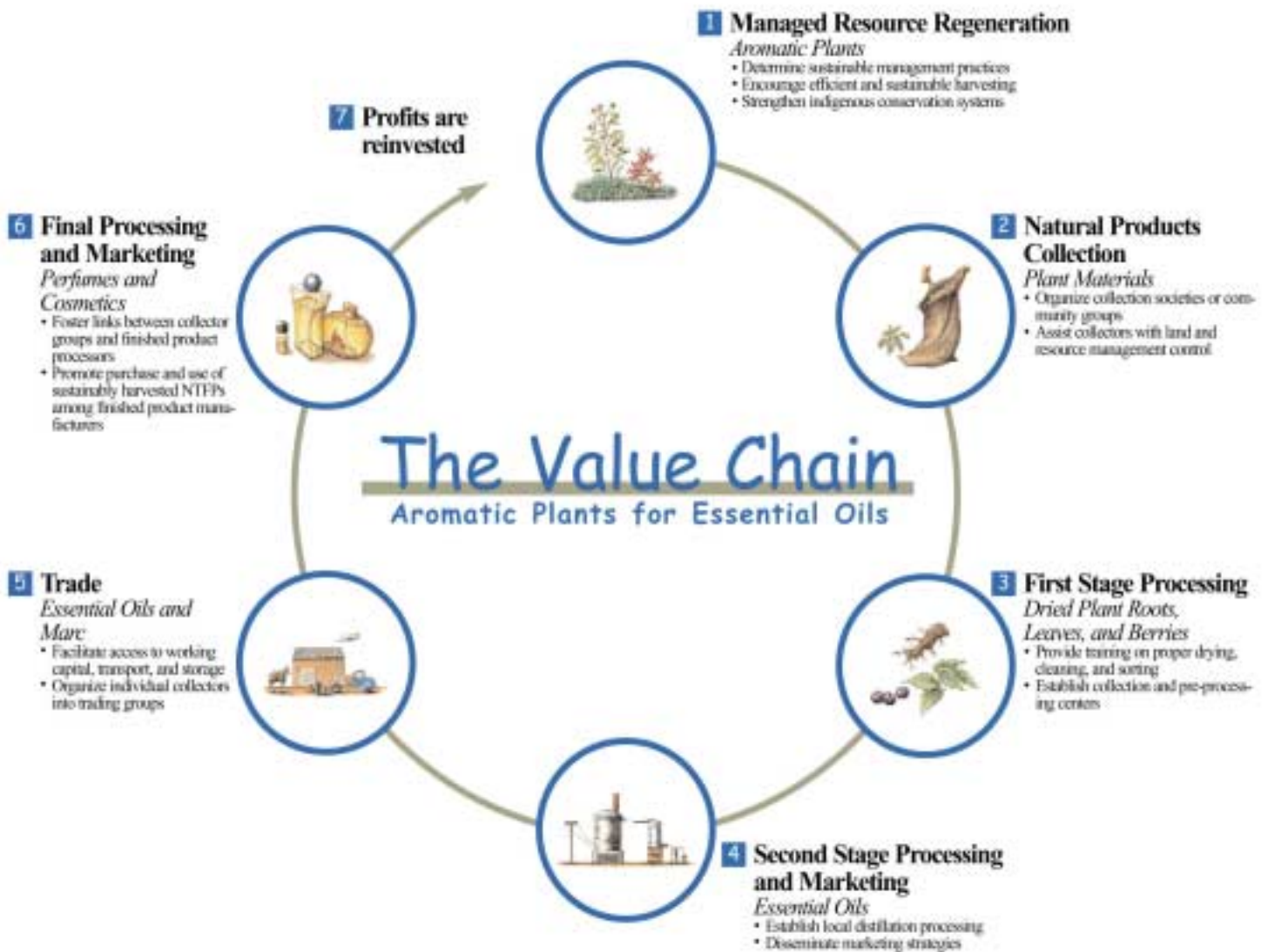
The functions, participants and technology worksheet of the subsector assessment help the entrepreneur to understand the dynamics that will affect the targeted enterprise activity. Having gained an initial understanding of the target product, it is time to look at each area in more detail.

# Functions, Participants, and Technology Chart Aromatic Plants for Essential Oils

## Jatamansi in Humla, Nepal

Functions	Participants										Technologies/ Skills	
	Village level NP collectors	District level porters	District level traders	Department of Forestry	Research institutions	Nepal brokers	Outside district Nepal traders	Indian brokers	Indian traders	HPPOL		Indian distillers
Sales of oil												Market contacts
Distilling												Steam distillation
India level trading												Working capital
Storage and transport to India												Warehouse, horsecart, truck
Nepal level trading												Working capital
Transport to Nepalgunj												Airplanes
Forest royalties collected												Policy, relationship with Dept. of Forestry
District level trading/storage												Working capital
Transport to Smikot												Human porters or animal transport
Cleaning												Manual shaking, sorting
Drying												Rooftop sundrying
Harvesting												Handtools
Managed regeneration												Traditional knowledge
Research												Research skills
Policy												Policy advocacy

# Example Value Chain



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## -Chapter Two-

# Sustainable Supply of Natural Products

### A Story from the Field

In one Asian country, extensive inventory levels for rattan were taken to determine sustainable cutting levels. Rattan was a big export earner for the country and employed over 150,000 people. Rattan cutting licenses were issued based on supposed sustainable harvesting levels, yet the amount of rattan in the country continued to decline rapidly. Gatherers had to walk further and further to reach rattan stands. People blamed illegal harvesting, but this did not explain the lack of regeneration. After examining the ecosystem dynamics, everyone realized that the population of monkeys and birds had been greatly decreased or eliminated by hunting and habitat loss. Since rattan seeds germinate best after being eaten and excreted by these animals, new rattan seedlings were not growing to replace harvested plants.

The rattan harvesting communities quickly realized that if they wanted a sustainable supply of rattan they would have to help nature with rattan replanting. The people could not bring the wildlife back in the short term, but they could collect and plant rattan seeds. Having a sustainable supply of rattan meant the people had to take an active role in the management of the resource base. First, they had to understand the ecosystem dynamics. Second, they monitored the resource base to gain unknown information and double check known information to make sure it was still valid. Finally, they managed the supply proactively by establishing replanting programs, sampling areas and rotational harvesting plans.



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## The Lesson Learned

Determining sustainable harvesting levels for most natural products is an evolving science. Implement a monitoring program that will continually assess the health of the natural resource base supplying the natural products. There is some information available on individual species, but ecosystem dynamics are still not well known.

As a natural product becomes commercial, it is necessary to manage the resources proactively by implementing monitoring, harvesting and sometimes replanting plans. Include sampling areas in the biological monitoring plan to provide detailed information on the area's specific conditions.

## Strategies for Use

Incorporate sustainable harvesting issues into enterprise planning. Developing an enterprise around a product that is already traded is often less risky than with a non-commercial product. Current products are less risky because the community is knowledgeable on the condition and supply of the product. This community knowledge can be used as a start for more formal biological

monitoring activities. If the product is in short supply, think twice about starting an enterprise unless resource regeneration plans are included. If the product appears to be in good supply then use a fraction (40-70%) of the supply for enterprise calculations.

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### *Why less than 100%?*

*It is impossible to capture 100% of the already traded supply. If the current harvest level proves unsustainable, by only planning on a fraction of the supply, the financial position of the enterprise will not suffer.*

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The following steps determine sustainable harvesting:

- 1) Identify and demarcate the resource base by ecosystem type (forest, pasture, farmland, rock face). Make a map that shows where each type of ecosystem is located with the estimated number of hectares for each area. Existing maps of the area may be available from the government. Use community knowledge to estimate the location and current condition of the area. For precise measurements, use a trained mapmaker.

2) Identify the resource supply areas of the product(s). Estimate the supply volume based on current harvesting and trade/use. Identify current or potential threats to the resource base. Conduct group meetings and inquire where and how the product has been collected in the last three years. Rank threats. Gather data over several years, as there can be substantial year to year variations.

3) Take a sample field inventory to assess the growing stock and condition of target products and the ecosystem. Conduct interviews with collectors to learn their perceptions of product availability and quality changes.

4) Keep community members involved in all data collection and study steps. Use the results of the first three steps to design and implement biological monitoring. The monitoring plan should indicate the area being monitored; target species; ecosystem changes; and human activity impacting the species and ecosystem. Sampling areas and growth and yield studies become integral parts of the monitoring plan.

5) Make a preliminary estimate of a sustainable harvest regiment. Monitor this harvest rate and make adjustments (as necessary) in the

biological monitoring plan. Remember that sustainable harvesting involves more than the amount harvested. Sustainability is determined by how and when the plant is harvested and all other impacts on the ecosystem.

### **When to Use**

Ideally, sustainable harvesting levels should be known before an enterprise starts, but scarce secondary data makes this unrealistic. Therefore, establish a biological monitoring plan from the start and include community members in resource management.

The biological monitoring plan should determine biologically sustainable harvesting levels; establish sampling areas; and track harvesting impacts on population dynamics.

### **Chapter Tools**

The Case Example on the following page outlines the five steps to obtaining resource supply information. The “Checklist to Assess Harvesting Sustainability” is a guide to finding information on sustainability. The “Checklist for a Raw Material Sourcing Plan” lists the necessary material to be included in such a plan.

## Case Example - How a Community Obtained Resource Supply Information

Activity	Results	Adjust for the Specific Area
<p>1) With an experienced mapmaker, the community demarcated their resource area by ecosystem type (forest, pasture, farmland, rock face etc.)</p>	<p>The group's total resource area is 2,000 hectares composed of 500 ha forest, 700 ha pasture, 300 ha farmland, and 500 ha rock face.</p>	<p>Adjust the ecosystem types to reflect the resource area. For example, primary and old growth forest, tree plantation areas, or open brush land.</p>
<p>2) A group discussion was held to determine where everybody has collected natural products in the last three years.</p>	<p>Each group indicated the pasture and forest areas where they collected. This land was marked on the map. Groups were harvesting 10% of the pasture area and 20% of the forest area. This provided information on where to focus biological monitoring activities.</p>	<p>If outsiders have been collecting products, then mark these areas as well. Try to quantify the information and mark on the actual maps. If the product has not been collected before, skip to activity four.</p>
<p>3) Information was gathered on the amount of product harvested in the past three years. This was done through collector interviews, collecting data from the Department of Forests about forest royalty collections, and obtaining information on kilos of natural product cargo handled at the local airport.</p>	<p>Data collected for Jatamansi indicated that 150 tons were harvested in 1995; 50 tons in 1996; and 180 tons in 1997. The early snows of 1996 forced collectors to stop Jatamansi harvesting.</p>	<p>While each source of information is biased on its own, the combination of three sources of information gives an indication of the magnitude of natural products harvested. Do not worry about obtaining an exact number. Instead focus on understanding the trend in harvesting and magnitude of harvest level.</p>
<p>4) At this point the group knows <u>where</u> the natural products are being harvested and the <u>amount</u> of harvesting over the past three years. Next they need to know the <u>general condition of the harvesting areas</u> and threats to the ecosystem. Group discussions obtained this information.</p>	<p>The group indicated that harvesting areas were in decline and the major threats to the ecosystems were:</p> <ol style="list-style-type: none"> <li>1) uncontrolled natural product harvesting</li> <li>2) burning of pastures</li> <li>3) overgrazing by migratory livestock</li> </ol>	<p>Finding more than three threats is fine. Threats can be from inside or outside the community. The judgement on the condition of the resource base is perception-based and will provide guidance for field-based biophysical data collection.</p>
<p>5) Preliminary information assessed.</p>	<p>The group's perception was that the resource base is declining, but overharvesting of natural products is only one threat. Harvesting levels appear to be increasing annually, but the group is only harvesting from a small percentage of the resource base. To ensure optimal regeneration, the group will explore rotational harvesting from a larger base and investigate harvesting methods. Interventions will be implemented to address other threats.</p>	<p>Note all threats, match them against the group's activities and compare to current field conditions. Use this information to determine supply conditions for the target product, and to develop sustainable resource use plans.</p> <p>Notice how gathering information on one product area provided preliminary information to preserve the health of the overall resource area.</p>

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# Biologically Sustainable Harvesting

Biological diversity and sustainability occur at several levels:

- Genes
- Population
- Community
- Ecosystem

Harvesting can impact all of these levels. Unfortunately, the degree to which harvesting impacts the four levels is not well studied.

Since the effects of harvesting are superimposed on the natural population dynamics, a comparison between natural and harvested populations will provide enough information to assess sustainability.

To determine biologically sustainable harvesting levels start by collecting community knowledge on particular species. It is important to know:

- 1) The current level of harvesting
- 2) Where the product is harvested
- 3) The amount traded
- 4) The various harvesting methods
- 5) The season, percentage and parts of plant harvested

If the species is traditionally collected, indigenous knowledge provides information on

sustainable harvesting levels. Less information on sustainability exists for products that are not traditionally collected.

Establish sampling areas for both traditionally collected and non-traditionally collected products. Sampling areas provide biological information on the collected natural products.

## Checklist to Assess Harvesting Sustainability of a Natural Product

- Knowledge of the natural distribution of the species
- Frequency of occurrence or abundance
- Population structure (age/ size/ class distribution)
- Dynamics of the species (growth and reproduction rates)
- Variation among habitats
- Role within the ecosystem

# Harvesting Impact on Population Dynamics

Natural product harvesting can have short and long term effects on the plant, ecosystem and overall biodiversity. Some consider harvesting to be ecologically sustainable when there is little or no long-term harmful effect on the populations being harvested. However, harvesting impacts on one population can cause ecologically unsustainable conditions for other species and the ecosystem structure.

Sustainability must be viewed holistically. Immediate short-term effects of harvesting may be seen in the growth rate or reproduction capacity of the plant, while ecosystem changes may take longer to materialize.

To distinguish short and long-term effects of harvesting on population dynamics, monitoring is done at two stages:

- 1) Rapid assessment of the immediate short-term impact of harvesting on current population structure; and
- 2) long-term change in population dynamics that can be monitored from sampling areas.

Harvesting effects on population dynamics vary by the classification of plants (annual or perennial), plant part that is harvested and how it is harvested. For a rapid assessment, monitoring focuses on the life stage being harvested.

<b>Rapid Assessment Examples of Harvesting Effects on Population Dynamics</b>		
<b>Life Stage Harvested</b>	<b>Effect of Harvesting</b>	<b>Immediate Impact</b>
Annual herb before fruiting or seeding	Destruction of reproductive adult	If harvested before fruit/ seeds are produced and disseminated then only those plants that escape harvest will supply seeds for next generation
Herbaceous perennial (roots or rhizomes)	May result in destruction of reproductive adult or underground storage tissue	Reproductive capacity severely affected
Woody perennial (leaves) Juvenile	If too many leaves are constantly removed, it may not reach reproductive maturity	Lack of seeds and propagation
Woody perennial (leaves) reproductive adults	Increased mortality due to disease as a result of damage	Size distribution, growth, health, and reproductive activity may be altered

## Establishing Sampling Areas

Sampling areas provide information on the distribution and abundance of natural products and the impact of harvesting on the plant's population dynamics. Sampling areas are also an important part of biological monitoring.

To determine the long-term impact of harvesting on population dynamics, permanent plots must be established. Trials that measure the effects of different harvesting levels and methods are also helpful. For example, sampling areas in Humla yielded the information found in the table below. Sampling areas must be monitored for years, five at a minimum, to learn how harvesting effects overall biodiversity.

Sampling areas help to:

- establish rotational harvesting schedules
- identify optimal harvesting times and methods
- get community members involved in hands on biological monitoring
- devise more accurate community resource management plans

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### *Why establish sampling areas?*

*Sampling areas tell how much of a natural product is available; how harvesting impacts the plant's population dynamics; and reveal ways to harvest that are more sustainable (best time of year, harvest method, etc.).*

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<b>Recommended Optimal Harvesting Practices for Sustainable Natural Product Use</b>				
<b>Plant Species and Parts Harvested</b>	<b>Optimal Harvest Season</b>	<b>Optimal Rotational Interval</b>	<b>Optimal percentage of plants not harvested</b>	<b>Optimal Harvesting Method</b>
Jatamansi (rhizomes)	Fall	5 years	At least 20% plants undisturbed	Whole plants pulled from bushy areas and dug out carefully with the tool, <i>kuto</i> , from open grasslands
Kutki (rhizomes and roots)	Fall	3-5 years	At least 20% of plants undisturbed	Plant is dug out with <i>kuto</i> or hand picked if rhizome is long
Sunpati (leaves)	Under study	1 year	At least 30% of leaves left on plant	Leaves handpicked or cut with scissors

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## Developing a Raw Material Sourcing Plan

After identifying the raw material sources, prepare a sourcing plan to estimate the raw material flow in relation to the enterprise. The sourcing plan should ensure a reliable supply of raw materials.

Categorize the area in terms of:

- ecosystem (forest, pastures)
- raw material (e.g. species of the Lokta plant have different quality and habitats)
- legal control (private, community or government owned)
- quality
- distance from the enterprise
- accessibility

Prepare a map illustrating the origins of raw materials. Assess potential risks associated with each location. The final estimate should be able to account for potential risks, like delays in permits and transportation. Consider that labor may not always be available for collection and transportation activities. Assess the seasonal migration situation to minimize any problems resulting from a labor shortage. Likewise, consider the seasonal conditions of the raw material base. For instance, in the case of snowfall, there should be an adequate stock of the raw material.

It is important to have good relations and communication with respective suppliers. Motivation for collecting and how enterprises compensate collectors can vary. For example, collectors in the remote mountains of Bajhang prefer rice for payments, whereas collectors in other areas prefer money. Adjust relations with collectors to respond to their specific needs. Create a staff position (agent) that deals with collector – Forest User Group (FUG) relations. Finding good people for this role is critical to the overall management of the raw material supply.

Appropriate extraction and transportation permits will help generate a timeline of legal obligations. The timeline will keep the raw materials moving.

### Checklist for a Raw Material Sourcing Plan

- Resource supply areas
- Raw material type and quality
- Quantity by season
- Storage facility
- Legal obligations/permits
- Transportation arrangements
- Labor supply management
- Agreements with suppliers
- Risks and strategies
- Working capital requirements

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## -Chapter Three- Regulatory Environment and Forest User Groups (FUGs)

### A Story from the Field

A community in Nepal set up a medicinal herb trading enterprise. Preliminary assessments showed they had a good supply of several herbs with strong market demand. A market study helped them determine a marketing strategy and locate some potential buyers. Traders were already coming to the community to buy the herbs so the people were accustomed to collecting and packing the herbs for shipment. The community was thrilled when they received their first order from a buyer in India at a higher price than what the traders offered. The buyer specified that he wanted the herbs within 21 days.

Unfortunately the community was not able to deliver the order on time and lost the sale. The enterprise had not looked into export permits and ran into delays obtaining them. The buyer became frustrated and canceled the order. The community members also found they had to pay royalty payments to the government, which increased their costs more than expected. The community and collectors had not yet learned how to use Nepal's community forest laws to their advantage. For example, the community could form a forest user group (FUG) that could collect and invest royalty payments instead of having to pay them to the government. Finally the manager of the enterprise started making decisions that the community did not like. When they tried to replace the manager, they found the company had not been registered as a limited partnership. This meant nobody else could be named as directors. The company suffered because nobody investigated the regulatory environment to discover the various legal options before starting the enterprise.



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## The Lesson Learned

Knowing the regulatory requirements and options is essential to launching an enterprise. The enterprise and community may lose out on attractive tax rates, royalty payment arrangements, and other benefits if legal options are not understood. Lost opportunities can mean higher operating costs for the enterprise and less community-based control of the resources. Additionally, ignorance of regulations can cause missed deadlines, which will most likely result in client loss.

## Strategies for Use

The Nepal NTFP Network and ANSAB's Business Services Center have information on regulations that effect forest management and natural product enterprises. First, check if there are specific laws regarding the chosen natural product. Second, file all the necessary paperwork to become a properly registered company. Keep in mind that different legal options have different ownership possibilities, tax, and regulatory implications. In the early stages of the enterprise, choose a legal structure that provides maximum flexibility. In the enterprise start-up budget, provide funds for legal advice and

hire a good lawyer to do all the legal paperwork properly. Third, investigate whether formation of a forest user group (FUG) is in the interest of the enterprise. Enterprises may have a clear advantage in being associated with an active FUG.

## When to Use

Investigate the regulatory environment during the business plan stage of an enterprise. FUGs can form anytime, but preferably before an enterprise begins.

## Chapter Tools

The following pages provide an overview on the regulatory environment. The chart "How Do the Following Factors Affect an Enterprise" highlights three major factors to consider in an enterprise. The value chain (from Chapter One) is matched to the regulatory environment in the chart "Processing and Regulations". The list of "Organizations Involved in Regulatory Functions" provides contact points. The remainder of the chapter focuses on "Steps to Becoming a FUG" (including a "Checklist for Natural Product Management" in an Operational Plan) and the benefits of being a FUG.

# The Regulatory Environment

The regulatory environment includes:

1. National and local policies, rules, and regulations; international laws
2. Socio-cultural norms and practices
3. Organizations that support and regulate enterprise activities

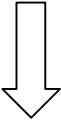
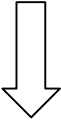


<b>How Do the Following Factors Affect an Enterprise?</b>		
Regulations	Formal	Resource access, forestry codes, incorporation options, investment codes, pricing legislation, labor regulations, tariffs, interest rate ceilings, import and export procedures, taxes codes, etc.
	Informal	
Organizations	Regulating	Trade organizations, ministerial departments, export agencies, NGOs, credit and financial organizations, local institutions and organizations, FUGs, etc.
	Supporting	
Socio-cultural Factors	Community Norms	Traditional management systems, cultural values, norms of society, and buyers' expectations on quality, timely delivery, etc.
	Buyers	

# Regulatory Environment & Natural Product Enterprises

The regulatory environment affects every step of an enterprise's value chain. When choosing a natural product enterprise, analyze what regulation and support opportunities and challenges exist

for the business activities. Monitoring the regulatory environment is an ongoing part of business activities and necessary for the success of an enterprise.

<b>Processing and Regulations</b>	
<b>General steps of value chain</b>	<b>How the regulatory environment can affect an enterprise</b>
<p><b>Harvesting and management of natural products</b></p> 	<p>Land and resource tenure; access to natural products; existing harvesting seasons and methods; resource management system.</p> <p><b>For example:</b> District Forest Officer (DFO) provides collection license to collectors. A Forest User Group (FUG) can gain management responsibilities and user rights for natural resources under community forestry provisions. A FUG can exclude non-members from using and harvesting resources from a community forest.</p>
<p><b>Processing</b></p> 	<p>Enterprise registration, processing license, labor regulations, technology access, taxes, financial support.</p> <p><b>For example:</b> Forest based industries are not allowed within 3 km (in hills) and 5 km (in Terai) of forests. Natural product processing enterprises can obtain an income tax holiday for up to 10 years. Financial support is available through the agricultural development bank.</p>
<p><b>Trade and Marketing</b></p>	<p>Release and export permits, export and import procedures and duties, market information.</p> <p><b>For example:</b> DFO provides Release Order for natural product from a district. Nepal Chamber of Commerce (NCC) or Federation of Nepalese Chambers of Commerce and Industry (FNCCI) provide Certificate of Origin to the manufacturer or exporter of natural product.</p>

## Organizations Involved in Regulatory Functions

Enterprise Function/ Activity	Organizations
Company Registration	Office of Company Registrar, Department of Industries, Department of Cottage and Small Industries
Natural Product Collection License	District Forest Officer (DFO) and Forest User Group (FUG)
Royalty Payment	DFO, FUG
Checking and Weighing	DFO, Range Post or FUG
Release Order or Transit Permit	DFO
Local Taxes	District Development Committee, Municipality
Checking and Endorsement	Forest Check-post
Export Recommendation	DFO (recommends the concern to the Customs Office)
Product Certification and Export Permission for Selected Natural Products	Department of Plant Resources (DPR) (Permission to export processed natural products that are prohibited from export in crude form.)
Certificate of Origin	Federation of Nepalese Chambers of Commerce and Industry (FNCCI), Nepal Chamber of Commerce (NCC)
Export Permission and Duty	Customs Office of exporting country
Import Permission and Duty	Customs Office of importing country
Market Information	Trade Promotion Center (TPC), FNCCI, NCC, NGOs
Financial Support	Agriculture Development Bank, commercial banks
Processing Technology	Department of Industries, Department of Cottage and Small Industries, Private companies, NGOs
Resource Management and Research	DPR, DFO, FUG, NGOs
Taxes	Department of VAT, Department of Income Taxes, Department of Customs

# Community Forestry in Nepal

The essence of community forestry in Nepal is a partnership between local communities and the staff of the Department of Forests (DOF) for the management of locally accessible forests. Community forestry has been a standard prescription for the hills of Nepal to manage forests for fuel wood, animal fodder, building materials, and grazing. Community forestry for high mountains, especially for natural products, is a new practice.

Community forestry involves the transfer of use rights and management responsibilities for one or more patches of forest to the local people who form a forest user group (FUG). The term forest management encompasses both technical and social arrangements involved in the management of forests, including planting, protection, harvesting, and distribution of forest products.

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## ***How can a FUG organize management responsibilities?***

***"An Operational Plan is a plan prepared with the objectives of developing and conserving forests and using, selling and distributing their products while maintaining the environmental balance, and approved under the Act" (Forest Act, 1993:2).***

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## **Steps to Becoming a FUG and Obtaining Use Rights**

1. Users of a forest area are identified and organized into a FUG (Forest User Group), a constitution is drawn up and officially registered at the District Forest Office (DFO). The FUG can then function as a self-governing body with legal status.
2. The FUG and DFO delineate the forest area to be used and demarcate its boundary. This delineation usually requires settlement of disputes with neighboring villagers.
3. The FUG and forestry staff collect and analyze information about the forest, people and their interactions to devise management prescriptions. These prescriptions are made with the consensus of all the users and then incorporated into an operational plan. The operational plan also serves as a contract between the FUG and the DFO.
4. The draft operational plan is submitted to the DFO for approval. After approval, the community forest is formally handed over to the FUG. The DFO gives a certificate of hand over to the FUG.

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# Integrating Natural Product Management within a FUG Operational Plan

An Operational Plan (OP) is the legal document signed by a FUG and the District Forest Office for the management, utilization and conservation of forest resources. In the current scenario of community forestry practice in Nepal, natural products are generally excluded in the plan unless the FUG is supported by an NGO or project interested in natural products. Ask for a copy of an OP that includes natural products. Then discuss with FUGs and forest rangers to plan a detailed inventory of forest resources. This should eventually lead to a natural product management plan determining sustainable harvest rates and methods.

To incorporate natural products, the operational plan should include the current stock of natural product by species and area, with a projected stock table for five to ten years. The plan should also include the annual harvestable quantity under a defined harvesting regime (e.g. minimum size of cutting, rotational interval, etc.) given the condition of forests at the base year. This information projects the raw material

availability in the first few years while contributing to long term production planning. In many circumstances, harvesting methods are not specified, and the sustainable natural product extraction rates create severe detrimental impacts on the ecosystems that produce natural products. Thus, it is important to specify the specific methods of collection or harvesting.

## Checklist for Natural Product Management

- ✓ Area harvested
- ✓ Natural product species and stock in each block
- ✓ Growth and yield estimates of selected natural products
- ✓ Rotational period and harvesting plan
- ✓ Silvicultural management
- ✓ Harvesting rules and regulations
- ✓ Harvesting season
- ✓ Harvesting methods
- ✓ Monitoring mechanism and control (harvest, regeneration, growth, etc.)

# Benefits of a Forest User Group

The 1993 Forest Act states that the “District Forest Officer (DFO) may hand over part of a national forest to a user group in the form of a community forest, entitling the group to develop, conserve, use and manage the forest, and sell and distribute the forest products by independently fixing their prices, according to an operational plan.”

Forest ownership is not transferred to the user groups but remains with the government under state control. The legislation recognizes forest user groups as self-governing and autonomous entities and entrusts them with the management, control, utilization and sale of community forest resources in a planned way.

Once the forest is handed over to the FUG, there is no time limit for retaining use rights. The use rights remain with the FUG for an indefinite period of time. The DFO can cancel a FUG’s registration if the FUG fails to implement its operational plan; does not observe the overall provisions of the act; or undertakes any actions that negatively affect the environment significantly. The cancellation of a FUG happens less than once in a thousand FUG certification cases.

## Why form a Forest User Group?

### Once handed over, the FUG has the right to

- ✓ Exclude others from using the forest
- ✓ Use forest products as security for obtaining loans from financial institutions
- ✓ Amend the operational plan with the DFO’s approval
- ✓ Collect royalties on forest products
- ✓ Harvest, trade, and process natural products for cash income

### In return for the use rights the FUG is required to

- ✓ Submit an annual progress report describing the condition of the forest and financial statement to the DFO at the end of the fiscal year
- ✓ Adhere to the operational plan submitted to the DFO
- ✓ Allocate 25% of the income from the community forest to forest management and development (remaining 75% can be for any community development activity)

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# FUGs and Natural Product Enterprises

## Opportunities

1. Bylaws, policies and five-year plans favor local use of the forest for community income and employment
2. DFOs can give licenses for the collection and trade of natural products
3. Leasehold forestry: scope for commercial forestry and enterprise development
4. FUGs can establish forest-based industries
5. FUGs can obtain 100% of the income from natural product sales and use for local development
6. Private entrepreneurs can register enterprises to develop/process, sell/export natural products
7. Tax holiday for five years, extendable up to ten years
8. In Ghharelu and Udhyog, no VAT and no taxes for earnings from exported products
9. Access to capital through financial institutions
10. Priority sector of government per industrial policy
11. Public institutions facilitate natural product enterprises and trade

## Constraints

1. Ban on collection of some commercial species of plants
2. Complex and restrictive set of procedures to obtain permits for collection, trade and export
3. Lack of natural product management guidelines in government as well as community-managed forests
4. Royalties for natural products produced on private land
5. Distance restrictions for forest industries (3 km in the hills and 5 km in the Terai from forests) make it difficult for FUGs to establish forest-based industries
6. Fixed and arbitrary royalty rates
7. Local taxes imposed by Village Development Committees and District Development Committee

Even given the constraints, natural product enterprises offer FUGs some of the best opportunities to increase their incomes while sustainably managing their resources.



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## -Chapter Four-

# Technology, Management, and Finance

### A Story from the Field

A processing enterprise ran into technical, management and financing problems. At first their situation seemed ideal. A government program agreed to give them a concession (below market) loan for their oil processing enterprise with the condition that they purchase processing equipment from a specific manufacturer. The program also let the community choose their enterprise manager from the cooperative members. The members chose an enterprise manager, who was liked and respected, but had no enterprise experience. The equipment manufacturer, while good at manufacturing irrigation equipment, had never made oil press equipment. The machines had poor extraction efficiency and broke down in the first week of operations. In addition, the business plan said the enterprise needed to process 500 kilos of cooking oil a day to break even. The equipment only had a capacity rating of 400 kilos a day. The payments on the enterprise's loan were almost due and the group could not process any oil to sell. The manager was very discouraged. Being inexperienced, he did not know how to turn the situation around.

The enterprise found outside expertise. First, delayed loan repayments were negotiated (this is also known as rescheduling the debt). An engineer was consulted to redesign and install equipment that would function well, and the enterprise manager hired a consultant. The consultant held meetings to educate the enterprise on necessary qualities in a manager. The first manager resigned and requested the group hire a professional with experience.

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## The Lesson Learned

Enterprise decisions on financing, technology, and management should be based on the needs of the business as determined in the business plan. A good business plan will specify technology needs (equipment capacity and efficiency ratings as well as compatibility with infrastructure); experience and skill requirements for key enterprise personnel; and provide projected financial statements that detail fixed and working capital requirements and scenarios for repaying loans.

## Strategies for Use

**Management:** Look carefully at the skills and experience required for the key positions in the enterprise. Do not assume that all the positions can be filled from the community. While it is tempting to want the maximum job creation for community members, filling key positions with people who are not qualified will lead to personal frustration and poor enterprise performance. Instead, be open to hiring people from outside when necessary, either as managers or advisors to local staff who are in training for a position.

**Technology:** In most cases the product is already being produced by another enterprise. This implies that there is a cost-efficient technology available within the region. When exploring technology options look at what is already being used and make adjustments only when necessary. Pay attention to equipment capacity, efficiency rating and infrastructure compatibility. Purchase equipment from a manufacturer that has a good track record of producing the specific type of equipment. Do not allow the enterprise to be the experimental ground for an inventor or manufacturer. Also, do not overlook simple technology solutions. Fancy and sophisticated is not necessarily better.

Technology options should pass three basic tests – 1) the product produced should meet the demands of the market; 2) the equipment should be manageable given local infrastructure, resource base, and skills; 3) the equipment should be compatible with the break-even production requirements of the enterprise.

**Finance:** Prepare projected financial statements for the enterprise in the business plan. Be clear and exact on the:

- amount of product produced and sold,
- operating costs, and
- revenue projections.

Financial statements should project a timeframe for the enterprise's breakeven point and quantify the return on investments and payback period. Financial statements provide a foundation to monitor the fiscal health of the enterprise.

Next, institute a good, but simple, bookkeeping system. Up-to-date records allow for continuous monitoring of money earned and spent. The bookkeeping system compares real expenditures and revenues to projected financial statements. The financial system should also have prudent measures to guard against the misuse of funds.

A careful eye on finances helps in detecting problems in the business sooner. For example, if production costs are higher than projected, perhaps equipment efficiency is low and repairs or operator training is needed. If sales are good, but cash flow is low, perhaps more attention needs to be paid to accounts receivable management.

## When to Use

Technology, management, and finance issues should be investigated during business plan preparations. Equipment should be pre-tested prior to installation. Equipment debugging costs should be budgeted with sufficient time for worker training. Management and finance are ongoing efforts of the business and require constant diligence.

### Chapter Tools

This chapter is divided into three sections: Technology, Management and Finance. The technology section offers an "Infrastructure and Technology Checklist" and a "Finding Appropriate Technology" checklist to explore and chose technology options. The management section offers an "Enterprise Management Checklist" to ensure quality management. The financial section has a table to help "Collect Information for Financial Statements".

# Technology

The transformation of a potentially marketable product into a money-making enterprise depends on appropriate technology, management and financing.

Technology is a broad term that can include machines (e.g. steam distillation units, oil presses); storage facilities (e.g. temperature controlled for perishable goods); packing materials; modes of transportation; and specialized knowledge (e.g. handicraft design or medicinal formulation). Each enterprise technology requirement is supported by the appropriate amount of infrastructure, skilled labor, and money (also known as capital). Examples of natural product technologies include:

- Plant propagation methods (including domestication and tissue culture)
- Harvesting tools
- Grading standards
- Post harvest dryers and storage containers
- Chemical treatments
- Product formulation
- Protective packaging
- Processing equipment
- Climate controlled warehouses

Despite differences in technology, basic guidelines apply to all enterprises.

## Infrastructure and Technology Checklist

- ✓ How far is the enterprise from a raw material gathering site? Is the site on a main road or path where it will be easily accessible?
- ✓ Are there storage or other buildings available for lease or rent, or must new buildings be constructed for the enterprise?
- ✓ What fuel and power are available in the area and at what cost? Are there sustainable amounts of fuel available and/or are power supplies reliable?
- ✓ Is there a year-round supply of clean water for processing and enterprise sanitation? Does the proposed site ensure enough sunlight for drying?
- ✓ Are there local machine shops to repair equipment or would the enterprise need to rely on larger cities for repairs?
- ✓ Is there access to reliable communication facilities that have fax, phone, and email?
- ✓ What are the transportation options, reliability and costs for moving goods to local and distant markets?

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# Technology Continued

## Production and Marketing Balance

Technology choices must balance the needs of the market on quality and price while producing a profitable product based on

sustainable resource use. To help balance the market, financial, social, and environmental factors, consider the following items.

### Finding Appropriate Technology

- ✓ How difficult is it to maintain an acceptable product quality? What are the quality control procedures in the enterprise? What equipment and procedures will be used to produce the given product and are they acceptable to the buyer?
- ✓ What will be the layout of the production facilities?
- ✓ What is the cost and availability of raw and supporting materials, including packaging? Where are the suppliers of these inputs? How can consistent and regular supplies be ensured?
- ✓ How many days per year will the enterprise operate, given the supply of labor and raw materials, product demand, the availability of water and electricity, and downtime for plant maintenance and repairs?
- ✓ What is the production capacity of the technology choice? What is the cost of the technology? Is it affordable to the entrepreneurs?
- ✓ What is the break-even point? Can the enterprise generate required profits with the fixed investment cost associated with the technology choice?
- ✓ Given the expected production costs, can the products be sold at competitive prices?
- ✓ Is there any room for increasing the production level if demand increases?
- ✓ Are the required skills and capacities available or is training needed to run the enterprise?
- ✓ What is the impact of the technology on the environment? What kinds of mitigation measures are required to counter impacts?
- ✓ How does the technology affect the employment and distribution of benefits in the society?

# Management

A successful enterprise requires good management. This aspect of enterprise development is often overlooked or not addressed systematically. Too often, enterprises state that they are too busy to focus on management issues. If management issues are not addressed, other aspects of the enterprise (raw material supply, marketing, financing) can overwhelm operations and keep the enterprise in continual crisis.

Management integrates all the functions of an enterprise. Take time to install a good management team and structure to eliminate future problems. Specific management issues associated with natural product enterprises include:

- Understanding how natural product growth and yield studies impact the enterprise
- Factoring harvesting areas, quantity, seasons, methods and rotations into procurement strategies
- Monitoring species inventories, regeneration and growth to determine future supply levels
- Complying with the operational plan as agreed upon between the FUG and forest department
- Supporting FUGs in adopting sustainable harvesting systems, competency in raw material sourcing, and inventory management

## Enterprise Management Checklist

- ✓ How many and what types (skills, education, experience) of personnel are needed?
- ✓ Is local talent sufficient to run the enterprise or is an outside manager and technical staff required? How will extra staff be selected?
- ✓ Is training (processing, bookkeeping and accounting, marketing, company management) needed? If so, where can staff be trained?
- ✓ What will be the enterprise management structure and who in the group will decide this and oversee management?
- ✓ Who will set-up the financial and administrative systems and maintain the books for the enterprise?
- ✓ Are there labor surpluses or shortages in the area? If there are labor surpluses do these correspond with the enterprise's seasonal labor demands?
- ✓ Are decisions being made on a business basis? For example, a low priced or donated plot of land may not be a good deal if it lacks access to the required infrastructure. Also consider climate; will the area be flooded when rainy? too hot in the summer? too cold in the winter?
- ✓ How many days per year will the enterprise operate? Is this consistent with raw material supplies, market demands, and local work habits?
- ✓ How will the employees be compensated for their work? Monthly salary basis, output basis, bonuses?
- ✓ How will enterprise monitoring and supervision be carried out? How will employees be motivated for best results?

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# Finance

Enterprise finance refers to obtaining financing for the enterprise (capital), spending the money wisely, and keeping track of all the money that comes in and goes out of the enterprise (revenues and expenses).

Financing is the money needed to start or expand the enterprise. Financing is also known as fixed and working capital. Basically fixed capital is used once, usually for pre-operating expenses and larger expenses for fixed assets like equipment, land and buildings. Working capital is used to pay for ongoing expenses of the business, like raw materials, salaries, fuel and other costs. Financing can come from internal resources (savings, labor, materials), loans, equity investments, or donations.

A business plan that presents the expected revenues and expenses of the enterprise with a plan for repaying the money can be used to attract outside financing.

Obtaining financing is hard work in itself, but the real work starts after the money has been obtained.

An enterprise runs smoothly because of proper money management, accurate accounting,

and a healthy supply of working capital. While there are many aspects to good financial management, an understanding of the potential revenues and expenses of the enterprise is essential. For day-to-day accounting, a bookkeeper can be hired, but all managers should understand several key concepts (see box below).

**Break even point** – The amount of product that has to be sold to cover the costs of making and selling the product.

**Pay back period** – The time period in which an enterprise can recover the initial investment.

**Sensitivity analysis** (the “what if” game) – Figuring out what will happen to revenue and expenses when prices or conditions change for the enterprise.

**Working capital management** – Managing cash flow from raw material procurement to sales in order to have enough money to pay bills.

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## Biological and Financial Sustainability

Would a rice milling business start if there were little or no supply of rice to be milled in the area?

Would an oil press or mill facility be built if nobody in the surrounding area grew or sold oil seeds? The answer to each of these questions is most likely no. Why would a processing enterprise be established without a supply of the basic raw material to be processed?

Natural Products processing is no different. Natural product enterprises should not start operations without firm evidence that the resource base will be able to supply the enterprise on an ongoing basis.

Sustainable harvesting and biodiversity conservation are more than environmental goals. They are essential to the long-term commercial viability of a natural product enterprise. Environment as a factor of production is an important financial consideration and essential to the security of an enterprise's raw material supply.

Enterprise designs should incorporate environmental considerations to ensure the ecological and financial sustainability of the enterprise. The next section illustrates the biological and financial requirements for an enterprise.

### Sustainable or Not?

A group of collectors decide they want to process Jatamansi (an aromatic plant) into an essential oil. Local knowledge indicates that 20,000 kg of the plant can be sustainably harvested each year and this will be processed into 200 kg of oil. The group determines that the market for this essential oil is strong and accessible to them. There is a processing technology available that fits the infrastructure of their area. The fixed costs (FC) of the enterprise are \$10,000 annually. Jatamansi oil will sell at \$100 per kg; variable costs (VC) per kg of oil are \$75. This means \$25 per kg is available to cover fixed costs. The \$25 is also known as the contribution margin (CM). With these figures the breakeven level on a volume basis can be computed.

Break-even volume =  $\$10,000 / \$25 = 400$  kg of oil

To breakeven the group needs to process 40,000 kg of the plant per year which would give them 400 kg of oil. But, only 20,000 kg of plants are available, yielding 200 kg of oil. Unfortunately this enterprise is not biologically sustainable. The Jatamansi will be depleted and the enterprise will eventually go out of business. Short-term over-exploitation of the natural resource is not biologically sustainable and it is not financially sustainable for the enterprise in the long-term.



# Can the Enterprise Make Money and be Sustainable?

Determining enterprise sustainability or non-sustainability takes some work in collecting market, technical, financial, and biological data. Determining financial sustainability requires evaluating projected revenues compared to projected expenses, while considering the market dynamics for the specific natural product.

Estimates of expenses and revenues provide the information required for projected financial

statements. These statements will indicate whether the activity is financially sustainable.

Enterprises that do not have experience in making financial statements should seek help from an outside expert. Remember to be careful and realistic in estimating expenses and revenues.

The chart below highlights the information needed for preliminary data collection. The gathered information can be used to produce projected financial statements.

<b>Collect Information for Financial Statements</b>	
<p style="text-align: center;"><b>Estimate expected revenues</b></p> <ul style="list-style-type: none"> <li>• What product(s) will the enterprise sell? How much of the natural product will sell and at what cost?</li> <li>• How much of the natural product can be produced if sustainable harvesting is practiced?</li> </ul>	<p style="text-align: center;"><b>List all expenses</b></p> <ul style="list-style-type: none"> <li>• Land/buildings—for production and storage of products and raw materials</li> <li>• Machinery/equipment— Costs should take into account all transport costs and margins to be paid to suppliers, insurance costs, packing and freight charges</li> <li>• Raw material stocks—natural products and any other raw materials that may be required for the processing activity</li> <li>• Labor—skilled and unskilled production labor, management and services labor</li> <li>• Transport and marketing costs—Cost of transporting products to the buyer and marketing costs (e.g. trade margins or incentives to be paid to sales agents)</li> <li>• Interest payments, taxes</li> </ul>

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## -Chapter Five- Marketing and Sales

### A Story from the Field

One natural product enterprise conducted a marketing study to gather information on several different essential oils. The enterprise staff researched the oil prices over the past few years; the amount being traded; and the primary buyers. They went to trade shows and found out what competitors were doing. The enterprise staff felt it had very good information on the markets for essential oils. They picked a target market and had their oils tested which confirmed that the oils were of very good quality.

Sadly, they sold very little oil. Inventory accumulated and working capital was in short supply. The company officers were discouraged and lamented that it was difficult to sell the oil and perhaps the market was not very good. The enterprise officers sat at the factory each day waiting for buyers to contact them. They went out only occasionally to visit potential customers. Inquiries for products would come in and the enterprise officers would sometimes take more than a week to answer the fax. They continued to lament the poor sales. The market for essential oils was there. What was lacking? A sales strategy and aggressive selling.

### **The Lesson Learned**

A market study and strategy are essential, but even the best strategy will not result in customers buying products if the enterprise does not go out and sell. Selling means actively offering the product to buyers and asking them to buy. If buyers do not seem interested at first, try again. If they say no, do

not forget about them, check again at a later time. Sales can mean being told no more than yes. In many industries sales people figure that 9 out of 10 customers will not buy the product. They focus on finding that tenth customer. Also, learn to be responsive to customers. Be accessible to customers; answer their inquiries quickly; do not wait for them to

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call, contact them; and most importantly deliver the product on time, in the right quantity and in good condition.

### **Strategies for Use**

Use the guide questions in this chapter to learn about product markets and how to determine a marketing strategy.

Set specific sales targets and sales activity targets. For example, one enterprise wants to sell 100 kilograms of oil within the next three months at a minimum price of RS 7500. The enterprise should contact at least 20 potential buyers. If the potential buyer does not respond in 5 days, the enterprise will contact him again. All inquiries from buyers will be answered within 1 business day and all orders will be shipped on time.

Expect to be told no. This is expected when selling a product. If buyers are buying products from other suppliers, continue contacting them. Buyers are always looking for a better deal and may turn into customers later.

Selling involves negotiations. Expect to negotiate with buyers. Determine what the enterprise policies will be for shipping, payment, quantity discounts, etc.

Also, determine which subjects are negotiable and which are not.

### **When to Use**

A marketing strategy should be developed during the business plan stage of the enterprise development. However, the strategy should be reviewed continually to incorporate changing market conditions.

Selling starts as soon as the product is available, but be careful to balance product supply with the potential order size of new customers. One mistake groups make is mismatching buyers and product supply. For example, a buyer will place a large order only to be told it cannot be filled. This is poor for customer relations. Be specific with buyers on when and how much of a product is available.

#### **Chapter Tools**

This chapter breaks marketing into six steps. Tools throughout the steps include a checklist of "Subjects for Market Research", a chart to help "Collect Information from Customers", and checklists to "Understand a Product's Market" and "Keep the Buyer Happy".

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# The Marketing Concept

This section is intended for an individual or group with little or no marketing experience. It is meant as an introduction to provide a basic understanding of primary marketing issues. Other issues may need to be examined for specific situations.

A market exists when consumers have a need for a product and enterprises have the willingness and ability to meet that need. The marketing concept rests on the importance of customers to the enterprise. To use the marketing concept, an enterprise should

1. Determine the needs of its customers (Step 1-3 - Market Research)
2. Analyze its competitive advantages (Step 4 - Market Strategy)
3. Select specific markets to serve (Step 5 – Target Market)
4. Determine how to satisfy those needs (Step 6 – Market Mix and Product Sales)

For any market data collected, ask: Does the data seem reasonable? For natural products there is a lack of published market data and what is published may be inaccurate (especially if it is drawn from customs and forest charges figures, since tax and fee evasion is associated with natural products in many countries).

Smuggling of natural products also distorts supply and demand figures that go into market data. Existing traders make profits because they have access to market information that they are not likely to share with others in the industry. Still, even with the data deficiencies there are ways to collect market information.

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***When should an enterprise do a marketing strategy?***

***Marketing studies and strategies should be done before an enterprise starts AND be incorporated into the day-to-day activities of the enterprise. Market conditions are always changing. Enterprises must keep up with changing competition, demand and prices.***

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## **Marketing Concept For Natural Products**

### *Follow these Six Steps*

1. **Market Research:** Step 1 - Is the Natural Product Established or Non-Established?
2. **Market Research:** Step 2 – Understand the Market
3. **Market Research:** Step 3 - Collect Information from Customers
4. **Market Strategy:** Step 4 – Market Segmentation and Target Marketing
5. **Target Market:** Step 5 – Position the Product
6. **Market Mix:** Step 6 - Market Mix and Product Sales

# STEP 1 – Market Research

## Is the Natural Product Established or Non-Established?

How is a product chosen for an enterprise? Think about the products available in the area. What is selling in local markets? Determine a product by considering the market; personal experience with the product; and the resource base available. An enterprise with too many products has difficulty managing and financing market research. Start with two to three potential products.

After choosing a product, determine if it is established or non-established. An established natural product in one country may non-established in another country. If traders for the natural product

already exist in an area, then the product is established. If no trade exists locally then the product is non-established. The chart below provides actual examples to illustrate the concept.

There are potential pros and cons for each type of product. For established products, the existing participants may be well positioned making it difficult for new enterprises to enter and be competitive. More marketing information exists for established products, less for non-established products. However, non-established products may create a new niche in the market, making them unique.

<b>Examples of Established and Non-Established Products</b>	
<b>Product Description</b>	<b>Is it Established or Non-Established?</b>
Jatamansi roots are harvested from northern Nepal. Indian traders have bought the roots from the communities for two decades.	This is an established product for Nepal because existing traders and communities harvest Jatamansi.
Wild spices from the hills of Sri Lanka are harvested and sold to traders from the capital who process and export them.	There is existing trade and a history of spice exporting, so this is an established product for Sri Lanka.
Wild spices from the forests of the Philippines. Communities have not collected them and no traders in the area buy them yet.	This is the same product as in Sri Lanka, but in the Philippines, wild spices are a non-established product because they are not collected and traded.
Silk cocoons and yarn production in northern India. The communities have never produced silk before, but India is the second largest silk producer in the world.	Even though this is a new product for the community, it is still an established product, because there is an established silk industry with many traders in the country.

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## STEP 2 – Market Research

### Understand the Market

Understanding the market requires gathering information on product quality, quantity, price trends and the existing competition. Use the following question guide to gather this information. The answers to these questions can be obtained by talking to appropriate members of the community, local retailers,

distributors, industry representatives, or exporters for the selected product. Also, market information can be found from facilitating institutions such as the Trade Promotion Center, Chamber of Commerce, Trade Associations, Government Departments and Non-Governmental Organizations.

#### Subjects for Market Research

- **Product Characteristics** – What are the qualities, characteristics, and packaging of the product? What is the range of product types and brands already on the market? What are the problems with current product quality and packaging that this enterprise could potentially remedy? What are the transportation costs associated with delivering the product to the customer?
- **Price Trends** - What are the current wholesale and retail prices for the product? What have the price trends been for the last three to five years? Are prices expected to go up or down in the future?
- **Quantities Produced and Sold** – Over the last three years has there been a shortage or oversupply of the product? Why? Is it due to seasonal supply, bad weather, or a change in end user demand trends? How much was produced and sold over the last three years (an exact number is not needed, only an order of magnitude)?
- **Product Buyers** – Who buys the product and where are they located (individuals, retailers, wholesalers, distributors, industrial users, exporters)? What conditions would cause purchasers to buy from a new supplier (lower price, better quality, more reliable supply, need for more supply, better packaging, etc.)?
- **Competition** – Who currently makes the product? Could large firms flood the market with low-cost products and drive the price down? Who might be threatened by the enterprise and who might be a natural ally?
- **Policies and Regulation** – What and how are trade, industrial and forest policies and regulations affecting the business?
- **Risks** - What are the risks in marketing the products (supply, price, market share, profitability, policy, etc.)?

## STEP 3 – Market Research

### Collect Information from Customers

With a firm understanding of the market, the next step is to access actual customers. The chart below illustrates methods of entering the market (international or domestic) for both established and non-established products.

Do not rely on just one interview with each type of customer. When possible, interview at least 30 – 50

consumers, 5 retailers, 4 distributors, 3 industry representatives, and/or 3 exporters. If possible, take product samples to get specific feedback from customers. Try changing the product price, delivery method and other characteristics to see if these aspects affect the demand for the product.

Type of Product	Type of Buyer or Seller	How to Get Information
Established Product	Households	Survey households to find out how much of a product they use. It is important to speak to the people who do the buying, often women. Local government statistics can then be used to determine the number of households in the area and income levels. Multiplying the average usage per household by the number of households will give an idea of the demand for the product.
	Local Shopkeepers	Survey shops in the target market to find out what products are sold, and current prices. Shopkeepers might be willing to indicate how much they sell every week or month, which will give an idea of the local consumption of the product.
	Manufacturers, Wholesalers, Distributors, Exporters	Survey industry representatives to find out product demand and prices. Ask industry representatives if they would be willing to purchase the product from a new supplier and under what terms.
Non-Established Product	Local Market	Figure out who is most likely to buy the product. Interview them to gauge their potential interest in the new product and their product specification requirements.
	Manufacturers, Wholesalers, Distributors, Exporters	Research the industry dynamics beyond the country in which the product is sold. Figure out who is most likely to buy the product locally and elsewhere in the world. Inquire with the Department or Ministry of Trade for leads on what companies might be interested in the product. Then write the parties and inquire about their potential interest in the new product and their product requirements (e.g. price, demand, quality, packaging, supply seasons and quantity).



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## STEP 4 -Market Strategy

### Market Segmentation and Target Marketing

After understanding the market of a particular product, determine a marketing strategy. A marketing strategy includes identifying customer groups (target market) and a strategy for being competitive. Too many enterprises make a product, *then* look for a place to sell it, only to find that it has the wrong characteristics or

customers will not pay the asking price. The questions below focus on discovering how a product is presented to the target market. It is important to know how competitors package and advertise their product. The costs of advertising, packaging, and distribution must be considered in the enterprise operations.

#### Understanding a Product's Market

- ✓ What is the target market, how large is it, and where is it located?
- ✓ Who are the competitors? What is their current market share and how fast do they plan to expend?
- ✓ Why would consumers buy this product instead of a similar product from a competitor or a different type of product entirely? Do the buyers require a certain type of packaging or other product characteristics?
- ✓ What share of the target market does the enterprise need to capture to be profitable? The market for the proposed product should be large enough that the enterprise is only expected to capture a reasonable percentage of the target market. For example, if the enterprise is planning to process and sell an essential oil, and a total of 1,000 kilograms are currently being bought by the target market, do not expect to capture a high percentage of this market, at least not during start-up operations.
- ✓ How will purchasers learn about the product? What are the costs and expected effectiveness of various promotion methods in reaching the intended market?
- ✓ Will any special labeling (brand name or logo) be used to identify the products?
- ✓ What kind of marketing channels will be used to reach the customers? What is the cost of distribution?
- ✓ How much will the target market pay for the product?

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## STEP 5 - Target Market Position the Product

Owners of small-scale natural product enterprises have limited resources to spend on marketing activities. Concentrating marketing efforts on one or a few key market segments is the basis of target marketing.

The three major ways to segment the market are:

### 1) **Geographical Segmentation:**

Develop a loyal group of buyers in the local market center before expanding to new areas.

For example, an enterprise could concentrate on regional markets before expanding to Europe or the U.S.

### 2) **Product Segmentation:**

Promote existing best selling products and expand profitable product lines before introducing a lot of new products. For example, if dried medicinal herbs are selling well, explore expanding the product line before going into a new product such as incense.

### 3) **Customer Segmentation:**

Identify and promote products to groups of people most appropriate and likely to buy the product. For example, sell bulk essential oils to wholesalers and distributors, not retail shops.

Profile and analyze the segments by considering the following:

- Segment size and growth
- Segment strengths and attractiveness
- Competition of other segments
- Risk of new entrants into a segment
- Threat of product substitution
- Sales goal of the enterprise



## STEP 6 - Market Mix and Product Sales

Selling the product (either at the wholesale or retail level) is the final, critical step. The two main ingredients to achieving product sales are a proper market analysis and an appropriate target market. The product must be defined and

price, distribution and promotion policies set. This is what is referred to as the market mix. Look below at the general items to consider and the market mix for Jatamansi oil.

<b>The Market Mix</b>	
<b>General Items to Consider</b>	<b>Jatamansi Example</b>
<p><b>Product:</b> Effective product strategies for natural product enterprises may include providing independent lab testing to insure quality (there are many adulterated products on the market); positioning the product as environmentally sustainable; and offering bulk packaging for wholesale markets.</p>	<p><b>Product Example:</b> The Jatamansi oil is high quality, independently tested (lab report provided) made from wild Jatamansi harvested in a sustainable manner. The oil is available in bulk form, packaged in aluminum containers of 1 to 20 kg.</p>
<p><b>Price:</b> This includes product pricing and payment policies. For example, price discounts for higher volume orders; enterprise's payment terms (immediate, net 10 or 30 days, etc.); delivery terms and credit terms.</p>	<p><b>Price Example:</b> Jatamansi oil is available at \$125 per kg for orders under 10 kg; \$110 per kg for orders between 10 and 50 kg; and \$100 per kg for orders over 50 kg. Delivery charges are additional. Payment terms are net 10 days of invoice.</p>
<p><b>Distribution:</b> The enterprise must decide how to distribute their products, e.g. through wholesalers, distributors, or retail outlets. It may be more cost effective to sell at a lower price to a wholesaler who will buy large quantities, than manage many small retail level orders even if they pay a higher price.</p>	<p><b>Distribution Example:</b> Jatamansi oil will be sold through perfume manufacturers, wholesalers and distributors who will buy in larger quantities (e.g. more than 10 kg per order). A distributor arrangement for Europe and the U.S will be pursued.</p>
<p><b>Promotion:</b> How can an enterprise advertise and persuade customers to buy? This includes advertising, salesmanship, and other promotional activities such as trade shows and company introduction mailings to industry members. Weigh the costs of promotion versus the benefits it will bring.</p>	<p><b>Promotion Example:</b> The Jatamansi oil will be exhibited at regional trade shows and two sales agents will make monthly sales calls to major essential oil buyers in India. A promotional mailing will be sent to international buyers in Europe and the U.S with fax follow-up.</p>

## STEP 6- Market Mix and Product Sales

Marketing strategy and mix inform where to sell the product and at what price. Good market research informs what does and does not make a product appealing to customers. As sales begin, a pool of customers is established. Establishing sound business practices with initial customers is a good way of generating new business. Current customers are an excellent source of word-of-mouth advertising. It is also important to keep buyers satisfied. Use the checklist on the right to assist business relations.



### Keep the Buyer Happy

- ✓ Respond to a buyer's requests for information promptly. If possible, be easily available by fax, phone or email.
- ✓ Send out samples, price quotes, and purchase terms (e.g. shipping procedures, payment, insurance) in a timely manner.
- ✓ Adhere to product quality, amounts, and delivery dates. If a buyer orders 10 kilos of oil for delivery on the 15<sup>th</sup> of March, make sure to send the full order on the specified delivery date.
- ✓ Keep in contact with the buyer. After delivering an order, follow up to see that the buyer is happy with the product.
- ✓ Offer a consistent, quality product.

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# -Chapter Six-

## Enterprise Development Plan

This manual provides an overview of the major elements of an enterprise. When assembled together these elements become a business plan. The enterprise's business plan is essential for attracting financing, managing operations efficiently, and integrating all enterprise functions

so that profits can be made while conserving the resource base. Below is an outline for a business plan. Use this outline in enterprise development and planning. To review and study a completed business plan, visit ANSAB's Business Service Center in Kathmandu.

### Business Plan

#### **Executive Summary**

- Summarizes all the main elements of the business plan in one to two pages

#### **Background and Overall Goals of the Enterprise**

- Background on rationale for the enterprise, present situation, how the enterprise will change the situation

#### **Product and Production Description (Raw Material Procurement and Processing)**

- Product description (specifications and quality control)
- Raw material collection and supply
- Enterprise site description (access to transportation, communication facilities, raw materials, infrastructure)
- Production process (technology, skills level, equipment, infrastructure, fuel, supplies)
- Production capacity (raw materials needed and capacity of processing equipment)

#### **Sustainable Resource Management**

- Sustainable harvesting guidelines
- Mitigation of pollution from processing (if any)
- Plan for biological monitoring and conservation enforcement
- Compliance with forestry regulations

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## **Business Plan Continued**

### **Marketing and Sales Targets**

- Summary of market research
- Marketing strategy and target market
- Sales targets and sales plan

### **Enterprise Organization and Management**

- Legal status, organizational and ownership structure
- Interface with regulatory bodies
- Management team (board of directors, manager(s), skilled personnel)
- Number of employees and duties, qualification for each position in enterprise, and compensation structure
- Employee training and technical assistance planned
- Relationship with stakeholders (collectors, suppliers, tenure holders, traders, regulatory institutions)
- Interface with community and distribution of enterprise benefits

### **Financial Assumptions, Projections, and Management**

- Investment capital requirements (pre-operating, working, and fixed capital)
- Projected cash flow, income, and balance sheets (for at least five years) with ratio and sensitivity analysis
- Proposed financing plan with loan repayment schedule and payback period, break-even point, and return on investment noted

### **Risk Analysis**

- Mention of major risks to the enterprise that are specific to the industry and geographic location

### **Enterprise Activities and Timeline**

- List of major activities (with timeline) needed to launch enterprise and operate in years one and two

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## -Additional Resources-

In addition to the checklists and charts found in this manual, additional resources can be found at ANSAB's Business Service

Center in Kathmandu. The box below lists the resources related to the manual chapters available at the Business Service Center.

### **Available at the Business Services Center**

#### **Chapter One**

- Using the Subsector to Identify Opportunities for Small-Scale Producers
- How to Assess a Natural Product for an Enterprise
- Question Guide for Example Assessment
- What is a Value Chain and Subsector Analysis?
- The Nine Steps of a Subsector Analysis
- Blank Skill Matrix Worksheet

#### **Chapter Two**

- Natural Products Question Guide for an Individual Entrepreneur
- Natural Products Question Guide for an Organization
- Natural Products Question Guide for Study Mission
- Monitoring Framework
- Tools for Resource Assessment and Monitoring

#### **Chapter Four**

- Business Fundamentals: Technology, Management and Finance
- The Quick and Dirty Financial Test
- Financial Management Seminar/ Training Framework

#### **Chapter Five**

- What's Keeping Us Out of Growing Markets?
- Natural Product Enterprise Market Study Outline
- Market Survey Questionnaire
- Example Market Study Outline

#### **Chapter Six**

- Sample Business Plan