



Community Forestry Enterprises

A case study of The Gambia

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Acronyms

CBFE	Community-based Forest Enterprise
CF	Community Forestry
CILSS	Comité permanent Inter-état de Lutte contre la Sècheresse dans le Sahel
CFMA	Community Forest Management Agreement
CRD	Central River Division
CRDFP	Central River Division Forestry Project
EDF	European Development Fund
EDP	Enterprise Development Plan
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FASE	Fight against Social and Economic Exclusion
GFMC	Gambian Forest Management Concept
GGFP	Gambian German Forestry Project
GoTG	Government of The Gambia
GTZ	Deutsche Gesellschaft für technische Zusammenarbeit
IG	Interest Group
KfW	Kreditanstalt für Wiederaufbau
JATIFIF	Jamorai Timber and Firewood Federation
JFPM	Joint Forest Park Management
LRD	Lower River Division
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
PCFMA	Preliminary Community Forest Management Agreement
UNDP	United Nations Development Programme
VDC	Village Development Committee
WD	Western Division

Exchange rate

June 2005 US \$ 1 = 28 Dalasis

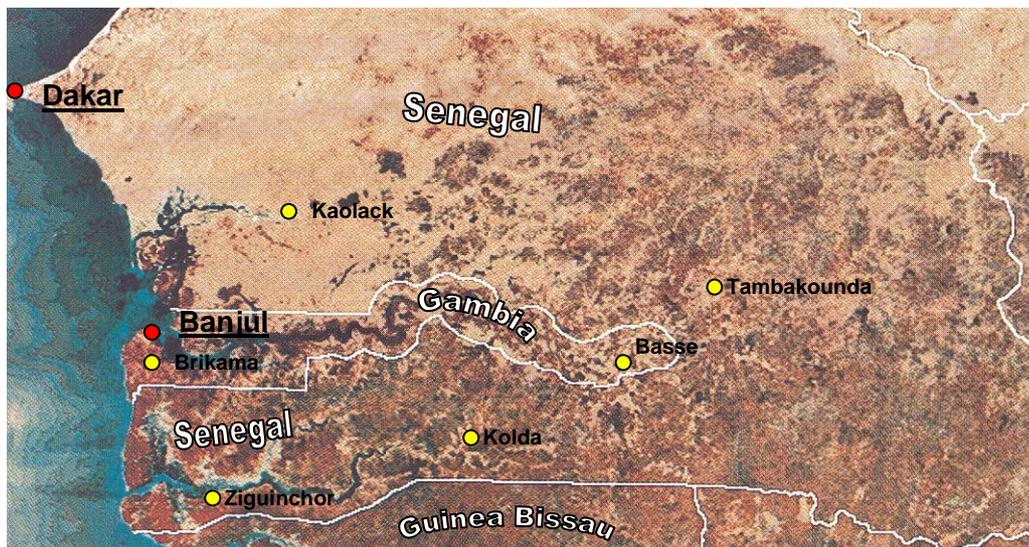
1 Country background

The Gambian forest cover

About one hundred years ago, most of the Gambian land territory was covered by dense and almost impenetrable forests although large forest areas on the north bank of the River Gambia have been already cleared for groundnut cultivation. At that time the forests were rich in flora and fauna as they constituted the habitat for a variety of large mammals which are nowadays rare or extinct.

With increasing population, the equilibrium between human and nature became disturbed initiating a vicious cycle of forest destruction caused by rampant fires, over-exploitation of forest resources and conversion of forests into farmlands. The process of forest deterioration is probably being accelerated due to the decline of the mean annual rainfall during the last century. This fact is not only of national concern but of sub-regional relevance since the River Gambia seems forming a natural barrier to the spread of desertification southwards from the Sahara desert.

Figure 1: Vegetation cover of Senegal & The Gambia in 1987



The major part of the Gambia belongs to the Sudano-Sahelian agro-ecological zone with a pronounced dry season from October to May. According to this ecological domain, the natural vegetation cover is typically made up of deciduous trees 10 to 20 m tall forming tropical dry forests and woodlands of varying density. The National Forest Inventory of 1998 shows that 43% of the total land area, or 460,000 ha, is still classified as forest (some 60,000 ha Mangrove forests excluded), but less than 3% of this area falls into the category of closed woodland while 78% of it belongs to that of tree and shrub savannah, where grass and shrubs dominate.

Developing participatory forest management approaches and supportive frame conditions

Recognizing that the drastic decrease of closed woodlands was at least in part the result of the state-controlled top-down forest management approach adopted by the government

for almost 40 years¹, the Forestry Department changed strategy and started developing participatory forest management approaches in the early 1990s. The goal of this new strategy is to promote active participation in forest management and to allocate legally secured 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.

After having tested different approaches to community forestry (CF), the experiences and results were compiled in the Gambian Forest Management Concept (GFMC) in 1995. The GFMC merges state forest and community forest management into one concept whereby forest parks (i.e. classified state forests) are considered the nuclei for developing silvicultural systems and techniques and, if found applicable, to adopt them to community forests and other forests.

In order to establish sound frame conditions for implementing the GFMC nation-wide and for introducing CF, the Forestry Department restructured its administration in 1994, formulated its first policy in 1995, established the National Forest Fund (NFF)² in 1996 and reviewed the forest legislation from 1996-98. With these frame conditions in place and in order to translate the GFMC into concrete actions, the Forestry Department developed the 1st National Forestry Action Plan (2001-2010). The current forest policy aims at bringing the 66 existing forest parks under controlled management and at reducing the total area of unprotected and un-managed forest reserves (unclassified state forests) either through the creation of community forests or by declaring them forest parks.

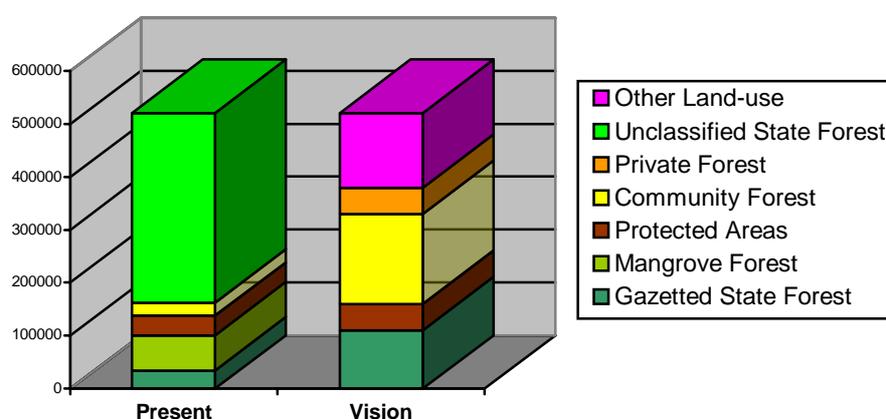


Figure 2: Forest categories in the Gambia: present & vision

The long term vision of the GFMC is maintaining a permanent forest cover of at least 30% of the country's land area. At the end it is assumed that this permanent forest cover only

¹ Government interference into traditional tenure systems started in the early 50s with the declaration of 66 forest parks. It continued with issuing exploitation licenses in forests on customary village lands but without benefit for the adjacent population that, over the years, developed a feeling of alienation and of being policed. This perception resulted in the unwillingness of many rural dwellers to take care of what used to be 'their forests'. As a consequence, forest utilization practices became increasingly damaging. This behaviour was further enhanced by restrictive Forest Regulations, lack of public concern and misuse of exploitation licenses.

² The NFF was established in 1996 for the purpose of promoting the protection, the development and the sustainable use of forest resources, and of promoting community forestry. Monies paid into the fund basically consist of proceeds from the sale of timber and forest produce extracted from forest parks, contributions from the local funds (see chapter 4), and 50% of all fees and royalties received by the central treasury under the Forestry Act.

consists of classified (gazetted) state forests including Mangrove forests (110,000 ha), protected areas (50,000 ha), community forests (170,000 ha) and private forests (50,000 ha). At present, about 350,000 ha of state forests are still unclassified.

While the first version of the GFMC as well as the recent forest legislation define forest park management basically as prerogative of the state, the revised GFMC version of 2001 goes a step further by demanding the active involvement of the adjacent population in forest park management. In order to respond to this demand, the Forestry Department developed in 2003 the regulatory framework for the joint management of forest parks. Besides CF, Joint Forest Park Management (JFPM) constitutes the 2nd pillar of the forestry service for actively involving the rural population in forest management.

The overall goal of CF is defined as *'to increase the welfare of local communities through the introduction of ecologically adapted natural resource management practices'* and, at the same time, *'to contribute to protect and maintain an adequate national forest cover and/or slow down and eventually stop environmental degradation'*. The CF approach has been piloted from 1991 to 1994, conceptualized in 1995 and promoted at national level as from 1996 onwards³. To date, some 264 community forest committees are registered with the Forestry Department. They are managing a total forest area of some 22,100 ha. Out of these, 141 committees that are responsible for some 12,900 ha of forest have reached the final CF phase in which they are entitled to commercialize forest products. For various reasons, however, most of these committees have not (yet) started with commercial forest products utilization⁴. Some of them have even decided to strictly protect their forest and, instead, to cover their daily needs of forests products from and partly at the cost of neighboring state forests.

In contrast to CF where the initial focus lies on identifying permanent forest land which will be communally owned and managed, the focus in JFMP is on identifying management partners who have socially recognized claims and, therefore, are in the local context entitled to take part in one or several management activities in state-owned forest parks. JFPM is a pluralistic approach in which the Forestry Department on the one side and various social actors on the other negotiate, define and guarantee among themselves a fair sharing of management functions, entitlements and responsibilities. The overall goal of JFPM is *'to contribute to the conservation and the improvement of the Gambian forest resources in order to supply as much as possible of the country's demand for forest products through sustainable management of its forest resources'*.

The JFMP approach has been tested in selected forest parks since 1999 and finally conceptualized in the beginning of 2003. Since then, 27 JFPM agreements have been concluded between the Forestry Department and co-management partners covering a forest park area of some 17,300 ha or 53% of the existing forest park area. At present, these management partners represent more than 240 communities most of them situated in the Central River Division (CRD), the division showing the highest forest cover and forest park area, and where JFPM is being tremendously supported by the Central River Division Forestry Project (CRDFP). Due to the fact that the implementation of most

³ Basically with technical and financial assistance provided by the Federal Republic of Germany (Gambian German Forestry Project: 1979-2004; and Central River Division Forestry Project: 1996-2006) and the European Union (Upper River Division Forestry Project: 1996-2000)

⁴ They basically include misunderstanding of CF goals and concepts, insufficient advice provided by forestry staff and lack of knowledge in production and marketing.

management plans has just started one year ago or less, only a few committees are engaged in commercial forest utilization so far but some of them realizing considerable income through production and sale of timber and Rhun palm splits.

Forest products, markets and industry

The rapidly growing population has led to an increased demand of forest products in particular fuelwood, construction poles and timber, and fence posts. Besides, the natural forests provide for both the rural and urban population a variety of other, mainly non-wood, products such as honey, fruits and nuts, palm oil and wine, meat, fibers, leaves, grass, medicine, etc.

Fuelwood, both firewood and charcoal, is still cheap and no other energy source is as economical under present conditions. It is estimated to provide more than 80% of the country's energy and more than 95% of the household energy. Various surveys have been undertaken to estimate the fuelwood consumption of the country but figures vary from 0.34 to 1.44 m³ per capita and year. The latest survey carried out end of 2004 reveals a value of 0.45 m³ or an annual fuelwood consumption of some 615,000 m³, which is more than the estimated annual increment of the country's forest cover of about 523,000 m³ (according to the results of the last national forest inventory in 1998 without Mangrove forests). Sustainable wood supply becomes much more critical by taking into account that an essential quantity is annually consumed by bush fires and used for other domestic and commercial purposes such as fencing, construction, fish smoking, carpentry, lime and salt production, and for heating.

The Forestry Department banned charcoal production in 1980 because it went out of control and became very destructive to the forests⁵. Since then, the urban centers have been mainly supplied with chopped firewood of preferred species produced even in forests located far in the east of the country. This situation changed in the mid 90s when these species became increasingly scarce in some parts of the country and, simultaneously, the access to the resource base became more and more restricted due to the expansion of community forests particularly in the Western Division (WD) and Lower River Division (LRD). As a result, average distances and transportation costs to urban firewood markets augmented so that firewood imported from south Senegal, the Cassamance, became increasingly lucrative. Another change in trend is the substitution of firewood by charcoal which starts in urban areas some 5 years ago. The charcoal is mainly imported from Cassamance and Guinea-Bissau but is also illegally produced in many Gambian villages located along the border to the Cassamance. On-going political conflicts in this region favor this development⁶ as they keep the charcoal price at a level very competitive to firewood locally produced.

By nature, Gambia's forests do not provide much timber since the wood of only a few species is sawable (the most prominent are *Khaya senegalensis* and *Pterocarpus erinaceus*) and logs are often crooked, twisted or otherwise damaged resulting to low conversion rates. Most sawmills and re-saw machines are found in Serekunda and Brikama, only a few exist in the provinces. They convert round logs of small sizes and

⁵ The major part of the production was (illegally) exported to north Senegal in order to feed the capital Dakar and other rapidly growing urban centers with wood fuel where, today, in contrast to the Gambia fuelwood is being more and more replaced by subsidized butane gas.

⁶ Some of these conflicts are carried out in and at cost of the forests

canted timber, i.e. canted planks of big logs cut at the felling site. In areas where no sawmill operates, pit-sawyers process the logs into canted timber which is further processed in the village by using hand saws. The CRDFP introduced two mobile sawmills which operate in community and state forests in the CRD and the Upper River Division. The produced timber is easily absorbed by the local markets.

The on-going construction boom in the greater Bunjul area and along the coast swallows a vast amount of construction timber. Most of it is being imported by sea from Ivory Coast, Liberia, Benin and Europe (timber) but also over land from the neighbor countries Senegal, Guinea-Bissau and Guinea Conakry (canted timber, timber, Rhun palm splits). Gambia's export of forest products is greatly limited to wood used for carvings and drums being sold at the tourist markets.

The forestry sector's contribution to the country's gross domestic production (GDP) was estimated at 1.2% in 2004 (for the first time the contribution exceeded the 1% margin). The real contribution is certainly higher because data on the formal trade of forest products are partly not collected (e.g. import of fuelwood and timber) and GDP estimates ignore the substantial volume of informal trade in forest products that occurs within the country and across the border as they ignore the monetary valuation of rural household consumption⁷. Consequently, the value of the Gambian forests and their real contributions to the economies at macro and micro level are widely underestimated.

Introducing the market analysis and development methodology

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 livelihood. Already some years ago, CF development in the Gambia has reached a stage at which forest utilization and forest products marketing became more and more important, not only for the benefits of the communities and their engagement in resource protection but also for the sustainability of the approach itself.

The Market Analysis and Development (MA&D) methodology developed by the Food and Agriculture Organization of the United Nations (FAO) provides a framework for planning tree and forest product enterprises. The underlying philosophy of the approach is that a diverse and secure natural resource base is essential to meet the needs of present and future generations. Many natural resources are at risk because of the current livelihood needs of communities. The demand for income to meet pressing financial needs often results in over-exploitation of the resources base. The result is degradation of the resources and continued poverty of the harvester. Therefore, utilization of forest products must be not only financially viable, but also environmentally, socially and technically sustainable.

MA&D is a step-by-step approach, arranged in three phases, that provides community members with the ability to identify and develop viable and successful tree and forest product enterprises and to manage them independently. Its main strength is the systematic inclusion of four important aspects of sustainability (environment, market,

⁷ Kasberger (1987) estimated a rural household consumption of non-wood forest products valued at 2,200 Dalasis per year. Based on this figure, the actual value of non-wood forest products for rural households would account to roughly 100 million Dalasis per year (calculated at 1987 market prices). Based on actual consumption figures and prices (GoTG/CILSS, 2005), the value of the annual fuelwood consumption is estimated at some 219 million Dalasis for rural areas and 189 million Dalasis for urban areas.

social/institutional and technology) in supporting the development of viable and successful tree and forest product enterprises. It enables communities to directly link forest management and conservation activities to income generating opportunities. Other major strengths include:

- Emphasis on institutional development ensuring that user groups or community-enterprises will be independent and sustainable after facilitators leave.
- Encouragement of new alliances between businesses and local organizations.

In 2000, the FAO approached several African countries for identifying suitable initiatives to adapt the MA&D training materials, which were originally developed in Asia, to the African context. Gambia was among these countries and the Forestry Department proposed the FAO initiative their community forestry context for introducing the MA&D methodology. The FAO in collaboration with the Gambian German Forestry Project (GGFP) finally supported the Forestry Department in implementing a 3-year pilot phase which was launched in October 2000. Due to its positive evaluation, the FAO continued supporting the introduction of the MA&D approach in two other divisions through an 18-month technical cooperation project (TCP) which ended in November 2004. To date, 22 community forest committees spread among 26 villages in 3 divisions are actively employing the MA&D methodology and have developed 72 community-based enterprises. This case study reports on these enterprises.

2 Overview of country case study

Resource access and associated rights and responsibilities

The transfer of forest ownership to an applying community or group of communities comprises three phases: a start-up, a preliminary and a consolidation phase. The CF process starts with assisting the community in identifying the forest area and establishing a community forest committee. The signing of the Preliminary Community Forest Management Agreement (PCFMA) marks the begin of the 2 to 3 years lasting second phase during which the committee is challenged to set up adequate management structures (sub-committees, interest groups, establishing a local fund) and to demonstrate its management capacity by implementing a 3-year preliminary management plan. During this phase forest product commercialization is limited to certain products⁸. In the case of a successful evaluation, the second phase ends with surveying and demarcating the forest boundary, establishing a 5-year management plan and, finally, with concluding the open-ended Community Forest Management Agreement (CFMA). The CFMA entitles the community to generate revenues from the forest according to the provisions of the approved management plan and, thus, to establish community forest enterprises. The permanent ownership transfer is formalized with publishing the designation of community forest constitution in the gazette; a process which in itself takes a couple of months after the CFMA award.

Stakeholders interested in JFPM have to organize themselves and to set-up an institutional body acting on their behalf. When this body is formally established through a resolution duly signed by all "entitled" stakeholders, the planning or negotiation phase starts. The JFPM agreement grants the management partner long-term user rights within specified forest resources. It contains the general co-management terms and conditions, and describes management goals / objectives and major strategies to achieve them, in particular strategies for fire management and controlled utilization including grazing. As soon as both sides have agreed on the basic management issues, they sign the JFPM agreement and start developing the 10-year co-management plan. This plan and probably associates agreements (e.g. training events, by-laws, setting up of a development fund, assistance to enterprise development etc.) empowers the stakeholders to carry out forest management activities and to start product commercialization. The JFPM agreement is valid for an indefinite period of time but subject to joint evaluation in 5-year intervals as the management plan and associated agreements.

At present, in the Gambia, 141 community forest committees and 27 co-management partners have been awarded with management agreements which entitle them to commercialize forest products in line with the established management plans. These committees and co-management partners represent more than 450 rural communities and manage / co-manage an area of some 30,200 ha community forests and forest parks.

Type of community and forest

The 22 community forest committees applying the MA&D methodology represent 26 villages situated in Western, Lower River and Central River Division (WD, LRD and CRD)

⁸ They include non-wood forest products such as fruits, grass, leaves, honey, etc. and wood cut for the purpose of establishing firebreaks.

with a total of some 20,836 community members. They manage a total forest area of 3309.3 ha or about 11% of all participatory managed forests at present. All MA&D villages in the CRD are, apart from their engagement in CF, partners to the Forestry Department in JFPM.

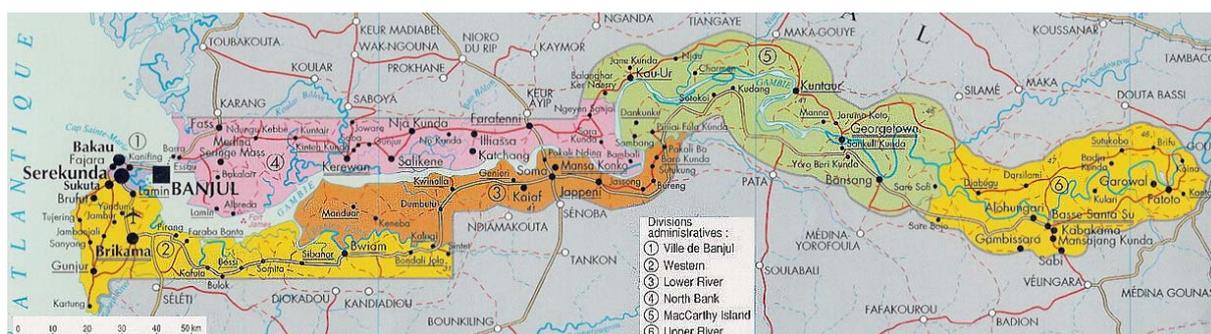
Table 1: Socio-economic profile of MA&D villages across the divisions

Division	Village	Population	Predominant ethnic group	Name of CF	Area (ha)	Predominant forest type	
WD	Kafuta	3311	M 80, F 10	Tunku	450.1	Savanna	
	Tumani Tenda	208	J 100	Katchocorr	89.2	Closed forest	
	Buram	234	J 85, M 15	Sibac	31.8	Closed forest	
	Bulanjorr	422	J 80, M 20	Brinkinai	140.0	Closed forest	
	Jakoi Sibirik, Nyangit	680	J 98,	Kussabel	79.9	Closed forest	
	Batending, Kandonk	248	J 93,	Kumbato	82.7	Closed forest	
	Somita, Ndemban	2250	J 80, M 15	Kumbeng	368.2	Closed forest	
	Brefet	359	M 58, J 37	Berekolong Folongkojang	101.1	Closed forest	
	Kanuma	49	J 98	Jassana	106.0	Savanna	
	Tampoto	255	J 100	Musai	20.0	Open forest	
	Bessi, Brefet Ndemban,	1113	J 85, M 10	Kasila	462.6	Closed forest	
	LRD	Jassobo	260	M 98	Kabarr Kunda	30.7	Closed forest
		Batelling	372	M 98	Nyankingoi	496.8	Savanna
Nema, Bambako		1409	M 98	Kabaato Purai	75.0	Open forest	
Manduar		810	M 95	Wanchakalang	176.8	Savanna	
Bureng		1015	M 98	Folanko Suto	98.0	Closed forest	
CRD	Korop	115	F 100	Sutujang	18.9	Closed forest	
	Boraba	412	M 98	Kapesaba	75.0	Closed forest	
	Bustaan	304	M 97	Fankanta	35.0	Closed forest	
	Dobo	760	M 95	Kaniabu	204.0	Closed forest	
	Kunting	3500	M 90	Isray	67.6	Open forest	
	Tabanani	2750	M 99	Ali Jama	33.3	Open forest	
Total		20836			3309.3		

M = Mandinka, J = Jola, F = Fula in percent of village population

The Gambian economy is based on agriculture. The country belongs to the poorest African countries with an average income of some US\$ 300 per capita and year. Traditionally, Mandinka communities mainly consist of farmers. They cultivate groundnuts as cash crops and rice, millet and sorghum for subsistence. Fulas earn their livings as herders and are the traditional fuelwood collectors and vendors. Jola communities do both, farming and collecting various forest products some of which they sell. Jolas are known for protecting and conserving 'sacred' forest areas for worshipping and performance of traditional ceremonies and are reported to have the most indigenous knowledge about the forests. Most MA&D villages in the WD are predominant Jola communities, while Mandinka communities dominate in the LRD and CRD.

Figure 3: Administrative divisions of the Gambia



The condition of the MA&D community forests with proportionally more than 60% closed and open forests is fairly better compared to the average condition of the national forest cover where these two forests types just represent some 22% of the total forest area, and is most likely better than the average condition of all existing community forests. In addition, some heavily degraded forests such as Tunku and Jassana have good development potentials since they are rich in regeneration of valuable timber species. The average size of the 22 community forests is about 150 ha while the average size of all community forests so far declared as such is about 91 ha, only.

Some communities have been entitled to commercialize community forest products as early as 1992, but they just protected their forests over years until the time they got involved in the MA&D process. Others that had started commercializing fuelwood and logs were cheated by middle men and former license holders with detailed market knowledge or even by corrupt Forestry Department staff. This situation has changed after both community members and responsible Forestry Department staffs went through the participatory MA&D process and are by now implementing the enterprise development plans (EDP).

Table 2: History of enterprises

Village	Date CFMA awarded	Selected products for enterprise development	No. of IGs	No. of IG members	Date EDP established
Kafuta	Feb. 2000	Fuelwood, logs/timber	2	10	Sep. 2002
Tumani Tenda	Feb. 2000	Eco-tourism, honey, Netto	3	13	Nov. 2002
Buram	Feb. 2000	Fuelwood, logs/timber, honey, palm oil	4	30	Oct. 2002
Bulanjorr	Jan. 2000	Fuelwood, logs/timber, honey, palm oil	4	80	Nov. 2002
Jakoi Sibirik, Nyangit	Dec. 1999	Fuelwood, logs/timber, honey, palm oil	4	21	Oct. 2002
Batending, Kandonk	Dec. 1999	Fuelwood, logs/timber	2	39	Oct. 2002
Somita, Ndemban	Dec. 1992	Fuelwood, logs/timber	2	33	Oct. 2002
Brefet	Dec. 1992	Eco-tourism, honey	2	10	Sep. 2002
Kanuma	Feb. 2000	Fuelwood, logs/timber, honey	3	22	Nov. 2002
Tampoto	Dec. 1999	Fuelwood, logs/timber, honey, palm oil	3	18	Sep. 2002
Bessi, Brefet Ndemban,	Dec. 1992	Fuelwood, logs/timber	2	18	Oct. 2002
Jassobo	Mar. 2000	Logs/timber, honey	2	15	Jul. 2004
Batelling	Dec. 1999	Fuelwood, logs/timber, honey, forest walks	4	28	Aug. 2004
Nema, Bambako	Nov. 2002	Honey, tree nursery	2	10	Jun. 2004
Manduar	Mar. 2003	Fuelwood, honey, Kembo posts	3	12	Jul. 2004
Bureng	Dec. 2001	Honey, Handicrafts, Rhun palm splits	3	26	Jun. 2004
Korup	Aug. 2002	Fuelwood, logs/timber, honey, handicrafts, Rhun palm splits	5	18	Jul. 2004
Boraba	Apr. 2000	Fuelwood, logs/timber, honey,	4	22	Jul. 2004

		handicrafts			
Bustaan	Apr. 2000	Fuelwood, honey, handicrafts, Rhun palm splits	4	12	Jul. 2004
Dobo	Apr. 2000	Fuelwood, logs/timber, honey, handicrafts, Rhun palm splits	5	15	Aug. 2004
Kunting	Apr. 2000	Logs/timber, honey, handicrafts, Rhun palm splits	4	12	Aug. 2004
Tabanani	Jul. 2000	Fuelwood, logs/timber, honey, handicrafts, Rhun palm splits	5	20	Jun. 2004
Total			72	484	

Description of enterprises

The 26 MA&D villages formed 72 interest groups (IGs) around 11 different products most of which are being marketed effectively. By the end of 2004, these interest groups had some 484 members most of them (61%) residing in the WD. Here, interest groups have been formed during the MA&D pilot phase and developed their EDP in the second half of 2002. Those in the LRD and CRD were created two years later in 2003 and have finalized their EDP mid of 2004, just one year ago. In addition to their community forests, the villages of Dobo and Bustaan are partners to the Forestry Department in managing Dobo Forest Park (35.4 ha), and Tabanani is the management partner for Sibikuroto Forest Park (32.2 ha). Both co-management agreements were signed in May 2004.

Among the 11 selected forest products, fuelwood (16 IGs with 147 members), logs/timber (16 IGs with 107 members) and honey (18 IGs with 111 members) have been identified the most promising for enterprise development. The others include handicrafts from Rhun palm based products and Rhun palm splits (*Borassus aethiopicum*), eco-tourist camps, Netto fruits (African locust bean, *Parkia biglobosa*), oil palm fruits (*Elaeis guineensis*), forest walks, tree nurseries and Kembo (west African iron wood, *Prosopis africana*) posts. A number of non-wood forest products, such as fibers / ropes, fruits, tubers, herbs, grass, etc., were eliminated during determining the market feasibility for the particular product or reserved for domestic consumption and small-scale commercialization.

Urban entrepreneurs mainly belonging to ethnic group of Fula and Jola still control the large-scale commercialization of wood products for feeding the urban markets. They operate under the conditions of production and vendor licenses for fuelwood and Rhun palm splits, and felling permits for timber. Over the years, they have established firm production, processing and marketing structures all over the country and, with increasing import market, even in Cassamance and Guinea Bissau. No wonder that initial endeavors of forest committees in fuelwood and timber production and marketing were less successful as the experiences made in the MA&D pilot villages demonstrate.

Since these villages were never involved in producing and selling firewood and logs/timber at large scale, they had neither the necessary organizational and technical skills nor knowledge in marketing. This led to a massive loss of profit because urban contractors who had these skill and knowledge played against them during price negotiations as they did most of the work including operating chainsaws, coordinating trucks and marketing. However, during the MA&D process the members of the 20 established fuelwood and logs/timber interest groups gained marketing knowledge and understood the production and value chain of their products. Furthermore, they realized that their chances of establishing firm marketing structures in order to by-pass middlemen would be much higher if they join forces. So they did and formed the Jamorai Timber and Firewood

Federation (JATIFIF) which was registered in March 2004. It is worthwhile to note here that the Forestry Department attempted as early as 1996 to promote the formation of associations amongst forest committees to strengthen their capacity and their negotiation power. Two associations were established in the Western Division (Komffora and Jaboka) but never really managed to get firmly established due to lack of interest of their members. What probably was missing in this first effort was adequate capacity and market knowledge. Clearly MA&D seems to have provided these requirements which resulted in the spontaneous creation of a dynamic association which sustainability appears to be guaranteed by visible and significant returns generated by the association.

Since their federation the enterprises have set fixed prices, hire chainsaws and operate them, organize transportation, negotiate with sawmill operators and urban firewood sellers, and share out the work within the communities. These arrangements achieved under the umbrella of JATIFIF has doubled the enterprises' profits (from 33 to 63% of the total value), created jobs in the communities and empowered them by having more control and responsibilities. JATIFIF intends to purchase chainsaws so that the profit margin will further rise and has applied for support to establish a central tree nursery under the FAO's 'Telefood' program. One of the strategies of JATIFIF is to produce seedlings of fast growing fuelwood species and to sell them at local markets.

Most of the enterprise development goals defined by the enterprises refer to sustainable resource management and improved livelihoods through additional income. Among others, some enterprises aim at environmental and biodiversity protection, employment generation, keeping prices for wood at an affordable level, and address gender issues. These goals are in line with those of CF and JFMP and are being gradually achieved as recent trend analyses indicate.

Production targets were estimated at the basis of forest assessments jointly carried out by interest group members and Forestry Department staff. During these assessments the allowable cut or harvest of trees and other raw materials is determined for the next five years. So far there are no reports that the enterprises established through the MA&D approach overexploit their resource base. In contrary, many enterprises have realized that their resource base is fairly small for increasing the future production. Consequently, they have applied via the respective committee to extend the community forest area (see also chapter 5). Such requests were not observed before and therefore can be directly linked to the impact of MA&D.

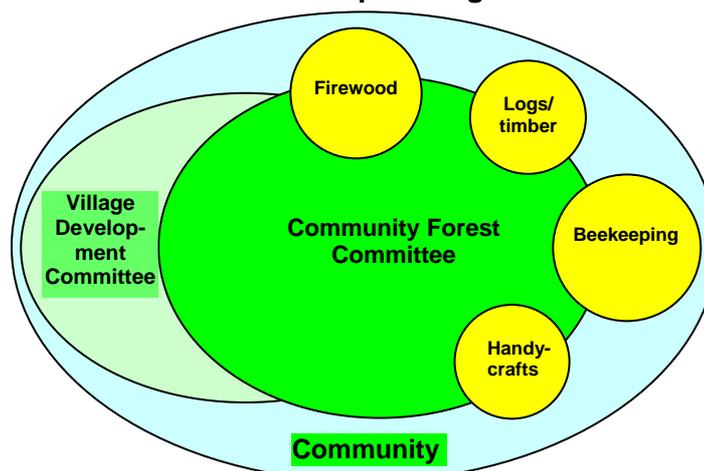
3 Enterprise organization, management and governance

Community forest committees and forest park co-management partners

Both CF and JFPM request the participating communities to organize themselves before they will gain any rights and responsibilities in managing forest resources. The MA&D implementation in the Gambia used these structures as entry points and main contact agents during the process of enterprise development.

In initial CF stages, community forest committees have been elected by all community members with putting emphasis on an adequate representation of youth and women. This changed in the late 90s when the government increased its decentralization efforts by demanding each rural community to establish a village development committee (VDC) which is responsible for general village development including the coordination of development projects and activities. Since a VDC derives its membership from various groups within a community (usually based on age, gender and livelihood / development activities), the composition of most of the community forest committees registered since then is more or less identical to that of the VDC.

Figure 4: Schematic overview of enterprise organization



The CF regulations mandate each committee to determine six executive members (i.e. a president, a vice-president, a secretary, a treasurer, a women representative and a youth representative) constituting the legal entity in all matters related to community forest management including the legal transactions involved to run the enterprises. According to the Forestry Act, a community forest committee is responsible for –

- carrying out of all the necessary procedures required to be granted ownership rights over a proposed community forest such as applying for and obtaining PCFMA and obtaining the CFMA; and
- general forest administration which includes: ensuring information and communication with various authorities and within the community or communities, management planning and work organization, monitoring of activities, preparing and enforcing by-laws, operating and accounting for the local fund, and providing the Forestry Department with an updated list of its executive members.

The JFPM regulations do not prescribe specific organizational structures for starting-up. Rather the JFPM approach assumes that appropriate organizations are emerging through

'learning by doing' and that they may change to sustain the co-management through time. Their functions may also be fairly different and change over time. Nevertheless, the identified and entitled stakeholders have to select at the beginning a limited number of prominent persons (ideally not more than four including women) to constitute an executive body for the entire stakeholder community. This body signs the JFPM agreement, is responsible for co-management planning and for implementing the plans and associated agreements including financial administration and monitoring.

In most of the JFPM agreements so far concluded, the management partner is named 'forest park management committee' and composed of representatives from village-based stakeholder or interest groups. These are either sub-groups of community forest committees such as the interest groups in MA&D villages or not yet organized stakeholder groups in villages not involved CF. The composition and function of these committees and its executive members in the most cases very similar to that of a 'typical' community forest committee. To this point, no extraordinary JFPM organization has evolved.

Interest groups / enterprises

Enterprises emerged from interest groups around a specific forest products or product group. They are the business arms of a community forest committees or co-management partner. The selection of interest group members was entirely left to the community, however, community members have been advised to look for people with experience of managing small enterprises or with a strong business background; those with a sufficient high level of education, experience of village affairs or a respected position within the community; those with specific technical knowledge in utilizing forest products; and those with strong motivation or experience in a similarly related field.

A CBFE has the primary responsibility of the daily running of commercial businesses. This includes:

- direct communication and negotiation with customers;
- mobilizing communities for harvesting and processing of products;
- regularly informing community members via the community forest committee on the status of the enterprise;
- re-assessing the community forest area and the market situation, and informing the community about any changes in the market structure (emerging opportunities and constraints) as well as changes in the resource base; and
- handing over cash income to the committee's treasurer after having finalized all marketing transaction.

Federations

The two federated groups, JATIFIF in the WD and the Forest Kambeng Kafo in the CRD, were formed by constituents of interest groups for the purpose of channeling their collective power and strengths. They have been proven instrumental in mobilizing and coordinating their members in such activities as building strategic alliances with key actors / organizations (e.g. fuelwood wholesalers, private sawmills, NBAG)) which made the marketing of community forest products feasible as they play an important role in increasing the efficiency of the enterprise activities.

JATIFIF, for example, defined its objectives and tasks as to improve communication and create common understanding between and among federated members, gain maximum profit from sustainable and ecologically adapted forest utilization by minimizing production cost, standardize pricing and scaling systems, improve monitoring of forest product utilization, and create linkages to support institutions.

Management capacity and governance

The CF and JFPM impact studies⁹ investigated the capacity of community forest committees and forest park management partners by comparing the level of activity achievement with the activities planned in the management plan. In addition, the studies looked into the committees' / management partners' performance in carrying out main duties such as fire management, organization of meetings, work mobilization and coordination, and monitoring / record keeping.

The CF impact study revealed that many community forest committees of non-MA&D villages have difficulties in the on-going work planning so that quite a number of management plans have expired and, in some instances, the plan as well as other records could not be found anymore. Committee members complained that they lack adequate management support from the Forestry Department because, after having been awarded with the CFMA, their interactions with the responsible forester was very minimal and in most cases limited to some transactions such as dealing with the issue licenses to outsiders, enquired about fire occurrence and reported cases of illegal activities. On the other side, both community forest committees and co-management partners see their strength in controlling fire and illegal activities but feel weak in beekeeping, nursery management as in general work organization.

Conceptual misunderstandings regarding villagers rights and responsibilities whereby control of forest utilization is still believed to be in the hands of the Forestry Department confirm this lack of communication and support as they explain the low level of forest product commercialization. The assessment of the management capacity of JFPM partners came to similar results and, in addition, disclosed an evident lack in communication between the interest groups and community members¹⁰.

Insufficient entrepreneurial and management skills and adhering participatory approaches were the major reason why the Forestry Department with support from FAO and a number of other collaborative partners spent a serious amount of time in training community forest committee members, interest group representatives and Forestry Department staff in applying the MA&D methodology. As a result, 72 enterprise development plans have been established most of which are being effectively implemented. However, in order to maintain the momentum and to continue 'learning-by-doing' the young entrepreneurs still need to acquire more communication and marketing skills.

⁹ Two studies, one on the impacts of CF (GoTG/GTZ, 2003) and one on the impacts of JFMP (GoTG/KfW, 2005), were conducted mid of 2003 and beginning of 2005, respectively.

¹⁰ Recently carried out random interviews in villages adjacent to forest parks indicate that a high percentage of villagers have little or no knowledge about JFPM. It appears that the co-management partners and interest groups do not adequately inform the general community on their activities and businesses including the profits realized by the various CBFs. However, the JFPM approach is quite new and experiences made in CF demonstrate that it takes communities quite some time to establish adequate social communication systems within and between the communities.

Quite a number of community members gained technical skills in production (e.g. honey) or processing of products (e.g. chainsaw / sawmill operation, furniture making) and were able to substantially increase their production and income. On the other side, forest committee members and co-management partners hardly have knowledge about and skills in tree and forest management techniques, for instance nursery and woodlot management, enrichment planting and selective cutting. Such activities, although foreseen in many forest management plans, have been not yet carried out or were undertaken out with very limited success (e.g. tree nurseries).

4 Economics of the enterprises

While going through the MA&D process, the IG group members examined the business environment of the selected product, defined the enterprise mission including goals and objectives, developed strategies on the four areas of enterprise development¹¹, and formulated and action plan to implement the strategies. At the same time, they assessed the financial considerations of the intended enterprise.

To do so, the group members first determined what they can provide including land, labor and equipment, and where any necessary outside financing can be obtained. They then estimated the projected income of the potential enterprise in order to ensure that it will be cost-effective. Projections were formulated on the basis of production and sales plans and included initial start-up costs, overhead expenses and income forecasts for a number of months or years, depending on the type of product.

The interest groups were asked to look very carefully at the financial requirements by breaking them down using the categories seed money, start-up capital, working capital and long-term financing. The village resources identified by the group members included labor and equipment, monies from the local fund¹² and individual contributions. The investment capital of some enterprises could be increased by donations from various institutions. None of the enterprises made so far use of a bank loan, involved outside partners in the business or offered shares to potential investors.

Based on the examples of honey, firewood, logs/timber and handicraft enterprises, the following chapters describe production and marketing procedures of these products, and provide some data on productivity, profitability and market outlets of the enterprises.

Honey

The beekeeping enterprise of Bulanjor is composed of 24 members, 9 women and 15 men. After they have identified the potential market outlets, it became quickly apparent that most of the markets 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 endeavor. However, the situation was resolved when the enterprise formally registered with the NBAG¹³ in March 2003. This allowed the enterprise to develop a multi-pronged strategy where the honey would initially be marketed through the existing structure of NBAG, while the enterprise would focus on boosting its supply of honey by increasing the number of hives and improving the harvesting techniques. Once this is accomplished, the enterprise intends to re-evaluate the cost effectiveness of marketing its products through other outlets such as Siffoe and Serrekunda.

¹¹ These areas are: social / institutional, science / technology, resources / environment and market / economy.

¹² The local fund is a mandatory savings scheme for revenues derived from the sale of community forest products. Each community forest committee is mandated to establish its local fund at a reputable bank upon receiving the first proceeds from the sale of forest products. Forest committees pay 85% of such proceeds into the fund and pay the remaining 15% as contribution to the NFF. The Forestry Act prescribes that the amounts spent from any local fund shall be shared between the funding of forestry activities (40%) and other community development activities (60%).

¹³ The one time membership fee for NBAG was 500 Dalasis and included discounted prices on beekeeping supplies such as suits and hives, as well as the collection of honey from the villages at no additional cost.

The start-up capital of the enterprise was 13,045 Dalasis for the purchase of hives and other necessary equipment. The community had to contribute only 4,450 Dalasis from its own resources thanks to donations from the United Nations Development Program and the Forestry Department. One year later, during 2004, 39 of the 45 acquired hives were colonized but the honey could be harvest only once due to insufficient knowledge in properly maintaining the hives¹⁴.

Table 3: Bulanjor beekeeping enterprise: total cost 2004 and income forecast for 2005 & 2006

Item	2004 39 colonized hives	2005 45 colonized hives	2006 45 colonized hives
<i>Honey</i>	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 & 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
<i>Body cream</i>	18 jars	105 jars	105 jars
Sales	+ 270 Dalasis	+ 2,160 Dalasis	+2,160 Dalasis
Processing & 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

Nevertheless, the enterprise was able to sell 121 liters of honey and 18 jars of body cream, and could achieve a total combined income of 4,383.50 Dalasis. After the NBAG provided advice on how to overcome the technical problems, the entrepreneurs were quite optimistic by projecting an annual production of 840 liters of honey and 105 jars of body cream for the year of 2005 and 2006. By considering depreciation cost and after taxation, this would give the enterprise and the community an additional income of 55,272.50 Dalasis for each year.

Fuelwood and logs/timber

Dry branch wood and coppice gained a market value just some ten year ago, the time when the production of chopped firewood of preferred species could not cover any more the demand of the growing urban centers. However, the market value of branch wood is (still) very low so that mainly transportation costs determine marketing opportunities. Therefore, only women¹⁵ in the WD and the western part of the LRD are engaged in this business with increasing tendency.

Outstanding in the trade with branch wood are the women groups of Kafuta, Ndemban, Somita, Bulanjor, Besse, Kanuma and Batending. Some women attended MA&D workshops and are members of JATIFIF. One woman usually collects 15 bundles of branch wood (e.g. one ox-cart load) and takes it to the main road. Seven of such trips fill a truck which is rented by a group of women to bring the wood to the market. The women sell the wood by themselves and stay up to one week at their market places in Brikama or

¹⁴ Up to three harvests per year are possible under Gambian conditions.

¹⁵ Upon PCFMA conclusion, women are granted the privilege to collect dry branch wood and coppice in stated forests on customary village land and to sell it for their own benefit. They do not have to acquire firewood production licenses.

Serekunda until the entire truckload is sold. They calculated a net profit of 1,620 Dalasis for each truck load or some 230 Dalasis per trip. Bojang (2002) found out that some women of Ndemban and Somita produce more than 20 trips of branch wood per year resulting to an additional family income of up to 5,000 Dalasis which amounted up to 57% of the family's total income. This additional income was mainly spent on food items (particularly rice) and children's education (school fees, uniforms, books, etc) as it contributed to finance traditional ceremonies.

In the WD, the 20 firewood and logs/timber enterprises joint forces in order to overcome marketing constraints. They formed the JATIFIF in 2003 and are now building their capacity through technical training, setting fixed prices for chopped firewood and timber, and joint monitoring of their resource base. They collectively negotiated a flat price with their customers and now get 17,000 Dalasis per truckload of canted timber instead of 9,000 Dalasis, the average price which they used to achieve individually. This increase was possible by taking on the responsibilities of cutting the trees and preparing them for transport for which they used to hire contractors, 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 sawmill owners still making a large profit¹⁶. These new arrangements have almost doubled the enterprises' profits and contributed to the creation of many additional jobs in the communities.

Table 4: JATIFIF: Profit calculation for producing one truckload¹⁷ of branch wood, chopped wood and logs

Item	Branch wood (women)	Chopped wood (men)	Logs (men)
	Expenses(-) Income(+)	Expenses(-) Income(+)	Expenses(-) Income(+)
Cutting/chopping	---	- 2,444.50 Dalasis	- 500 Dalasis
Hire of ox cart	- 350 Dalasis	- 1,200 Dalasis	---
Hire of truck	- 1,400 Dalasis	- 2,500 Dalasis	- 1,500 Dalasis
Loading/unloading	- 700 Dalasis	---	---
Royalties	- 1,500 Dalasis	---	---
Duty Area Council	- 30 Dalasis	---	---
Meals for sales agents	---	- 700 Dalasis	---
Income from sales	+ 5,600 Dalasis	+ 22,000 Dalasis	+ 12,060 Dalasis
NFF taxes (15%)	---	- 3,043 Dalasis	- 1,805 Dalasis
Net income	1,620 Dalasis	12,115.50 Dalasis	8,252 Dalasis

Through the federation, members of JATIFIF have created a number of linkages to other supporting institutions, most notable of 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 has cut out the intermediaries by taking on the additional responsibilities of hiring trucks and transporting the timber itself. JATIFIF is

¹⁶ In the greater Banjul area, 1 m³ of sawn timber costs between 12,000 and 18,000 Dalasis depending on species and timber dimension. In the CRD, the logs/timber enterprises are charging D 3,500 for 1 m³ of sawn timber at local markets.

¹⁷ One truckload consists of some 10 m³ of branch wood or 14.7 m³ of chopped wood or 6 m³ of logs / canted timber.

also implementing similar strategies for fuelwood for which the federation calculated a net income of 12,115.50 Dalasis for each truckload.

In the CRD, a number of communities engaged in CF and / or JFPM have the opportunity to make use of the mobile sawmill, introduced by the CRDFP¹⁸, upon shouldering the machine's operation and maintenance costs as well as the operator's salary. Among these communities are the six MA&D villages which established five logs/timber enterprises composed of a total of 23 members.

Sawable logs of dead trees were identified during forest assessments specifically carried out for this purpose in community forests, forest parks and unclassified state forests and jointly undertaken by enterprise representatives and Forestry Department staff. The enterprises used the assessment results to calculate the profitability for processing the trunks of these trees into high quality timber and it turned out that they could increase their profits by an average of four- to tenfold by employing the sawmill instead of cutting the timber by hand. After the project had trained some entrepreneurs in sawmill operation, the profit further increased so that the enterprise of the village of Korop, for example, earned 11,915 Dalasis from three days sawmilling in June 2004.

Table 5: Korop log/timber enterprise: Profit calculation for one day timber processing

Item	Expenses	Income
Saw miller 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 (3,500 Dalasis per m ³)		+10,000 Dalasis
NFF taxes (15% of the profit) or rate for purchasing dead trees from state forests	700-1,000 Dalasis	
Total	5,650-5,950 Dalasis	+10,000 Dalasis
Net income		3,550-3,850 Dalasis

Handicrafts

The Rhun palm, once among the most dominant species of the Gambian forests, is used for various purposes. Its extremely durable and termite resistant stem is cut into splits and used for roofing, fencing and other construction purposes. The dry leaves are used for thatching, fencing and wickerwork, and nuts and palm hearts are a welcomed diet for rural families. However, the palm tree has been overexploited in the past years because of its valuable trunk with the result that to date only a few relicts of the formerly dense palm forests are left. Although matured trees have widely disappeared, Rhun palm regeneration is still abundant in many parts of the country providing a continuous supply of leaves.

The leaf fronds and stems are sold locally at generally low prices for household construction purposes. In May 2004, representatives from five MA&D villages in the CRD were invited to attend a workshop which focused on the construction of beds, sofas and chairs. During this workshop, which was facilitated by the CRDFP and a Senegalese craft

¹⁸ The CRDFP purchased two LUKAS mobile sawmills in 2001 and 2004, respectively. Upon arrival of the 2nd machine, the Forestry Department sold to first one to a private entrepreneur at Basse, Upper River Division, where the sawmill is operating since then. The sawmill left with the Forestry Department is lent out to community forest committees and JFPM partners.

worker, the participants acquired the skills for processing the stems and fronds of Rhun palm leaves into furniture.

In the meantime, each of the six MA&D villages in the CRD has set up a handicraft enterprise. Currently the enterprises of Dobo, Tabanani, Korop and Bustaan are effectively using the skills they learned during this workshop. They have already produced a large quantity of handicrafts which were sold at local markets, to eco-tourist lodges in the provinces as well as to hotels in the coastal tourist area. A considerable amount was also purchased by the CRDFP and given away as prizes during the fire award scheme in 2004. Bustaan alone produced 60 beds for this purpose earning the village almost 11,000 Dalasis.

Table 6: Bustaan handicraft enterprise: Profit calculation for Rhun palm furniture

Item	Bed	Chair
Materials	- 75 Dalasis	- 50 Dalasis
Workmanship	- 175 Dalasis	- 100 Dalasis
Income from sales	+ 600 Dalasis	+ 400 Dalasis
NFF, royalties	- 35 Dalasis	- 25 Dalasis
Net income	315 Dalasis	225 Dalasis

It is hoped that the production of these specialty products will lead to an increased market value of the Rhun palm leaves as well as a corresponding income, while simultaneously decreasing the pressure on the resource base, since local furniture was used to be made from solid timber or the increasingly scarce Raffia palm (*Raphia sudanica*).

Market places and projected production / profits

Compared to other divisions, the CBFE in the WD have the competitive advantage of being quite close to the urban markets of Brikama, Serekunda and Banjul where the demand and prices for forest products are the highest. For the members of the JATFIF, the average distance to these markets is about 80 km, while for the CBFE in the LRD it is about 170 km, and some 300 km for those in the CRD. In recent years, deteriorating road conditions have further disadvantaged up-country communities in reaching the most lucrative urban markets. As long as the roads remain in this condition, most of CBFE in the CRD and LRD will be forced to depend on local markets, in particular those that are producing firewood, logs and timber.

Fuelwood markets in the provinces only exist in centers and towns such as Farafenni, Mansakonko and Soma in the LRD, and Ka-Ur, Kuntaur, Janjang Bureh (formerly Georgetown) and Bansang in the CRD. At village level, women and youth still cover the daily household's fuel demand by collecting dry branch wood and coppice from nearby fallow and forest lands as they did in the past. On the other side, there is a high demand of sawn quality timber for which the availability of saw able logs is the limiting factor of production.

According to the marketing environment, the CBFE in the WD mainly produce firewood by achieving per truckload up to an almost three times higher net income compared to those in the CRD. In the contrary, most CBFE in the CRD go for the production of sawn timber which gives them almost three higher returns than the CBFE in the WD gain through the marketing of logs and canted timber. The firewood and logs/timber enterprises in the LRD

lie with their net profits per truckload somewhere in between. Most of them focus on the urban markets but are confronted with high transportation costs and risks.

58 out of the 72 enterprises made production and profit projections for the year 2005. They estimated a total production of some 617 m³ of firewood, 138 m³ of logs/canted timber, 255 m³ of timber, 5,830 liters of honey, 354 pieces of beds / chairs, 2,350 pieces of Rhun palm splits (about 80 palm trees), 12,000 seedlings, and 3,000 Kembo posts. This production results to a projected gross income of 2.6 million Dalasis and a net income of 1.7 million Dalasis, as it provides the government a projected tax income of almost 0.4 million Dalasis¹⁹.

The projected net profits of the five logs/timber enterprises in the CRD amount to 39% of the total projected net profit of all 58 enterprises, while the projected net profits of 20 federated fuelwood and logs/timber enterprises in the WD just reach some 28%. The 18 beekeeping enterprises envisaged a total net income from the production and sale of honey and body cream of almost 250,000 Dalasis - remarkable 15% of the total projected profits. The 5,830 liters of honey they projected to sell is according to the NBAG twice as much as the association's turnover of honey in 2004 and would reach almost 20% of the estimated annual honey production of the entire country. Here again it is interesting to note that earlier (1993 onward) introduction of beekeeping by the Forestry Department with project support (GTZ) in a few villages didn't result in any significant production and eventually most hives were abandoned. The understanding of the marketing chain is most certainly explaining the success of this renewed attempt.

Table 7: Production and sales projections for 2005

Division	Product	Unit	Quantity	Gross income	Production & marketing	Taxes, NFF & royalties	Net profit
WD	Logs/timber	truckload	17	205 000.00	34 000.00	30 750.00	140 250.00
	Firewood	truckload	28	600 000.00	175 642.00	85 208.00	339 150.00
	Honey	liters	3210	185 500.00	15 708.50	27 825.00	141 966.50
Total WD				990 500.00	225 350.50	143 783.00	621 366.50
LRD	Logs/timber	truckload	6	44 000.00	9 000.00	6 600.00	28 400.00
	Firewood	truckload	4	77 200.00	34 027.50	11 924.00	31 248.50
	Honey	liters	1440	90 900.00	15 935.00	13 635.00	61 330.00
	Handicrafts	piece	200	22 500.00	9 534.00	3 375.00	9 591.00
	Palm splits	piece	360	14 400.00	1 385.00	2 520.00	10 495.00
	Others			161 000.00	18 938.00	24 150.00	117 912.00
Total LRD				410 000.00	88 819.50	62 204.00	258 976.50
CRD	Logs/timber	truckload	30	888 110.00	89 570.00	133 216.50	665 323.50
	Firewood	truckload	10	142 200.00	77 940.00	22 758.00	41 502.00
	Honey	liters	1180	61 800.00	7 757.00	9 196.00	44 847.00
	Handicrafts	piece	154	35 300.00	15 850.00	6 595.00	12 855.00
	Palm splits	piece	1990	104 850.00	30 560.00	17 702.00	56 588.00
Total CRD				1 232 260.00	221 677.00	189 467.50	821 115.50
Total				2 632 760.00	535 847.00	395 454.50	1 701 458.50

Compared to the national trade with firewood and logs/timber, the CBFEE have (still) a minimal market share in it. At local level their share is much more in evidence and may even reach 80% and more for sawn timber in the CRD.

¹⁹ Most of it in form of direct NFF contributions.

5 Impacts on environment and socio-economy

Impacts on ecology and biodiversity

The results of the assessment of CF impacts indicate that the knowledge of rural communities about environmental problems, forest management and protection as well as government policies is generally very high. It is higher in villages that manage a community forest than in those that are not (yet) involved in CF.

The CF impact study used 20 selected indicator species including valuable tree and common wildlife species to analyze the ecological impacts of CF. The study concluded that, in general, the trends perceived by the villagers are for all the indicator species more positive in the community forests than in the state forest areas where, on average, the trends for most species are still negative. Villagers stated positive trends for various wildlife species such as in warthog, baboon and grass cutter populations. They attributed this trend to improved forest cover, coupled with further enforcement of hunting regulations in recent times. On the other side, some species such as antelopes, bush bucks, porcupines and Guinea fowls seem to be still endangered since numbers continue declining.

Bushfires are one of the main threats to forested areas across the country and have plagued communities including the MA&D villages for years. Bush fires are still frequent and still one of the major causes of forest destruction. However, overall trends clearly indicated that today less fire occurs in the Gambian forests compared to 10 years ago. In particular, fewer fires occur in community forests and, as recent trends show, also in co-managed forest parks. The forests most affected by fire are those in the LRD, the transition zone between the dry and hot climate in the east and the more temperate and humid climate in the west, where tall grasses predominate the savanna vegetation.

A number of CF communities have developed effective strategies for fire prevention by placing firebreaks in target areas around the forest or by just carrying out controlled burning within their village lands. There are many examples that no more fires occurred in community forests after they have been identified by the villagers. The community forests of MA&D villages, especially those in the WD, are among them. Without this reduction in fires, income-generating activities such as utilization of dead trees and beekeeping would be impossible.

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 community forest. The extension encompasses an area of 2,150 ha; an increment of 65% of the forest area they already manage. The number would be higher, but in many cases, mostly in the WD, all the available land has already been converted. Bulanjor, for example, has recently applied to extend its community forest from 140 to more than 600 ha. This substantial expansion would have seemed implausible only a few years ago.

In contrast, quite a number of other CF villages have not yet realized remarkable monetary benefits from their community forests, partly due to their own regulations restricting the use of the resource. Recent trends indicate that members of these communities increasingly commercialize products from nearby state forests for subsistence resulting to over-exploitation of these forests in some areas. This attitude

reflects the villager's perception of ownership and responsibility regarding their community forest, whereas they still perceive unclassified state forests as open access resource for which nobody takes care and is responsible for.

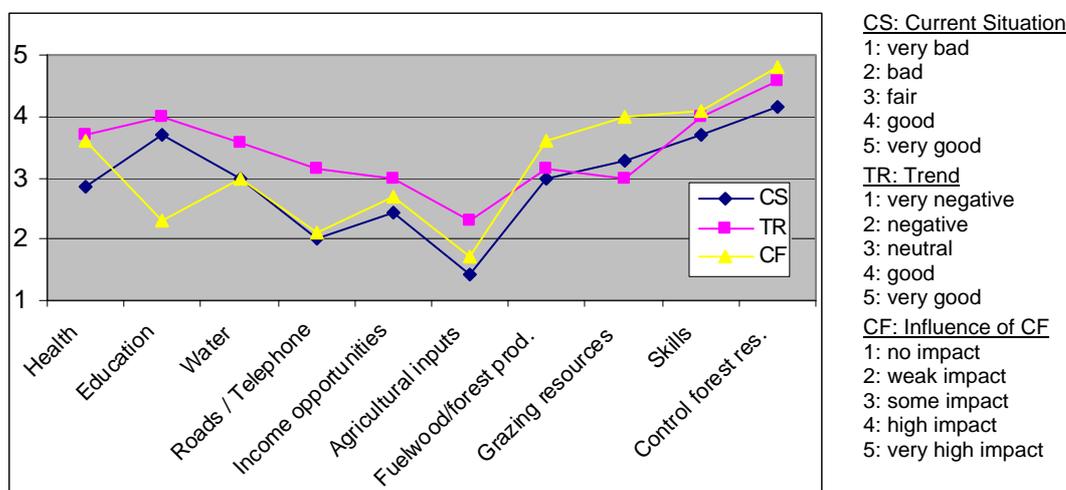
Socio-economic impacts

Development trends in all the CF villages were analyzed during the CF impact assessment by focusing on the following key sectors: social services (health, education, water, and roads/transport), income generating opportunities, access to resources (agricultural inputs, fuelwood/forest products, grazing resources), and skills and control over forest resources.

The assessment concluded that average trends are very similar in all divisions, even though trends varied from village to village. Whereas the trend in health care, water supply and roads/ transport is more or less stagnating, the education situation improved due to the construction of new schools, campaigns for children's enrolment and free education for girls. Lack of income generating opportunities and access to agricultural inputs seem to be the major problems in the villages since these trends were very negative during the last decade.

In contrary, skills, access to grazing and forest resources as well as control over forests, have improved in most areas. The influence of CF on these criteria scored very high, whereas the scores with regard to influences on income, agricultural inputs and social services remained relatively weak in most villages.

Figure 5: Village development matrix of CF villages in Western Division



In 2004, the MA&D villages spend more than 102,000 Dalasis of their profits for improving social infrastructures and services. For investments into the resource base, they spend less than 10,000 Dalasis. The improvement of social infrastructure included activities such as renovation / construction of mosques, road maintenance / repairs, contributions to village water and electricity systems and school construction. Some villages invested into income generating activities (gardening, purchase of draught animals), enterprise development (construction of tourist camp), and subsistence farming (rice cultivation). Compared to that, monies spent for forest development were minimal and limited to carrying out protection measures such as patrolling, establishing and clearing of firebreaks, and controlled early burning. However, a few villages, including Batending,

Kandonk, Bulanjor, Kanuma, Kafuta and Dobo have reserved an amount of 55,000 Dalasis for this year's nursery and planting activities.

The results of the impact assessment studies indicate that women sell more dry branch wood and non-wood forest products (in terms of both number and quantity) along road sides and at weekly markets than they did in the past, though the products they sell have a very low market value. The studies attributed this trend to the downturn of income from agricultural activities in recent years coupled with the lack of alternative income generation opportunities. It appears that minor forest products are becoming more and more important for subsistence in rural areas.

Skills acquired by community members

While going through the MA&D process, more than 150 representatives of the various CBFE acquired skills in marketing (e.g. enterprise literacy, product development, budgeting, and record keeping), sustainable resource management (e.g. resource assessment and identification of mechanisms for controlled resource use), and social development (e.g. group formation and strengthening, and conflict resolution). Some acquired specialized technical skills in harvesting and processing of forest products. These include skills in beekeeping techniques, operating chainsaws and sawmills, and making of furniture.

Apart from the contributions of the Gambian government through the Forestry Department, most of the training provided to MA&D villages was only feasible through technical and financial support of various donors²⁰ and local collaborative partners such as NACO, the NGO 'Fight Against Social and Economic Exclusion (FASE)', NBAG and also JATIFIF. 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 of various technical departments such as village development, agriculture, livestock, forestry, health or education which advise VDCs on issues related to general village development and facilitate the planning and implementation of village based development programs and projects.

²⁰ In particular the FAO, but also the German financed projects GGFP and CRDFP as well as limited financial support provided under the development programs of the United Nations and the European Union (both support decentralize rural development in the Gambia including MDFT activities))

6 Intersection with government regulations and policies

Compared to other African countries, the Gambian government is quite advanced in managing its forest resources through the involvement of the rural population and the private sector as it is demanded by the forest policy. It has established a package of conditions enabling participatory forest management which include general forest management strategies and principles (i.e., the GFMC), forest ownership and long-term user rights embodied in the forest legislation, an action plan how to implement the policy and forest management strategies (i.e., the NFAP as well as a set of implementing guidelines), and has set up a financing mechanisms by establishing the NFF.

Access to forest products is one of the key requirements for developing small-scale enterprises. With the government's commitment to adapting existing policies in order to assist participatory approaches and to empower rural communities in managing their resources, many potential obstacles have been avoided, and an increasing number of communities are gaining the access necessary to develop promising products. However, policies and strategies must continue to be adapted in order to work towards this goal. While much has already been accomplished, the participatory forestry approach in the Gambia is still relatively young, and many communities still cannot legally make use of their traditional forest land or face constraints in using it.

Administrative and implementation procedures involved in passing over forest ownership to communities are protracted so that villagers had often to wait four or more years until they became lawful forest managers. When CF started in the early 90s and was promoted nationwide as from 1996, it had to be based on tenure agreements (PCFMA and CFMA) because the old forest legislation did not foresee involving communities or community groups in forest management. The legal situation changed with the enactment of the new Forestry Act in 1998, which recognizes community and private forest ownership, and the Local Government Act in 2003, which clearly defines land ownership as well as the obligations of local government units in natural resources management. Due to this legal backup, the application procedures for both the PCFMA and the CFMA could be simplified which would essentially ease the administrative burden of the Forestry Department.

Implementation procedures could be further simplified by reviewing particularly the initial steps in the CF approach and by fully integrating the corresponding steps of the MA&D approach into it. The Forestry Department endorsed the CF implementing guidelines in 1998. Since then, valuable experiences have been made (documented in various impact assessment and MA&D studies) and important reforms have taken place (e.g. empowerment of VDCs and local government units, and formation of MDFTs) which changed the roles of the various actors involved in CF implementation. These changes should be taken on board when reviewing the CF regulations.

Although the government expressed its commitment in environmental protection and sustainable natural resource management by endorsing various action plans (e.g. the national action plans on environment, biodiversity, combating desertification and forestry), it lacks substantial financial means to support the implementation of these plans. National development strategies manifested in the 'National Indicative Program' and the 'Poverty Reduction Strategy Paper'; do not yet adequately address natural resource management issues and their linkages to poverty alleviation in general and those to sustainable forest management and utilization in particular. As long as national development priorities do not

change in favor of forestry, the sector will be more or less excluded from receiving long-term donor support through development funds / programs of multi-lateral organizations such as EDF and UNDP. Intensive political lobbying would be necessary to change this situation.

Tedious administrative procedures in releasing approved funds from the NFF as well as funds from depth releases for highly indebted countries seriously hindered the Forestry Department in making full use of these financial resources during the past years. In 2003, the Forestry Department supported by the GGFP proposed guidelines for the management of the NFF and submitted them to the concerned ministries for review. The guidelines were established with the primary objective of increasing the fund's efficiency by making financial transactions more transparent, however, they are still not issued. This puts the Forestry Department in an awkward financial situation to maintain the momentum in following up the recently introduced innovative approaches such as MA&D and JFPM. This situation will become more serious when the last foreign assisted forestry project, i.e. the CRDFP, will end in May 2006.

Determining the tariff for fuelwood easily becomes a hot political issue so as in 2001 when the Forestry Department increased the price for licenses and royalties in order to have more funds paid into the NFF. Serious pressure from higher authorities finally caused the Department to give in and the tariff remained as it was before. The Gambia is benefiting from the import of charcoal threefold. First, it is cheap because it is produced in an unsustainable manner and out of control of the concerned authorities due to on-going political conflicts. Second, the import generates government revenues by imposing import tax²¹ and, finally, it contributes to save the Gambia's own forest resources. Realizing these benefits, the Forestry Department sees no reason for lifting its ban on charcoal production and for monitoring the trade with it. On the other side, lifting the ban would certainly increase to competitive advantage of fuelwood enterprises remote to the urban markets as it would optimize the use of forest products.²²

Another area that is proving challenging is eliminating the competition generated by the illegal exploitation of unclassified state forests. 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 behavior creates unfair competition with legal community forest products, and discourages those communities that undertake efforts in forest protection and conservation. Poor monitoring of enforcement procedures in state forests and at police checkpoints can put the whole process of community-based enterprises at risk, as well as severely impairing efforts to protect the forests. Although these issues have been addressed at the highest levels, illegal activities and pay offs at checkpoints still take place. A simple and transparent forest product taxation system could help overcome these problems but the Forestry Department would require technical assistance to review its actual system.

²¹ At present the import tax is 1 Dalasi per bag. One bag of some 28 kg is sold for 85 Dalasis in Serekunda and Banjul.

²² In the CRD and the URD for example, a considerable amount of branch wood and off-cuts are left inside the forest while processing dead trees into timber. This wood as well as branch wood and coppice, if converted to charcoal, would most probably have marketing opportunities in urban centers despite high transportation cost.

7 Ways forward and opportunities

Changes needed in the enabling environment

Based on the experiences made and in consideration of recent developments and actual trends, the Forestry Department needs to review its policies and strategies. The actual Forest Policy (1996-2005) should be harmonized with other policies, in particular decentralization, energy and poverty alleviation, and should pursue clear and realistic objectives. There is an urgent need to review strategies for managing unclassified state forests which are still widely regarded 'open access' resources and which are being increasingly over-exploited and / or converted into other land use, most severe in the coastal areas and along the Cassamance border.

The Forestry Department should undertake efforts to streamline certain administrative and implementation procedures by reviewing the concerned regulations and guidelines. These include, among others, the administration of the NFF, the transfer of forest ownership to communities and individuals, and the diversification of implementation structures (e.g. involvement of local government units, NGOs and other collaborative partners). It was felt that the MA&D concept should be integrated into operational concepts such as the GFMC and the CF implementing guidelines and manuals. Several foresters still consider MA&D as an approach different from and separate to participatory forest management. They have not yet realized that certain aspects of the approach fit perfectly into the phased implementation of CF and JFPM as they are of utmost importance for sustaining participatory forest management.

Challenges for future and continued success

There is a critical need for the active participation of stakeholders, interest groups or small-scale entrepreneurs in all stages CF and JFPM approached into which MA&D has to be integrated. This is a vital way of ensuring that projects will be sustainable long after the supervision and technical support provided by the facilitators has come to an end as it is an essential precondition for an enterprise to develop. Forest committees, co-management partners and community members play a key role during all the steps in each activity. Forest management and enterprise development plans that have been designed more or less by outsiders cannot be viable in the long term.

But adapting such participatory approaches requires skilled and motivated facilitators who guide the target group through various processes, often over a period of several years. Small-scale enterprise development further requires that facilitators are equipped with considerable entrepreneurial and management skills. As of now and with support mainly provided by the FAO, 14 facilitators / coordinators have been trained in adapting the MA&D methodology including 9 Forestry Department personnel. This number is just enough for maintaining the momentum of on-going MA&D activities but not for further expansion.

The Forestry Department has developed a module for MA&D and integrated it into the curriculum of the Kafuta Forestry School. The first batch of MA&D trained graduates left school last October, another will follow this year. This is a first step to increasing the number of potential facilitators. The next would be to further train these graduates on-the-job and to provide further specific training to those with strong facilitation capacities. But providing efficient on-the-job training including adequate leadership to junior staff is one of

the major constraints of the Forestry Department in further promoting MA&D as well as CF and JFPM.

Therefore, there is still a high need for capacity building and reorientation for Forestry Department staff, particularly mid-level staff responsible for coordinating and monitoring participatory activities and processes at Forest Station and divisional level. Once their capacities are strengthened, subsequent refresher training / re-orientation need to be offered to forest committee members and co-management partners in order to eliminate conceptual misunderstandings and to clarify the roles of the various participants as it has been highlighted in the CF and JFPM impact studies. In general, villagers, in particular women, need to be more encouraged to be active players in forest management planning and forest product commercialization.

In order to maintain the momentum in on-going MA&D activities, the following issues should be given greater attention:

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

However, the Forestry Department's biggest challenge is providing the necessary funds for conducting multi-level training courses and adequate logistic support including mobility of its field staff, not only for following-up the MA&D approach but for continuing participative forest management in general. The NFF, the only funding resource for forest development in the near future, cannot provide the needed financial means although the money paid into the fund has substantially increased in the last years through the CBFES' contributions. It remains to hope that the encouraging achievements made in enterprise development, which created considerable income and employment in rural villages and at the same time government revenue, will find adequate attention by politicians so that sustainable management of the country's forest resources will become a national development priority issue.

Potential to expand or replicate the experience

At present, 26 communities have been assisted in developing community-based forest enterprises but some 400 more communities that are entitled to commercialize forest products would need similar assistance. Therefore, the potential of expanding MA&D experiences to these communities is high.

Potentials are not only high in terms of available resource base but also for further product diversification. Collecting and processing non-wood forest products (e.g. fruits for making jelly, juice or palm oil), eco-tourism (e.g. bird watching safaris, sight-seeing tours, nature trails, etc.) and controlled forest grazing are potential areas for enterprise development particularly for those which have savanna forests as resource base where wood production is limited.

Open savanna forests constitute the predominant forest type in the country but specific silvicultural and harvesting systems ensuring sustainable management and use, for example rotation, coppicing and grazing systems, have not yet been intensively explored. In view of the country's dependency on biomass as primary energy source, much more research should be invested in such systems, probably coupled with enrichment plantings of biomass producing species. With lifting the charcoal ban upon the conditions of applying modern production techniques, introducing enterprise certification, and ensuring effective fire prevention, the contribution of the natural forest cover to the national energy demand could be essentially increased without losing its environmental and ecological importance. At the same time bitterly needed jobs could be created in Gambia's rural areas.

Some forest parks and community forests in the CRD are important bird areas within the boundaries of the Gambia. They serve as thriving habitats for a wide range of sedentary and migratory species. These forests could be capitalized upon by turning them into sites for eco-tourism, especially bird-watching activities, a visitor pursuit already well established in the Gambia and the CRD. Entry fees for round trips or individual visits could be collected at a central office, for example, at the divisional forestry headquarters on Janjang Bureh Island (formerly McCarthy Island), where visitors make their overnight stays at a number of well-established camps. The funds collected could be then disbursed to the concerned community forest communities and co-management partners.

Lessons for similar initiatives or governments supporting community-based enterprises

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 with varying success. However, the MA&D approach which started almost 10 years later placed 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. Before, many people used to fell trees commercially; some outsiders had licenses from the government, while many others operated illegally. The villagers never

tried to stop them 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 to outsider exploitation licenses in community forest and co-managed forest parks.

Reaching this stage was possible since sound frame conditions were in place enabling the development of CBFE. A great deal of time had to be devoted to train extension agents on the MA&D methodology including various approaches that could be adapted to each individual situation, rather than simply providing them with a static blueprint. The interest groups must feel that they own the enterprise development plan and should, therefore, play a key role in developing it, with the extension agents only facilitating the process and providing assistance when necessary. Ensuring that this happened was a time-consuming process, which is quite normal for innovative approaches characterized by participatory 'learning-by-doing'.

Finally and apart from sound frame conditions and time, essential technical and financial support had to be provided to the Forestry Department for achieving the results described in this study. Most of this support came from the FAO, but also the GGFP and the CRDFP contributed a lot by posting junior technical advisers as counterparts to MA&D coordinators / facilitators, financing training workshops and providing logistic support for extension and training.

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