Empowering communities through forestry: Community-based enterprise development in the Gambia

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Foreword

In the fight against poverty the use of forest products is often quoted as having significant potential to improve the livelihoods of rural people living within or close to forest areas. However the realization of this potential seldom materializes for a number of reasons including non conducive institutional frameworks, lack of capacity and initial investment. As a matter of fact, if these essential preconditions are not met, attempts to use forest products to improve livelihoods through the sustainable use of forest resources have little chance of succeeding. The Gambia has played a pioneering role in establishing community forestry in Africa in early 1990s. The country has developed and implemented one of the most progressive institutional frameworks, including the permanent transfer of ownership of forest resources to communities, thus creating a favorable environment for development and sustainable forest management.

Experience in participatory forest management in the Gambia has shown that once local communities have recognized the value of trees and forests, they will develop a vested interest in their protection as permanent sources of income and/or livelihoods. The Market Analysis and Development (MA&D) methodology developed and promoted by the Food and Agriculture Organization of the United Nations (FAO) provides a framework for planning tree and forest product enterprises. It enables local people to identify potential products and develop markets that will provide income and benefits without degrading their resource base. The main strength of the process is its systematic inclusion of social and environmental concerns alongside consideration of the technological, commercial and financial aspects of a product. MA&D is a deliberate process that involves changing the attitude of communities in order to empower them with the skills necessary to control, protect and manage their natural resources and the environment.

The MA&D process has already made a significant impact in many communities across the Gambia and there are reasons to expect this to continue far into the future. With the adoption of the Forestry Act and the sustained efforts of the Forestry Department to implement strong forest policies, the government has demonstrated its commitment to decentralizing the management of forest resources. With legal frameworks already in place and a policy that is conducive to participatory forest management being promoted at all levels, local forest communities are being empowered and their benefits are being ensured.

Apart from documenting an existing experience it is hoped that this working paper will be an inspiration for other government agencies, organizations and practitioners who are working on the development and implementation of effective ways to strengthen the role of sustainable forest management in meeting the livelihoods needs of rural populations.

We would like to express our sincere gratitude to all the people who contributed to the success of this pilot project, in particular the Forestry Department of The Gambia and the National Consultancy on forestry extension services and training (NACO).

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Acronyms

AC	Administrative Circle
CBED	community-based enterprise development
CF	community forest
CFAO	West African French Company
CFU	Community Forestry and Extension Unit
CRDFP	Central River Division Forestry Project
EDP	Enterprise Development Plan
FAO	Food and Agriculture Organization of the United Nations
FASE	Fight Against Social and Economic Exclusion
FONP	Forest Policy and Institutions Service (FAO)
GGFP	Gambian–German Forestry Project
GoTG	Government of The Gambia
IC	International Consultant
JATIFIF	Jamorai Timber and Firewood Federation
JFPM	Joint Forest Park Management
KfW	German Bank for Reconstruction
KTB	Kenyan top-bar (beehive)
MA&D	Marketing Analysis and Development
NACO	National Consultancy on Forestry Extension Services and Training
NBAG	National Beekeepers' Association of the Gambia
NFF	National Forest Fund
TCP	Technical Cooperation Project
UNDP	United Nations Development Programme
VDC	Village Development Committee

Exchange rate

(June 2005) $1 = 29 Dalasis

Chapter 1

Introduction to the MA&D approach

Empowering local communities with the technical skills and resources necessary to achieve a regular income is vital when addressing many of the problems that afflict developing countries. The market analysis and development (MA&D) approach provides the crucial structures that are necessary to achieve this empowerment through sustainable forest management and utilization of forest resources. Poverty alleviation is addressed by identifying forest products that could be commercialized, and then developing markets for them. This increases individual and community revenue while at the same time encouraging people to protect forest resources through participatory forest management.

Figure 1. Map of West Africa

MA&D is a step-by step participatory methodology for capacity building, arranged in three phases[1] that systematically considers social and environmental concerns alongside the technological, commercial and financial aspects of enterprise development. It uses a series of general tools that need to be adapted to local reality to achieve specific results in the development of business ideas.

The Gambian Forestry Department, supported by the Food and Agriculture Organization of the United Nations (FAO), is currently implementing the MA&D approach in three administrative divisions of the country. Following a successful pilot phase in the Western Division, which was launched in December 2000, 22 Community Forest Committees, spread among 26 villages, are now actively employing the MA&D methodology.

Previous work and experiences in the Gambia have shown that two priorities are emerging in the development and consolidation of the participatory forestry management concept in the country. The first is to build the capacity of Forestry Department staff, Community Forest Committees, co-management partners and related non-governmental organization (NGO) personnel in the use of participatory methods for community-based forest enterprise development. The second is to implement sustainable forest utilization in Gambia's forests. The purpose of this technical cooperation programme is to address these issues, among others that are discussed in this case study.

The National Consultancy on Forestry Extension Services and Training (NACO) worked with the Forestry Department as the primary facilitator during piloting of the MA&D methodology in the Western Division and was responsible for the organization and implementation of the

[1] In Chapter 3 these three phases will be explained and illustrated.

project. FAO, in partnership with the Forestry Department, contracted NACO to continue supporting the project in a number of areas. These areas include the adaptation of training materials, initial MA&D workshops aimed at raising awareness, the training of field facilitators and Community Forest Committees, follow-up training, information/experience sharing workshops and the integration of the MA&D methodology into the Gambia's forest management concept.

The community forestry concept in the Gambia

During the last century, the formerly thick forest of the Gambia has been in a constant state of decline. It is deteriorating at an alarming rate owing to large-scale destruction of forest land through bushfires, the exploitation of forest resources and conversion into farmland. The result is a clear drop in the quality of the national forests. The National Forest Inventory of 1998 shows that although 43 percent of the Gambia's total land area, or 460 000 ha, is classified as forest, 78 percent of this area falls into the degraded tree and shrub savannah category.

Recognizing that this decrease was at least in part the result of the State-controlled top-down forest management approach adopted by the government, which ignored the importance of collaboration with local populations, the Forestry Department changed strategy during the 1990s and started to develop participatory forest management approaches. With assistance from Germany, in 1991, the department developed and implemented the community forestry concept in the Gambia. The goal of this new approach is to promote active participation in forest management and to allocate ownership and/or exclusive user rights to stakeholders in order to gain their interest and give them an investment and stake in protecting the forest.

A community forest (CF) is a forest area that a community has identified within its customary land. Ownership of this forest land is attributed to the community, after a test phase and a gazetting process.

Transfer of ownership to the participating communities proceeds in the following three phases:

- **Start-up phase 1:** A community that declares its interest to the Forestry Department is given additional information on CF procedures; community members identify a suitable forest area; and a Community Forest Committee is formed to represent the community.

- **Preliminary phase 2:** The community demarcates the future CF; working with the Forestry Department and NGO staff, the Community Forest Committee develops a Community Forest Management Agreement; the community must demonstrate its ability to manage the forest and protect it from fire and illegal exploitation during a period of between 18 months and three years; the local Forestry Department and NGO staff provide continued advice and assistance throughout this period.

- **Consolidation phase 3:** The preliminary phase is evaluated; if the results of the evaluation are satisfactory, final ownership is awarded for sustainable and exclusive use according to yearly village plans; the community is now eligible to embark on the MA&D process.

The Forest Department helps the Community Forest Committee to develop a three-year management plan during the preliminary phase, and a five-year management plan after final ownership has been awarded. The primary focuses of these plans are fire protection, enrichment planting and sustainable utilization of forest products.

The three-year management plan drafted by the Community Forest Committee is based on the results of a basic forest assessment. This assessment is realized by:

- undertaking several transect walks through the forest, passing through the major ecological zones;
- physical counting of all the major trees at several points along the transect, so as to calculate the estimated volume of fuelwood, timber and other exploitable forest products;
- observation of canopy structure;
- observation of damaged and diseased trees, including assessment of their potential for economic utilization;
- evaluation of soil conditions;
- recording of the potential regeneration of trees and grass.

During the entire process, the field staffs of both the Community Forest Committee and the Forestry Department collaborate closely with the aim of assuring sustainable forest management while increasing the welfare of the communities. As soon as the Community Forest Management Agreement has been implemented, the community is free to commercialize products from its CF. Forestry Department foresters help the community to improve the processing and marketing of forest products.

To date, in the Gambia, 265 CFs covering a total area of 23 600 ha have been preliminarily demarcated. A portion of these are co-managed by more than one community through the Joint Forest Park Management (JFPM) process. Of these 265 CFs, 86 are still at the initial stage, 89 are at the Community Forest Management Agreement stage, and 90 have already obtained CF status. According to the June 2004 national overview on the status of CF and JFPM implementation, the average size of each CF is 85 ha. The government's overall forest policy aims to manage a total of 200 000 ha of forest land with the participation of local populations.

One of the few remaining gallery forests that is still in pristine condition, in Pirang, Western Division

Chapter 2

MA&D implementation

Adapting MA&D to the situation in the Gambia

MA&D is a general methodology that has to be fine-tuned to specific country conditions. In the Gambia, this meant adapting the valuable manuals, field guidelines and form sheets developed by FAO to the national context, while bearing in mind the importance of the iterative process. Staff of the Forestry Department and NACO played a crucial role in this adaptation process (see Annex 1 for the list of trained MA&D staff).

The adaptation process consisted of the following:

- interpreting and simplifying materials;
- field testing materials to gauge how easy they were for local communities to understand;
- modifying materials after field testing, when necessary;
- translating Enterprise Development Plans (EDPs) into the local vernacular.

Example of MA&D phase 2 training material, adapted and translated into the local language (Mandinka, Fula or Wolof) for village training. Additional efforts were also made to make the materials as visual as possible so that illiterate farmers could participate fully in the training sessions.

Chronology of MA&D development

- ***October 2000:*** The MA&D concept was formally introduced into the Gambia when a senior staff member of the Forestry Department and a junior technical adviser from the Gambian–German Forestry Project (GGFP) attended an international workshop organized by FAO in Rome.

- FAO agreed to the Gambia's request to test the methodology. The Forestry Department, with support from GGFP, was chosen to adapt and implement the MA&D approach.

- ***November 2000:*** The first training course on the MA&D methodology was held for Forestry Department and NACO staff.

- ***December 2000:*** Sensitization meetings promoting the MA&D concept were held in a first pilot of 11 villages with Community Forest Management Agreement status in the Western Division.

- ***January to March 2001:*** The Community Forest Committees, with guidance from field facilitators, collected data on the first phase of MA&D in 11 CFs.

- ***April 2001:*** An Associate Professional Officer from FAO's Forestry Policy and Institutions Service (FONP) visited the Gambia in order to evaluate the results of the first stage of implementation of the MA&D approach and to provide the information necessary for the second stage of implementation.

- ***June 2001:*** An International Consultant (IC), working on behalf of FONP, came to the Gambia to assess the progress made in the pilot area since November 2000. She also assisted the Forestry Department in organizing and facilitating a series of workshops.

- ***November 2001:*** The Gambia hosted the first ever international workshop on MA&D for the African region, which was organized by FONP's Community-Based Enterprise Development (CBED) programme. On conclusion of this workshop, the IC held a second workshop to introduce the facilitators to phase 2 of the MA&D approach for the pilot area. It was also agreed with the Forestry Department to start developing a Technical Cooperation Project (TCP) on capacity building in community-based enterprise development, which would be complementary to the community forestry policy.

- ***April 2002:*** A further mission to review progress and to train key members of village-based interest groups was planned. The IC was contracted by the GGFP-DFS programme to assess the results of the second phase of the MA&D approach at the pilot site. She also evaluated the development of the first part of the third phase, while introducing the last steps of the process.

- ***February 2003:*** The TCP Capacity Building in Community-based Forest Enterprise Development (TCP/GAM/2904[T]) between FAO and the Government of the Gambia was signed. The development objective of the project is to establish viable community-based enterprises that contribute to improving the livelihoods of the rural population and create incentives for the sustainable management of CFs in the Gambia. The main activity directed at achieving this objective is the capacity building of Forestry Department personnel and other stakeholders.

- ***March 2003:*** The inception mission for the TCP took place, led by an officer of FONP's CBED programme, assisted by the IC. The aims of this mission were to facilitate a participatory assessment of the results of the MA&D pilot experience in the Western Division, coordinate an inception workshop for the TCP, and assist the

planning of Forestry Department and NACO workshops for the following 12 months. Additionally, an exchange fair designed to link entrepreneurs with service providers was held to mark the end of the pilot phase in the Western Division.

- ***August 2003:*** A Memorandum of Understanding was signed with the NGOs Fight Against Social and Economic Exclusion (FASE) and the National Beekeepers' Association of the Gambia (NBAG).

- ***December 2003:*** The IC came for FAO to review MA&D phase 2 results and to train the Forestry Department and other involved stakeholders in phase 3.

- ***February 2004:*** The Jamorai Timber and Firewood Federation (JATIFIF) was registered as the first MA&D federated group. Immediately after registration, training commenced on topics including group leadership, administration and record keeping.

- ***March 2004:*** A second backstopping mission was carried out by the Forestry Officer of FONP's CBED programme. The IC came to assist the TCP team in consolidating the federation of log/timber and fuelwood enterprises in the Western Division, as well as to assess the possibility of creating other federated groups among the 11 CFs in the Lower River and Central River Divisions.

- ***October 2004:*** A final backstopping mission was carried out jointly by FONP's Senior Participatory Forestry Officer and CBED officer. This mission confirmed the positive impact of implementing MA&D in community forestry in the Gambia. It was recommended that the MA&D approach be fully implemented in the Gambia forest management concept. Follow-up activities were planned to ensure the continuing development of community-based enterprises after the end of the TCP.

Chapter 3:

The three phases of MA&D

Of the 26 villages working with the MA&D process in the Gambia, 14 are in the Western Division (WD), six in the Lower River Division (LRD) and another six in the Central River Division (CRD). A total of 76 community-based enterprises have been developed in these three divisions (see Annex 2 for a list of CFs involved in the pilot phase).

Table 1. Socio–economic profiles of MA&D villages across the divisions

Division	Village	Name of CF	Area in ha	Population
LRD	Jasobo	Kabarr Kunda	30.7	260
	Bateling	Nyaningkoi	496.8	37
	Nema and Bambako	Kabato Purai	75.0	1 409
	Manduar	Wanchankalang	176.8	810
	Bureng	Folanko	98.0	1 015
Division total			**877.3**	**3 881**
CRD	Korop	Sutujang	18.9	115
	Boraba	Kapesaba	75.0	412
	Bustaan	Fankanta	35.0	304
	Dobo	Kaniabu	204.0	760
Division total			**455.1**	**2 455**
WD	Kafuta	Tunku	450.1	3 311
	Tumani Tenda	Kachocorr	89.2	208
	Buram	Sibac	31.8	234
	Bulanjor	Brinkinai	140.0	422
	Jakoi Sibirik	Kusabel	79.9	680
	Batending and Kandonku	Kumbato	82.7	248
	Somita and Ndemban	Kumbeng	368.2	2 205
	Berefet	Berekolong Folonkojang	101.1	359
	Kanuma	Jasana	106.0	49
	Tampoto	Musai	20.0	255
	Bessi, Ndemban and Berefet	Kasila	462.6	1 113
Division total			**1 931.6**	**9 084**

The MA&D approach is introduced in three consecutive phases. Although there are several good examples of successful MA&D implementations using a variety of different forest products and resources, beekeeping was assessed to be the most highly developed MA&D activity in the country. This case study reports on experiences in the villages of Bulanjor and Tumani Tenda in the Western Division to illustrate the process of implementing the MA&D approach.

Lamin Jammeh, an interest group representative from Bulanjor village, wears a beekeeping suit while displaying honey, wax comb and body cream with two of his associates

Phase 1: Assess the existing situation

The aim of the first phase of the MA&D process is to develop an understanding of the key issues of the existing situation: What are the potential enterprises? What are the available resources and products? How do existing market systems operate? What are the constraints? By the end of the phase, it should be possible to identify and prioritize viable products, to be analysed further in the next phase. There are six steps in this phase.

Phase 1: Steps in assessing the existing 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 of 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 MA&D representatives within the Community Forest Committee

Assessing the socio-economic composition of a village is an essential first step in determining whether the MA&D approach will be viable in that village. Every village is unique, and even the most experienced MA&D facilitator should not make hasty assumptions. It is very risky to embark on a project without first seeking to understand the needs and requirements of the potential target group. A wide variety of questions must be asked during these initial stages in order to identify who the project will be working with within the community. These questions should include:

- **Who in the target village makes use of the forest?**
- **What other stakeholders in the area utilize the forest?**
- **Are any forest products exploited for domestic or commercial consumption?**
- **Is there an interest in expanding the capacity to manufacture or market any of these products?**
- **How much of an impact would such capacity building have at the village level? How many people would it affect?**
- **What other social issues affect the product or resource?**

A nomadic Waalanke herder passes through Sinchu Malik village in the Central River Division. Nomadic herders from Senegal traditionally use forest land for grazing and are now being integrated into Community Forest Management Plans as villages are beginning to market their grass resources by offering grazing licences to the nomads and other users

Circumstances to take into account

In some small rural villages every compound (or household) engages in farming activities and utilizes the forest to satisfy domestic needs. The social hierarchy is often very rigid, and there are no outsiders living within the community. All important activities are done communally through the Village Development Committee (VDC), and individual enterprise is virtually non-existent. In such situations, the target group is likely to be the entire village. In larger and more economically diverse towns, on the other hand, there may be a much wider range of people from different backgrounds engaging in a variety of different professions. Many of these people, such as mechanics and nurses, will have no direct stake in the forest, while others might work in the forest to boost their incomes. Both Bulanjor and Tumani Tenda are small, homogeneous villages situated in rural areas far from the main road. Bulanjor has a population of 422 people and administers a CF of 140 ha, while Tumani Tenda has a population of 208 and manages a CF of 89.2 ha.

Tumani Tenda

Before the MA&D approach was implemented in Tumani Tenda, villagers collected fuelwood, timber, netto, palm fronds, medicinal plants, bush fruits and wild honey from the forest. Every compound in the village used the forest for at least three forest products, which were collected in accordance with seasonal calendars and the availability of free time. The workforce was divided into groups, with men being generally responsible for timber and honey, while women and children collected fuelwood and bush fruits. Other products, such as netto, palm fronds and medicinal plants, were collected by both men and women. Netto, a tree whose edible fruits are often used in cooking, was the only forest product that villagers consistently marketed and sold. Some fuelwood and timber were taken from the forest to be sold commercially, but this was done primarily by people from outside the community. The villagers themselves could not control who exploited their forest, nor could they profit from it themselves because they did not have the technical knowledge or resources.

Step 2: Determine the financial objectives of the target group

The financial expectations and needs of the target group must be evaluated in order to determine which are the best forest resources to exploit and what scale of enterprise is necessary to meet the community's needs. Determining the financial objectives of the target group is crucial, because if a chosen product is very labour-intensive and does not satisfy the participants' expectations of additional income and other requirements, the project is unlikely to succeed. A livelihood needs analysis should be conducted to determine the target group's objectives. Such an analysis is also useful because some selected products may require initial start-up capital for the early stages of the project, and advance knowledge of this means that the MA&D facilitators will be able to investigate a range of institutions to provide this financing.

The following is a brief "livelihood sketch" of Modu Sanyang in Tumani Tenda.

Livelihood sketch

Name: Modu Sanyang

Role: Compound Head
Age: 40
Compound size: 7 people
Primary profession: Farming groundnuts
Other trades: Fishing, gardening and beekeeping

Yearly income: Farming – 12 000 Dalasis
Gardening – 1 100 Dalasis
Fishing – for home consumption
Beekeeping – for village development

Total yearly income – 13 100 Dalasis

Summary: Although Modu is a subsistence farmer who derives much of his food from farming, he has to purchase many supplementary food items such as palm-oil and additional rice during the hungry season. He also has to provide for his children in school. As a compound head, his yearly income of 13 100 Dalasis represents the entire earnings of the compound. While his yearly income is slightly above the average for the area, he is still in the "extremely poor" category.

One of the most recent in-depth surveys of the poverty rate in the Gambia was conducted in 1998 by the World Bank. The National Household Poverty Survey Report concluded that in the six years since the last survey was conducted in 1992, the overall poverty line had risen by 127 percent in the Greater Banjul area, by 62 percent in other urban areas, and by 74 percent in rural areas. The most vulnerable groups were in rural villages and were mainly large households working in groundnut production. The village of Bulanjor is situated on the border between the Western and Lower River Divisions, about 7 km from the main road and 90 km from Banjul. Most of the villagers farm groundnuts, maize, sorghum and millet. The villagers in Tumani Tenda, which is 60 km from Banjul in the Western Division, participate in very similar farming activities.

Table 2. Distribution of people in poverty categories, by division, 1998 (World Bank)

Poverty category	Banjul	KMA	Western Division	North Bank	Lower River Division	Central River Division	Upper River Division
Extremely poor	19%	18%	50%	71%	71%	62%	73%
Poor	31%	35%	19%	9%	9%	12%	7%
Not poor	50%	47%	31%	20%	20%	25%	20%

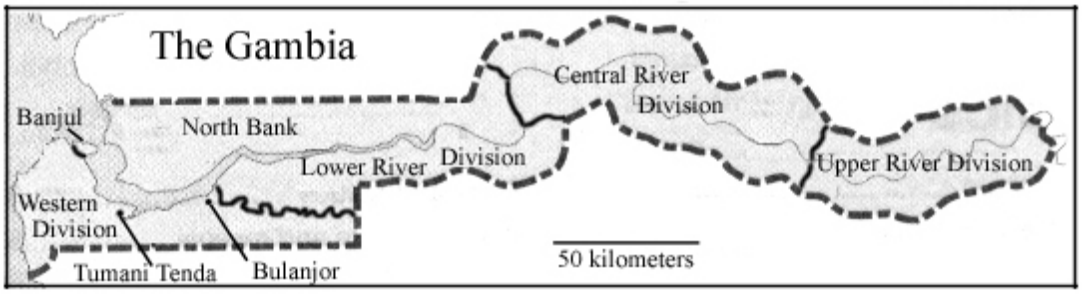

Figure 2: Map of the Gambia

Step 3: List existing resources and products

Once the target group has been identified and its financial requirements have been defined, the next step is to carry out a comprehensive inventory of the forest. The target group should list all existing resources and products. Care should be taken to ensure that nothing is overlooked. Something that at first seems to be an insignificant domestic item could turn out later to be a very profitable forest product.

Table 3. Forest resources and products identified in Bulanjor

Resource/product	**Uses**	**Commercially sold?**
Baobab (*Adansonia digitata*)	Fruit; leaves for cooking; ropes from bark	No
Netto (*Parkia biglobose*)	Fruit	Yes
Jujube (*Ziziphus mauritania*)	Fruit	No
Rhun palm (*Borassus aethiopium*)	Fronds and splits for fencing and construction	No
Oil-palm (*Elaeis guineensis*)	Seeds as food; roots for medical treatment	No
Fuelwood	Cooking	Yes
Timber	Fencing and construction	Yes
Honey	Food	No

The Rhun palm is commonly found in many areas throughout the Gambia and is primarily used domestically for the construction of roofs and fences

Step 4: Identify the key constraints in the existing market system

An analysis of the key constraints that affect current products should provide valuable information to the Community Forestry Committees, the MA&D facilitators and the future entrepreneurs. The target group should identify these limitations and constraints early in the MA&D process, as this reduces the risk of problems emerging later on. Problems that afflict the production, processing and marketing of other village products should all be assessed in detail. Current constraints in the community need to be analysed carefully so that the target group has the information necessary to choose the most appropriate products to focus on. Every resource or product that is commercially sold in the area should be assessed. The following are some marketing-related questions that can be used in the analysis:

- Where are the main markets?
- How much time is needed and what is the cost to transport goods to the market locations?
- How frequently are trips made to market?
- Do any taxes or legal fees have to be paid?
- For how much is a single unit of the product sold?
- Who typically buys the product?
- What quantity or amount of the product is commonly sold?
- Does this change at different times of year? Are there fluctuations in the market?
- How much profit is typically earned?
- Are there any other difficulties, problems, constraints or additional costs?
- What potential to regenerate does the product or resource have

Women, who are traditionally the primary vendors of non-meat-related food products, sell watermelons and groundnuts at the Soma market

Step 5: Shortlist a range of products

On the basis of information acquired from this identification of key constraints to the existing market system, the list of potential resources and products for development can be dramatically condensed and specific items prioritized. Factors such as the scarcity of a resource, low market value and legal restrictions should be taken into account. This analysis should be done by the target group with guidance from the MA&D facilitator to eliminate non-viable resources and products. Social, environmental, technical and market factors should all be taken into consideration during this process (see Annex 3 for a list of common forest resources).

Table 4. Initial resource/product pre-selection in Bulanjor

Resource/product	Prioritized	Reasons for selection or elimination
Baobab (*Adansonia digitata*)	No	Production of ropes unsustainable because overharvesting can harm the tree; fruits are seasonal and leaves have low market value
Netto (*Parkia biglobose*)	No	Fruits have low market value and are seasonal
Jujube (*Ziziphus mauritania*)	No	Fruits have low market value and are seasonal; trees are erratically located in the forest, making harvesting difficult
Rhun palm (*Borassus aethiopium*)	Yes	Risk of depletion, but fronds can be sustainably used for handicrafts; further investigation needed
Oil-palm (*Elaeis guineensis*)	Yes	Further investigation needed
Fuelwood	Yes	High market value but difficult to transport; further investigation needed
Timber	Yes	High market value but difficult to transport; further investigation needed
Honey	Yes	Seasonal but high market value; further investigation needed

"(Many) of these products are available in the CF in large quantities and there's a high demand for them outside the village. They are promising products that can bring in a high price." **Hassana Sanyang, Bulanjor village**

Step 6: Raise awareness of the benefits of working together

In the next phase, interest groups made up of experienced people within the target community are formed to analyse further the shortlisted products and resources, and to build strategies for developing enterprises. Team building is an important aspect of the MA&D approach. In the Gambia, communal activities traditionally play a dominant role in the partitioning of labour and decision-making. The structure of the interest groups is based on these traditional norms. In the early stages, awareness raising of the target group is needed so that participants can understand how the MA&D approach is designed to benefit the entire community.

One of the most important goals of the MA&D process is to develop the production and marketing capacity of vulnerable populations. Workshops need to be organized to impart these skills during the next two phases of the MA&D approach. These workshops generally serve more than a single village and usually cover a substantial area, encompassing a number of different groups from various communities. As it may not be possible to accommodate very large number of people at the workshops, representatives need to be chosen from each target group. The purpose of the workshops is not only to assist the individuals who attend, but also to help empower the entire target groups that those individuals are representing. Workshop participants are encouraged to return to their communities and share the information that they have obtained.

"In the community forests, there are many resources and many stakeholders. We have to work together to utilize them. What a community can do is more productive than an individual. This is a culture of working together." **Binta Sanyang, Tumani Tenda village**

Phase 2: Identify products, markets and means of marketing

The primary objective of Phase 2 is to select the best products while building 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 then select the most promising products. There are three steps in this phase.

Phase 2: steps in 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

During phase 1, a simple market analysis was carried out at the village level in order to provide a preliminary view of the opportunities and constraints facing the commercialization of forest products and resources in the target area. This market analysis should now be widened in scope to include not only data from the community, but also information from the national and international levels. Every shortlisted product should be researched extensively in order to gather useful information on retailers, prospective customers, supply and demand, processing and quality control, as well as to determine potential marketing channels. This should be done in accordance with the following four major MA&D feasibility criteria:

- **Social/institutional:** The traditional uses and history of the target group working with the product should be explored. It might not be possible to develop certain products and resources because of social/cultural restrictions or perceptions. Legal restrictions should also be considered. Commonly marginalized social groups, such as women and the disadvantaged, should also be taken into account.

- **Science/technology:** The availability and cost of the equipment and tools necessary for production, processing and marketing of the product need to be established. Transport and storage requirements should also be clearly defined. Any technical knowledge or skills that will be required later need to be identified. The availability of appropriate technologies to increase the capacity to process the resource or product should also be explored.

- **Resource/environment:** Environmental impacts must be considered seriously. The MA&D process should work in harmony with other efforts to protect and conserve the forests. Target groups should not lose sight of this goal when projects start to become profitable. Activities in the forests should not upset or injure the ecosystem. Information should also be collected on the availability of the forest products and resources.

- **Market/economy:** All production, processing and marketing costs need to be identified before the project is initiated. Expectations regarding the amount of labour required should be collected. The market(s) aimed at, its/their value, and the projected

demand need be determined. There should be no surprises later, which could threaten the economic health – and thus the viability – of a project. The level of quality that consumers expect from a product should also be taken into account in order to ensure that inferior, and consequently unprofitable, products are not produced.

Example: Resource, environment and technology

Many different ways of harvesting honey are employed throughout the world, but these can all be broken down into three main categories. All three methods have been employed by villagers in Bulanjor and Tumani Tenda over the past decade. They are described in the following three boxes, which are based on the experiences of villagers in Bulanjor.

"Bee - killing"

This method is commonly employed when collecting wild honey. Villagers occasionally come across wild beehives in the forest. At the end of the dry season, in May or early June, villagers who know where these hives are located attempt to "harvest" them. This period is generally assumed to be when the beehives are most likely to have the most honey. However, there is no method for determining this, and occasionally wild beehives are harvested when they contain little or no honey. The harvesting is done collectively. The individual who has found the hive informs the village and a group of people, usually "brave youths", are enlisted to help with the harvest. They set out in the early evening, find the wild hive and start a small fire with elephant grass. This smokes out the wild bees and kills them. Reaching the wild beehives is often difficult as they are often found in hollows deep inside mature trees. The only way of obtaining the honey is to cut a large area out of the tree around the hive or to fell the tree completely. During this procedure, many people are stung and forest fires are occasionally started.

"Bee - having"

In this method, rudimentary hives are used to maintain broods and colonies of bees. The hives are usually made from woven baskets, hollowed out tree trunks or clay pots. They are positioned in areas where there are already some bees. A wide range of baits, including manure, honey and sugar water, are used to lure the bees into the hive. The honey is usually harvested once a year, at the end of the dry season. There is no management or manipulation of the brood, but the harvesting process does not usually kill large numbers of bees or their queen. Harvests usually take place in the evening, with the harvester and only one or two other people present. They smoke out the hive in a controlled way, often using elephant grass, but trying to minimize the amount of fire and smoke generated. Excessive use of smoke often leads to poor-quality honey. Honey is harvested by opening the back portion of the hive, reaching in and removing the comb. A portion of the comb is left behind to prevent the bees from abandoning the hive. Omar Jammeh from Bulanjor village, pictured above, has been working successfully with woven basket hives for more than a decade. Jammeh currently has five colonized hives and harvests an average of 35 liters of honey a year.

"Bee - keeping"

This method is similar to bee-having, but employs more advanced hives. There are many different types of hives utilizing a wide variety of innovations, but one of the key modifications is the addition of removable top bars. This makes possible a number of different hive management techniques, such as splitting one hive into two or removing a brood. The majority of beekeeping projects in the Gambia use adapted hives known as the Kenyan top-bar (KTB) hive. These hives are relatively inexpensive and very durable. Other beekeepers use hybrid or adapted hives, which are constructed from a variety of materials, such as cement and discarded wooden boxes. The growth of the colony in the KTB and hybrid hives is easy to check, which ensures that the honey is harvested at the best time. Bee suits are used during the harvest to prevent stinging and excessive bee deaths. Manure-burning smokers are used instead of fire. These hives can be harvested up to three times a year, and each can produce between 5 and 10 litres of honey per harvest if they are managed properly.

Conclusions

The first two methods of producing honey were ruled out for further consideration. Bee-killing was found to have a very destructive impact on the forest, owing to the high frequency with which bushfires are started during the harvesting process, as well as the substantial number of trees that are felled. The trees that are burnt in the bee-killing harvesting process are often far more valuable than the honey itself. The fires caused by bee-killing also often lead to decreased abundance of forest wildlife, as well as destroying other valuable resources such as dead wood.

Assessment of successful bee-having showed that it does not directly harm the overall health of the forest. However, it often leads to high bee mortality rates during harvesting, and occasionally causes colonies to abandon hives and move to other areas. While this has no impact on the well-being of wild bees, it is not environmentally friendly owing to the unnecessary deaths of large numbers of bees and the loss of colonies at the beginning of the rainy season, when many forest trees are flowering. As other available methods are far more effective, it was concluded that bee-having should be neither promoted nor discouraged within the MA&D process.

Profile of traditional uses of honey

"If somebody found bees but was not fit, he fetched a few 'brave' people from the village to help him. If the hive was inaccessible, they cut down the tree and then smoked out the bees using fire. Women were never involved in the process. The honey was not processed, but rather stored, with the wax still in the comb for preservation. This was placed inside mud pots for the rainy season, when food was in short supply. When there was little or no food, farmers would take a spoonful in the morning for strength before going into the fields. The honey was not traditionally sold, but used as a substitute for sugar when cooking porridge. It was also traditionally mixed into the pounded flour given at naming ceremonies. Nobody in the village knew that honey had medicinal uses."
Modu Jarju, Bulanjor village, CF President

Local jiibida, or mud pot, traditionally used in Bulanjor for storing honey

Example: Market, economy and appropriate technology

Entrepreneurial profile

Name: Musa Gibba

Village of birth: Bulanjor

Place of residence: Kanifang

Primary profession: Storekeeper,
West African French Company (CFAO)

Gibba has been involved in beekeeping for several years and has created a hybrid hive, which is now being used in Bulanjor village. It is constructed out of packing boxes for vehicle parts from the car company where he works. The boxes are as sturdy as KTB hives, and cost only a fraction of the price.

"I initially got involved because I wanted another source of income other than my salary. I also wanted to show people in Bulanjor, my home village, that they can engage in other money making activities after they finish farming in the rainy season. Beekeeping promotes the protection of the environment and gives people something to do in the dry season. We have a very good environment here, with a lot of forest remaining. There are many bees around Bulanjor, so we know this is a great area for beekeeping."

From his first two harvests in 2004, Gibba sold 56 litres of honey to co-workers at CFAO for 100 Dalasis per litre. There was such a high demand that he had to turn many people away. At the time, he had only eight colonized hives. Gibba now has 22 hybrid hives, of which 20 are colonized. He plans to add another 16 hybrid hives this year, bringing the total number of hives to 38. He spent 2 596 Dalasis to build his 22 hives.

1st harvest in 2004 (8 hives)	18 litres	1 800 Dalasis
2nd harvest in 2004 (8 hives)	38 litres	3 800 Dalasis
Total yearly harvest	**56 litres**	**5 600 Dalasis**
1st harvest in 2005 (20 hives) (projected)	80 litres (projected)	8 000 Dalasis
2nd harvest in 2005 (20 hives) (projected)	80 litres (projected)	8 000 Dalasis
3rd harvest in 2005 (20 hives) (projected)	80 litres (projected)	8 000 Dalasis
Total yearly harvest (projected)	**240 litres (projected)**	**24 000 Dalasis**

Step 2: Select the most promising products

Products for enterprise development are selected on the basis of a rigorous analysis of the four areas of enterprise development. Thorough research should provide enough data to determine the feasibility of a particular product. Working with the target group, the MA&D facilitators should divide the products that were previously shortlisted into the following three categories.

Immediate development

These are the products and resources that have proved strong in all four categories of enterprise development. They must already have a strong market and be in high demand, and constraints such as technical knowledge, equipment and environmental impacts should be minimal. In Bulanjor, there was a history of bee-having using relatively advanced techniques. Although some additional training on proper hive management was necessary, many people in the target group were already very skilled.

Preliminary trials

The products and resources in this category should be promising, but require more analysis and studies. In 2004, Dobo village in the Central River Division expressed an interest in utilizing Rhun palms for handicrafts such as chair, bed and table making. However, nobody in the village had any technical knowledge of how to set about this. Further research showed that there was a potential demand for such products at up-market locations such as hotels and guesthouses, and very few similar products were currently being sold. Transportation was a limiting factor. It was decided that additional studies should be made before developing this product.

Unviable

These are the products and resources that have failed in at least one of the four criteria and that should not be considered in the immediate future. In Tumani Tenda, both ecotourism and logging were shortlisted and evaluated. It was soon clear that the community wanted to work with ecotourism, and estimates showed that most of the CF would have to be set aside for conservation in order to attract tourists. Logging proved to be incompatible with ecotourism in Tumani Tenda's CF, which is only 89 ha, and was therefore dropped.

The MA&D facilitator should help the target group to prepare an individual product assessment for each of the products categorized for immediate development or preliminary trial. The results of the four areas of enterprise development survey should be used in this in order to help the target group to evaluate the potential opportunities of each product.

Table 5. Product assessment chart for beekeeping in Bulanjor			
Social/institutional	**Science/technology**	**Resource/environment**	**Market/economy**
Opportunities Long history of bee-killing and bee-having in the village Honey is traditionally used as a food There are no legal restrictions Time investment is minimal Federated groups such as NBAG have many years of experience working in the Gambia	**Opportunities** Beekeeping requires simple equipment and tools There is already some knowledge of basic techniques Groups such as NBAG, the Forestry Department and NACO regularly hold workshops providing technical knowledge Women have some technical knowledge about producing products from wax	**Opportunities** The forest surrounding the village is in very good condition and is ideal for beekeeping The natural environment benefits from increased pollination Beekeeping supports the Community Forest Management Agreement by preventing bushfires and enforcing felling restrictions more vigilantly A higher occurrence of bees in the area improves the production of crops such as groundnuts and maize	**Opportunities** Initial investment is minimal Honey is in high demand and has a significant market value NBAG comes to the village to collect honey Honey can be sold to NBAG in locally available and inexpensive containers Wax can be made into body cream, soap and candles
Constraints Hives may be damaged or destroyed by children Hives placed near the village or in other areas of work might disturb people Beekeeping is traditionally a male-dominated occupation	**Constraints** Advanced beekeeping techniques are not currently known in the village	**Constraints** There is a high demand to convert forest into farmland It is not always possible to prevent bushfires, so the entire project could be wiped out	**Constraints** Other potential markets are distant and expensive to reach Jam jars and 1.5 litre water bottles – the regular containers for honey at markets – are difficult to obtain in rural areas

Step 3: Create interest groups for selected products

Once the products and resources have been selected and thoroughly investigated, the target group members should start forming interest groups around the potential enterprises. While the formation of interest groups should be left entirely up to the community, potential members with certain skills and strengths should be encouraged to take prominent roles. Such people include those with experience of managing small enterprises or with a strong business background; those with a sufficiently high level of education, experience of village affairs or a respected position within the community; those with specific technical knowledge; and those with strong motivation or experience in a similarly related field.

Table 6. Interest groups in Bulanjor			
Fuelwood	Timber	Beekeeping	Oil-palm
24 members	16 members	24 members	16 members

Members of the Bulanjor honey interest group attend a joint Forestry Department and NACO meeting

Phase 3: Plan enterprise for sustainable development

The primary objective of this phase is to formulate a plan for growth of the enterprise, develop strategies for each of the four areas of enterprise development and draw up the action plan to prepare the way for implementation. Entrepreneurs are assisted in working out an enterprise development plan (EDP) for their product by analysing the data obtained so far. They will describe the mission, goals, objectives and strategies of the enterprise, assessing its profitability and determining capital start-up needs. This EDP can be used to obtain financing. The strategies developed will be tested in the pilot phase, which will include also several trainings that aim to ensure that the target group has the capacity to implement the strategies that it developed. Additionally, entrepreneurs are learned how to assess changes in the business environment and to monitor the progress of their enterprise in order to adapt the plan accordingly. This phase comprises eight main steps.

Phase 3: Steps in planning enterprises for sustainable development

Step 1 Examine the business environment on the selected product(s)/enterprise
Step 2 Define the enterprise mission, goals and objectives
Step 3 Develop strategies in each of the four areas of enterprise development
Step 4 Formulate the action plans to implement 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 deal with change

Step 1: Examine the business environment for the selected products

The information gathered during the first two phases of the project should be synthesized in order to provide an accurate assessment of the current constraints and challenges facing the selected products. This analysis should consider the size and structure of existing markets, and should take into account demographic, social, structural and economic factors. This makes it possible to assess the business environment accurately and to develop an effective strategy.

Table 7. Analysis of potential honey markets for Bulanjor

	Distance	Round trip costs	Market size
Banjulnding (NBAG)	110 km	Free: as a federated group, NBAG travels (at its own expense) to villages with NGAB membership to purchase honey	Well-known distribution centre that will purchase all available honey

Table 7. (continued)			
Serrekunda	125 km	80 Dalasis + 20 Dalasis per 20 litres of honey	Very large and popular marketplace, but market potential for honey is unknown
Siffoe	103 km	78 Dalasis + 20 Dalasis per 20 litres of honey	Medium to high market potential – local honey has been sold for several years; honey is generally in high demand, but many vendors use this outlet and demand is inconsistent

	Market structure	**Price per litre**	**Distribution constraints**
Banjulnding (NBAG)	Distribution centre	50 Dalasis	Honey has a low price
Serrekunda	Marketplace	Unknown	Breaking into an unknown market can be very risky; people do not generally go to market for honey; substantial transportation costs and time expenditure
Siffoe	Marketplace	75 Dalasis	High competition; substantial transportation costs and time expenditure

The Bulanjor interest group determined that the costs in both time and money made selling honey in the Serrekunda and Siffoe markets unattractive. The group members did not plan to set up a large-scale beekeeping project immediately, but rather to start at a smaller scale and gradually build their capacity as their beekeeping skills develop. NBAG in Banjulnding supported the Bulanjor community with a number of initial beekeeping information sessions, provided technical assistance to members and helped neighbouring communities to set up a local credit union. This built a high degree of loyalty towards the organization on the part of the community. The one-time membership fee for NBAG is 500 Dalasis, and includes discounted prices on beekeeping supplies such as suits and hives, as well as collection of honey from the villages at no additional cost. The interest group decided to join NBAG in March 2003, and now markets its honey through the association. However, as production increases, the group is continuously evaluating other alternative market locations.

Ebou Sanyang, Amadou Ceesay, Ousman Joof and Modu Bah II display beekeeping-related products such as honey and jam at the head office

Step 2: Define the enterprise mission, goals and objectives

With a wealth of information at their disposal, the interest groups can now draft a basic enterprise mission to help guide them in the future. They should also identify some tangible goals and objectives for the enterprise.

Example: Goals and objectives for Bulanjor Honey Interest Group

Bulanjor Honey Interest Group

Goals

1) Work in an environmentally friendly manner in accordance with the Community Forest Management Agreement. 2) Strive to use the methods and techniques taught during the training in order to increase the efficiency of the beehives, maximize harvesting and market the honey appropriately. 3) Develop wax-related products.

Objectives

By the end of the first year of production: 1) all 13 of the hives managed by the interest group will be colonized; 2) there will be three honey harvests a year and a minimum of 105 litres of production; 3) locally developed body cream made from wax will be being processed in a customer-friendly manner.

By the end of the second year of production: 1) the number of colonized hives will be up to 28; 2) yearly honey production will have reached 400 litres; 3) 12 kg of wax will be being processed to produce more than 100 jars of body cream to be marketed and sold outside the community.

Steps 3 & 4: Develop strategies in each of the four areas of enterprise development and formulate the enterprise development plans to implement the strategies

During phase 2, the interest group identified possible project constraints. It is very important to address these issues before project implementation so as to avoid difficulties later. The interest group should approach each problem individually and map out a set of strategies under the four areas of enterprise development. Enterprise development plans (EDPs) should be developed that expand further on these strategies and ensure that the enterprise is successful.

The following are the strategies and action plans that were drawn up to deal with the constraints identified in Bulanjor.

Social/institutional

Most of the hives are located in areas of the CF that already had bee populations. These sites are close to the village, but far enough away to prevent groups of young children from playing near the hives and damaging or destroying them. The interest group told the entire village where all the hives are located. Although forest-related activities such as grazing and fuelwood collection continue, a greater level of caution is generally observed in areas where there are hives.

The beekeeping project is perceived to be a communal village activity. Because the whole community is likely to share in many of its eventual benefits, it is seen as being in the village's best interests to work with the interest group. Curious villagers are encouraged to learn more about beekeeping, and can visit the hives with an experienced member of the interest group. This attitude prevents conflicts of interest between beekeepers and other members of the community.

The interest group, which consists of nine women and 15 men, made a point of actively encouraging women's participation from the start of the project. Women are involved in all stages, from first harvest to the processing of honey and wax.

Beekeeper Lamin Jammeh displays a newly colonized hive that he has placed near his compound to educate members of the Bulanjor community

Science/technology

Prior to the introduction of the MA&D process, advanced beekeeping techniques were unknown in Bulanjor. Owing to the large number of members in the interest group and the limited space at the workshops, it was decided that one interest group member should become a "trainer". Lamin Jammeh, President of the Bulanjor honey interest group, was designated to this role.

During the first year of beekeeping, five workshops covering a wide variety of topics were sponsored by the Forestry Department and NBAG. Usually, Jammeh and another two members of the interest group attended these workshops. This proved to be a satisfactory approach as Jammeh is now training prospective beekeepers in villages across the Western Division, as well as playing a vital role in the success of the Bulanjor beekeeping project.

In the past, the high costs of purchasing KTB hives, which run to as much as 500 Dalasis each, meant that many villagers were not able to work in beekeeping. Musa Gibba, a resident of Bulanjor, developed a low-cost alternative using spare boxes from his job at a local car company. The total construction cost, including carpentry, is 118 Dalasis for each hive. This "hybrid hive" has proved very effective, and three other beekeepers from Bulanjor are currently using similar hives.

Table 8. Construction costs of hybrid hive	
Empty case	25 Dalasis
Top-bar sticks	80 Dalasis
Second-hand corrugate	13 Dalasis
Total cost	**118 Dalasis**

Musa Gibba instructs Lamin Jammeh on the basics of constructing local hybrid hives in Bulanjor

Resource/environment

The decision to locate the hives in the CF avoided all potential conflicts over land. Bulanjor's Community Forest Management Agreement prohibits certain activities, such as clearing demarcated forest areas and converting it into farmland. Although this was already acknowledged and observed by the community, the sustainable utilization of CF land through the MA&D activities has raised awareness of the advantages of proper forest management.

Bushfires are one of the main threats to forested areas across the country and have plagued communities such as Bulanjor for years. During 2004, in the Lower River Division, bushfires were so common that nearly 70 percent of the CF and 95 percent of the forest parks were burnt, according to the 2003–2004 National Bushfire Report. In the Western Division the climate is more temperate and bushfires are far less frequent, even though they are still a problem in that division. The following table shows the percentages of forest burnt in the Western Division, broken down by Administrative Circles (ACs).

Table 9. Frequency of bushfires in the Western Division during 2004

	Number of fires	Area burnt	Total CF area of ACs	% of area burnt
Kafuta AC	2	87.00 ha	3 212.29	2.7%
Brikama AC	3	116.00 ha	819.85	14.1%
Bondali AC	4	385.23 ha	1 400.81	27.5%
Total	**9**	**588.23 ha**	**5 432.95**	**10.8%**

Despite the intimidating data on the level of bushfires throughout the country, a number of communities have developed effective strategies to prevent them. In Bulanjor, in accordance with the Community Forest Management Agreement, firebreaks are placed in target areas around the forest early in the dry season, before the risks are high. Villagers now recognize the value of the forest and are much more vigilant than they were in the past. Bulanjor's CF, which used to suffer bushfires every year, has been virtually fire-free for the past five years. Without this reduction in fires, income-generating activities such as beekeeping would be impossible.

Table 10. Land burnt in the Bulanjor CF (140 ha)

Year	Area burnt	% of area burnt
2001	0 ha	0%
2002	0 ha	0%
2003	1 ha	0.7%
2004	0 ha	0%

"In the past, after our land was changed into a community forest, we protected the forests but did not benefit from it. Now, through [MA&D] activities such as beekeeping, timber and fuelwood collection, we are benefiting and realize the value of our community forest." **Modu Jarju, Bulanjor village**

Market/economy

A solitary stretch of the main road on the north bank of the Central River Division; travelling can take days owing to poor road conditions and a shortage of vehicles

After the Bulanjor honey interest group had identified the potential market outlets, as outlined in the first step of Phase 3, it soon became clear that most of them were distant and expensive to reach. Long distances, poor road conditions and a dearth of functional vehicles made attempts to break into new markets a risky and high-cost endeavour. However, the situation was resolved when the interest group formally registered with NBAG. This allowed it to develop a multi-pronged strategy in which the honey would initially be marketed through the existing NBAG structure, while the interest group focused on boosting its supply of honey by increasing the number of hives and improving its harvesting techniques. After doing so, the interest group planned to re-evaluate the cost-effectiveness of marketing its products through other outlets such as Siffoe and Serrekunda.

Working through NBAG also temporarily solved the group's difficulties in obtaining an adequate supply of suitable containers. NBAG routinely purchases the honey in 20-litre containers, which are common in the provinces, and cost 15 Dalasis each. A full container of honey sells for 1 000 Dalasis, so purchasing containers represents a negligible 1.5 percent marketing expenditure, based on expected gross profits. The interest group also found a number of nearby outlets where jam jars can be purchased for 2.50 Dalasis each. Group members are now using these to market their wax-related products such as body cream. The interest group also found several nearby outlets where members could buy jam jars for 2.50 Dalasis each. They are now using these to market their wax-related products such as body cream.

Steps 5 and 6: Calculate financial projections for the enterprise and obtain financing

After the business strategies and action plans have been developed, the next two steps of the MA&D process involve assessing the financial aspects and building the target group's capacity to determine where outside financing can be obtained if needed. The target group should first determine what resources it can provide to the project, including land, labour and equipment. The group should also estimate the projected income of the potential enterprise to ensure that it will be cost-effective. Projections should be formulated on the basis of production and sales plans, and should include start-up costs, overhead expenses, and income forecasts for several months or years, depending on the product.

Start-up resources

In Bulanjor, financial projections were calculated for honey and body cream, which is produced from the honeycomb. The interest group used money from its local fund[2] to finance a portion of the project, as encouraged by the 1998 Forestry Act. Outside funding came from a variety of sources including the United Nations Development Programme (UNDP) and the Forestry Department, which donated equipment. All income derived from the enterprise was to be put back into the local fund, where a portion is set aside for expansion and upkeep of the beekeeping project and the rest is used for community development. Financial projections showed that in both the short and long terms it would not be necessary to obtain extra outside funding, such as a bank loan. There was already a considerable amount of money in the local fund from other successful MA&D activities in the village, including timber and fuelwood production, and the interest group felt that maintaining its independence from external debt was important. Six members of the honey interest group also started up individual beekeeping projects with their own money. This was done in accordance with the MA&D approach. All harvesting was carried out with the interest group's equipment.

Table 11. Bulanjor honey interest group's resources

Item	Quantity	Unit price	Total cost
KTB hive	13	475 Dalasis	Donated by UNDP
Beekeeping suit	2	350 Dalasis	Donated by Forestry Department
Smoker	2	130 Dalasis	Donated by Forestry Department
Gloves	2	150 Dalasis	Donated by Forestry Department
Boots	2	440 Dalasis	Donated by Forestry Department
Torch	2	35 Dalasis	70 Dalasis
Bucket	3	40 Dalasis	120 Dalasis
Knife	2	20 Dalasis	40 Dalasis
Brush	2	25 Dalasis	50 Dalasis

Table 12. Bulanjor private beekeepers' resources

Item	Quantity	Unit price	Total cost
Hybrid hive	30	118 Dalasis	3 540 Dalasis
Local hive	5	60 Dalasis	300 Dalasis
Torch	2	35 Dalasis	70 Dalasis
Bucket	3	40 Dalasis	120 Dalasis
Knife	2	20 Dalasis	40 Dalasis

[2] See page 36 for more information on local funds.

The total cost of equipment necessary for the start up was 8 595 Dalasis. Thanks to donations from the UNDP and the Department of Forestry, the interest group had to find only 380 Dalasis of this. However, some group members were very enthusiastic about this endeavour and decided to invest a total of 4 070 Dalasis in their own private projects, in accordance with the MA&D approach. The total money invested in the project was therefore 13 045 Dalasis.

Table 13. Overall start-up costs for Bulanjor		
Members' capital	4 450 Dalasis	34% of cost
Outside donations	8 595 Dalasis	66% of cost
Total cost	**13 045** Dalasis	**100%**

Depreciation of equipment

The village's beekeeping equipment will not last forever. Repairs will need to be made and new equipment will need to be purchased. It was estimated that beehives, when properly managed, last about seven years. Other equipment, such as suits and tools, lasts for four years. In order for the interest group to save the necessary funds for maintenance and replacement costs, these estimates were converted into depreciation rates of 14.3 and 25 percent of the initial costs, respectively.

Table 14 Equipment depreciation costs in Bulanjor			
Item	**Initial cost**	**Depreciation rate**	**Average yearly cost**
43 hives	9 715 Dalasis	14.3%	1 390 Dalasis
Other equipment	3 330 Dalasis	25%	832.50 Dalasis
Yearly total			**2 222.50** Dalasis

Final budgetary calculations

Estimating the total costs of the enterprise over a number of years is essential in order to gauge its value and viability. The following table shows the costs and net income in Bulanjor from 2004, along with projections for 2005 and 2006. For budgetary calculations, the honey interest group has been combined with individual beekeepers working under the umbrella of the interest group, because resources are often shared and much of the honey is sold as though it came from a single unit.

Table 15. Total costs and income forecast for Bulanjor			
	2004 **39 colonized hives**	**2005** **45 colonized hives**	**2006** **45 colonized hives**
Honey	*121 litres*	*840 litres*	*840 litres*
Sales	+ 8 850 Dalasis	+ 67 000 Dalasis	+ 67 000 Dalasis
Resource investment	- 4 450 Dalasis	----	----
Depreciation	----	- 2 222.50 Dalasis	- 2 222.50 Dalasis
Processing and marketing	- 120 Dalasis	- 675 Dalasis	- 675 Dalasis
Tax (15%)	----	-10 050 Dalasis	- 10 050 Dalasis
Net income	+ 4 280 Dalasis	+ 54 052 Dalasis	+ 54 052 Dalasis
Wax	*18 jars*	*105 jars*	*105 jars*
Sales	+ 270 Dalasis	+ 2 160 Dalasis	+2 160 Dalasis
Processing and marketing	- 166.50 Dalasis	- 939.50 Dalasis	- 939.50 Dalasis
Net income	+ 103.50 Dalasis	+ 1 220.50 Dalasis	+ 1 220.50 Dalasis
Total combined income for Bulanjor village	**+ 4 383.50 Dalasis**	**+ 55 272.50 Dalasis**	**+ 55 272.50 Dalasis**

Lamin Jammeh inspects one of the interest group's hives in the Bulanjor CF

Identify financing needs for enterprise

Once the available resources have been appraised, the target group should look carefully at the financial needs of the enterprise. The prospective project's financial requirements can be broken down into the following categories.

Seed money: The capital required to develop the business concept and the costs involved in implementing the pilot phase in Step 7.

Start-up capital: The short-term capital required to get the business running, and the long-term capital required to maintain physical and human resources.

Working capital: The short-term capital required to obtain the assets that are necessary for the project's daily needs, as well as capital that can be called on and obtained immediately to assist in case of any unexpected setbacks.

Long-term financing: The capital required to maintain and replace the project's resources as they depreciate over time, as well as the financing necessary to expand according to the project group's development strategy.

Determine options for raising capital

Once the financial needs of the project have been established, the target group can often increase its investment capital through a number of different channels. These include involving outside partners in the enterprise, forming a cooperative in order to share the costs among a large number of partners, and attracting investors by offering them shares in the project.

The local fund

The Government of the Gambia has institutionalized a mandatory savings scheme for products produced from forest resources. According to Sections 36 and 38 of the 1998 Forestry Act, a local fund for communities that are actively participating in community forestry should be established at a reputable bank, "and shall be administered by three members, elected from the forest committee". This account can accrue revenue in a variety of ways: "85 percent of all proceeds of the sale of forest produce extracted from the community forest" must be paid into the local fund, with the remaining 15 percent paid as National Forest Fund (NFF) taxes to the Department of Forestry. Community Forest Committees are also rewarded for catching and prosecuting individuals involved in illegal activities, as "50 percent of all fines collected under section 112" is paid as compensation into the local fund of the CF affected. The dispensation of the money contained in the account is also subject to a number of conditions, as the "amounts spent from any local fund shall be shared between the funding of forestry activities and other community development activities". A minimum of 40 percent of the total funds must be spent on forestry activities.

Step 7: Initiate the pilot phase and training

Once the financial aspects of the project are sound, the target group members are ready to put their Enterprise Development Plan into action. The goals and objectives that were developed can be considered as pilot initiatives while the project is in its preliminary stages. After implementation of the pilot phase, and based on observations of the project's strengths and limitations, the strategies and action plan devised by the target group can be reanalysed, and changes introduced if necessary. The pilot phase of the enterprises should give the target group a chance to develop further management capacity, enhance the technical components of the project, and test sample products in the target market.

At this point, MA&D facilitators should make a realistic final assessment of the skills that the target group has acquired throughout the previous phases. Although many general skills will already have been acquired, certain specialized skills might still be missing. These can be determined using the four areas of enterprise development. The following are some examples of the specialized skills that might still be required to strengthen the pilot entrepreneurs.

Marketing: budgeting, enterprise literacy, product development, quality control, and record keeping.

Resource management: cultivation, harvesting, and identification of mechanisms for resource control.

Science and technology: processing and storage.

Social development: conflict resolution, group formation, and group strengthening.

In Bulanjor, the NGO FASE provided substantial training on the marketing and social development aspects of beekeeping, while NBAG proved instrumental in imparting resource management skills and practical information on science and technological issues.

Furthermore, following the spirit of institutional decentralization, most MA&D communities benefited from the formation of multi-disciplinary facilitation teams (MDFTs). These are groups of extension workers drawn from a wide variety of villages and working in a single sector such as agriculture, health or education. A number of members of the Bulanjor interest group were involved in these teams, and benefited from training in institutional capacity building and group strengthening topics. During the skills assessment of the Bulanjor interest group, members met the criteria for most of the topics because of the training courses they took in the previous two phases. However, they lacked skills in bookkeeping and resource mobilization. The Department of Forestry held a final workshop on these topics in mid-2003.

Step 8: Monitor progress and deal with changes

The final step of the MA&D process aims to ensure that target groups have the capacity to anticipate unexpected events and are prepared to respond promptly and effectively. Annual assessments of the pilot enterprises should be carried out in order to ensure that they remain competitive in the marketplace, while also checking that the objectives contained in the EDP continue to be realistic. In order to accomplish this, a monitoring and evaluation (M&E) system should be implemented at the village level. In Bulanjor, after the first year of beekeeping, the M&E team analysed three areas of primary concern using indicators from the four areas of enterprise development. These areas of primary concern were harvesting, processing and marketing of honey and honeycomb-related products.

Harvesting honeycomb

Bulanjor's interest group harvested honey for the first time in 2004. Four of the 13 hives managed by the group were colonized, as well as 27 of the 35 individually supervised hives. However, owing to the immaturity of the hives and the initial lack of experience for many interest group members, the hives were harvested only once during the first year. On average, they each yielded between 5 and 7 litres of honey. The projections for 2005 include three harvests, which is the standard number. The interest group estimates that in 2005 a total of 840 litres of honey will be harvested from the 39 hives that are currently colonized.

Table 16. Quantity of honey harvested in Bulanjor

	2004	2005 (projected)
Interest group	30 litres	105 litres
Individuals	91 litres	735 litres
Village total	**121 litres**	**840 litres**

Bees leaving a mature hive in Bulanjor prior to harvesting. Experienced beekeepers know that they must monitor the entrances to their hives. When there is honey, the bees first land on the face of the hive and then walk to the entrance. If there is no honey in the hive, the bees fly directly into the opening

Processing and marketing of honey

In Bulanjor in 2004, honeycomb was processed at the village level at almost no cost. The honey was pressed out of the comb by hand and all the impurities were filtered out using mosquito netting as a sieve. The net, which can be washed and reused many times, cost 30 Dalasis. This processing method is sufficient to pass all of the quality control measures instituted by NBAG. The honey was then sold in 20-litre containers, which cost 15 Dalasis each, to NBAG. In the past, there were no taxes levied on honey, but starting in 2005, all income derived from forest products is subject to a 15 percent tax to the Forestry Department. Because the honey was sold directly to NBAG, there were no marketing, transportation or other additional expenditures.

Table 17. Gross income from honey sold in Bulanjor, 2004 and 2005

	2004	**2005 (projected)**
Interest group	1 500 Dalasis	5 250 Dalasis
Individuals	7 350 Dalasis	61 750 Dalasis
Village total	**8 850 Dalasis**	**67 000 Dalasis**

Table 18. Processing and marketing costs for honey in Bulanjor, 2004

Item	**Cost**
Mosquito net	30 Dalasis
Six 20-litre containers	90 Dalasis
Total cost	**120 Dalasis**

Table 19. Processing and marketing costs for honey in Bulanjor, 2005 (projected)

Item	**Cost**
Mosquito net	60 Dalasis
41 20-litre containers	615 Dalasis
Total cost	**675 Dalasis**

Processing and marketing of wax-related products

In 2004, as an experiment, 2 kg of wax were processed into body cream by the Bulanjor honey interest group. Mentalat and perfume were purchased to enhance the smell, and vegetable oil was used to improve the texture. The total cost of these items was 116 Dalasis. The body cream was packaged in jam jars that cost 2.50 Dalasis each. The interest group sold the cream in nearby villages for 15 Dalasis per jar. Demand was very high and the body cream sold fast. The interest group is planning to process a great deal more wax after the first harvest in 2005, and will sell the body cream at 20 Dalasis per jar through NGAB.

Table 20. Body lotion produced and sold by Bulanjor interest group, 2004 and 2005

	2004	2005 (projected)
Village total	**270 Dalasis (18 jars)**	**2 160 Dalasis (105 jars)**

Table 21. Processing costs for 18 jars of body cream in 2004	
Item	**Cost**
2 kg wax	Free
Jam jars	40.50 Dalasis
Mentalat	30 Dalasis
Perfume	20 Dalasis
Vegetable oil	66 Dalasis
Total cost	**166.50 Dalasis**
Cost per jar	**9.25 Dalasis**

Table 22. Processing costs for 105 jars of body cream in 2005	
Item	**Cost**
2 kg wax	Free
Jam jars	262.50 Dalasis
Mentalat	175 Dalasis
Perfume	117 Dalasis
Vegetable oil	385 Dalasis
Total cost	**939.50 Dalasis**
Cost per jar	**8.95 Dalasis**

Although the interest group considered 2004 a successful year because it met all goals, a number of constraints prevented it from reaching its full potential. These constraints, including harvesting techniques and hive maturity, have all been resolved. Recent observations of the hives support this conclusion. Consequently, the interest group has high hopes for 2005.

Expenditure of beekeeping-income and village benefits

The interest group was able to supplement the village bank account through the local fund with the proceeds it earned in 2004. The income derived from beekeeping activities was put into this account for future beekeeping projects and village development. In collaboration with the VDC, the interest group also contributed money to install three hand pumps and purchased a solar panel for the village mosque. When this case study was concluded, there were 16 000 Dalasis in the bank from CF- and MA&D activities, with 1 025 Dalasis originating from beekeeping.

Through putting the profit from beekeeping activities back into the community, by bringing electricity to the mosque and increasing the number of water pumps, villagers throughout the community are beginning to see the benefits of managing their forest resources

Members of the interest group who managed their own hives also reaped substantial benefits. They used this income to support their compounds during the dry season when they earn little money. They plan to reinvest some funds to purchase new suits and other equipment which they will make available to the entire interest group.

Chapter 4

Additional impacts of the MA&D process

Enhancement of trust

The MA&D process promoted collaboration between the forestry service and local communities. The process provided local forest managers with economic prospects and gave the forest a value that is clear and easy to understand. This helped to reduce cynicism regarding the financial benefits of participatory forest management, and encouraged other communities to become involved and join the CF process.

"We thought the forest land would be fenced off by the government and we would lose our traditional rights. Cattle would no longer be able to graze and we couldn't fetch firewood. We thought it was a trick by the government to take our land. Now we have trust in the Forestry Department that they are working in our best interests when they sensitize and introduce new ideas. We can now clearly see the benefit of participatory forest management." **Modu Lamin Sanyang, Tumani Tenda village**

Ali Saidy Faye, Administrative Circle Head at Jaremeh Koto in the Central River Division, speaks to students at Karantaba school about the value of forest resources during a surprise visit to award prizes following the conclusion of an anti-bushfire school art competition

Expansion of community forests

A recent and very encouraging trend has been emerging in many of the MA&D villages. Thirteen out of the 26 villages currently participating in MA&D-related activities have applied to extend their CFs. The number would be higher, but in many cases – including Tumani Tenda – all the available land has already been converted. Bulanjor has recently applied to extend its CF from 140 to more than 600 ha. This substantial expansion would have seemed implausible only a few years ago.

Table 23. MA&D villages applying to extend their CF areas

Village	Division	Administrative circle (AC)	Approximate area
Berefet	Western Division	Kafuta AC	350 ha
Batending	•	•	100 ha
Ndemban	•	•	35 ha
Jakoi Sibrik	•	•	80 ha
Bulanjor	•	•	600 ha
Buram	•	•	20 ha
Batelling	LRD	Dumbuto	500 ha
Manduar	•	Manduar	200 ha
Jassobo	•	Soma	25 ha
Tabanani	CRD	YBK	50 ha
Korop	•	•	10 ha
Bustaan	•	Jarumeh Koto	100 ha
Dobo	•	•	80 ha
Total			**2 150 ha**

Tumani Tenda has built an ecotourist lodge on a bolong adjacent to its CF. Currently, this is so successful that village developments such as rural electrification are being funded entirely from it

Fostering a sense of ownership and responsibility

Now that they can use their forest resources sustainably, the communities involved in the MA&D approach have a vital stake in the welfare of their forests and are willing to invest in their protection. This is especially clear regarding the control of bushfires and illegal forest exploitation. Most of the rest of the Gambia is still struggling to combat these pressing threats to the forest, but the participatory forest management approach is the only system to have had any success so far. For a long time, the Forestry Department has understood that foresters alone will never be able to prevent bushfires or stop illegal felling. The active participation of the communities that benefit from the forests is vital if these threats are to be overcome. A sense of ownership and responsibility must therefore be fostered within the communities.

Since its inception in 1991, the community forestry concept has been working towards this goal. The MA&D process places a clear value on the forest and offers communities incentives to protect it. Many communities are now taking active measures to protect their forests. Firebreaks are commonly employed, and many communities have set up patrols to stop illegal felling in their forests. In Bulanjor, many people used to fell trees commercially; some outsiders had licences from the government, while many others operated illegally. The villagers never tried to stop them, however, because they felt that they had no control. Now that the forest is in their hands, incidences of bushfires and illegal felling have dropped dramatically, and the government can no longer issue logging licences on CF land.

"In the past, the forest burned every year. When people from the village saw bushfires, we only protected the village but didn't care if the entire forest burned. We thought it didn't matter because regardless of what happened, the government would take whatever was there. Now, we know things are different. If we see a fire 5 km away, we go and see where it is and where it is going. We don't let our forests burn." **Modu Jarju, Bulanjor village**

A villager from Sankoli Kunda in the Central River Division sets a firebreak along the main road at the beginning of the dry season

Integrating the MA&D approach into core forestry curricula

At the departmental level, it was felt that the MA&D concept should be integrated into operational concepts such as the Gambia forest management concept. Certain aspects of the approach had already been incorporated into the Community Forestry Implementation Guideline and Field Manual, but few foresters had been formally trained in the process. A review of the Kafuta School for Forestry was carried out, and the curriculum was adapted to include the MA&D methodology, which was first introduced at the school in June 2004. The

approach was a completely new concept for both the school and the students. In late June, 33 students, 25 male and eight female, attended a three-week training course covering both theory and practice, as well as a field study. After observing the MA&D approach in the field, there was a high level of enthusiasm from future foresters at the school about the effectiveness of the methodology (see Annex 4 for a list of Kafuta's MA&D-trained graduates).

"When we were first taught about the system, we knew it could fit into the framework of participatory forest management. There was already a place for MA&D in the Forest Act, which encourages the sustainable utilization of forest products." **Bakary Laineh, student**

Students from Kafuta Forestry School's first MA&D-trained class prepare for exams

"With MA&D, you benefit for today, but preserve for the future. Sustainability is highly valued in the approach. The duty of the forester is to guide villagers. It is our job to work for their best interests." **Sanna Susso, student**

Capacity building and support for federated groups

MA&D facilitators put great emphasis on creating federations of interest groups throughout implementation of the approach. The purpose of the federations is to channel the collective power and strengths of the different interest groups. Federations are instrumental in mobilizing and coordinating their members in such activities as building strategic alliances with key actors/organizations, and play an important role in increasing the overall capacity of the project and – more specifically – the efficiency of the enterprise activities. Some federated groups, such as the Forest Kambeng Kafo in the Central River Division and JATIFIF in the Western Division, were formed by constituents of the interest groups, while other pre-existing organizations, such as NBAG, were incorporated into the MA&D approach.

National Beekeepers' Association of the Gambia (NBAG)

NBAG was formed in 2002 as a local non-profit organization, and is based near the capital in Banjulnding. Its primary goal is to promote the beekeeping industry within the Gambia. NGAB works to stimulate the supply of honey by dealing directly with honey producers, and eliminating intermediaries in order to form a basic rural–urban marketing chain. This ensures that the honey producers get the best price. NBAG also aims to utilize effective packaging and quality control measures in order to develop a strong and consistent local market for honey.

Along with services such as discounts on equipment and free collection of honey, which members receive on payment of their one-time fee, NBAG also organizes capacity building workshops and field trips. From 10 to 13 June 2004, 24 representatives of registered interest groups were taken to Aajac Colufifa in Cassamance, Senegal for a study tour. Sessions were provided to demonstrate alternative techniques to improve the quality of honey, as well as increasing the quantity, through advanced apiary management. Sessions on wax processing were also held.

NBAG is currently working to decentralize its operations by establishing five divisional project sites. It is also in the process of setting up a micro-finance operation to provide much-needed start-up capital to prospective beekeepers. To date, NGAB has received no external funding, and all profits are distributed to members through subsidized equipment and training.

"NBAG has just completed an ecotourism and beekeeping training centre in Nyambi. We are using transparent hives and developing short films to demonstrate beekeeping techniques at the centre. However, across the country we need to increase the number of active beekeepers and the amount of hives being employed. This is our biggest constraint. The demand for honey right now is very high."
Amadou Ceesay, CEO NGAB

Jamorai Timber and Firewood Federation (JATIFIF)

In 2003, representatives from 11 interest groups in communities surrounding Kafuta village held a number of workshops evaluating the effectiveness of the MA&D approach in their region. During their initial analysis of timber and fuelwood using the four areas of enterprise development, a serious technological constraint was identified. At the time, the communities had neither access to nor training in the operation of such equipment as chainsaws and sawmills. This led to a massive reduction in profit, as entrepreneurs from the capital reaped huge benefits at the communities' expense. These urban contractors did most of the work, including operating chainsaws, coordinating trucks and marketing. A single truckload of timber, which contains an average of 30 pieces, was valued at 27 000 Dalasis. However, the communities could not agree to a fixed price, and unscrupulous contractors used this to their advantage, playing the communities against one another. On average, for every three truckloads of timber produced, the communities were paid only the value of one. This worked out at 9 000 Dalasis per truckload.

While individual interest groups considered this arrangement as unfair, they felt powerless to overcome it by themselves. However, during the MA&D workshops, the interest groups realized that although singularly they had no power to overcome this constraint, they could resolve it be joining forces. The 11 communities decided to form a federated group under the name JATIFIF. They are now building their capacity through technical training, setting fixed prices and monitoring their resource base. They collectively negotiated a flat price with the contractors and now get 17 000 Dalasis per truckload of timber, taking on the responsibilities of cutting the trees and preparing them for transport. The interest groups, which are now feeling empowered by having more responsibilities, have hired chainsaws and are paying the labour costs themselves, negotiating with private sawmills and sharing out the work within the community. The price increase has made no effect on the high demand for timber, as contractors are still making a large profit. This new arrangement has almost doubled the interest groups' profit and has led to the creation of many additional jobs in the community.

Table 24. Average profits to JATIFIF interest groups for three truckloads of timber

	Total value	**Village profit**	**Percentage of total**
2003	81 000 Dalasis	27 000 Dalasis	33%
2004	81 000 Dalasis	51 000 Dalasis	63%

Through the federation, members of JATIFIF have created a number of linkages to other supporting institutions, amongst which is FAO. In November 2004, JATIFIF met with representatives of FAO to discuss a proposal to increase its members' technical capacity further. JATIFIF has plans to purchase a number of chainsaws, which will be operated and paid for by the affiliated interest groups. It has already trained members on basic operation and maintenance skills, and is preparing to cut out the intermediaries completely, taking on the additional responsibilities of hiring trucks and transporting the timber itself. JATIFIF is also implementing similar strategies for fuel wood and is actively involved in other MA&D activities such as handicrafts and beekeeping (see Annex 5 for a list of JATIFIF Executive Members).

Chapter 5

A Gambia-wide overview of MA&D implementation

Marketed products

In the 26 villages actively employing the MA&D methodology, 11 products are being marketed effectively: fuel wood, logs/timber, honey, netto, palm-oil, handicrafts from Rhun palm-based products, Rhun palm splits, ecotourism, forest walks, tree nurseries and kembo posts. Several other products such as local ropes and bush fruits, were eliminated during phase 2 because of environmental concerns, lack of appropriate markets and seasonality.

Fuelwood is commonly sold along the main south bank road to intermediaries and commuters heading to the coastal region, where it is scarce. MA&D communities in the Kafuta region have formed a federation to ensure that they receive fair prices

Table 25. Products selected on the basis of the four areas of enterprise development[3]	
Product	**Reasons for selection**
Honey	ST: Production and processing skills are acquired SI: Traditionally accepted/collaboration with stakeholders ME: Market information is acquired, high profit margin
Timber\logs	ST: Production and processing skills are acquired through hired labour SI: Traditionally accepted/collaboration with stakeholders for access to funding ME: Market information is acquired, high profit margin
Fuelwood	ST: Production and processing skills are acquired through communal participation SI: Traditionally accepted/collaboration with stakeholders for access to funding ME: Market information is acquired, high profit margin
Rhun palm splits	ST: Production and processing skills are acquired through communal participation SI: Traditionally accepted RE: Resource is available in the CF ME: High demand with high profit margin
Kembo posts	ST: Production and processing skills are acquired through communal participation SI: Traditionally accepted/collaboration with stakeholders for access to funding RE: Resource is available in the CF
Tree nurseries	ST: Production and processing skills are acquired SI: Traditionally accepted/collaboration with stakeholders for access to funding RE: Infrastructure is already in place ME: High demand with high profit margin
Handicrafts	ST: Production and processing skills are acquired SI: Traditionally accepted/collaboration with stakeholders for access to funding RE: Resource is available in the CF ME: Market information is acquired, high profit margin
Ecotourism	SI: Traditionally accepted/collaboration with stakeholders for access to funding RE: Environmentally friendly, resource is available in the CF
Forest walks	SI: Traditionally accepted/collaboration with stakeholders for access to funding RE: Infrastructure is already in place ME: Market information is acquired
Palm-oil	ST: Production and processing skills are acquired SI: Traditionally accepted ME: High demand with high profit margin
Netto	ST: Production and processing skills are acquired SI: Traditionally accepted RE: Resource is available in the CF ME: High demand with high profit margin

Table 26. Products abandoned on the basis of the four areas of enterprise development	
Forest fruits	SI: Lack of storage facilities ME: Seasonality RE: Decreased stock, often tampered with by wildlife in their early stages
Ropes	RE: If the market potential is high, exploitation will weaken the trees by cutting their bark
Herbs	RE: Continuous harvesting of the rooting system of the trees will cause decay and death
Grass	SI: Members of the communities are cattle owners who want to preserve grassland for their own use
Roots and tubers	RE: If the market potential is high, risk of species depletion
Sibo leaves	SI: Communities want to keep these for their own use

[3] See p. 17: ST = science/technology; SI = social/institutional; RE = resource/environment; ME = market/economy.

Interest group members

By the end of 2004, 484 members of interest groups were engaged in MA&D activities. Some 60.7 percent live in the Western Division where 121 people were working in fuel wood-related enterprises. The Lower River Division accounted for 18.8 percent of the total number of interest group members, and the Central River Division the remaining 20.5 percent.

Table 27. Interest group members, broken down by product and division

	Fuel-wood	Logs, timber	Eco-tourism	Honey	Netto	Palm-oil	Handi-crafts	Rhun palm splits	Forest walks	Tree nursery	Kembo posts
Western Division											
Kafuta	5	5									
Tumani Tenda			6	3	4						
Berefet, Besse, Ndemban	10	8									
Somita	25	8									
Batending and Kandonk	27	12									
Jakoi and Nyangit	6	4		5			6				
Kanuma	11	5		6							
Buram	7	10		6		7					
Bulanjorr	24	16		24		16					
Tampoto	6	6		6							
Brefet			6	4							
Lower River Division											
Jassobo		8		7							
Bureng				10			7	9			
Batelling	5	5		7					11		
Manduar	4			4							4
Nema/ Bamako				5						5	
Central River Division											
Dobo	3	3		3			3	3			
Kunting		3		3			3	3			
Bustan	3			3			3	3			
Korop	3	4		5			4	2			
Boraba	5	5		6			6				
Tabanani	3	5		4			3	5			
Total	**147**	**107**	**12**	**111**	**4**	**23**	**35**	**25**	**11**	**5**	**4**

Financial projections

With several successful products and a substantial number of trained villagers, MA&D facilitators and Forestry Department field staff have high expectations for 2005. The facilitators project a total net profit of 1 685 857.50 Dalasis for the 26 participating communities. If this goal is reached, it will substantially enhance the forestry sector's contribution to poverty reduction, as well as providing much-needed support to the Forestry Department, which is currently limited by financial constraints. These projections would bring the Forestry Department more than 404 455 Dalasis in NFF royalties from the recently implemented 15 percent forest resource tax. This will enable the department to resolve such institutional problems as lack of mobility, inadequate training and equipment shortages.

Table 28. Financial projections for the Western Division (in Dalasis)

Village(s)	CF	Product	PRODUCTION AND SALES PROJECTIONS FOR 2005				
			Production quantity	Gross income	Production and marketing	Taxes, NFF and royalties	Net profit
Kafuta	Tunku	Logs Fuelwood	6 truckloads 4 truckloads	66 000.00 112 000.00	12 000.00 33 232.00	9 900.00 16 800.00	44 100.00 61 968.00
Bulanjor	Brinkinai	Logs/timber Fuelwood Honey	4 truckloads 6 truckloads 840 litres	56 000.00 99 000.00 67 000.00	8 000.00 26 281.00 2 897.50	8 400.00 15 804.00 10 050.00	39 600.00 56 915.00 54 052.00
Jakoi-Sibirik	Kussabel	Logs Fuelwood Honey	2 truckloads 4 truckloads 360 litres	22 000.00 66 000.00 18 000.00	4 000.00 17 664.00 1 627.00	3 300.00 10 536.00 2 700.00	14 700.00 37 800.00 13 673.00
Berefet Besse Ndemban	Kasila	Logs Fuelwood	3 truckloads 3 truckloads	33 000.00 84 000.00	6 000.00 27 330.00	4 950.00 13 224.00	22 050.00 43 446.00
Kanuma	Jassana	Fuelwood Honey	4 truckloads 390 litres	66 000.00 19 500.00	15 600.00 3 157.00	1 536.00 2 925.00	39 864.00 13 418.00
Tampoto	Musai	Honey	360 litres	18 000.00	1 627,00	2 700.00	13 673.00
Batendeng Kandonk	Kumbato	Fuelwood	5 truckloads	140 000.00	45 425.00	22 040.00	72 535.00
Buram	Sibac	Logs/timber Fuelwood Honey	2 truckloads 2 truckloads 360 litres	28 000.00 33 000.00 18 000.00	4 000.00 10 110.00 1 880.00	4 200.00 5 268.00 2 700.00	19 800.00 17 622,00 13 420,00
Tumani-Tenda	Kachokorr	Honey	900 litres	45 000.00	4 520.00	6 750.00	33 730.00
Total				**990 500.00**	**225 350.50**	**152 783.00**	**612 366.00**

Table 29. Financial projections for the Lower River Division (in Dalasis)

Village(s)	CF	Product	PRODUCTION AND SALES PROJECTIONS FOR 2005				
			Production quantity	**Gross income**	**Production and marketing**	**Taxes, NFF and royalties**	**Net profit**
Batelling	Nganingkoi	Logs/timber Fuelwood Honey	2 truckloads 2 truckloads 300 litres	28 000.00 35 200.00 19 200.00	9 000.00 13 531.25 711.50	4 200.0 5 624.00 2 880.00	14 800.00 16 044.75 9 008.00
Manduar	Wanchank-alang	Fuelwood Honey Kembo posts	2 truckloads 240 litres 3 000 posts	42 000.00 14 100.00 21 000.00	20 496.25 3 374.00 600.00	6 300.00 2 115.00 3 150.00	15 203.75 8 611.00 17 250.00
Nema and Bamako	Kabato Purai	Honey Seedlings	300 litres 12 000 seedlings	19 200.00 140 000.00	5 422.50 18 338.00	2 880.00 21 000.00	10 897.50 100 662.00
Jassobo	Kabarr-Kunda	Logs/timber Honey	4 truckloads 300 litres	16 000.00 19 200.00	- 2 985.00	2 400.00 2 880.00	13 600.00 13 335.00
Bureng	Folanko	Sibo splits Honey Handicrafts	360 splits 300 litres 200 beds/chairs	14 400.00 19 200.00 22 500.00	1 385.00 3 442.00 9 534.00	2 520.00 2 880.00 3 375.00	10 495.00 12 878.00 9 591.00
Total				**410 000.00**	**95 419.50**	**62 204.00**	**252 376.50**

Table 30. Financial projections for the Central River Division (in Dalasis)

Village(s)	CF	Product	PRODUCTION AND SALES PROJECTIONS FOR 2005				
			Production quantity	**Gross income**	**Production and marketing**	**Taxes, NFF and royalties**	**Net profit**
Tabanini	Sibikuroto	Logs/timber Fuelwood Sibo splits Honey Handicrafts	2 truckloads 4 truckloads 1 000 splits 60 litres 30 beds	52 610.00 90 000.00 40 000.00 3 000.00 7 500.00	5 000.00 54 000.00 16 000.00 330.00 4 825.00	7 891.50 14 400.00 7 000.00 450.00 1 175.00	39 718.00 21 600.00 17 000.00 2 220.00 1 500.00
Boraba	Kapeesaba	Logs/timber Fuelwood Honey	4 truckloads 2 truckloads 60 litres	115 500.00 24 000.00 3 600.00	13 150.00 15 300.00 330.00	17 325.00 3 808.00 540.00	85 025.00 4 892.00 2 730.00
Korop	Sutujang	Logs/timber Fuelwood Sibo splits Honey Handicrafts	6 truckloads 2 truckloads 300 splits 500 litres -	180 000.00 25 000.00 21 000.00 26 250.00 10 800.00	170 000.00 8 300.00 4 500.00 5 220.00 4 140.00	27 000.00 4 070.00 3 435.00 3 938.00 1 720.00	136 000.00 12 630.00 13 065.00 17 092.00 4 940.00
Dobo	Kanaibu	Logs/timber Fuelwood Sibo splits Honey Handicrafts	6 truckloads 1 truckload 200 splits 200 litres 30 beds	180 000.00 2 000.00 12 150.00 10 500.00 3 600.00	18 000.00 250.00 3 600.00 577.00 1 650.00	27 000.00 300.00 2 022.00 1 500.00 840.00	135 000.00 1 450.00 6 527.50 8 423.00 1 110.00
Bustan	Fankanta	Logs/timber Fuelwood Sibo splits Honey Handicrafts	6 truckloads 1 truckload 400 splits 120 litres 60 beds	180 000.00 1 200.00 25 400.00 6 150.00 10 800.00	18 000.00 90.00 4 600.00 510.00 3 660.00	27 000.00 180.00 4 210.00 923.00 2 220.00	135 000.00 930.00 16 590.00 4 717.00 4 920.00
Kunting	Isray	Logs/timber Sibo splits Honey Handicrafts	6 truckloads 90 splits 240 litres -	180 000.00 6 300.00 12 300.00 2 600.00	18 420.00 1 860.00 790.00 1 575.00	27 000.00 1 035.00 1 845.00 640.00	134 580.00 3 405.00 9 665.00 385.00
Total				**1 232 260.00**	**221 677.00**	**189 468.00**	**821 115.00**

Products of the future

In the short time since introducing the MA&D approach to the Lower River and Central River Divisions, a number of products and resources have found particular success. In the last year, timber, fuel wood and handicrafts have shown great promise. The Forestry Department and NACO are training villagers who are achieving positive results with a variety of products.

Timber

In the Central River Division, a number of communities working with CFs had the opportunity to utilize a Luca mobile sawmill, paid for by the German Bank for Reconstruction (KfW), to assist the processing of dead wood into saleable timber. A survey, conducted with the cooperation of the Forestry Department and the Central River Division Forestry Project (CRDFP) in April 2004, showed that most timber in the area was being supplied by two sawmills, one in Basse and the other in Bansang. However, production was not enough to meet rising demands because of a boom in construction. Profitability calculations were made and it was determined that interest groups could increase their profits four to ten times if they used a mobile sawmill instead of cutting the timber by hand.

An interest group member in the Central River Division partitions a dead wood Mahogany tree to make serviceable portions that will be cut further using a Lucas mobile sawmill

CRDFP decided not to rent the mobile sawmill to private users but would lend it to CF and JFPM communities free of charge on condition that they covered operational costs, including transport, fuel, maintenance, and an operator, as well as NFF taxes and payments for logs from open-access forests. The remaining profit is allocated to the Community Forest Committee's treasurer.

Table 31. Profit calculation for one day with the Lucas mobile sawmill		
Item	**Expense**	**Income**
Sawmill fees	1 000 Dalasis	
Fuel	450 Dalasis	
Tractor rental	2 000 Dalasis	
Preparations, including felling and chainsaw rental	1 500 Dalasis	
Contribution to maintenance of the mobile sawmill	500 Dalasis	
Income from timber sales		+10 000 Dalasis
NFF taxes (15% of profits) or rate for purchasing dead trees from open-access forests	700 to 1 000 Dalasis	
	5 650 to 5 950 Dalasis	+10 000 Dalasis
Total		**3 550 to 3 850 Dalasis**

During 2004, the Forestry Department and CRDFP trained a few members of participating interest groups to operate a sawmill. These operators are now working together with a number of villages, including Dobo, Korop, Bustan and Kunting, which are implementing the MA&D approach. The profits for the participating villages have already been substantial. The village of Korop, for example, earned 11 915 Dalasis from three days of sawmilling in June 2004.

A Community Forest Committee in the Central River Division oversees the sawing of a Mahogany tree. The tree was identified during a recent forest dead wood survey conducted between May and June 2004

Handicrafts

In the Central River Division, Rhun palm is one of the primary products commercialized by Community Forest Committees. Initially, the fronds and sticks were sold locally at low prices for household construction. However, because of its scarcity and the threat of over-exploitation, long-term sustainability became a real concern.

This situation changed when the Forestry Department learned about Projet Rôneraies Communautaires in Senegal which was constructing high-quality furniture from dry Rhun palm fronds and selling it for excellent prices. Demand led to a marked increase in value of the raw product and greater incentive to preserve the resource base. In August 2003, representatives from nine Gambian villages managing CFs and JFPMs were invited to Senegal to learn more about the process.

The visit to Senegal was reciprocated on 20 May 2004 when a craftworker from Thies led a 12-day workshop in the village of Kessereh Kunda in Central River Division. Five villages attended and focused on the construction of beds, sofas and "lazy chairs". Particular attention was paid to making beds from Rhun palms, as it was hoped that these would provide an alternative to beds traditionally made from the increasingly scarce Rapphia palm.

Chairs constructed from Rhun palm sticks have sold well at hotels and restaurants, as well as in the expatriate community

During the 2004 Fire Award Scheme, villages with CFs or participating in JFPMs were awarded prizes if less than 10 percent of their designated forest area had burnt. Prizes included beehives, as well as locally constructed Rhun palm beds and chairs

Several MA&D villages in the Central River Division, including Dobo, Tabanani, Korop and Bustan, are now effectively using the skills they learned during this workshop. Locally produced handicrafts are sold to hotels in the capital such as the Palma Rima and to ecotourist lodges in the provinces. Large quantities were also purchased and given as prizes during the CRDFP-sponsored Fire Award Scheme in 2004. In Bustan alone, 60 beds were constructed, earning the interest group almost 11 000 Dalasis.

Table 32. Price list for Rhun palm furniture

Product	**Price**
Bed	450 Dalasis
Chair	250 Dalasis
Lazy chair	175 Dalasis

Summary of achievements

Policy impacts

- Support for the legal acquisition of forest trees and products.
- Realization of a number of the goals stated in the 1998 Forest Act, particularly regarding the sustainable utilization of forest resources.
- Constraints concerning policy issues have been revealed and proposals for solutions have been established.
- Forestry Department field staff is enforcing laws more vigilantly.

Economic impacts

- Increased economic incentives for local forest users and Community Forest Committees.
- Improved employment opportunities.
- Substantial revenue to the Forestry Department from NFF royalties.

Social impacts

- Increased attention to gender issues.
- Increased community participation.
- Improved collaboration and synergies.
- Reduced friction among stakeholders.
- Capacity building in entrepreneurial skills.
- Creation of federated groups, such as JATIFIF and the Forest Kambeng Kafo, as a platform for information exchange and improved marketing.

Ecological impacts

- Strengthened resolve in communities to protect and improve their local forests through preventing and fighting fires.
- Increased awareness of environmentally friendly forest utilization methods.
- Increased requests for expansion of CFs where MA&D is used.
- Reduced levels of illegal forest utilization.
- Shift to lesser-known forest products, relieving pressure on heavily utilized ones.

Institutional impacts

- Additional strength of Forestry Department in participatory forest management.
- Capacity building of Forestry Department staff at all levels regarding sustainable utilization of natural resources in a practical manner, including management and organizational issues.
- Increased material inputs, such as motor cycles and computers are improving the effectiveness of the Forestry Department.
- Improved image of Forestry Department staff with local communities.
- Diversification of implementation structures through collaboration with NACO and other organizations or groups such as NBAG and JATIFIF.
- The MA&D methodology introduced into the curriculum of the Kafuta Forestry School.

Chapter 6: Lessons learned

The implementation of the MA&D concept in the Gambia taught many valuable lessons, exposed weaknesses, and developed strategies to address the needs of the project. Many accomplishments of the pilot programme will play an important role in improving and sustaining the Gambian participatory forestry programme in the future.

Policy context

The Gambian forest management concept provides an enabling policy environment for the management of forest lands by local populations. This aspect was further enhanced in 1998 when the Government of the Gambia passed the Forestry Act. This act is in harmony with the Gambian forest management concept and aims to give communities full ownership and rights to their traditional forest land, as well as ensuring long-term security for utilization purposes. The Local Government Act of 2002 outlined the responsibilities of regional institutions, including their obligation to "promote community participation in micro-project planning implementation and management of local resources". Ownership of land is now clearly defined, as are regulations regarding land use. The ambiguities of the past which led to many misconceptions (such as that the government wanted to outlaw traditional grazing rights), have now been dispelled.

One area that remains a challenge is the unfair competition generated by the illegal exploitation of State land. There are even some cases where the CF name is blatantly misused by outsiders to facilitate the transport of illegal products to the market. This unethical behaviour creates unfair competition with legal CF products, and hurts the communities that are actively involved in forest conservation efforts. In addition, weak enforcement at police checkpoints can place the entire process of community-based enterprises at risk, as well as severely affect efforts to protect the forests. These issues are being addressed at the highest levels and solutions urgently need to be found.

Access to forest products is one of the key requirements for developing small-scale enterprises. With the government's commitment to adapting policies to support participatory forestry, many potential obstacles have been avoided and an increasing number of communities are gaining the access necessary to develop promising products. However, new policies must continue to be established in order to achieve this goal. While much has already been accomplished, participatory forest management in the Gambia is recent and many communities still cannot legally make use of their traditional land.

Participatory approach

Small-scale entrepreneurs, interest groups and stakeholders need to actively participate in all stages of the MA&D approach to ensure that projects will be sustainable long after the MA&D facilitators have provided guidance and technical support. This prerequisite for enterprise development is in line with the Forestry Department's approach to securing the continued participation of forest users through CFs. An enterprise that outsiders have designed and initiated cannot be viable in the long term. Through the MA&D process, Community Forest Committees have taken the lead in product selection, as well as in carrying out surveys and organizing meetings with stakeholders allowing them to plan their enterprises accordingly. The Forestry Department and NACO have provided technical skills and motivated participants to

maintain high levels of commitment. This should continue as communities learn from their mistakes and find ways to ensure that projects flourish.

Capacity building through diversification

Community-based enterprise development often requires a multisectoral approach because individual institutions do not have all the facilities necessary to meet the demands of prospective entrepreneurs. For instance, the involvement of NACO and other collaborative partners has given the Forestry Department the capacity to work towards its goal of empowering communities with the skills necessary to manage and utilize their forest resources. Other groups, such as NBAG and JATIFIF, have made the marketing of forest products feasible in rural communities that otherwise would not have had the same access to marketing channels enjoyed by their urban counterparts. Continuous collaboration with these institutions is essential to the success of MA&D-related projects. Building the capacity of all parties, from village-based entrepreneurs to NGOs working at the administrative level, is vital in all areas of development. Entrepreneurial and management skills are often traditionally lacking in the Gambia, and additional efforts to address this gap must continue to be taken (see Annex 6 for a list of Multilevel support training courses).

Constraints during the implementation period

The implementation of the Gambia's MA&D was not entirely free of problems. Setbacks in production schedules, lack of mobility and unexpected changes in market conditions proved a challenge to meeting target projections. In addition, the TCP did not terminate in March 2004 as initially scheduled for a number of reasons, including:

- **Staff shortages:** Two foresters who had been closely involved in the pilot process went abroad to further their studies. This slowed down implementation.
- **Inadequate mobility:** Lack of vehicles and fuel seriously limited the work that could be accomplished.
- **Capacity building:** A great deal of time was devoted to training field agents on the EDP methodology and various approaches that could be adapted to each individual situation, rather than simply providing them with a static blueprint.
- **Low commitment of villagers:** During the pilot phase, the African sub-region, including the Gambia, suffered a drought which led to large-scale crop failures in many areas. Consequently, villagers' priorities shifted to finding enough food for survival, leaving them little time to consider long-term forest management strategies.
- **Ownership of the EDPs:** The interest groups must feel that they own EDPs and should therefore play a key role in their development, with field staff facilitating the process. Ensuring that this happened was time-consuming and proceeded more slowly than many staff had anticipated
- **Learning by doing:** To bolster sustainability, the interest groups were encouraged to carry out the calculations and evaluate the EDPs themselves, with field staff assisting when necessary. This process proved time-consuming as well.
- **Low response of other stakeholders**: In March 2003, a fair was organized to launch the MA&D process and work towards building strategic alliances with support institutions in the MA&D pilot area. Of the 34 organizations invited, only 15 attended.

- **Misconceptions**: In the initial stages, both villagers and field staff often perceived the MA&D approach as a special project that was separate from the community forestry programme.
- **Illegal competition**: Despite efforts by the Forestry Department, illegal forest products such as fuelwood and timber continue to enter the market in large quantities, at the expense of legitimate enterprises started by interest groups.

Strategies adopted to minimize the constraints

- Integration of the MA&D approach into the Gambia forest management concept allowed MA&D activities to be a routine part of the field activities of Forestry Department staff.

- Vigorous and comprehensive training of both villagers and field agents.

- Memoranda of Understanding for greater commitment from outside stakeholders.

- Strategic alliances for better harnessing potential synergies.

- Serious clampdowns on illegal forest products to limit unfair competition with MA&D entrepreneurs.

Chapter 7

The way forward

The MA&D approach is an initially slow but very deliberate process that involves changing the attitude of communities in order to empower them with the skills necessary to control, protect and manage their natural resources and the environment. This outcome cannot be achieved overnight, as many communities are suspicious of interventions from well-meaning outsiders. However, once the communities realize and appreciate the benefits of MA&D, experience shows that enthusiasm and participation expand rapidly.

To maintain the momentum, more attention should be paid to the following issues:

- providing communities with further technical training in nursery and woodlot establishment and management techniques, with emphasis on women's participation;
- conducting marketing courses for interest group members and field staff;
- producing field documents, evaluating ongoing projects, sharing experiences and introducing new and original ideas from participants;
- promoting and intensifying linkages with market channels to give forest users greater market access;
- producing additional MA&D extension and training materials, including audiovisual materials, to extend the approach to other divisions and regions;
- ensuring the Forestry Department's commitment to eradicate corruption at police checkpoints;
- eliminating illegal forest products from the market by rigorously enforcing the Forest Act.

Conclusion

The MA&D process has already made a huge impact in many communities across the Gambia and there are sound reasons to expect this to continue far into the future. With the adoption of the Forestry Act and the sustained efforts of the Forestry Department to implement strong forest policies, the government has demonstrated its commitment to decentralizing the management of forest resources. This environment empowers local communities and ensures that they benefit. With many legal frameworks already in place and a policy that is conducive to participatory forest management being promoted at all levels, the MA&D process will not be hindered by unnecessary bureaucracy.

The formation of interest groups and federations is continuously enhancing the organizational structures and marketing skills of the communities. Markets for community-based products are on the rise. The demand is growing for handicraft products, such as furniture made from Rhun palms, with many people in the tourism industry making a conscious effort to support community-based enterprises.

In the Gambia, the MA&D approach follows a historical trend in community development in which more and more institutions are turning to participatory methods. Many of the principles underlying each step of the MA&D process are easily understood by field staff and are adopted quickly because they are very similar to the CF approach employed by the Forestry Department. With this head start, many communities are rapidly learning that they can protect their environment while simultaneously utilizing traditional resources to better their lives.

Annex 1

MA&D trained divisional staff, NACO and forest extension staff

Name	Designation	Duty station
Mr Kanimang Camara	National Training Coordinator, NACO	National
Mr Sambou Nget	National Coordinator, FD	National
Mr Demba Sanyang	Divisional Trainer, NACO	WD/LRD
Mr Ebou Sanneh	Divisional Trainer, FD	WD/LRD
Mr Alkali Jarjusey	Divisional Trainer, NACO	CRD South
Mr Hatab Camara	Divisional Trainer, FD	CRD
Mr Mafugi Manneh	Forest Extension staff, FD	WD
Mr Mamadi Sanneh	Forest Extension staff, FD	WD
Mr Malang Nyassi	Forest Extension staff, FD	LRD
Mr Sisawo Sabally	Forest Extension staff, FD	LRD
Mr Saidou Jallow	Field Facilitator, NACO	LRD
Mr Bakary Juwara	Forest Extension staff, FD	CRD North
Mr Ansumana Tamba	Forest Extension staff, FD	CRD South
Mr Momodou L. Sanneh	Field Facilitator, NACO	CRD

Annex 2

CFs involved in the MA&D pilot phase in the Western Division

Villages	Community forest	Size of CF in hectares	Intended enterprise	Start of CF	CFMA award
Kafuta	Tunku	450.2	Fuelwood, logs/timber	1994	Feb. 2000
Tumani Tenda	Kachocorr	89.25	Fuelwood, logs, ecotourism, honey	1996	Feb. 2000
Brefet	Berekolong and Folokojang	101.43	Fuelwood, logs/timber	1990	Dec. 1992
Brefet, Bessi and Ndemban	Kasila	462.7	Fuelwood	1990	Dec. 1992
Somita and Ndemban	Kunbeng	368.2	Logs	1991	Dec. 1992
Kandonk and Battending	Kumbato	82.79	Fuelwood, logs/timber	1992	Dec. 1999
Jakoi Sibirik and Nyangit	Kussabel	79.97	Honey, logs, fuelwood		
Kanuma	Jasaana	106.1	Honey, fuelwood, logs	1996	Feb. 2000
Buram	Sibac	31.86	Honey, logs/ timber	1997	Feb. 2000
Tampoto	Musal	20.08	Logs/timber, honey	1996	Dec. 1999
Bulanjor	Brinkinai	140.0	Honey, logs/timber	1997	Jan. 2000

Annex 3

List of local, English and scientific names of common forest resources and their uses

Local name	English name	Scientific name	Product
Baobab		*Adansonia digitat*	Fruit; bark for ropes
Bumbango	Red-flowered silk cotton tree	*Bombax costatum*	Leaves, flower and fruit for food, juice, local medicine
Bushtea	Gambian tea bush	*Lippia chevalieri*	Tea from leaves
Cashew		*Anacardium occidentale*	Seeds as food, fruit for food and wine
Fibre			
Fuelwood			
Folley	Rubber wine	*Landolphia heudelotti*	Medical treatment; rubber
Honey			
Kabba		*Saba senegalensis*	Leaves boiled for inhalation; fruit juices
Kinkiliba		*Combretum micranthum*	Leaves for tea; treatment of coughs
Kosito		*Dialium guineense*	Edible fruit
Kutufingo		*Vitex doniana*	Leaves for wound treatment; fruit edible
Mampato/Tamba	Guinea plum	*Parinari excelsa*	Edible fruit, kernels and seeds
Medical roots			Medical uses
Netto	African locust bean	*Parkia biglobosa*	Seeds and their pulp used for food, sweet drinks
Ninkongo	Hog plum	*Spondias mombin*	Edible fruit, shoots and seeds
Sisiling nyamo	Gambian tea bush	*Lippia chevalieri*	Tea; fruits in pillows against headaches
Solom	Velvet tamarinde	*Dialium guineense*	Edible fruit
Tabbo	Kola	*Cola corifolia*	
Tallo	Tallow tree	*Detarium guineense*	Edible fruit
Tengo	Oil-palm	*Elaeis guineensis*	Roots for medical treatment, seeds edible
Timber logs			Timber
Tomborongo	Jujube tree	*Ziziphus Mauritania*	Edible fruit
Wildlife			Food
Njolingo	Coral flower tree	*Erythrina senegalensis*	Leaves for wound treatment

Annex 4

List of Kafuta Forestry School's first MA&D-trained graduates

No.	Name of forest guard	Sex
1.	Bakary Laineh	M
2.	Lamin Bojang	M
3.	Modou Colley	M
4.	Bubacarr Bah	M
5.	Pa Jalamang Sanyang	M
6.	Ramou Jatta	F
7.	Mai Bojang	F
8.	Kaddy Dibba	F
9.	Ma Binta Jatta	F
10.	Lamin Saidy	M
11.	Mantu S. Fatty	F
12.	Sanna Susso	M
13.	Lamin B. Bojang	M
14.	Lamin O. Sanyang	M
15.	Sulayman Touray	M
16.	Lamin A. Jarju	M
17.	Binta Sanneh	F
18.	Modou L. Drammeh	M
19.	Buba Bojang	M
20.	Lamin Dibba	M
21.	Jolla Bojang	M
22.	Dembo Kuyateh	M
23.	Omar Seckan	M
24.	Kemo Kinteh	M
25.	Mariama Jatta	F
26.	Yahya Sanyang	M
27.	Kaddy Jatta	F
28.	Lamin Jallow	M
29.	Juwel Jallow	M
30.	Alasana Fofana	M
31.	Ebrima Camara	M
32.	Ousman Nyassi	M
33.	Karanlang Sanneh	M

Annex 5

Executive Members of JATIFIF federated group

NAME	VILLAGE	POSITION
Cherno Beyai	Tampoto	Adviser
Demba Sanyang	Brefet	Adviser
Cherno Gibba	Tampoto	Vice Chair
Juma Jallow	Kafuta	Chainsaw operator
Modou Sonko	Tumani Tenda	Auditor
Buba Colley	Bulanjorr	President
Ansumana Beyai	Buram	Treasurer
Hatab Jammeh	Batending	Secretary
Jerreh Jarjue	Kanuma	Organizer
Dawda Camara	Kafuta	Organizer
John Mendy	Besse	Organizer

Annex 6

Multilevel support training courses

Type of training	Number of trainees	Category of trainees	Duration	Dates
Training of trainers for phase 3	10	National Trainers National Coordinators Mozambique Team	5 days	27 March–2 April 2003
General sensitization workshop on MA&D methodology in LRD, NBD and WD	29	IA – Heads AC – Heads PCV DFOs	2 days	13–14 May 2003
General sensitization workshop on MA&D methodology in CRD and LRD	25	IA – Heads AC – Heads FASE	2 days	22–23 May 2003
In-depth training of field facilitators and CFCs on MA&D methodology steps 1, 2, 3 of phase 1 in LRD and WD	22	Field Facilitators CFCs	4 days	3–6 June 2003
In-depth training of field facilitators and CFCs on MA&D methodology steps 1, 2, 3 of phase 1 in CRD	22	Field Facilitators CFCs	4 days	June 2003
In-depth training of field facilitators and CFCs on MA&D methodology steps 4, 5, 6 in LRD and CRD	44	Field Facilitators CFCs	8 days (4 days per division)	8–15 June 2003
Training of IGs of honey enterprises on technical skills in WD		Representatives of honey enterprises		October 2003
In-depth training of field facilitators and CFCs on MA&D methodology steps 1, 2, 3 of phase 2 in LRD and CRD	44	Field Facilitators CFCs		November 2003

Retraining of field facilitators and CFCs on MA&D methodology for phase 2 (prioritization and market surveys) in LRD and CRD	44	Field Facilitators CFCs	4 days (2 days per division)	30 March 2004
Training of field facilitators, IG members and representatives of major product groups in WD on phase 3 (introductory training) in LRD and CRD	44	Field Facilitators Representatives of IGs	4 days	20–24 April 2004
Training of IGs of honey enterprises on technical skills in WD		Representatives of honey enterprises		May 2004
Phase 3 training workshop in LRD, CRD and WD	52	Field Facilitators CFCs JATIFIF Executives	6 days (LRD 3days) (CRD 3days)	30 March–1 April 2004
Skills training course in Rhun palm handicraft making in CRD villages		IG representatives in handicrafts	10 days	13–23 April 2004
Training on final selection of products and retraining on the preparation of EDPs in LRD and CRD	22	IG representatives	4 days	29 June–4 July 2004
Instruction of MA&D module in the National Forestry School, Kafuta	33	Forest Guards	16 days	5–26 July 2004
Training of JATIFIF Executive and General Assembly in topics on: Group Leadership Group Management Administration and Record keeping	 44 44 9 Executive members	 JATIFIF General Assembly JATIFIF Executive and General Assembly JATIFIF Executive	 2 days 3 days 5 days	 23–24 June 2004 18–20 August 2004 8–12 Sept. 2004

Annex 7

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