



# **Community-based commercial enterprise development for the conservation of biodiversity in Bwindi World Heritage Site, Uganda**

**October 2005  
FAO**

**Forest Policy and Institutions Service  
(FONP)  
Forestry Department**

# Foreword

The Community-Based Commercial Enterprise Development Project for the Conservation of Biodiversity at the Bwindi Impenetrable Forest World Heritage Site was initiated to address the need of communities to increase their incomes because they can no longer depend on local activities based on resources in the park.

The project was launched in 2001 with the support of the United Nations Foundation (UNF). It continued until 2004 with the financial support of the Food and Agriculture Organization of the United Nations (FAO) and UNF. It was implemented by a national non-governmental organization (NGO), the Mgahinga Bwindi Impenetrable Forest Conservation Trust (MBIFCT).

In spite of the challenges posed by local communities' lack of access to the park's forest resources, the project was able to link the livelihoods needs of the people to the conservation of biodiversity and wildlife through creative and flexible implementation of the market analysis and development (MA&D) approach developed by FAO.

The MA&D process used in the enterprise development project (EDP) provided the local project partner, MBIFCT, with instruments to address the needs of communities at pilot sites around Bwindi National Park, and helped it to identify potential products and to develop community-based commercial enterprises that are now providing these communities with new cash income opportunities and benefits, without degrading the surrounding natural resources.

The main strength of the capacity building process was its high degree of community involvement in the planning and design of enterprises and its systematic inclusion of social and environmental concerns alongside considerations regarding the technological, commercial and financial aspects of a potential product.

The project showed that natural resource-based enterprise development with communities involves an intensive investment in capacity building, and it can take many years before enterprises are sustained and profitable. It also found that enabling conditions – such as a favourable policy and legal set-up, exposure to environmental education schemes, previous experience with participatory processes, and enterprise management capacity – significantly increase the chances of success and speed up the establishment of enterprises. In addition, it showed that a multi-level approach, involving stakeholders and authorities at the local, district and national levels, guarantees the long-term sustainability of results and offers a real possibility of improving rural livelihoods while protecting the environment and conserving rich biodiversity areas.

The EDP provided FAO and MBIFCT with an opportunity to pilot the MA&D methodology in a challenging environment. This setting did not hamper the project from sustainably enhancing the livelihoods of local communities while protecting biodiversity and wildlife resources in a vulnerable context such as a World Heritage Site. MBIFCT adopted the MA&D approach as a strategy to eradicate poverty in communities living adjacent to Bwindi Impenetrable and Mgahinga Gorilla National Parks.

# Contents

<b>FOREWORD</b> .....	<b>II</b>
<b>CONTENTS</b> .....	<b>III</b>
<b>ACRONYMS</b> .....	<b>V</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>VI</b>
<b>INTRODUCTION</b> .....	<b>1</b>
<b>CHAPTER 1. PREPARATORY PHASE: ORGANIZE, AND PHASE 1: ASSESS THE EXISTING SITUATION</b> .....	<b>2</b>
<b>Preparatory phase: organize</b> .....	<b>2</b>
The situation.....	2
Site selection.....	2
Gender aspects.....	3
Capacity building and training in market analysis and development.....	4
Summary.....	7
<b>phase 1: assess the existing situation</b> .....	<b>7</b>
STEP 1: Identify the target group.....	7
STEP 2: Determine the financial objectives of the target group.....	8
STEPS 3 and 4: list potential products and services; and Identify constraints in the existing market system.....	9
STEP 5: Shortlist a range of products.....	11
STEP 6: Raise awareness of the benefits of working together.....	12
Summary.....	13
<b>CHAPTER 2. PHASE 2: IDENTIFY PRODUCTS, MARKETS AND MEANS OF MARKETING</b> .....	<b>14</b>
STEP 1: Analyse the four areas of enterprise development.....	14
STEP 2: Select the most promising products.....	15
STEP 3: Create interest groups for the selected products.....	16
<b>CHAPTER 3.</b> .....	<b>18</b>
<b>PHASE 3: PLAN ENTERPRISES FOR SUSTAINABLE DEVELOPMENT</b> .....	<b>18</b>
STEP 1: Examine the business environment for the selected products/enterprises.....	18
STEP 2: Define the enterprise mission, goals and objectives.....	18
STEP 3: Develop strategies for each of the four areas of enterprise development.....	20
STEP 4: Formulate action plans for implementing the strategies.....	20
STEP 5: Calculate financial projections for the enterprise.....	21
STEP 5: Calculate financial projections for the enterprise.....	22
STEP 6: Obtain financing.....	27
STEP 7: Initiate the pilot phase and training.....	27
STEP 8: Monitor progress and adapt to change.....	29
<b>CHAPTER 4. LESSONS LEARNED</b> .....	<b>30</b>
<b>Summary of findings and lessons learned during the project</b> .....	<b>30</b>
Enterprise development and the environment.....	30
Project duration.....	30
Increased participation.....	31
MA&D flexibility.....	31
Training of trainers.....	31
Monitoring information.....	32
Markets and business support services.....	32
Community-based ecotourism.....	32
Funding.....	32
Enabling policy and enterprise development in the field.....	32
<b>Lessons shared at the national and international levels</b> .....	<b>33</b>

<b>Conclusions .....</b>	<b>33</b>
<b>ANNEX 1. GENDER DISAGGREGATION OF DECISION-MAKING POSITIONS .....</b>	<b>35</b>
<b>ANNEX 2. GENDER STRATEGIES .....</b>	<b>36</b>
<b>ANNEX 3. SUMMARY OF CONFIRMED ENTREPRENEURS (APRIL 2004).....</b>	<b>37</b>
<b>ANNEX 3. SUMMARY OF CONFIRMED ENTREPRENEURS (APRIL 2004).....</b>	<b>38</b>
<b>ANNEX 4. RESULTS OF THE FIVE PROJECT COMPONENTS.....</b>	<b>39</b>
<b>ANNEX 5. ENTERPRISE PERFORMANCE.....</b>	<b>40</b>
<b>BUHOMA VILLAGE WALK TOURISM ENTERPRISE .....</b>	<b>40</b>
<b>MUSHROOM ENTERPRISES .....</b>	<b>43</b>
<b>BEEKEEPING ENTERPRISES.....</b>	<b>46</b>
<b>HANDICRAFT ENTERPRISES .....</b>	<b>49</b>
<b>IRISH POTATO GROWING ENTERPRISE.....</b>	<b>52</b>

# Acronyms

AAMP	Area-Based Agricultural Modernization Programme
AFRENA	African Resource Network in Agroforestry
AUTO	Association of Uganda Tour Operators
BCN	Biodiversity Conservation Network
BDS	business development services
BINP	Bwindi Impenetrable National Park
BDS	Business Development Services
CARE	Cooperative for Assistance and Relief Everywhere
COMPETE	Competitive Private Enterprise and Trade Expansion
DTC	Development through Conservation
EDP	Enterprise Development Project
FAO	Food and Agriculture Organization of the United Nations
FONP	Forestry Policy and Institutions Service
GEF	Global Environment Facility
IGCP	International Gorilla Conservation Programme
ITFC	Institute of Tropical Forest Conservation
MA&D	market analysis and development
MBIFCT	Mgahinga and Bwindi Impenetrable Forest Conservation Trust
MUZ	multiple use zone
NAADS	National Agricultural Advisory Service
NGO	non-governmental organization
PMA	Programme for the Modernization of Agriculture
PPEC	Parish Production and Environment Committee
TOT	training of trainers
UCOTA	Uganda Community Tourism Association
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNF	United Nations Foundation
USAID	United States Agency for International Development
UTB	Uganda Tourist Board
UWA	Uganda Wildlife Authority
WHS	World Heritage Site

Exchange rate: US\$1 = Ugandan shilling (U Sh) 1 863 (October 2005).

1 acre = approximately 0.26 ha.

# Executive summary

Many World Heritage Sites are at risk from resource overuse and exploitation due to the livelihood needs of communities living in their surrounding areas. This working paper describes the community-based commercial enterprise development project (EDP) that was carried out in Bwindi Impenetrable Forest World Heritage Site in Uganda, and highlights the challenges posed by this particular forest resources context.

The Community-Based Commercial Enterprise Development Project for the Conservation of Biodiversity at Bwindi World Heritage Site was funded by the United Nations Fund (UNF) and the Food and Agriculture Organization of the United Nations (FAO). The project was implemented from 2001 to 2004 by a national non-governmental organization (NGO), the Mgahinga and Bwindi Impenetrable Forest Conservation Trust (MBIFCT), with support from FAO.

The project had the overall goal of demonstrating that community-based tree and forest product enterprises can contribute to both poverty alleviation and the conservation of biodiversity. Its immediate objective was to establish community-based enterprises that provide sustained income to community members living in the areas surrounding the site.

## **THE BWINDI IMPENETRABLE NATIONAL PARK – WORLD HERITAGE SITE**

Bwindi Impenetrable National Park (BINP) covers 32 092 ha in southwest Uganda. Its rare afro-montane vegetation provides one of the richest habitats in East Africa for birds, butterflies, trees and mammals, including chimpanzees and more than half of the world's remaining mountain gorilla population – more than 300 individuals. Sectors of BINP have been protected since 1932, and the national park was established in 1991. Owing to BINP's rare and wide biodiversity, the United Nations Educational, Scientific and Cultural Organization (UNESCO) accorded it the status of World Heritage Site (WHS) in 1994.

The park is a major water catchment area for the large surrounding population of approximately 240 000 people. The three districts that border Bwindi are the most densely populated of Uganda (with 100 to 200 people per km<sup>2</sup>), but 40 percent of these people lack sufficient land to meet basic needs and 16 percent of them are landless. Land productivity is low and there are few sources of non-farm income.

Before BINP was gazetted as a national park, the local communities (of Bakiga, Bafumbira and Batwa peoples) had free access to forest products such as weaving materials, medicinal herbs, wild meat, honey, building poles, minerals and timber. Batwa people (commonly known as Pygmies) are said to have lived in the forests until the early 1960s. When Bwindi was declared a national park, the people were displaced from the forest and barred from removing forest products, some of which played a crucial role in their livelihoods.

The displacement of people, the increased demand for land and a growing human population led to the creation of settlements around the boundaries of BINP. Conflicts between the park and the communities arose. For example, numerous fires (burning up to 5 percent of the park in 1992) were deliberately set and park staff were severely harassed by local community members. These conflicts showed that the park could not be protected in the long term without the consent and support of local people.

MBIFCT was established in 1995 to cater for the conservation and development needs of the communities that live adjacent to BINP. The Uganda Wildlife Authority (UWA) and the Cooperative for Assistance and Relief Everywhere-Development through Conservation

(CARE-DTC) developed the Multiple Use Zone Programme to allow villagers limited access to the park resources.

There are multiple use zones (MUZs) in 13 of the 21 parishes adjoining BINP (approximately 18 percent of the park area), but less than 10 percent of the populations of these parishes hold licenses to harvest honey, weaving materials and medicinal products from the area (Figure 1). Based on the existing harvesting quotas of natural resources, MUZs have limited scope for enterprise development, even for current license holders.

As a result, the project focused not only on households with access to MUZs, but also on all community members who could earn income from tree and agricultural products outside the park, as well as from services such as those within the framework of community-based tourism. A significant proportion of local communities were thereby able to experience the link that exists between their own community-based commercial enterprises and conservation of the park.

## **THE MARKET ANALYSIS AND DEVELOPMENT METHODOLOGY**

The project used FAO's innovative market analysis and development (MA&D) approach. This is a step-by-step process that provides forest community members with the capacity to identify and develop viable and successful tree and forest product enterprises and to manage them independently.

The MA&D approach consists of one preparatory phase and three core phases, which provided the map for project implementation as follows.

*The preparatory phase* aimed at carrying out a general assessment of the project setting, it therefore provided precious information for preparation of MA&D implementation.

*Phase 1* assessed the existing situation and identified potential enterprises; listed existing resources and products; identified products that were already providing income for local people; and eliminated non-viable products. *Its outcomes* were a shortlist of products on which to base the second phase of MA&D; the identification of local people interested in developing enterprises; an appraisal of the social, environmental, technical and institutional contexts of a range of products; and the creation of an interest group to undertake the next phase.

During *phase 2*, promising products were selected, potential markets identified and means of marketing were discussed. *Its outcomes* were a list of possible products based on detailed feasibility studies; data collection to guide the design of business plans; the formation of interest groups around promising products; and the formation of a team to undertake the final phase.

*Phase 3* prepared the enterprise strategy and business plans. Entrepreneurs were guided through a pilot phase and trained; they also learned to monitor progress and to adapt when changes are needed. Most of *the outcomes* of this phase were achieved during the last part of the project, from 2002 to 2004. They were: enterprise strategies for selected products; marketing and management plans; action plans to ensure proper implementation; and small conditional grants as essential enterprise development resources for pilot enterprises.



# Introduction

This working paper presents the Community-Based Commercial Enterprise Development Project (EDP), carried out at the Bwindi Impenetrable National Park (BINP) World Heritage Site (WHS) in Uganda. The paper follows the three phases and multiple steps of the market analysis and development (MA&D) approach, which provided the road map for project implementation.

The paper aims to highlight a series of project characteristics that emerged during implementation: the strong capacity building approach used throughout the project; the participatory process of enterprise development and the encouraging response from local communities in identifying, planning and pilot testing micro- and small-scale enterprises; and the flexibility of the MA&D methodology, which helped to establish a link between people's needs and sustainable natural resource management by creating tree and forest enterprises, thereby providing communities with incentives for conserving the park.

The overall purpose of the paper is to share results, lessons learned and good practices with other forest stakeholders in Uganda and abroad.

The EDP was launched by FAO and the United Nations Foundation (UNF) in 2001 with the purpose of demonstrating that sustainable, viable, community-based enterprises can provide an incentive for the sustainable utilization and conservation of biodiversity and forest resources. It was implemented by a local non-governmental organization (NGO) – the Mgahinga and Bwindi Impenetrable Forest Conservation Trust (MBIFCT). In its first two years, the project was able to identify promising products and services, and their respective constraints and opportunities, for such enterprises as community-based tourism services; support to the existing community-run campground information centre and reception area; handicraft development; beekeeping for the production of honey, wax and other products; and passion fruit, avocado and mushrooms enterprises.

In 2003, project implementation continued through second and third phases aimed at developing viable enterprises and building the capacity of community members to implement and operate these enterprises independently.

The second phase aimed to complete the five project components: 1) improving local capacity to develop and manage natural resource-based enterprises in a sustainable manner; 2) ensuring that promising products and services for potential enterprises were selected in a participatory manner, taking into account environmental, economical, social and technical criteria; 3) developing business plans for selected enterprise options for community members, including finance and business support strategies; 4) establishing viable tree and forest product enterprises that can be operated independently by community members; and 5) documenting lessons learned and best practices for sharing with other WHS and high-value biodiversity areas.

# Chapter 1. Preparatory phase: Organize, and Phase 1: Assess the existing situation

## PREPARATORY PHASE: ORGANIZE

### The situation

Although the MA&D approach focuses on developing enterprises based on tree and forest products, it soon became clear to the FAO planning team that visited Uganda in January 2001 that only a limited number of community members living around BINP had access to forest resources in the park.

In spite of the Multiple Use Zone Programme that the Uganda Wildlife Authority (UWA) and the Cooperative for Assistance and Relief Everywhere-Development through Conservation (CARE-DTC) had developed to allow villagers limited access to park resources, less than 10 percent of the population of the selected parishes held licenses to harvest honey, weaving materials and medicinal products from these areas .

Because of existing harvesting quotas of natural resources, multiple use zones (MUZs) have limited scope for enterprise development, even for current license holders. For this reason, the project not only focused on households with access to MUZs, but also targeted all community members with the potential to earn income from tree and agricultural products outside the park, as well as from services such as those within the framework of community-based tourism. In this way, a significant proportion of local communities was able to perceive that there is a link between the project and conservation of the park.

### Site selection

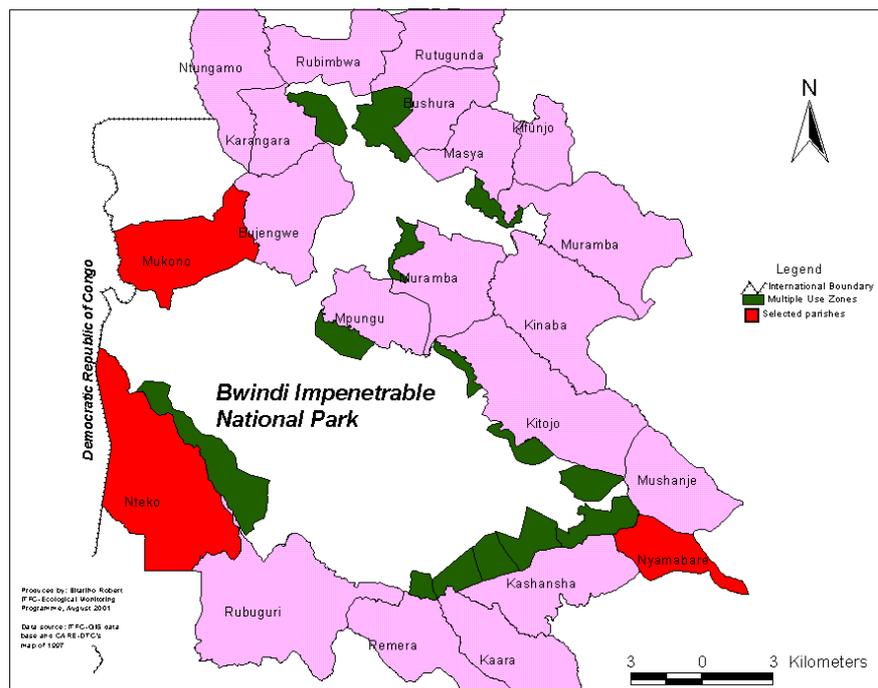
The project target area included the 21 parishes that surround and are immediately adjacent to BINP. For the initial stage of project implementation, staff of MBIFCT selected Nyamabare, Mukono and Nteko parishes – which are located, respectively, in Kabale, Rukungiri and Kisoro districts – as pilot sites for the project .

On the basis of studies conducted by CARE-DTC and MBIFCT, the EDP concluded that all the parishes adjoining the park exert equal pressure on the park's resources and that, within each parish, all the villages and households are influenced equally by the lack of access to park resources. The selection of sites was therefore based on the following criteria:

- The sites had access to forest products/services from the park (Nteko and Nyamabare parishes had access to MUZs, Mukono parish, where the entrance to the park is located, benefits from tourism).
- There was a clear link between enterprise development opportunities at the sites and conservation of resources in the park.
- MBIFCT had already supported or is currently supporting community development projects at the sites. This made it easier for community members to see the EDP as a new component of the trust's conservation programme, with which they were already familiar.
- Each site was situated in one of the three districts surrounding the park, in order to ensure that project benefits were equitably distributed in the area and that district offices would lend their political support to the project.

Within each selected parish, two or three villages were identified to participate in the village workshops carried out in phase 1. The village was selected by the Parish Production and Environment Committee (PPEC) of each parish, based on the following criteria provided by MBIFCT staff:

- Village inhabitants were actively involved in income-generating activities.
- They were involved in activities linked to the use of forest resources (e.g., beekeeping, handicrafts and tourism).
- The village was “receptive” as it had experience of working with development agencies.
- Village inhabitants had shown initiative in joining together to form groups such as handicraft, savings, women’s or youth associations.



**Map 1. Map of Bwindi Impenetrable National Park (Uganda), Multiple Use Zones and Pilot Sites of the Initial Project Phase**

Participatory site selection was a very useful process. It allowed key actors to voice their opinions on the local socio-economic situation and its implications for the protection of natural resources within the WHS. It also generated interesting discussions on strategies for ensuring future replication, without raising expectations at this stage. The process was transparent and provided useful lessons for future MA&D selection.

### Gender aspects

There was common consensus among projects in the area that focusing on women would yield better results. However, excluding men can have negative impacts. The MA&D process therefore opted to be flexible and seek to initiate household-based enterprises that strive for gender balance, rather than focusing exclusively on either men or women. During the course of product selection, certain enterprises and types of value-adding technology emerged that

were of particular interest to women, but even in these cases, the support and involvement of the men in the households were deemed critical (Annex 2).

The design and timing of training workshops also took into account the availability of both women and men. Women's overall attendance and participation in workshops was good, with at least 40 percent of participants being women. Monitoring information was disaggregated by gender at all times, so that the impact of the project for both women and men could be evaluated. (Annex 1).



*Taining workshops took into account both women and men. Women's overall attendance and participation in workshops was good, with at least 40 percent of participants being women*

### **Capacity building and training in market analysis and development**

Because the success of an enterprise has proven to be dependent on the degree to which local communities own and manage that enterprise, this project had a strong focus on capacity building. Therefore, improving local capacity to develop and manage natural resource-based enterprises in a sustainable manner was a basic component of the project. In addition, it implemented capacity building and encouraged local participation throughout the three phases of MA&D implementation.

#### ***Stakeholder workshops***

In order to build capacity, a series of targeted activities were carried out at the village, district and national levels: six stakeholder workshops were held at the district and national levels, and many more at the village level.

The Uganda Forest Coordination Secretariat provided strong support to the project. In January 2001, it organized an initial awareness raising workshop at which to introduce the concept of small-scale enterprise development for tree and forest products to diverse institutions and organizations involved in the forestry sector in Uganda.

Opportunities and constraints for enterprise development in communities around the park were analysed, and discussions were held on the activity supporting role of government and non-governmental agencies – including partners such as the Institute of Tropical Forest Conservation (ITFC), CARE-DTC, the Forest Coordination Secretariat, the International Gorilla Conservation Programme (IGCP), the Uganda Community Tourism Association (UCOTA), UWA and the Uganda Tourist Board (UTB).

The national- and district-level stakeholder workshops had the purpose of raising awareness about the EDP. They brought together representatives from government offices, projects related to private sector development or conservation of resources, and private sector companies that are potential buyers of products from the area. Later on, experiences were shared with other institutions and initiatives, both locally and nationally, in order to support future replication of the MA&D process.

During project implementation, preliminary and successive experiences were shared with other institutions at the national and international levels with the aim of supporting future replication of MA&D. Stakeholder workshops were a regular practice throughout the project. At the international level, the Twelfth World Forestry Congress held between 21 and 28 September 2003 in Quebec City, Canada provided the opportunity to present a paper entitled “Community-based forest enterprises development for improved livelihoods and biodiversity conservation: a case study from Bwindi World Heritage Site, Uganda” during the theme session on Enterprise Partnerships under Area C – Forests and People in Harmony.

### ***Local resource persons and facilitators training***

A national coordinator for the EDP was recruited in March 2001 as a new MBIFCT staff member. During April, the national coordinator, or Enterprise Development Officer, worked closely with the FAO-funded Enterprise Development Consultant to identify a team of facilitators who would assist in running village-level workshops and gathering information on potential products/services identified at those workshops.

Local resource people and a team of facilitators were trained in the MA&D approach and other participatory approaches needed to carry out village-level workshops. Additional skills were provided for information gathering on potential products and services.

Because the overriding aim was to ensure that enterprise development facilitators would continue to deliver services to the community in the long term, most of the facilitators selected were government extensionists. The team of facilitators consisted of:

- district officers, including population, community development, environment and information officers, who had already received training from partner organizations in a number of environmental, social and economic fields (two district officers from each of the three districts);
- sub-county officers with diplomas in agriculture (two from each sub-county in the selected districts);
- one UWA Community Conservation Warden and one ranger.

This team was invited to the MBIFCT Head Office in Kabale for a three-day training workshop in May 2001. The objective of the workshop was to introduce the MA&D methodology and run through the steps that the facilitators were expected to carry out during phase 1 of the project. Emphasis was put on describing the essential ingredients for setting up an enterprise – such as natural resources, skills, capital and markets – and on how to explain these concepts to community members.

### ***Village-level facilitators***

Although the support of district-level facilitators was needed, the aim was to build the capacity of local people. These efforts included a number of workshops in the three selected parishes, at which participatory analysis of products; ranking selection and enterprise planning were carried out.

During three of the village workshops, members of the PPECs of selected villages in the parish were identified as additional facilitators to work with the district, sub-county and UWA officers on the follow-up fieldwork.

This facilitation network contributed to the main participatory achievement of the EDP, which was present throughout the project – development of the MA&D process.

The success of the project's capacity building for local people was clear throughout the project's three phases and during many of the MA&D steps; final proof came at the end of the project when community members demonstrated that they had indeed acquired the capacity to plan, develop and operate their enterprises independently.



***Drama sessions helped to raise awareness and attract the communities' attention to community-based enterprise development.***

### ***Village-level awareness***

Based on its work in and around Bwindi, MBIFCT concluded that *the community's perception of the linkage between its development activities and biodiversity* is a crucial factor in the protection of BINP. MBIFCT introduced drama sessions that were performed by a local theatre group. These sessions communicated educational messages on the links between MBIFCT's development activities and the conservation of park resources.

The drama sessions helped to raise awareness and attract the communities' attention to community-based enterprise development. A considerable number of people came to see the performances thanks to effective advertising through social mobilization and broadcasting on the local radio. During village workshops that took place later on, recalling the content of these drama sessions was very useful in introducing important concepts related to enterprise development.

## **Summary**

In Bwindi, the approach of working with district-level officers was very successful right from the start. The technical expertise of these officers was a major asset, particularly when farmers had identified several cash crops and animal husbandry opportunities. It took the pressure off MBIFCT and FAO to support production, and effectively allowed all of the project's efforts to focus on marketing strategies.

The chief administrative officers in each district showed their commitment to the project by providing the services of their technical extension staff for one week every month. This arrangement worked well; the staff members were available when needed and followed up on their work. This enabled large quantities of good-quality information to be collected and verified in a short time.

At the community level, it was apparent that the strategy of working with both MBIFCT and UWA representatives had paid off. Community members trusted the facilitators and were able to perceive this initiative as one of the components of MBIFCT's activities, which reinforced the idea that the development support provided was a compensation for villagers' limited access to park resources.

## **PHASE 1: ASSESS THE EXISTING SITUATION**

MA&D is a step-by-step process that provides forest community members with the ability to identify and develop viable and successful tree and forest product enterprises and to manage them independently.

Phase 1 identifies potential enterprises, lists existing resources and products, identifies products that already provide income for local people, and eliminates non-viable products. It also builds knowledge about how existing markets operate, and identifies opportunities and constraints. Local people who are interested in developing enterprises determine their own economic objectives and prepare a shortlist of products with which to proceed to the second phase.

Phase 1 includes six steps aimed at assessing the current situation:

- Step 1: Identify the target group.
- Step 2: Determine the financial objectives of the target group.
- Step 3: List existing resources and products.
- Step 4: Identify key constraints in the existing market system.
- Step 5: Shortlist a range of products.
- Step 6: Raise awareness of the benefits of working together.

### **STEP 1: Identify the target group**

When defining the target group, the facilitating team met members of the PPECs and the village council chairpersons of selected villages to obtain the following information:

- How many households are actively involved in income-generating activities?
- What products or services are at the centre of these activities, and how many households are involved in each product/service category?
- Based on feedback from the drama sessions, who has expressed an interest in working with the EDP?
- How many formal or informal groups, such as youth, savings or women's associations, have been formed?

Results of the investigation are shown in Table 1. The target group and community members who were invited to the village workshops were selected from households involved in different income-generating activities, or were representatives of village groups.

**TABLE 1**  
**Identifying target groups**

Village	Total no. of households	No. of households involved in income-generating activities	No. of formal or informal village groups
Nkwenda	105	96	8
Kanyashande	83	73	12
Kamuhoko	89	89	28
Kigarama	129	123	20
Murore	61	52	18
Kikomo	84	76	14
Kahurire	61	55	31

## **STEP 2: Determine the financial objectives of the target group**

Once the target group of potential entrepreneurs was identified, the next step was to determine the income needs that group members expected would be fulfilled by the enterprises. A wealth ranking exercise was carried out to reflect the socio-economic diversity of the target group and to ensure that each subgroup had the opportunity to develop enterprises based on its specific financial needs.

During village workshops, community members came up with criteria to define poor, medium and rich wealth categories. Although the criteria varied slightly from parish to parish, the main characteristics of these categories can be summarized as follows:

- *Rich households* are those that have at least 7 acres of land, own more than ten cows and 15 goats and sheep, do not have any shortages of food during the year, live in painted brick houses with tin roofs, own plenty of smart clothes, can send all their children to school, employ other people to farm their land, and own a bicycle or motorcycle as means of transport.
- *Poor households* are those that have less than 2 acres of land, do not own any cows or goats, but just a few sheep and chickens, obtain sufficient food from their land only between July and September and have to work for food or cash during the rest of the year, live in mud huts with thatched or old tin roofs and no shutters and sometimes no doors, own very few clothes and most of them riddled with holes, cannot afford to send their children to school, and do not own any means of transport.
- *Medium households* are those that fall between these two categories.

Once the criteria were established, participants were asked to place themselves in one of the wealth categories. In order to avoid potential embarrassment, participants wrote their names on a piece of paper and placed it in one of three boxes (labelled "poor", "medium" and "rich") located in an empty room.

Selected informants from each wealth category were interviewed to obtain information about households' current yearly consumption and about what each household ideally expects in order to meet family needs for one year.

Most of the households targeted by the project fall into the two lower wealth categories. These households have annual cash incomes ranging from US\$60 to \$300. Their annual cash deficit ranges from \$30 to \$200.

### **STEPS 3 and 4: list potential products and services; and Identify constraints in the existing market system**

After the target group was identified and its financial objectives determined, the next step aimed to create a list of potential products/services and identify the constraints that each of these faced.

Although there is a local tradition of collecting medicinal plants, weaving materials and honey for local use, access to BINP's resources is allowed only in specified zones (the MUZs) of the park. It was therefore difficult to establish enterprises until useful forest species could be domesticated. As a result, this step of the project emphasized the identification of enterprise opportunities from villagers' private and common land outside the park. This included discussing ecotourism enterprises and services.

#### ***Workshop information gathering***

Village workshops were organized in all three pilot parishes with the objective of brainstorming with community members on possible enterprise opportunities. Participants included people who were already involved in income-generating activities, and representatives of formal and informal community groups.

The workshops briefed participants on MBIFCT goals and activities, including those of the EDP, and introduced the concept of working together to form enterprises aimed at increasing income to satisfy household needs.

The workshops focused on listing existing and potential products/services and discussing their constraints. Participants identified an initial list of products and services in a plenary session. Similar products were grouped together into different categories, and their opportunities and constraints were analysed in more detail by focus groups. Each group had to answer the following questions:

- What are the existing products in this category?
- Where are they sold, who is buying them, and what potential new markets are there?
- What prices do they currently obtain?
- What volume(s) are currently sold per year, season or household?
- What technical support, experience and training already exist?
- What technology is used (if any)?
- Approximately how many households in the village are involved in this activity?
- What raw materials and inputs are needed, and what is their source?
- What potential new products should be considered in this category?



*Village workshops were organized in all three pilot parishes with the objective of brainstorming with community members on possible enterprise opportunities*

In addition, constraints related to the four areas of enterprise development (market/economy, resource management/environment, social/institutional and science/technology) were discussed for each product.

Table 2 provides a brief summary of the most important products and the types of opportunities and constraints that are faced.

**TABLE 2  
Potential products and services for community-based enterprises in BINP**

Product	Constraints	Opportunities	Follow-up support needs and potential partners
Community walk, bird walk	Tourism numbers fluctuate, lack of trained guides	Existing experience, many potential attractions, market demand, potential income for households and the community fund	Community training on management, bookkeeping, preparation of guide materials, guide training. Partnership with private sector tour operators
Campground	Management skills need improvement, lack of capital, tourism numbers fluctuate	Existing campground is operational and in a good location, good market	Business plan development, including the transport component, sourcing of credit/grant capital and necessary assistance and training
Information centre and reception area	Existing structures are not adequate	Existing structures can easily be remodelled and adapted, all villages in the parish are involved and have access to grant fund	Follow-up on kitchen renovation and construction of wooden information board
Handicrafts	Traditional natural resources cannot be obtained (for commercial purposes) from the park, underdeveloped markets, lack of transport	Existing skills in many households, availability of substitute raw materials, existing and potential markets, significant income, especially for women	Production of samples, market survey (based on samples) and assessment of strategies for forward linkages, training in skill improvement, women's handicraft workshop in Buhoma, business plan development, organize collective marketing, provide credit. Partnership with UCOTA
Beekeeping	Proximity of tobacco and	No diseases, rich biodiversity	Production of training materials for

Product	Constraints	Opportunities	Follow-up support needs and potential partners
	eucalyptus flowers, low production, inadequate hives, predators, lack of harvesting and protective equipment, lack of capital	for foraging, potential for organic wild flower honey, existing experience in many households (120 in 3 pilot villages), existing markets, good income, availability of training programmes	community trainers, business planning, training of trainers (TOT) in 3 parishes, marketing management training and follow-up, credit and necessary training and follow-up, organize collective distribution. Partnership with Uganda Honey Beekeepers Association
Passion fruit	Fluctuating price, spoilage, lack of market information, lack of equipment	Local purple variety has a comparative advantage and a niche market	Market surveys and study of processing and packaging options, credit and equipment to be supplied. Partnership with the African Resource Network in Agroforestry (AFRENA)
Avocado	Fluctuating price, spoilage, lack of market information	Local markets and high prices	Market survey (Kabale, Congo, Rwanda) and study of packaging options. Partnership with AFRENA
<b>Other potential enterprises to be explored in the future</b>			
Coffee (ordinary)	Global coffee glut and drop in prices	Existing experience, government commitment and support	Discussions with Competitive Private Enterprise and Trade Expansion (COMPETE) on possible linkages and support, and obtaining market information. Partnership with Conservation International
Coffee (organic)	No local experience	Expertise available in the region, market price is higher than for non-organic coffee Interest from Conservation International	Obtain marketing information (structure of existing market system for coffee around Bwindi, in Kampala and export channels), roles of actors in the market system, pricing structures, existing credit mechanisms, current processing methods and volume of production. Partnership with COMPETE, government (PMA) and Conservation International
Pyrethrum	Lack of knowledge, lack of land, unknown environmental impact	Local buyers and technical expertise available, high price	Assess market trends and environmental impacts. Partnership with agro-enterprise centre
Fruit trees, fodder, timber	Lack of experience, limited land	Potential markets for products appropriated climate, certain species are useful for soil conservation	Initiate demonstration gardens in all 3 districts. Partnership with AFRENA
Animal husbandry	Diseases, low quality breeds, lack of fodder	Existing experience and local markets, high prices	Information collection on production and management and marketing. Partnership with district-level government
Fish farming	Lack of experience	Potential markets, few producers, appropriate sites and water, MBIFCT is already supporting 3 sites, to provide learning experiences	Assess experiences of the MBIFCT sites and develop business plans with interested farmers
Mushrooms	Lack of experience	Potential markets, few producers, appropriate climate	Visit production groups and transfer technology, set-up a demonstration pilot site in project area
Sunflower seed oil	Lack of experience	Potential markets, few producers, appropriate climate	Go to Appropriate Technology (AT) to discuss oil presses, market survey, set up a demonstration site. Partnership with AT

### STEP 5: Shortlist a range of products

In order to ensure sustainability, the MA&D methodology encourages a participatory process in which emerging entrepreneurs in a community identify the enterprise opportunities that interest them and that are the most appropriate for their own economic needs, time availability, capacity and land-use options. Different individuals selected a range of possible viable enterprise options, and a shortlist of these was strategically chosen for more in-depth research and expertise. The criteria for these strategic choices included:

- enterprises that will have a wide economic impact throughout the project area;

- enterprises for which there is significant market opportunity, and therefore significant scope for expansion;
- enterprises that target resource users whose activities might otherwise threaten natural resources in BINP;
- enterprises that are already prioritized by government policy.

The *shortlists of products and services* for viable enterprises were identified during workshops at the village level in the three parishes. The products are listed below. Some of these products were already being used in income-generating activities or enterprises and so needed only short-term business support, such as better marketing information, skill development, capital and value addition:

- community-based tourism services, such as guided village/community walks and bird walks;
- support to management improvement at the existing community-run campground in Buhoma through:
  - an information centre and reception area in Buhoma;
  - handicraft development;
  - beekeeping for honey, wax and other products;
  - passion fruits, avocados.

Other potential enterprises included:

- coffee;
- pyrethrum;
- fruit tree nurseries and fruit marketing;
- fodder tree nurseries;
- livestock (goats/sheep, pigs and chicken products);
- fish farming;
- mushrooms;
- sunflower seed oil.

## **STEP 6: Raise awareness of the benefits of working together**

This step is important as a means of raising awareness among target group members of the benefits of working together. Although target group members will make their own decisions about their future business activities, they will still need outside support during the process of establishing enterprises. However, supporting potential entrepreneurs on an individual basis would have little economic impact, and this would hardly be feasible within a project context. That is why there is a critical need for an organizational structure (informal or formal) to which further assistance can be directed.

This step is, in effect, a prelude to the formation of interest groups around the most viable products, which will occur in Step 3 of Phase 2.

During the workshops held in Step 6, once participants had finalized the shortlist of potential products, they were encouraged to think about the importance of creating interest groups in which they could work together to prepare and develop enterprises.

At the conclusion of the workshop, the participants reviewed the list of potential products, and formed the teams of target group members who would conduct the Phase 2. This team included a large group, including the future entrepreneurs.

## **Summary**

The short listed products and services indicated that the project could provide some relatively simple and straightforward support measures in the short term. These products and services have the potential to improve the marketing of products in Bwindi. Many of the support activities needed are relatively simple because markets for the products already existed. The feasibility studies and business planning process with the farmers took less than six months.

According to the Biodiversity Conservation Network (BCN), communities stated that enterprises based on products from outside the park encourage them to conserve BINP's resources because they are now able to increase their incomes without resorting to illegal harvesting from the park.

## Chapter 2. Phase 2: Identify products, markets and means of marketing

The primary objective of phase 2 is to select the best products and build the capacity of target group members to develop their enterprises. As in phase 1, information is gathered in the four areas of enterprise development – market/economy, resource management/environment, social/institutional, and science and technology – in order to identify opportunities and constraints and select the most promising products.

Phase 2 includes the following steps aimed at identifying products, markets and means of marketing:

- Step 1: Analyse the four areas of enterprise development.
- Step 2: Select the most promising products.
- Step 3: Create interest groups for the selected products.

### **STEP 1: Analyse the four areas of enterprise development**

In step 1, facilitators worked with the information gathering team to analyse the business environment of the short listed products and identify opportunities for their future development.

The following criteria were used to assess the products that had the highest chance of success according to the objectives of the MA&D process. These criteria are grouped according to the four areas of enterprise development.

**Market/economy:** supply of raw material; market potential; competition (for market niches); constraints to business entry (market channels, policies, expertise, financial needs); margins/profitability.

**Resource management/environment:** availability in time (seasonality) and space (location and harvesting); time between planting and harvest (for farm products); regenerative potential and impact of harvesting on survival of the species (for forest products); the impact of production on the environment.

**Social/institutional:** indirect benefits for the community; contribution to incomes; experience with the product; potential for creating employment; gender impact.

**Science and technology:** degree to which the processing location and technology are appropriate for the rural target groups; infrastructure status; human resources/skills and expertise; human resources/numbers.

Several products were assessed during this exercise: beekeeping for honey and beeswax, mushroom enterprises, handicrafts, community-based tourism, passion fruits and Irish potatoes.

The two examples in the following – beekeeping and mushroom production – show how opportunities and constraints were identified through the collection of information in the four areas of enterprise development.

### ***Beekeeping enterprises***

*Social:* Local people have been keeping bees for many generations. Many local communities use honey in medicine.

*Resource management/environment:* Traditionally, beekeepers used log hives, which destroyed the environment, and rudimentary harvesting methods, which destroyed bees. The honey produced was of poor quality.

*Science and technology:* The EDP supported training in apiary management and introduced hygienic harvesting methods and the use of improved traditional hives (made out of creeping materials with a queen excluder), which improved the quantity and quality of the honey.

*Market/economy:* Because of the high demand for honey for local use and refineries, beekeeping has become a viable income-generating activity. Previously, most beekeepers depended on subsistence farming, now honey production is allowing them to earn income to pay school fees and expensive medical bills. However, although all beneficiaries have set up apiaries, the colonization of hives is slow owing to the weather changes experienced in the area.

### ***Mushroom enterprises***

*Resource management/environment:* As Uganda is undergoing rapid increases in population density, land is becoming scarce and mushroom growing in less fertile areas will greatly contribute to improving livelihoods and eradicating poverty in rural areas.

*Market/economy:* Mushroom growing has become a good business as it can be integrated easily into both men's and women's daily activities.

*Social/institutional:* Mushroom growing was a new venture in the area and has enabled women, men and youth to engage in gainful employment by establishing growing rooms. There is vast potential for the cultivation of mushrooms because the raw materials (agricultural waste) and cheap labour are readily available, and it requires minimal space in homesteads.

## **STEP 2: Select the most promising products**

Information was gathered on the economic, ecological, social and technical viability of each of the products selected, at the local, district and national levels.

Workshops were organized in all three parishes in order to carry out the participatory analysis of products, to rank the selection and to plan for phase 3. Because MUZs in Bwindi provided only very limited scope for the development of businesses based on harvesting products that depend on BINP's biodiversity, the project decided to focus on developing enterprises based on alternative resources and/or service provision.

On the basis of six feasibility studies – on beekeeping, handicrafts, bird watching, passion fruits, credit access and community campground improvements – community members made a final selection of the most viable enterprises that they wanted to become involved in. Thirteen enterprises in six product sub sectors were selected (Table 3); 304 community members from three parishes formed 13 enterprise groups (see Annexes 1 and 3 for the composition of these enterprise groups).

**TABLE 3**  
**Selected sub sectors at BINP**

<b>Products</b>	<b>Comparative advantages</b>	<b>Enterprise strategies</b>
Honey and beeswax	Traditional knowledge and technology Availability of organic and forest-based forage for bees Existing local marketing institutions Existing local market demand (local people and tourists)	Introduction of new skills and appropriate improved technologies for production and value addition (improved beehives, wax extraction and processing, collection centre for packaging) Potential new products (sieved honey and wax) Potential new markets (Kampala) Market linkages with suppliers and buyers
Handicrafts	Traditional knowledge among women Unique local raw materials (grasses, grains, dyes, etc.), both wild (outside BINP) and cultivated Unique local designs Local market at BINP entrance	Introduction of new skills and appropriate technologies for production and value addition (improving local designs, natural dyeing techniques and improved packaging) Market linkage with buyer in Kampala for export links
Community-based tourism	Existing market demand Local attractions, both cultural and natural Good capacity building for local guides Potential to develop more products	Addition of new products and attractions (village walk and bird circuit) to existing tourism market Collaboration with UWA to ensure quality satisfies park standards
Cultivated oyster mushrooms (fresh and dried)	New product High value/low volume product Little competition Existing market demand Simple appropriate technology Existing expertise and marketing institutions	Introduction of new high-value/low-volume product for existing local and national markets Introduction of skills and appropriate technologies for production and value addition through processing and packaging Formation of growing groups to share initial high capital investments Market linkages with suppliers and buyers
Passion fruits	Indigenous small purple variety, local expertise and high existing market demand Good market information Extension support for farming available	Improved production and post-harvest management Linkages with transport companies
Irish potatoes	Local market demand Extension support available	Improved production and post-harvest management

### **STEP 3: Create interest groups for the selected products**

In this phase, the future entrepreneurs discussed the possibilities and started to form interest groups. They based their assumptions on the social/institutional analysis and information on the legal possibilities obtained during step 1.

After participatory analysis of the products at workshops, community members from the three parishes expressed an interest in creating 13 enterprise groups in six different product sub sectors (Table 3).

Community members then identified the business support services they needed to develop their enterprises (e.g., skill development, bookkeeping training, forward linkages, promotion, price information, technology development and transfer). The enterprise groups also discussed whether these needs should be addressed by the project itself, by mediation and strategic alliances with other government, non-governmental and private sector partners, or by representatives of the community enterprises themselves.

Once the interest groups had been created, the project focused on identifying capable local entrepreneurs with leadership qualities and on building these entrepreneurs' capacity to facilitate the planning and development processes of enterprises (phase 3 of MA&D).

As a result, 13 model entrepreneurs from three parishes (four women and nine men) – one for each of the 13 enterprise groups – were selected and trained, so that they could become local

trainers and facilitators in the future, while maintaining direct links with trainers and their own markets.

# Chapter 3. Phase 3: Plan enterprises for sustainable development

The third and final project phase had the purpose of formulating the enterprise strategy and business plans of the future enterprises. Future entrepreneurs were guided through a pilot phase and training, and learned to monitor progress and adapt to change when needed.

This phase included the following steps:

- Step 1: Examine the business environment for the selected products/enterprises.
- Step 2: Define the enterprise mission, goals and objectives.
- Step 3: Develop strategies for each of the four areas of enterprise development.
- Step 4: Formulate action plans for implementing the strategies.
- Step 5: Calculate financial projections for the enterprise.
- Step 6: Obtain financing.
- Step 7: Initiate the pilot phase and training.
- Step 8: Monitor progress and adapt to change.

## **STEP 1: Examine the business environment for the selected products/enterprises**

The cultivated mushroom enterprise provides an example of how the project examined the business environment for each product.

According to the information and findings gathered, there are markets for mushrooms at all levels, from the local to the international. The main advantages of this enterprise are that market demand is continuous and not seasonal, and the product requires low investment for start-up and operation. The findings showed that mushrooms can be grown and sold throughout the year. However, one of the constraints is that the best-paying markets are distant, leading to high transportation costs.

Findings at the local level indicated that there was already a market for mushrooms in Buhoma village, so growers do not have to take out loans as long as they can save capital from sales in order to purchase spawns. Among these potential clients were tourist lodges, one of which was willing to pay U Sh 30 000/kg for dried mushrooms. Grower groups agreed that they needed a representative at the collection centre to go round all the lodges in Buhoma and establish a system of ordering through the collection centre at standardized prices. One of the conditions established was that growers agreed not to sell individually to the lodges.

## **STEP 2: Define the enterprise mission, goals and objectives**

This step aims at formulating the enterprise development plan. The goals define a particular course of action directed at reaching the objectives spelled out in the mission statement. Well-defined objectives provide solutions to potential problems and create time limits against which to measure progress. Overall, an enterprise development plan minimizes the possibility of failure and maximizes the likelihood of success.

The example in Table 4 shows how the objectives, outputs and goals were defined in the mushroom enterprise proposal.

TABLE 4  
**Defining the enterprise mission**

Areas of enterprise development	Objectives	Activities	Outputs	Expected impacts
Economic	To generate an additional US\$10 income/month per household (average for three enterprises in Mukono, Nyamabale and Nteko parishes)	Four workshops on business plan development, two workshops on enterprise management, and 4 training sessions on bookkeeping	Average US\$10 additional income/month per household generated by mushroom enterprises	<ul style="list-style-type: none"> <li>- Generate employment for community members</li> <li>- Create additional income for medicines, livestock, clothes and school fees</li> </ul>
Social/institutional	To develop strategic alliances between community enterprises and NGOs, government institutions and private sector companies	Facilitation of links between community mushroom enterprises and Baba Investments (a mushroom training centre and provider of spores in Kabale)	Strategic alliances developed with MBIFCT and Baba Investments	<ul style="list-style-type: none"> <li>- Women empowered: women entrepreneurs expected to have control over income to use for socially useful activities (satisfy household needs)</li> <li>- Increased status of entrepreneurs in their community.</li> </ul>
Environment	To develop a product that does not have a negative impact on the environment	Environmental conservation measures included in production training workshops	Grow rooms made out of local materials and use agricultural residues for the production of mushrooms	<ul style="list-style-type: none"> <li>- Reduced environmental impact compared with other agricultural activities because requires little land</li> <li>- Contribution to conservation of park resources, as people who were harvesting wild mushrooms illegally from the park will now buy them from mushroom producers</li> </ul>

### STEP 3: Develop strategies for each of the four areas of enterprise development

This step aims at devising specific strategies in each of the four areas of enterprise development. The product assessment from phase 2 was taken a step further to allow the target group to take advantage of the opportunities and to overcome the constraints in the business development strategy. The aim was to ensure that the businesses were sustainable and equitable. The example in Table 5 briefly describes the main strategies developed by the future entrepreneurs.

TABLE 5  
**Enterprise development strategies**

Area of enterprise development	Enterprise strategies for cultivated mushrooms (fresh and dried)
Market/economic	<ul style="list-style-type: none"><li>- Introduction of a new high-value/low-volume product into existing local and national markets</li><li>- Value addition through processing and packaging</li><li>- Formation of growing groups to share initial high capital investments</li><li>- Market linkages with suppliers and buyers</li></ul>
Social/institutional	The capital investment needs of mushroom production are such that interested entrepreneurs need to share their capital in order to set up grow rooms. Groups of two or three growers will work together to learn how to manage production
Technology	Mushroom production requires simple but precise technology and skills. Spawns are expensive so training and technical back-up are essential to ensure that investments are not wasted
Environment	Mushrooms are grown in the producers' households. They only require growing substrate such as a supply of sorghum. Growing rooms use local materials such as bamboo poles and papyrus. Environmental conditions are critical for growing mushrooms, and adequate training and good management will be needed

### STEP 4: Formulate action plans for implementing the strategies

Once the enterprise strategies had been developed, action plans for their implementation were formulated on the basis of the product assessment, the enterprise mission statement and the goals and strategies.

The interest groups formulated their enterprise strategies in the four areas of enterprise development, and worked out the sequence of activities needed to bring about the intended results. They discussed who would do what, and what kind of capacity building or assistance was needed to allow individuals to carry out the activities identified in each of the strategies. In the case of Buhoma mushroom producers, interest groups agreed to elaborate an action plan to:

- purchase 100 bottles of spawn with loans from the group's grant money;
- procure packing bags;
- set up collection centres, using the resources allocated to rent and labour;
- harmonize selling prices to tourist lodges – recommended prices were U Sh 3 000/kg for fresh mushrooms, and U Sh 30 000/kg for dried mushrooms.

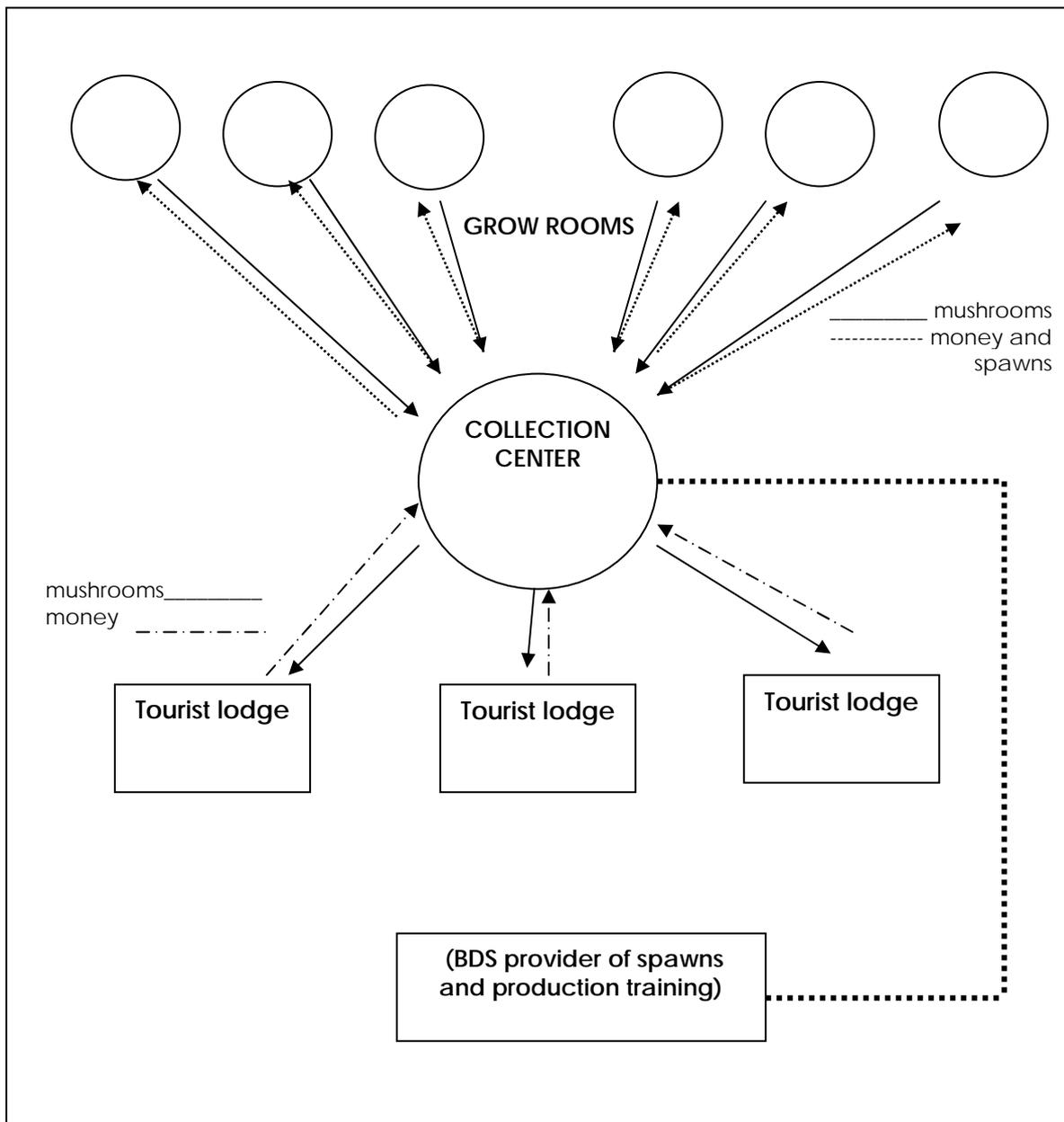
In addition, they agreed the following:

- The spawn supplier would deal with only one representative when supplying spawns.
- The collection centre would buy the spawn, and would also be responsible for financial management and record keeping of the revolving fund.
- Members of each grow would agree among themselves what portion of profits to reinvest in inoculating more bags and how much to distribute as income to growers.

- Approximately 5 percent of sales would go into a savings account to pay for future training.
- The collection centre representative would be selected according to the following criteria: bookkeeping ability; negotiating skills to deal with buyers; reliability and honesty; time availability; and possession of a bicycle for transportation and mobility.

Enterprise group members agreed on the mechanism and market channel for Buhoma village mushroom growers shown in Figure 2.

FIGURE 1  
**Proposed spawn procurement mechanism and market channel for Buhoma mushroom growers**



## STEP 5: Calculate financial projections for the enterprise

This step is aimed at ensuring that the proposed strategies are realistic and cost-effective and that the enterprise will be profitable. Financial planning at this stage should include working out a budget for the activities proposed in step 4, and assessing their cost-effectiveness.

The 13 interest groups developed their business plans on the basis of in-depth feasibility studies. With support from MBIFCT, the international adviser and the FAO project coordinator, the business plans were reviewed with the communities in November 2002. They were finalized and translated into the local language (Rukiga) during the first quarter of 2003.

The business plan outlined by the mushroom grower groups of Mukono provides an example of how the financial calculations were carried out (Table 6).

TABLE 6  
Business plan for the Mukono mushroom growers' group

Facilitators: Moses Ekyagaba, Josia Mugabirwe					Date prepared: 10 April 2003
<b>Enterprise name</b>		Buhoma Mushroom Growers' Association			
<b>Representatives</b>		Moses Ekyagaba and Josia Mugabirwe			
<b>Address</b>		2 villages of Kanyashande and Nkwenda			
<b>1</b>	<b>Description of the enterprise</b>	There will be 30 entrepreneurs or households. Small groups of two to three households will be formed and will share 20 grow rooms (GR) and incubation rooms, depending on the capital they have availability. There will be two collection and storage centres, one for each village. Steaming drums or large cooking pans for sterilizing the substrate will be used. Grow rooms will be 12' x 12' (approximately 3 m x 3 m). Spores will be delivered by Mycolex from Kampala every month. Hot air dryers will be used to dry the mushrooms. Mushrooms will be picked when ready, graded and packaged before being transported to Kabale for sale.			
<b>2</b>	<b>Unique features and competition advantages over similar products</b>	Market surveys have indicated that there is local demand for mushrooms, but no supplier. Oyster mushrooms have an advantage over button mushroom because they are particularly difficult to obtain at present. Target prices in this business plan have been kept conservative in order to ensure penetration into a new market. However, it is expected that prices of up to U Sh 4 000/kg for fresh mushrooms can be obtained in Kabale and of up to U Sh 45 000/kg for dry mushrooms in Kampala.			
<b>3</b>	<b>Location of enterprise and collection or procurement area</b>	This enterprise is located in Kanyashande and Nkwenda villages, in Mukono parish of Kanungu district.			
<b>4</b>	<b>Geographical market coverage or point of sale, targeted markets or customers, and promotion strategies</b>	Markets for fresh mushrooms are at Buhoma, Butogota, Kanungu and Kihhi, each taking 10 kg/month.			
<b>5</b>	<b>Sales targets (kg/month/GR)</b>				
	<b>Product</b>	<b>Rate/unit (U Sh)</b>	<b>Quantity</b>	<b>Total (U Sh)</b>	
	Fresh mushrooms (kg)	3 000	10	30 000	
	Dried mushrooms (kg)	20 000	5	100 000	
	<b>Total</b>			<b>130 000</b>	
<b>6</b>	<b>Production process and permit requirements</b>				

	Following training from Mycolex, six GRs will be established, yielding a total of 50 to 60 kg of fresh mushrooms and 25 kg of dried mushrooms a month. Additional GRs will be established in each village. It is expected that one person representing both groups will go to Kabale twice a week, and a representative for both groups will take 25 kg of dried mushrooms to Kampala once a month. Variable costs are expensive when there are only six GRs, so additional GRs need to be initiated as soon as possible.					
<b>7</b>	<b>Payment system and organization structure</b>					
	Producers will finance part of the production themselves. MBIFCT will finance mainly the purchase of fixed assets such as equipment. Producers will deliver their mushrooms to the collection centre in each village, where the amounts they bring in will be recorded. Until the enterprise has built up capital, growers agree to be paid after the mushrooms have been sold. Once profits have been generated, each group agrees to deposit a portion of the profits (10 to 15 percent) in a joint savings fund for the village mushroom growers. This will be used as a revolving fund to provide short-term loans to help other GRs get started.					
<b>8</b>	<b>Risks assessment and strategies to minimize risks</b>					
	<p>Risks include:</p> <ol style="list-style-type: none"> <li>1. the rainy season causing mushrooms to spoil more quickly, and providing little sunshine for drying;</li> <li>2. thieves;</li> <li>3. unreliable transport;</li> <li>4. new market's lack of awareness of mushrooms.</li> </ol> <p>Strategies for dealing with these include:</p> <ol style="list-style-type: none"> <li>1. constructing hot-air drying rooms that use charcoal;</li> <li>2. using strong doors and padlocks on store rooms;</li> <li>3. preparing transport in advance;</li> <li>4. identifying buyers who are committed, making contracts in advance, and ensuring that produce is of high quality.</li> </ol>					
<b>9</b>	<b>Fixed assets (specify time frame)</b>					
	<b>S. N.</b>	<b>Item</b>	<b>Rate (U Sh/unit)</b>	<b>Quantity (units)</b>	<b>Total (U Sh)</b>	<b>Code</b>
	1	Steaming drum (revolving fund)	35 000	1	35 000	2
	2	Knives	200	1	200	2
	3	Baskets	1 500	1	1 500	2
	4	Sprayer	5 000	1	5 000	2
	5	Inoculator	1 000	1	1 000	2
	6	String (100 m)	10 000	1	10 000	2
	7	Polyethylene for hot air dryer	10 000	1	10 000	2
	8	Grow room materials	50 000	1	50 000	2
	9	Weighing scales	50 000	6	8 333	2
				<b>Total</b>	<b>121 033</b>	
	1 = entrepreneurs' own contribution; 2 = grant or loan.					
		Entrepreneurs' contribution:	0			
		Grant or loan:	121 033			
		Total:	121 033			
<b>10</b>	<b>Depreciation see No. 9</b>					
	<b>S. N.</b>	<b>Item</b>	<b>Total cost (U Sh)</b>	<b>Life span (years)</b>	<b>Depreciation/unit/year</b>	
	1	Steaming drum	35 000	5	7 000	
	2	Knives	200	1	200	
	3	Baskets	1 500	1	1 500	
	4	Sprayer	5 000	1	5 000	
	5	Inoculator	1 000	1	1 000	

	6	String (100 m)	5 000	1		5 000	
	7	Polythene for hot air dryer	10 000	1		10 000	
	8	Weighing scale	50 000	10		5 000	
	9	Grow room materials	50 000	5		10 000	
				<b>Total</b>		<b>44 700</b>	
				<b>Monthly</b>		<b>3 725</b>	
	11	<b>Variable costs (monthly)</b>					
	<b>S. N.</b>	<b>Item</b>	<b>Rate/unit (U Sh)</b>	<b>Quantity</b>	<b>Total (U Sh)</b>		<b>Code</b>
	1	Disinfectant BioSafe (organic) (litres)	3 000	12	250		2
	2	Spores (quarter GR)	25 000	1	25 000		1
	3	Packing polyethylene (packs)	1 800	0.25	450		2
	4	Transport to Kabale (1 person, 8 times/month for all 6 GRs) with fresh mushrooms	7 000	6	1 167		2
	5	Transport to Kampala (1 representative for all 6 GRs)	50 000	6	8 333		2
	6	Transport of 75 kg mushrooms to Kampala	7 500	6	1 250		2
			<b>Total</b>		<b>36 450</b>		
1 = entrepreneurs' own contribution; 2 = grant or loan.							
		Entrepreneurs' contribution:		25 000			
		Grant or loan:		11 450			
		<b>Total:</b>		<b>36 450</b>			
	12	<b>Fixed costs (per month per GR)</b>					
	<b>S. N.</b>	<b>Item</b>	<b>Rate (U Sh)</b>	<b>Quantity</b>	<b>Total (U Sh)</b>		<b>Code</b>
	1	Store and meeting room rent (per month/15)	20 000	6	3 333		2
	3	Labour for store room (divided by 6 GRs)	8 000	6	1 333		2
				<b>Total</b>	<b>4 667</b>		
1 = entrepreneurs' own contribution; 2 = grant or loan.							
		Entrepreneurs' contribution:		0			
		Grant or loan:		4 667			
		<b>Total:</b>		<b>4 667</b>			
	13	<b>Total capital needs</b>					
	<b>a) Fixed assets</b>						
	> Fixed assets:		See No. 9				
				<b>Total 13a</b>	121 033		
	<b>b) Working capital for a specified period</b>						
	Time period:		1 year				

	Variable costs:	See No. 11		36 450		
	Fixed costs:	See No. 12		4 667		
	<b>Total working capital:</b>		<b>Total 13b</b>	41 117		
	<b>c) Total working capital (13a + 13b):</b>			162150		
	<b>(Total of fixed assets (a) and working capital (b) )</b>					
<b>14</b>	<b>Sources of capital</b>					
	> Own investment (own contributions)					
	See No. 9		0			
	See No. 11		25 000			
	See No. 12		0			
	<b>Total</b>		<b>25 000</b>			
	> Own investment (see total above and source below)			25 000		
	> Loan					
	> Other loan					
	Collection from own household					
	Total grant			137 150		
	<b>Total (should match No. 13c):</b>			162 150		
	> Source of own investment					
	<b>Description</b>	<b>Amount (U Sh)</b>	<b>Members</b>	<b>Total</b>		
	Individual investments			0		
			<b>Total</b>	<b>0</b>		
	<b>Distribution of total grant:</b>					
	Grant for revolving fund (see No. 9):			35 000		
	Grant for other expenses:			102 150		
	<b>Total (should match total grant):</b>			137 150		
<b>15</b>	<b>Interest</b>					
	<b>Monthly interest charge (%):</b>		Annual interest _____			
			12 months			
			_____			
			12			
	:		0		%	
	<b>Interest expense:</b>					

	Monthly interest charge (%) / 100 X number of months loan is needed X total loan amount / interest expense				
	0			0	
<b>16</b>	<b>Profit (or loss) (monthly)</b>				
	<b>a) Income:</b>				
	Total income from sales:	See No. 5		130 000	
	<b>b) Annual expenses:</b>				
	Depreciation:	See No. 10		3 725	
	Variable costs:	See No. 11		36 450	
	Fixed costs:	See No. 12		4 667	
	Interest:	See No. 15		0	
		<b>Total expense</b>		44 842	
	<b>c) Profit or loss (a – b):</b>				
		<b>Income (a)</b>	<b>less</b>	<b>Total expenses (b)</b>	
		130 000	less	44 842	
				85 158	
	<b>d) Net profit:</b>				
		<b>Profit (see 16c)</b>	<b>less</b>	<b>Taxes or other fees</b>	
		85 158	Less	0	
			:	85 158	
<b>17</b>	<b>Return on investment (ROI)</b>				
	ROI (%):	Profit (16c)			
		_____		x 100	
		Total investment (No. 13)			
		85 158			
	ROI (%):	_____		x 100	52.5 %
		162 150			
<b>18</b>	<b>Environmental strategy</b>				
	Mushrooms are grown in the households of the producers. They only require growing substrate such as a supply of sorghum. GRs use local materials such as bamboo poles and papyrus. Environmental conditions are critical for growing mushrooms, and adequate training and good management will be needed.				
<b>19</b>	<b>Social strategy</b>				
	The capital investment needs of mushroom production are such that interested entrepreneurs need to share their capital in order to set up GRs. Groups of two or three members will work together to learn how to manage production.				
<b>20</b>	<b>Technology strategy</b>				
	Mushroom production requires simple but precise technology. Spawns are expensive, so training and technical back-up are essential to ensure that investments are not wasted.				
<b>21</b>	<b>Conclusion of the analysis</b>				

	<p>There is a potential high profit margin on mushrooms. Ideally, at least 10 to 15 GRs are needed in order to maximize this profit. The number of GRs should therefore be increased from the six projected in this business plan as soon as mushroom growing has been demonstrated as feasible and the market is viable</p> <p>With dried mushrooms, there is the potential of obtaining prices of up to U Sh 45 000/kg. This will dramatically reduce the proportion of the sale price that goes on operating expenses and transport, and indicates that dried mushrooms are a particularly good investment.</p>
--	--

## **STEP 6: Obtain financing**

The objective of step 6 is to build the target group members' capacity to identify the options for raising capital to finance the enterprise, and to implement the steps that lead to obtaining that capital.

Based on discussions with MBIFCT staff and other stakeholders in the area, it was decided that the start-up grants should have very specific purposes and a short-term character. The enterprises were registered with the District Office, and Memoranda of Understanding were signed between the enterprise groups and MBIFCT in order to monitor the disbursement of start-up grants. All enterprises opened savings accounts with local banks.

Grants were used mainly to obtain value-adding equipment. Part of the grant assigned to each enterprise was put into a revolving fund, from which enterprise members can obtain money at the beginning of the production cycle (e.g. for buying spawn); they pay it back once they have started to sell their product.

The results of step 6 were:

- Memoranda of Understanding between the enterprises and MBIFCT;
- disbursement of start-up grants.

## **STEP 7: Initiate the pilot phase and training**

After the business plans had been formulated, training and pilot testing for the enterprises were initiated. The object of this phase is to test the enterprises and markets before any large-scale projects are initiated.

Service providers with expertise in each product visited the new entrepreneurs frequently in order to monitor production techniques and identify where additional training was required.

During the pilot phase, the enterprise groups identified the business support services that they needed (based on existing market demand) for enterprise development, and planned how to address these needs. The services they identified included training, marketing assistance, information, technology development and transfer, and the promotion of business links. The formation of strategic alliances with local, national, regional and international institutions was a critical component of the project's approach to ensuring that enterprises continue to receive support after the project ends.

For some products, there was high potential for long-term relationships to be established between entrepreneurs and service providers. For instance, initially, it was the project that contacted the company that supplies mushroom enterprises with spores and buys dried mushrooms; however, within a few months, producers were dealing directly with the buyer and no longer needed project intervention.

During this phase, enterprises received product-based and business skill training (bookkeeping and accounting). Table 7 describes the training provided to each type of enterprise.

**TABLE 7**  
**Training activities for enterprise groups**

Type of enterprise	Dates	No. of days	Topics covered
Beekeeping	October/November 2002	5	Hive management, honey harvesting and processing, marketing
	February 2003	2	Refresher course focusing on honey harvesting and processing
Handicraft	October 2002	2	Skill development training
	February 2003	2	TOT in new designs, quality control, group leadership skills
	August 2003	2	Skill development training
Village walk	July 2001	5	Training in bird watching
	March 2002	2	Training in bird watching
	July 2002	4	Training for village walk guides; tourism feedback questionnaire
	June 2003	4	Training for village walk guides
Mushroom	January 2003	5	Production skills
	May 2003	2	Enterprise management
Passion fruit	June 2003	2	Management and integrated pest management (IPM)
Irish potato	May 2003	2	IPM
All enterprises	April 2003	4	Bookkeeping
Mushroom	April 2003	5	Grow room management
Village walk	June 2003	4	Training in guiding and customer handling
Mushroom	July 2003	6	Grow room management
Beekeeping	July 2003	3	Follow-up on harvesting and processing
	November 2003	3	Follow-up on harvesting and processing
Passion fruit	November 2003	2	Disease identification
All enterprises	January 2004	15	Group dynamics, leadership skills, savings and communication skills
Mushroom	January 2004	10	Pest and disease identification and management, post-harvest handling
Passion fruit	February 2004	2	Marketing
Handcrafts	Feb 2004	3	Quality control and marketing
Mushroom	May 2004	4	Quality control
Handcrafts	May 2004	6	Quality control and marketing
Mushroom	June 2004	3	Follow-up on post-harvest handling and marketing
Mushroom	July 2004	6	Follow-up on post-harvest handling and marketing
Handcrafts	July 2004	3	Handcrafts as business
Mushroom	August 2004	5	Follow-up on post-harvest handling and marketing
Mushroom	September 2004	5	Grow room set-up for new parish

Market linkage visits to Kampala were organized in April and September 2003 to expose representatives of the honey, handicrafts, mushrooms and passion fruit groups to markets in Kampala and facilitate direct market linkages with buyers there. A similar market exposure tour to Kisoro was organized for the mushroom growers' representative to introduce him to the local tourist lodges.

## **STEP 8: Monitor progress and adapt to change**

At the beginning of the bridging phase, a simple strategy was designed to monitor the enterprises' progress and evaluate the project's impact on the communities. With input from community enterprise members, project staff developed a framework focusing on four levels: 1) monitoring of individual entrepreneurs' performance; 2) monitoring of individual enterprises' performance; 3) assessment of the impact of each type of enterprise on community welfare; and 4) evaluation of project activities. For each level, the content (what?), the time frame (when?), the people responsible (who?), and the modalities (how?) are analysed.

A baseline survey was carried out and the performance of individual entrepreneurs and enterprises is monitored on a monthly or seasonal basis, depending on the type of product or service. The overall evaluation of project activities and assessment of the impact of each type of enterprise on community welfare are summarized in Annex 5. Only passion fruits are not included in this evaluation, because growers were not able to establish sufficient production during the project to generate any income.

# Chapter 4. Lessons learned

An important component of the EDP in BINP World Heritage Site was to document the lessons learned and best practices that could be shared with other WHS and protected areas throughout the world.

## SUMMARY OF FINDINGS AND LESSONS LEARNED DURING THE PROJECT

### Enterprise development and the environment

- The initial idea of the project was to use the MA&D approach to improve local livelihoods through the development of income-generating tree and forest enterprises, while protecting those resources. This idea proved to have limitations from the outset of the EDP because the communities had only very restricted access to the park. The project therefore had to shift its focus from “giving value to the forest – and thus protecting it – by using its resources” towards finding options for reducing pressure on the park through using products that depend directly or indirectly on its biodiversity, but that do not come from out of the park itself.
- Based on their work in and around Bwindi, MBIFCT concluded that *communities’ perception of the linkages* between their own development activities and biodiversity is a crucial factor in protecting BINP. It used drama sessions performed by a local theatre group to attract communities’ attention and to pass on educational messages about the links between MBIFCT development activities and the conservation of park resources. This use of local theatre groups to sensitize communities about the meaning of enterprise development was a very useful tool in the EDP.

### Project duration

- The project made a large investment in capacity building, but by the end only about 300 farmers were involved in enterprises. In the case of mushrooms and tourism, the project investment was almost matched by the economic returns obtained for each farmer. This was a pilot project, so higher investment costs can be justified because of the need to experiment with different types of products and to build the capacity of a core group of people in the area. However, as a general rule, future projects should strive for broader outreach by ensuring an additional two years of implementation; in the case of the EDP, this would have made it possible to involve three times the number of entrepreneurs in the selected products and to develop model entrepreneurs and local-level business development service (BDS) mechanisms.
- Community-based enterprise development using the participatory capacity building methodology of MA&D should only be used in projects that have at least two years of guaranteed funding, which is available right from the outset of the project.
- Enterprises with products that require improved technology, such as the improved hives for beekeepers, cannot be established in three years, and should only be attempted by projects with a five-year time frame. The EDP’s justification for including honey production was that the market was local, and the main aims were increasing production, responding to environmental concerns and strengthening groups, rather than marketing.
- When there is no enabling environment prior to the project, it can take up to ten years to establish the capacity for successful community-based enterprise development among local community-based organizations (CBOs), NGOs, etc. Although a project might run for only three to five years, the implementing organization needs to have a longer-term vision that encourages local initiatives, supports development proposals for small grants, etc. The EDP selected MBIFCT as the organization that would provide this long-term

support, because it is well placed as a focal institution in the area. However, it lacks mechanisms for obtaining even relatively small grants, and so is unable to deliver some business-related services. Although MBIFCT's core fund can ensure staff members' support to enterprise activities, it cannot finance field visits.

### **Increased participation**

- As a result of using MA&D, all the enterprises developed had guaranteed markets and interested producers. Almost all of the 350 participants in phase 1 workshops became involved in enterprises. This is unheard of in enterprise development, in which uptake levels of 20 to 25 percent are the norm.
- Attracting a community's potential entrepreneurs to workshops is always a challenge. As the project had to reach out to the poor who are most dependent on park resources, it provided participants with lunch at its start-up workshops. This encouraged very large numbers of villagers to attend. Numbers then gradually diminished, and only those who were really interested in enterprise development continued to attend workshops. Once enterprise groups had been formed in phase 3, the lunches were phased out.
- Community members who wanted quick returns rather than viable enterprise development had dropped out before phase 3.

### **MA&D flexibility**

- In order to address the varying capacities and economic levels of a community, projects need to support a basket of products. Enterprises based on existing products and targeting existing markets should be established as quickly as possible, while more challenging enterprises requiring in-depth feasibility studies can be organized in the medium term. Projects should not stick rigidly to the MA&D time frame, in which all enterprises have to be at the same phase at the same time.

### **Training of trainers**

- Leadership training is very important for enterprise groups. Through training, model entrepreneurs in prioritized commodity groups were identified, and their capacity to provide BDS to entrepreneurs in their villages is now being built.
- The strategy of training district extensionists in MA&D did not produce any impact because the proposed collaboration with the National Agricultural Advisory Service (NAADS) did not materialize. By the end of the project there were relatively few district-level people with sufficient experience to organize MA&D training in the future. A better strategy would have been to include some of the district-based NGOs in the capacity building programme, so that by the end of the project they would have been capable of using the MA&D approach to implement other projects for other clients. The goal of providing MBIFCT with expertise in establishing community-based enterprises was too limited, although the trust should manage process development. It would be better for MBIFCT to subcontract to other specialized NGOs rather than carrying out all the implementation itself. This model of facilitation worked much better for MBIFCT in phase 3, when it started to subcontract to private sector specialists for each product.
- The use of trainers who are potential buyers and are willing to invest in training as an essential service was very fruitful and took a lot of weight off the project team.
- The project conducted workshops and training before implementing the enterprise development itself. It was found that for adult learners it is better to carry out training (theory) with back-to-back practical implementation, so that the learners can relate them to each other.

## **Monitoring information**

- In order to prevent exaggerated production estimates, field staff needed to verify the information that farmers gave about existing production levels for passion fruits and beekeeping.

## **Markets and business support services**

- Grassroots BDS are cost-effective in remote areas and can be established by following the same guidelines as for any other BDS mechanism: the service should support a high-value product with a large and growing market; and it should be affordable, be tailored to client needs and produce visible economic benefits. When capital is lacking, services can be embedded. Whenever a service is subsidized, there must be a clear strategy for phasing out the subsidy.
- In embedding, the buyers of commodities also provide services, such as research and development of innovative equipment, and training on production technology and quality control. This occurred in the EDP handicrafts enterprises, whose members in Mukono and Nyambale parishes are receiving training and quality control from a private enterprise.

## **Community-based ecotourism**

- Community-based ecotourism is complementary to primate (gorilla) tourism, which is in the hands of the State. It therefore has good income-generating potential for local people, and provides diversified attractions in an organized fashion.

## **Funding**

- Community-based enterprise development projects in WHS are feasible only when they have established the necessary agreements and funding to cover all the villages adjoining the site. Uncommitted funding for the future cannot be relied on, because most donors assume that WHS already receive a lot of funding because of their status.
- Many small grants are available for NGOs and CBOs, for example the Global Environment Facility (GEF) Small Grants Project. However, these grants are paid directly to the CBO or NGO. During the course of this project, local CBOs and NGOs did not reach a high enough level of organization to enable them to request and handle such grants. Projects should therefore have a parallel strategy from the outset to identify potential local CBOs and NGOs and involve them, so that when a project ends they are able to apply for grants to support the newly developed enterprises. (This is already the case for the Buhoma Community Rest Camp, which receives a GEF Small Grant and can apply for another one to support future enterprises.)
- Once business plans are developed, projects may provide enterprise groups with grants in cash or kind (the latter is preferable) for certain specific items. Working with enterprise group members, the project should explore options for using grants to set up a revolving fund that lends money or provides equipment to members. Borrowers start to repay the equivalent value of the equipment received from the fund as soon as they are selling their products.

## **Enabling policy and enterprise development in the field**

- Policy and field activities need to be balanced and integrated. The policy level needs to take advantage of lessons and recommendations that emerge from pilot field

experiences and should use these in the formulation of effective policies and legislation. Similarly, an enabling policy and legal environment that promotes active community participation and guarantees communities' rights in the management of forest resources, enhances field activities by making them more effective in the short term and less likely to meet with resistance. The EDP put much effort into field implementation; linking these experiences with the policy level (mainly at the district level) was one of the project aims, but was not always easy because the district level was subject to changes and its officers have limited capacity in enterprise development.

## **LESSONS SHARED AT THE NATIONAL AND INTERNATIONAL LEVELS**

In order to share the project's results with a wider audience in Uganda, a one-day workshop was held in Kampala in April 2003. This was part of a series of workshops that were organized and supported by the Uganda Forest Coordination Secretariat and aimed at introducing the concept of small-scale enterprise development for tree and forest products to a diverse representation of institutions and organizations involved in the forestry and rural development sectors in Uganda.

This event contributed greatly to identifying best practices for managing natural resource-based enterprises in a sustainable manner in Uganda. The workshop also helped to strengthen links with the Forestry Secretariat and the NAADS initiative, under the government's Programme for the Modernization of Agriculture (PMA).

At the international level, the Twelfth World Forestry Congress, which took place between 21 and 28 September 2003 in Quebec City, Canada, provided the opportunity to present a paper entitled "Community-based forest enterprises development for improved livelihoods and biodiversity conservation: a case study from Bwindi World Heritage Site, Uganda" under the theme Forests Source of Life, which had three areas: A) Forests for People, B) Forests for the Planet and C) Forests and People in Harmony. The paper was written by C.N. Mujuni, K. Nicholson, P. Van de Kop, A. Baldascini and S. Grouwels, and Geo Z. Dutki, the Manager of MBIFCT, presented it under area C) Forests and People in Harmony, in which another four papers were presented. The Bwindi paper tackled issues of poverty and conservation in developing countries, and fitted in well with the cross-cutting poverty issues addressed by the congress. It offered an example of how poverty can be fought while encouraging conservation.

In Kabale in February 2004, a one-day meeting was held with the Kabale, Kisoro and Kanungu NAADS and Area-Based Agricultural Modernization Programme (AAMP) representatives to explore possible linkages with key institutes in the region.

At the district level, a follow-up to the stakeholder workshop held during the project's initial phase was held in June 2004. Representatives of the different enterprise groups were invited and shared their experiences with other participants. The event clearly indicated the increased confidence and skill that these village entrepreneurs have obtained.

An experience sharing workshop for model entrepreneurs and service providers was organized in January 2005.

## **CONCLUSIONS**

Over the last decade, the development agenda for many countries has shifted its focus to reducing poverty and ensuring food security through improved livelihoods. One-quarter of the world's rural population derives its livelihood directly from forests. Forests are the source of

countless products used both for subsistence and commercially and including food, medicines, construction materials and fuelwood.

The FAO-supported MA&D approach has been designed and developed specifically to assist people to establish a sustainable livelihoods system in which household and community economic assets are increased and local forest management is improved.

The MA&D process used in the EDP enabled local people in pilot sites around BINP to identify potential products and develop markets, which are now providing them with new cash income opportunities and benefits without degrading the surrounding natural resources. The main strength of the capacity building process was its high degree of community involvement in the planning and design of enterprises and its systematic inclusion of social and environmental concerns alongside consideration of the technological, commercial and financial aspects of a potential product.

The EDP has provided the local project partner, MBIFCT, with instruments to address communities' need to increase their cash incomes now that they can no longer rely on resources within the park. The project identified options for reducing pressure on the park through promoting micro-enterprises based on products that are directly or indirectly linked with biodiversity in the park.

The EDP provided FAO and MBIFCT with an opportunity to pilot the MA&D methodology, thereby opening up a new approach to rural development. MBIFCT adopted the MA&D approach in selecting community projects to support the eradication of poverty in communities living adjacent to Bwindi Impenetrable and Mgahinga Gorilla National Parks.

The result of the EDP is that more than 300 community members have established 13 enterprise groups. For each of these, a business plan has been developed, technical and entrepreneurial capacities have been improved, and pilot enterprise activities are up and running. MBIFCT is committed to continue giving support to these enterprises – as are several local service providers linked with the specific enterprise groups – so that they can grow into healthy and sustainable businesses.

A broader outreach of this pilot experience to include the remaining parishes around BINP and those around Mgahinga Forest Park is desirable, in order to establish a lasting and overall impact on the biodiversity and ecosystem health of these parks from community projects, which is the ultimate goal of MBIFCT. However, this will need additional project investment and time so that MBIFCT and local NGOs can be supported in their role as local business development services.

Natural resource-based enterprise development with communities involves intensive investment in capacity building, and it can take many years for enterprises to become sustained and profitable. Enabling conditions – such as a favourable policy and legal set-up, exposure to environmental education schemes, previous experience of participatory processes, and enterprise management capacity – increase significantly the chances of success and speed up the establishment of enterprises. A multi-level approach, involving concerned stakeholders and local-, district- and national-level authorities will guarantee long-term sustainability and offer a real possibility of improving rural livelihoods, while simultaneously protecting the environment and conserving high biodiversity areas.

## ANNEX 1. GENDER DISAGGREGATION OF DECISION-MAKING POSITIONS

Enterprise	Chairman	Secretary	Treasurer
<b>Kanungu</b>			
Mushrooms	M	F	M
Beekeeping	M	M	M
Handicrafts	F	F	F
Village walk	M	M	M
<i>Total</i>	<i>3 M, 1 F</i>	<i>2 M, 2 F</i>	<i>3 M, 1 F</i>
<b>Nyamabale</b>			
Mushrooms	M	F	M
Beekeeping	M	M	M
Handicrafts	F	F	F
Passion fruits	M	M	M
Irish potatoes	M	F	F
<i>Total</i>	<i>4 M, 1 F</i>	<i>2 M, 3 F</i>	<i>3 M, 2 F</i>
<b>Nteko</b>			
Mushrooms	M	M	F
Beekeeping	M	M	M
Handicrafts	M	F	F
Passion fruits	M	M	M
<i>Total</i>	<i>4 M, 0 F</i>	<i>4 M, 1 F</i>	<i>3 M, 2 F</i>
<b>Total for three districts</b>	<b>11 M, 2 F</b>	<b>8 M, 6 F</b>	<b>9 M, 5 F</b>
<b>Percentage (total 13 enterprises)</b>	<b>84% M, 16% F</b>	<b>57% M, 43% F</b>	<b>64% M, 36% F</b>

## **ANNEX 2. GENDER STRATEGIES**

The *goal of the gender strategy* is to ensure that benefits are equitably shared and that those people with the least access to education, training and information are provided with opportunities to participate in the project. This annex outlines the gender strategies that EDP applied throughout project design and implementation.

### **i) Framework and criteria for micro-enterprise development to ensure that the priorities of women and other disadvantaged groups are properly taken into account**

Sustainability of the income from enterprises is promoted by building individuals' entrepreneurial capacity through a process approach that involves the local population in action research and participatory data gathering and analysis. Individuals' bargaining power is strengthened by activities related to business literacy and enterprise development. The project strived for gender balance, rather than putting an exclusive focus on either women or men, because results from the initial project phase showed that women entrepreneurs need the support of the whole household if their endeavours are to succeed.

The project ensured that women and disadvantaged groups were not excluded from extension, marketing, credit and other activities. This is especially critical for activities in which women's roles are important (e.g., harvesting and processing of non-timber forest products, and activities that increase incomes from livestock). Women's needs, such as time saving, were considered during the local action research and capacity building activities. The project's approach ensured that women farmers and representatives of vulnerable groups had equal opportunities to participate in exchange visits and to obtain relevant market information. Women were involved in all planning processes, and the project put special emphasis on supporting women's access to financing, because this is often more problematic for women than for men.

Gender analysis is used as a tool during the survey of potential economic opportunities. Criteria are developed by women and men, who then make decisions about which enterprises to adopt. An important tool in the planning of enterprises is determining the financial objectives of household members as part of capacity building before selecting enterprises.

When community members are assessing enterprises, a good gender strategy ensures that the poorest groups and women participate in the final selection. An example of gender-sensitive criteria for enterprise selection is given in the Box below. It is also necessary to involve more educated and experienced community members in order to promote trade linkages and ensure the proper accounting of finances. Internships and study tours can be used to widen the horizons of all community members.

As part of the gender strategy, the EDP put special emphasis on training project staff to recognize the social framework and respond to it. Hiring women as field staff was deemed critical to maintaining balanced gender participation.

The following are some other features of the gender strategies adopted by the EDP:

- gender disaggregation of project background and baseline data;
- special attention in the participatory appraisal to identifying female-headed households and to reviewing educational levels and household livelihood strategies, including sampling of women's and men's daily time profiles;
- focus group discussions examining educational differentials, access to training and employment, access to information and communication, and the structure of women's group management of savings and credit funds;

- recording of numbers of women entrepreneurs, female-headed households, women's savings and credit groups and women's forest user societies, and development of indicators for monitoring and evaluating the participation of women and disadvantaged groups. (At the community level, women's participation, including that of the poorest groups, will be monitored and evaluated.);
- identification and inclusions of women entrepreneurs in project activities (e.g., as mentors to women's enterprises; making presentations to encourage role modelling);
- in the second year, an equal part of start-up funds for enterprises reserved for disadvantaged groups, individual women entrepreneurs and women's groups.

## ii) Examples of gender mainstreaming in the project pilot areas

During the course of product selection, certain of the enterprises and types of value-adding technology that emerged were of particular interest to women, but the support and involvement of the men in their households was still deemed critical. The design and timing of training workshops took into account the availability of both women and men. During full project implementation, a gender balance in participation in market study tours and other enterprise-related activities outside the districts was striven for, wherever appropriate. All monitoring information is disaggregated by gender so the impacts of the project both for women and for men can be evaluated. The project gave clear indications of the types of strategy that are necessary to ensure the full participation of women and men.

There was common consensus among the stakeholders in the project area that focusing on women yielded better results. The overall attendance and participation of women in workshops were good, with at least 40 percent of participants being women.

### Example of gender-sensitive criteria for enterprise selection

Gender impact option 1	Men's and women's workloads change equally, and benefits are equal	4
	Women's workload increases, and women get all the benefits	3
	Men's workload increases, and men get all the benefits	2
	Women's workload increases, and men get most of the benefits	1
Gender impact option 2	Women's involvement in enterprise management and decision-making	4
	Women's involvement in marketing only	3
	Women's involvement in selling only	2
	Women's involvement in collection only	1

*How to use:* To each of the products being considered, assign a high score for a positive feature, and a low one for a major constraint. Use scores 1, 2, 3 and 4 for each topic/issue, depending on the importance of the particular criterion. Use the same scores for criteria across all products. At the end, add up the total for the product in each of the four areas, and compare it with the others. Products with the highest scores have the fewest constraints and are the most economically viable. Products with similar scores can be analysed graphically by using spider diagrams.

### ANNEX 3. SUMMARY OF CONFIRMED ENTREPRENEURS (APRIL 2004)

District	Parish	Enterprise	Males	Females	Total
Kisoro	Nteko	Handicrafts	3	17	20
Kisoro	Nteko	Beekeeping	20	0	21
Kisoro	Nteko	Passion fruits	15	5	20
Kisoro	Nteko	Mushrooms	6	5	11
Kabale	Nyamabale	Beekeeping	14	5	19
Kabale	Nyamabale	Handicrafts	0	27	27
Kabale	Nyamabale	Mushrooms	6	44	50
Kabale	Nyamabale	Passion fruits	15	17	32
Kabale	Nyamabale	Irish potatoes	8	20	28
Kanungu	Mukono	Beekeeping	25	3	25
Kanungu	Mukono	Mushrooms	11	19	30
Kanungu	Mukono	Village walk	9	1	10
Kanungu	Mukono	Handicrafts	0	11	11
		<b>Total</b>	<b>125</b>	<b>179</b>	<b>304</b>
		<b>Percentage</b>	<b>41%</b>	<b>59%</b>	

## ANNEX 4. RESULTS OF THE FIVE PROJECT COMPONENTS

<p><b>Component 1:</b> Improve local capacity to develop and manage natural resource-based enterprises in a sustainable manner</p>	<ul style="list-style-type: none"> <li>• 304 community members (179 women and 125 men) from three parishes interested in creating enterprise groups</li> <li>• 13 model entrepreneurs (four women and nine men) selected to become local trainers and facilitators</li> <li>• 12 district extensionists and one UWA Community Development Warden trained in MA&amp;D</li> <li>• Three national- and three district-level stakeholder workshops held</li> </ul>
<p><b>Component 2:</b> In a participatory manner, select the most promising products and services for potential enterprises, taking into account environmental, economical, social and technical criteria</p>	<ul style="list-style-type: none"> <li>• Six feasibility studies carried out (beekeeping, handicrafts, bird watching, passion fruits, credit access and community campground improvements)</li> <li>• Workshops in all three parishes for participatory analysis of products, ranking selection and planning for phase 3</li> <li>• 13 enterprise groups in six different product sub sectors selected</li> <li>• 304 community members from three parishes formed 13 enterprise groups (See Annexes 3 and 1 for composition of enterprise groups and analysis of gender in decision-making positions)</li> </ul>
<p><b>Component 3:</b> Community members develop business plans for the selected enterprise options, including finance and business support strategies</p>	<ul style="list-style-type: none"> <li>• 13 enterprises have finalized business plans</li> <li>• Business plans translated into local language</li> <li>• Memoranda of Understanding between enterprises and MBIFCT signed</li> <li>• Start-up grants disbursed</li> </ul>
<p><b>Component 4:</b> Establish viable tree and forest product enterprises that will be operated independently by community members</p>	<ul style="list-style-type: none"> <li>• 13 enterprises established, registered and operated independently by community members, with various linkages with BDS providers</li> </ul>
<p><b>Component 5:</b> Document the lessons learned and best practices from BINP for sharing with other WFS</p>	<ul style="list-style-type: none"> <li>• National stakeholder workshop held in April 2003 to share lessons learned</li> <li>• Paper on project results presented at Twelfth World Forestry Congress, Quebec, Canada, 21 to 28 September 2003, by Mr Dutki, MBIFCT Administrator</li> <li>• Photo mission in July 2003 to collect visual documentation of the enterprises around Bwindi and the approach utilized by the project</li> <li>• NAADS and AAMP experience sharing workshop in Kabale in February 2004</li> <li>• Southwest region stakeholder workshop in Kabale in June 2004</li> <li>• Experience sharing workshop for model entrepreneurs and service providers in January 2005</li> </ul>

## ANNEX 5. ENTERPRISE PERFORMANCE

### BUHOMA VILLAGE WALK TOURISM ENTERPRISE

**Goal:** To develop a high-quality community-based tourism product for tourists visiting Bwindi Impenetrable National Park (BINP), thereby increasing the variety of tourist activities offered in the area, while also providing members of the local community with an alternative source of income directly linked to conservation.

**Description of the walk:** The Buhoma village walk is the first community initiative in Uganda's ecotourism zone. It starts and ends at the Buhoma Community Rest Camp, located at the entrance to BINP. It passes through a typical African village with traditional rural homesteads. The sites on route are: a local women's handicraft centre for a 15-minute craft making demonstration, a water fall, tea plantations, a banana brewing demonstration site, a local traditional medicine healer, a local school, bird watching in a community woodlot, a local gin (waragi) brewing site, and a Batwa (pygmy) music and performance site. Guides brief visitors before the walk, and help them to choose the long or short itinerary. The walk lasts approximately three hours, but visitors can opt to visit only some of the sites in a shorter itinerary.



**Organizational structure:** The enterprise is composed of eight guides from the local community and a representative for each of the ten households that manage sites along the route. (One site dropped out.) The enterprise is registered under the Buhoma Community Rest Camp Association (BCRCA) of Mukono parish, Kanungu district. The Culture and Tourism Development Committee of BCRCA supervises its activities. The income earned will be shared according to a break down that was agreed among all the stakeholders (see Distribution of benefits, below).

***Sales targets, markets and promotion strategies:*** The aim is to attract an average of five tourists a day (half the people who visit the park), who pay US\$7.50 (U Sh15 000) each. The monthly sales target is therefore US\$750. Promotion strategies include developing a brochure on the walk, listing the walk as one of Bwindi's tourist activities in the UWA brochure, and marketing of the walk by guides at local tourist lodges. The enterprise received 2 295 visitors between January 2003 and August 2005. Many of the visitors learned about the village walk from a brochure that was distributed to tour companies/agencies in Buhoma and Kampala.

The annual target is 1 000 visitors a year out of the estimated 2 000 who come to BINP for mountain gorilla tracking. Total income would be US\$7500. In 2004, the village walk generated an extra US\$27 per month for each guide, US\$17 per month for each site owner and US\$74 per month for the 11 Batwa households (45 people) that manage sites. This represents large earnings for those who did not have any, such as the Batwa.

***Remarks:*** The village walk guides attend regular training and briefings with UWA rangers. There is good working relationship among UWA, the community and guides. MBIFCT has produced calendars depicting some of the sites on the walk, and these are distributed to local communities to enhance their awareness of the walk. Each site owner contributes US\$1.7 for trail maintenance every month, which is carried out by the Batwa. All the site owners inspect the trail every fifth day of the month, when there is the general meeting. Site owners have formed a small committee to oversee the maintenance of the walk.

***Distribution of benefits/social strategy:*** The visitors' fees for each walk are distributed to the local community of Mukono parish in the following way: 30 percent to the guide, 10 percent to the Culture and Tourism Development Committee for stationery, brochure printing and the coordination and quality of the walk, and 20 percent to the Buhoma Community Rest Camp Council to support community development projects. The remaining 40 percent is distributed among site owners and managers (70 percent to private landowners and 30 percent to the Batwa households).

***Strategic alliances:*** UWA staff, both local (Bwindi Chief Park Warden, the Tourism Warden and the Community Conservation Warden) and from headquarters (the Tourism Director), were actively involved in the design, development and promotion of Buhoma village walk. As a result, the relationship between UWA staff and the local community has significantly improved.

***Training:*** Enterprise members have attended two four-day training courses on such topics as briefing and site-specific information, improvement of interpretation and tourist handling skills, and one two-day training course on first aid. Community guides have also accompanied UWA guides on gorilla tracking excursions in BINP.

### ***Expected impacts***

***Economic:*** If monthly sales targets are achieved, each community guide will earn a net monthly income of US\$32, each site owner a net income of US\$23 a month, and the group of Batwa households a net total of US\$90 a month.

***Social/institutional:*** Increased interaction between local and foreign cultures. Psychological benefit of no longer feeling excluded from Bwindi tourism. Conservation of cultural heritage (Batwa, traditional healer, etc). Cleaner homesteads along the trail (improved sanitation). Improved communication skills. Improved relationship with UWA staff.

***Environmental:*** This enterprise is expected to improve the conservation of natural resources within the community area (the river, the waterfall, the pocket of natural forest for bird

watching, etc.) and to increase the will of community members to conserve park resources as the generation of income from the enterprise is directly linked to the park's existence.

*Technology:* Improved skills in interpretation of sites and customer care.

## MUSHROOM ENTERPRISES

**Goal:** To produce good-quality fresh and dried oyster mushrooms (cultivated) at competitive prices for local (including tourist lodges), district and national markets. Dried mushrooms will be packaged and labelled by community enterprises, thereby increasing the value of the product at the local level.

**Description of enterprise:** Mushroom growing was a new venture in the area, and it has enabled women, men and youth to engage in gainful employment by establishing individual grow rooms. There is vast potential for the cultivation of mushrooms owing to the availability of raw materials (agro waste) and cheap labour and to the minimal space in homesteads that is required. As Uganda is facing rapidly growing population density, land is becoming scarce, and mushroom growing will contribute greatly to improving livelihoods and eradicating poverty in rural areas. Mushroom growing has become a good business as it can easily be integrated into men's and women's daily activities.



**Organizational structure:** There are three mushroom enterprises, one at each of the project sites (Mukono, Nyamabale and Nteko parishes), comprised of a total of 91 entrepreneurs (68 women and 23 men). Each enterprise has a Chairperson, a Treasurer and a Secretary.

**Sales targets, markets and promotion strategies:** Groups of five people share a grow room, each of which is expected to produce approximately 100 kg of fresh mushrooms and 10 kg of dried per month, once it is running at full capacity. This would yield a monthly gross income of US\$300/grow room. Fresh mushrooms will be sold locally (e.g. to tourist lodges) and dried ones in Kabale and Kampala.

### **Pilot site production**

**Mukono parish:** Five grow rooms were established by a total 30 members. Members valued the income generated from mushroom growing and established individually managed grow

rooms in their own homes. By March 2005, there were nine grow rooms, five of which had 60 or more inoculated bags each. Each of these produces 100 kg every three months, generating a total income of US\$150. Fresh mushrooms are sold for US\$1.5 to \$1.8/kg to tourist lodges in Buhoma. Each member earns US\$50 a month. The income is used for school fees, medical care and clothing.

*Nyamabale parish:* Eleven grow rooms were established by 50 members. Five of these grow rooms produce 60 to 80 kg a month from more than 40 inoculated bags each. Six new groups from other villages in the parish and adjacent parishes were trained. Four of these new groups have more than 60 inoculated bags per month, producing a total of 100 kg in three months. Mushroom growers in Nyamabale sell fresh mushrooms for US\$1.2/kg in local communities. They earn between US\$90 and \$100 every three months. They also sell dried mushrooms for US\$10/kg to Kabale buyers. For many women growers, the money they generate from their new mushroom enterprises represents 100 percent of their incomes. Each member earns an average of US\$35 per month. The income is used for school fees, medical care and paid labour on their farms.

*Nteko parish:* Two grow rooms were established by 11 members. After one round of production, the members decided to establish another seven grow rooms. Five of these have more than 60 inoculated bags and a total production of 100 kg a month. Fresh mushroom are sold for US\$1.2/kg in the local community, earning US\$100 in three months, with an average of US\$33 per month. Farmers selling mushrooms in Kisoro earn between US\$2 and \$2.5/kg, but transport problems make this market difficult to exploit.

***Income projections:*** Expected average income per household was US\$20 to \$40 per month. Each mushroom grower earns between US\$33 and \$50 per month. The extra income has enabled mushroom growers to address most of their basic needs such as school fees, medical care, access to village savings and credit groups and purchases of household items.

***Enterprise projections:*** The enterprise aimed to generate additional income of US\$10 per month per household. This was surpassed, and each household is now earning between US\$20 and \$50 per month. This represented an increase in income of 120 percent, which is a massive boost for women farmers.

***Remarks:*** Some mushrooms are consumed at home, hence some households generate less income. The enterprise fits well with the government's priority of poverty eradication, and is being adopted by many groups in spite of the difficulty of getting spawn. The NAADS and AAMP programmes also support mushroom growing as a way of fighting poverty at the grassroots level.

***Distribution of benefits/social strategy:*** The capital investment needs of mushroom production are such that interested entrepreneurs need to share their labour in order to set up grow rooms. They form groups of about five members each and work together to learn how to manage production. Representatives of the grow rooms harvest mushrooms when they are ready and take them to the enterprise collection centre, where they are weighed and recorded. Grow rooms receive payment for mushrooms after they have been sold, and proceeds are divided equally among grow room members. Each enterprise also sets up a revolving fund to enable entrepreneurs to buy spawns at the beginning of each month.

***Strategic alliances:*** An important link has been created between the community enterprises and Baba Investments Mushroom Training Centre of Kabale, which provides technical training and sells spawn to the entrepreneurs. It is also planning to set up a selling point in Kabale for mushrooms produced by its outgrowers.

**Training:** Entrepreneurs participated in an initial five-day training course (covering such topics as preparation of substrate, inoculation of grow bags, harvesting, solar drying and packaging techniques), followed by a two-day refresher course. It is anticipated that all three enterprises will put money aside into a training fund to guarantee technical assistance from Baba Training Centre when the project ends.

***Expected impacts***

**Economic:** Expected average net income per month per household is US\$50 when grow rooms are running at full capacity.

**Social:** Status of mushroom entrepreneurs in community will be increased, and women entrepreneurs will have control over their income to spend on socially useful things (household needs).

**Environmental:** This activity takes up less space compared with traditional agricultural cash crops (e.g., coffee, tea and bananas); as a consequence, it has a reduced impact on the land. In addition, wild mushrooms illegally harvested from Bwindi forest are increasingly being substituted by cultivated mushrooms, representing a direct contribution to the conservation of park resources.

**Technology:** Improved production, processing and packaging techniques.

## **BEEKEEPING ENTERPRISES**

**Goal:** To improve the quality and increase the volume of raw and sieved honey for sale on the local market (at the parish level). Wax will also be produced for sale to interested buyers in Kabale and Kampala.

**Organizational structure:** Beekeeping enterprises have been set up at all three project sites (Mukono, Nyamabale and Nteko parishes), comprising a total of 68 entrepreneurs (14 women and 54 men). Each enterprise has been registered with the local authorities, has opened a bank account and has elected a Chairperson, a Treasurer and a Secretary who keep records of production and sales.

**Description of the enterprise:** Beekeeping is a traditional activity that local people have been doing for many generations. Traditional beekeepers used log hives, which destroyed the environment, and rudimentary harvesting methods, which destroyed bees. The honey produced was of poor quality. Notwithstanding this, honey is used medicinally in local communities.

There are two harvesting seasons (from July to September and from February to March). The EDP supported training in apiary management and hygienic harvesting methods, and introduced the use of improved traditional hives (made of creeping materials with a queen excluder), which improved the quantity and quality of honey. Because of the high demand for honey for local use and refineries, beekeeping has become a viable income-generating activity.



### ***Pilot site production***

**Mukono parish:** Twenty-five members (22 male and three female) were trained and then set up well-managed apiaries using proper harvesting methods. The best five farmers from the area harvested from 15 to 30 kg over two seasons (July to September 2004 and February to

March 2005). One farmer harvesting from an improved hive got 15 kg. Refined honey is sold at the local market for US\$3.5 a litre.

*Nyamabale parish:* Nineteen members (14 male and five female) were trained. The best five farmers in Nyamabale harvested between 50 and 80 kg over two seasons (July to September 2004 and February to March 2005). Three members harvesting from improved hives are getting between 15 and 18 kg. Honey is sold to the local market and to a refinery that was set up at the sub-county headquarters with support from UWF. Unfiltered honey is sold for US\$1.7/kg.

*Nteko parish:* Twenty members (two Batwa) were trained in beekeeping in Nteko. The best five farmers harvested between 10 and 20 kg over the two seasons. The poor harvest was mostly because of the drought in July to September and the heavy rains in February to March. Farmers also complained about high migrations of bees. They sell unprocessed honey for US\$1.5/kg, mostly on the local market.

***Enterprise projections:*** The enterprise projected additional income of US\$15 per household. This is expected to be surpassed when improved hives reach their yield capacity. One improved hive is expected to produce 20 kg of honey, generating between US\$30 and \$34 per season. Each farmer will have extra income of US\$90 to 120 per season/year from three or four improved hives. This represents an income increase of between 40 and 90 percent, as most beekeepers depended on subsistence farming.

***Remarks:*** Honey is a viable enterprise, and most beneficiaries earn income to pay school fees and medical bills. All beneficiaries have set up apiaries. The colonization of beehives is slow, because of the weather changes experienced in the area.

***Sales targets, markets and promotion strategies:*** It is estimated that one improved traditional hive produces 15 to 20 kg of raw honey per season. As part of the capital start-up, the project provided each entrepreneur with three hives, which should generate about US\$30 of raw or US\$84 of sieved honey (gross income) per entrepreneur per season. Honey will be sold locally as the present supply cannot satisfy demand.

***Distribution of benefits/social strategy:*** Beekeepers deliver their honey to the collection centre, where it is recorded. The proceeds are divided among the entrepreneurs at the end of the month during harvesting seasons.

***Strategic alliances:*** The project facilitated the creation of a market linkage between community enterprises and a training/collection centre in Kabale, which provides technical assistance to beekeepers and buys their honey.

***Training:*** Beekeepers have received two five-day training courses covering such topics as hive construction, apiary management, harvesting, processing and packaging (in sealed buckets). Entrepreneurs are expected to put money into a training fund to ensure technical assistance after the project has ended.

### ***Expected impacts***

***Economic:*** Each hive is expected to generate about US\$30 of raw or US\$84 of sieved honey per season (gross income).

***Social:*** Improved health, as honey and propolis are used as medicines.

*Environmental:* Reduced environmental impact compared with other agricultural activities because little land is required. Contribution to the conservation of park resources, as people who were illegally harvesting wild honey from the park start to produce it themselves.

*Technology:* Improved production and processing techniques.

## HANDICRAFT ENTERPRISES

**Goal:** To build on traditional artisanal skills in order to develop new products (e.g., baskets, place mats, wood carvings and paper products) made from raw materials that are mainly grown in home gardens and that can be sold profitably to local buyers (mainly tourists) or to buyers in Kampala, who will purchase the handicrafts for the national market and for export to Europe and the United States.

**Organizational structure:** Handicraft enterprises have been set up at all project sites (Mukono, Nyamabale and Nteko parishes), comprising a total of 68 entrepreneurs (all women). Each enterprise has been registered with the local authorities, has opened a bank account and has elected a Chairperson, a Treasurer and a Secretary who keep records of production and sales.

**Description of the enterprise:** Traditionally, women made mats and baskets for home use. Women started to sell surplus to urban women. When tourism arrived in Bwindi, women started selling to tourists. However, they still made crafts in their free time, even though it is an activity that could generate a constant income. Before the project, the quality of the women's handicrafts was low. During implementation of the EDP, women were taught to make quality products with specific measurements and designs that satisfy the current markets. The improved quality, new designs and following of patterns have increased the demand for the women's products, hence increasing their incomes.



### *Pilot site production*

**Mukono parish:** Eleven women were trained in quality handicrafts with new designs, and there are now 80 weavers in the parish who make baskets in sets of three. Members are able to weave between three and eight sets of baskets a month, earning between US\$18 and \$47. They sell their baskets to tourists, local communities and Kubira Enterprise Ltd, which exports handicrafts to European and United States markets. Export-led orders range from 300 to 500 pieces a month.

The 11 members have a saving scheme to which each member contributes U Sh 1 000 per month. One widow saved enough income to buy 20 iron sheets to roof her house.

*Nyamabale parish:* Twenty-seven members were trained, but five married and left the parish. There are now 23 members making baskets in sets of three and mats. Members are able to weave three to five sets a month, earning US\$18 to \$29. A member can make two mats a month and earn US\$7. The baskets are sold at local markets, to Kabale handicrafts shops and to Kubira Enterprise Ltd, which orders from 100 to 150 pieces a month.

One member from Nyamabale trained 28 women in the adjacent village, and they too are now producing quality handicrafts.

*Nteko parish:* Twenty members were trained. They make large mats, place mats and baskets. Members make various items every month as follows: two large mats, four place mats or two baskets. Large mats are sold for US\$3.5 each, place mats for US\$7, and baskets for US\$1.7. The terrain is difficult to cross and the villages are far apart, so members meet only occasionally. In order to revitalize their enterprise, they have started a drama group, which performs at Nkuringo gate and functions. The group usually performs twice a month, earning extra income of US\$36.

*Enterprise projections:* The enterprise was projected to generate US\$20 per month. Mukono and Nyamabale earn averages of US\$24 and US\$33, respectively. Members in these parishes have increased their income by 20 to 65 percent more than expected. However, Ntenko has not reached even the minimum projection of US\$17 because members in this parish have to walk through difficult terrain carrying their products on their heads, and this is affecting their marketing efforts.

*Remarks:* All handicraft producers have learned the value of using improved designs and raw materials derived from agricultural waste. Women are able to earn extra income, which is helping them to become economically independent.

The three pilot areas use different materials in craft making. Hence, each has an added advantage in marketing. Products from Mukono and Nyamabale are well received in the United States and Europe. Members are creating links to the Kampala markets

*Strategic alliances:* The project has facilitated the creation of a strategic alliance between community enterprises and Kubira Enterprises Ltd, which – as well as providing training – places orders to fulfil the demand for handicrafts from dealers in Uganda, Europe and the United States.

*Sales targets, markets and promotion strategies:* Based on the comparative advantages of the three sites (geographical location, skills and natural resources), each enterprise is specializing in a core set of products that will be sold to Kubira Enterprises. Entrepreneurs in Nyamabale and Mukono are working on an order placed by a buyer in the United States. This represents an excellent opportunity to discover each group's capacity to produce handicrafts of acceptable quality in a given time frame. By the end of the pilot testing period (October 2003), the enterprises were expected to be able to make clear financial projections based on realistic prices and production volumes.

*Distribution of benefits/social strategy:* Each entrepreneur produces a certain number of crafts based on the time available each month. Crafts are labelled with the name of the producer, and proceeds from bulk orders placed by Kubira Enterprises are divided accordingly. In Mukono and Nteko parishes, surplus products are sold to visiting tourists.

***Training:*** The project carried out three two-day training workshops for all entrepreneurs and one four-day workshop for training of trainers (TOT). Training focused on design, colour mixing (mineral and natural dyes), finishing techniques and storage. It is expected that Kubira Enterprises will continue to train trainers, who will in turn instruct groups on the specifications for fulfilling orders.

***Expected impacts***

***Economic:*** The enterprises are expected to generate employment and increase household income. Projections on profits were made in October 2003.

***Social:*** The enterprises are exclusively made up of female members who will be empowered to manage the income they earn according to their needs.

***Environmental:*** Contribution to the conservation of park resources, as women are encouraged to grow substitute raw materials in home gardens.

***Technology:*** Improved designs, colours and production techniques.

## IRISH POTATO GROWING ENTERPRISE

**Goal:** To bring together individual producers of Irish potatoes in Kamuhoko and Kigarama villages of Nyamabale parish in a collective enterprise that produces sufficient volumes of potatoes to attract local buyers and buyers from Kampala.

**Organizational structure:** The Irish potato enterprise has been set up at one project site (Nyamabale parish) comprising a total of 23 entrepreneurs (22 women and one man). It has been registered with the local authorities, has opened a bank account and has elected a Chairperson, a Treasurer and a Secretary who keep records of production and sales.

**Description of the enterprise:** Irish potato growing was done as subsistence farming. Irish potatoes are harvested twice a year and have become a viable income-generating activity in Kabale and Kisoro districts. Because of high demand from restaurants, hotels and markets in Kampala, traders come to the villages to buy direct from farmers. This has resulted in farmers forming groups to increase production and ensure greater bargaining power while selling.



**Pilot site production:** Irish potato growing was undertaken in Nyamabale parish in Kabale district. 28 members (19 women and eight men) were trained in group dynamics, bookkeeping and increasing production. By March 2005, seven of the men had migrated for paid labour. Irish potato producers in Kamuhoko and Kigarama villages of Nyamabale parish rented land to grow potatoes, and sell locally from two collection centres, one in each village. Female group members are very active, as this enterprise provides a source of income that integrates well into their daily activities.

**Production and sales:** To start with, the farmers planted six bags of seed and harvested 40 bags, realizing a net income of US\$470. They kept seed for the next season. Other seasons were not as good because of heavy rains followed by long drought. Last season, the farmers planted three bags of seed and harvested eight bags. Each bag of 80 kg is sold for US\$12 to \$18, depending on the season. There is a ready market of buyers and traders from Kabale and Kampala.

**Enterprise projections:** An income of US\$15 per season was expected. Farmers plan to plant six bags of seed each season, from which they can harvest between 30 and 40 bags. Each person will earn between US\$18 and \$36, with increments of between 20 and 140 percent per season. The group saves money for seed for the next season and agreed to obtain good-quality seed from the National Agriculture Research Organisation's (NARO) Kabale Centre

**Remarks:** The potato farmers' poor harvests were caused by too much rain followed by a prolonged dry season, over which the farmers had no control. All agricultural production can be affected by weather changes. However, women farmers are pleased to have income to buy household items, which has increased their self-esteem.

**Sales targets, markets and promotion strategies:** The average seasonal sales target is US\$600. There are two harvesting seasons per year: April to May and October to November. Entrepreneurs have made contact with buyers from Kampala who have expressed interest in travelling to Bwindi to pick up bags of potatoes during the harvesting seasons.

**Distribution of benefits/social strategy:** Enterprise members have decided to rent a piece of land and cultivate it together. Proceeds from the sale of potatoes will be divided equally among them.

**Strategic alliances:** The project has facilitated the development of links between community enterprises and the Agriculture Extension Offices of Kabale district, as well as with the National Agriculture Research Office (NARO) in Kisoro. These agencies are expected to provide technical assistance to enterprises after the project has ended. Market linkages have also been created between community enterprises and Irish potato dealers in Kampala.

**Training:** A two-day training course on planting, harvesting and post-harvesting techniques has been carried out. A refresher training workshop was planned for before the harvesting season in February 2004.

### **Expected impacts**

**Economic:** Average annual profits per household are expected to be US\$30.

**Social:** As women are renting their own land, they are expected to have more control over income than when they cultivate potatoes in home gardens, where they have to share the income with their husbands. In addition, by working together as a group, entrepreneurs are expected to have more time for other activities.

**Environmental:** Rented land in better locations and cultivation in ridges are expected to reduce soil erosion. In addition, better use of seasons (planting at the end of the rainy season) reduces the probability of rotting and therefore the need for pesticides.

**Technology:** Improved production techniques.