



Gambian Forest Management Concept (GFMC)

2nd Version

Draft

May 2001

**Compiled by
Werner Schindele**

for

**Department of State for Fisheries, Natural Resources and the Environment
Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
DFS Deutsche Forstservice GmbH**

List of Abbreviations

AC	Administrative Circle
AOP	Annual Plan of Operations
B.Sc.	Bachelor of Science
CCSF	Community Controlled State Forest
CF	Community Forestry
CFMA	Community Forest Management Agreement
CRD	Central River Division
DCC	Divisional Coordinating Committee
DFO	Divisional Forest Officer
EIS	Environmental Information System
FD	Forestry Department
FP	Forest Parks
GFMC	Gambian Forestry Management Concept
GGFP	Gambian-German Forestry Project
GOTG	Government of The Gambia
IA	Implementation Area
JFPM	Joint Forest Park Management
LRD	Lower River Division
MDFT	Multi-disciplinary Facilitation Teams
M&E	Monitoring and Evaluation
NAP	National Action Programme to Combat Desertification
NBD	North Bank Division
NEA	National Environment Agency
GEAP	Gambia Environmental Action Plan
NFF	National Forest Fund
NGO	Non Government Organization
PA	Protected Areas
PCFMA	Preliminary Community Forest Management Agreement
R&D	Research and Development
URD	Upper River Division
WD	Western Division

Table of Contents

List of Abbreviations

Foreword

Introduction

1	The Nucleus Concept of the GFMC	4
1.1	Status of GFMC and Relation to other Plans	4
1.2	Long-term Vision	4
1.3	Objectives, Principles and Approach	5
1.3.1	Objectives	5
1.3.2	Principles	5
1.3.3	Approach	6
1.4	Forest Status and Involvement of Local People in Forest Management	6
1.5	The Nucleus Concept	7
1.6	Organizational Requirements	9
2	General Management of Administrative Circles	11
2.1	Administrative Circles	11
2.2	Set-up of Forest Station	11
2.2.1	Location and Size	11
2.2.2	Physical Infrastructure	12
2.3	Administration and Organisation	12
2.3.1	Staff Requirements and Responsibilities	12
2.3.2	Budget and Revenue Administration	13
2.3.3	Planning and Reporting	13
2.4	Coordination and Cooperation with other Sectors and Organisation	14
3	Forest Management Concepts	14
3.1	Forest Fire Management Plans	14
3.1.1	Legal Situation Concerning Forest Fire	14
3.1.2	Elements of a Forest Fire Management Plan – Planning Procedure	15
3.1.3	Introduction of Fire Management Planning	16
3.2	General Approach of Expanding GFMC to Forest Reserves	17
3.3	Joint Forest Park Management	17
3.3.1	Forest Status, Legislative Matters and Management Objectives	17
3.3.2	Principles	17
3.3.3	Constraints	18
3.3.4	Sharing of Responsibilities, Tasks and Benefits	18
3.3.5	Approach	18
3.3.6	Management Planning	19
3.3.7	Preparation of Annual Plan of Operations	20
3.3.8	Implementation	20
3.4	Community Forest Management	20
3.4.1	Forest Status, Legislative Matters and Management Objectives	21
3.4.2	Establishment of Community Forests	21

3.4.3	Principle Features	22
3.4.4	Distribution of Tasks, Responsibilities and Benefits	23
3.4.5	Planning	24
3.4.6	Implementation	24
3.5	Community Controlled State Forest Management	24
3.5.1	Forest Status, Legislative Matters and Management Objectives	24
3.5.2	General Approach	25
3.5.3	Constraints	25
3.5.4	Sharing of Responsibilities, Tasks and Benefit	26
3.5.5	Administration of Funds	26
3.5.6	Start-up Procedure	26
3.5.7	Planning	27
3.5.8	Implementation	27
3.5.9	Testing	27
3.6	Management of Other State Forests (Forest Reserves)	27
3.6.1	Forest Status, Legislative Matters and Management Objectives	27
3.6.2	Extended Community Controlled State Forest Management Concept	28
3.7	Private Forest Management	28
3.7.1	Forest Status, Legislative Matters and Management Objectives	28
3.7.2	General Policy on Private Forest Development	28
4	Required Complementary Measures	29
4.1	Revision of Forest Act and Regulations	29
4.2	Preparation of Guidelines	29
4.3	Others	29

Annexes

List of Guidelines and Other Relevant Literature

List of Tables

Table 1:	Management options according to the degree of local people's involvement	7
Table 2:	Administrative units within the Forestry Department (February 2001)	11
Table 3:	Benefits and responsibilities in JFPM	18
Table 4:	Benefits and responsibilities in CCSF	26

List of Figures

Figure 1:	Present and future distribution of forest categories	5
Figure 2:	Example of an administrative circle with a forest station in its centre	8
Figure 3:	Proposed structure of the Forestry Department for GFMC implementation	9
Figure 4:	Comparison of new fire prevention strategy with the approach to date	15
Figure 5:	Concluding the PCFMA	22
Figure 6:	Concluding the CFMA	23

Foreword

The 1st version of the Gambian Forest Management Concept (GFMC) was prepared in 1994/95 and consisted of 3 parts. Part I compiled general information on the forest sector, Part II described the historical development of forest management in relation to the changing framework condition, Part III contained the GFMC itself. Part I and II were prepared at that time in order to provide the necessary background information and to justify the GFMC.

In 1996, the GFMC was approved by the former Ministry of Agriculture and Natural Resources and has since then provided the binding framework for forest management.

The GFMC was developed based on several years of experience in forest park and community forest management in the Western and Lower River Division. When the GFMC was conceived community forestry was just beginning. In 1996 and 1997 respectively, the GFMC was introduced to the Central River (CRD) and Upper River Division (URD) and was implemented there on a large scale.

In 1998, the new Forest Act was enforced. This act included regulations on community and private forest management. In the same year, the Community Forestry Implementing Guidelines were institutionalised as part of the Administrative Guidelines of the Forestry Department (FD).

Experiences made during implementation of the GFMC in the CRD and URD have shown, that there is a need for adapting the GFMC towards low cost forest park management and to involve forest adjacent local communities in state forest management.

In 1999, new concepts for the joint management of both forest parks and other state forests were developed and tested.

Now, 5 years after the institutionalisation of the GFMC, it has become necessary to revise the GFMC taking into account the experiences gained and new concepts developed.

The 1st version of the GFMC basically focused on the management of forest parks as nuclei for expanding sustainable forest management to surrounding community forests. Due to the achievements made in community forest development and consolidation, the revised version considers the established community forests nuclei for expanding sustainable forest management as the forest parks (FP). Thus the 2nd version of the GFMC contains new concepts for participatory state forest management with the local population as main actors (i.e., Community Controlled State Forest or CCSF) In addition, a concept for forest fire management on station level taking into consideration all forestlands has been included.

The revised GFMC furthermore calls for active community participation in forest park management (Joint Forest Park Management, JFPM) aiming at reducing forest development and recurrent management costs to the absolute minimum. Expensive infrastructure measures, such as the fencing of the whole forest park area, the set-up of a basic road network from the very beginning and the establishment of a live fire protection belt, have been reduced in favour of low cost conservation and protection measures to be undertaken jointly with the local population. Furthermore, the technical requirements for forest management planning including site mapping and forest inventory have been adjusted to the new management approach¹.

The revision of the GFMC refers only to its former Part III. As the GFMC is already institutionalised, the former part II and III which were prepared for its justification are no longer required. Detailed sector analysis and the historical development are described in detail in the Action Plan on Forest and Wildlife Management (1999) and the National Forestry Action Plan (2000)

¹ This makes it necessary to revise the Forest Management Planning Guidelines from 1994.

Introduction

At the turn of the century Gambia was still covered by dense and almost impenetrable forests. With increasing population the equilibrium between man and nature was disturbed, and a vicious cycle of forest destruction was initiated, carrying with it negative impacts on soil erosion, soil fertility, water resources, forage and biodiversity. The main cause of this cycle was bush fire in combination with shifting cultivation and uncontrolled fuel wood exploitation.

The actual rate of forest degradation permits no further delay in undertaking immediate action. If this action fails and the recent trend continues, the Gambian natural forests will have disappeared before they are brought under controlled management, and the chance of preserving the indigenous flora and fauna and using its manifold products has been lost. This would have an extremely detrimental effect on the welfare of the Gambian population.

Since 1984 the Forestry Department has been establishing a natural forest management model with technical assistance provided by the German government. Management of natural forests within the forest parks (state owned forest) has been developed and tested up to a stage advanced enough to be multiplied in the other forest parks. 66 forest parks in total exist in The Gambia, covering an area of approximately 34,000 ha or about 7% of the estimated 489,000 ha of total forest area. It was soon recognized that the cost and the staff required by the Forestry Department to manage all forest parks and other forests could not be realistically sustained in the long-term and that the only feasible way to stop forest destruction was to involve the local population in forest management. Unfortunately, at that time, unfavourable conditions such as expanding agricultural production (groundnut), institutional set-ups and little knowledge in natural forest management, did not allow the introduction of community forestry. At the end of the 80's these framework conditions became more favourable, and a community forestry model was developed, successfully tested and was finally institutionalised in the late 90's.

Forestry activities are closely interrelated with farming activities including livestock husbandry, and therefore cannot be viewed in isolation. Furthermore, forestry planning and development has to be seen in the context of the population growth and pressure. Equally important is the educational level of the population and its ability to recognize and understand those linkages, and to take-up necessary actions aimed at restoring the balance. This calls for an integrated approach, which is beyond the mandate of the Forestry Department (FD). Thus, requesting assistance is necessary at both execution and implementation levels.

On the other hand, besides financial constraints, the rate of forest degradation² does not leave enough time to build up a capable and sufficiently extensive forestry service that assists communities in taking over the responsibility of managing the Gambian forest. Therefore, the FD has decided to develop a simplified approach to community forestry in order to cover a larger area with a limited number of staff. This simplified approach has also been proposed due to the demand for rural involvement in community forestry and the good level of participation. NGOs and other agencies need to be involved in order to supplement the effort made by the FD. Some of them are already participating in community forestry activities.

The involvement of local people in forest management and the sharing of benefits from forest utilization will help to alleviate poverty in the rural areas.

The Gambian government has expressed its commitment to the preservation of its flora and fauna on numerous occasions and has demonstrated this commitment through the formulation of a new and adapted forest policy and development strategies. The new policy recognizes and contributes to the poverty alleviation effort of the government by calling for the involvement of the private sector and local communities in the management and development of a healthy forestry sector. The Gambian Forest Management Concept (GFMC) was developed and introduced in 1995 in order to provide the framework for forest management in The Gambia.

² According to the result of the forest inventory conducted in 1997/98, the forested area has slightly increased compared to 1981/82, but the overall forest condition has become worse.

The forest policy of The Gambia (1995 – 2005) aims at managing 75% of the forest cover. It is foreseen to develop some 8,000 to 10,000 ha of forest parks (this area is considered the minimum needed for demonstration and research purposes, while the remaining forest park area will be managed based on other objectives set) and an estimated area of some 200,000 ha of community forests. By the end of 2000 about 13,000 ha of forest parks and some 24,000 ha of community forest were under management based on the GFMC.

The GFMC merges the models of natural forest management in forest park and in community forests. It is based on a nucleus concept where decentralised forest stations coordinate the management of all forest areas within the country. It also aims to create a common understanding among all the actors operating in the field of natural resource management and who are more or less involved in the development of forestry sector in The Gambia.

The GFMC puts the rural population at the centre of managing the Gambians' forest resources. Consequently, it follows participatory approaches so that local people are fully involved in planning, decision-making, organization and administration. It initiates simultaneous socio-cultural, economic, and ecological transformation processes. Therefore, intervention planning and implementation need to be flexible, iterative, and oriented towards the processes.

Long-term sustainability of the GFMC calls for minimal investments and adoption of appropriate low-cost technologies and techniques both for forest protection and development. External incentives and subsidies have to be used sparingly in order to avoid dependency, misunderstanding in identifying the beneficiaries of future benefits, and devaluating resource management objectives.

1 The Nucleus Concept of the GFMC

1.1 Status of GFMC and Relation to other Plans

The GFMC is a concept developed by the Forestry Department based on the experience of forest management since 1980. Some components are already very well developed (i.e. community forestry), others need to be field tested (i.e. JFPM and CCSF) and adjusted accordingly. As such, the GFMC is never finite and needs to be revised periodically.

The 1st Version of the GFMC was prepared in 1995. It provided the frame for

- The Forest Policy of the Gambia for 1995 to 2005
- The Administrative Guidelines of the FD (1995)
- The revised Forest Act (1998)

The testing of new components of the GFMC may not necessarily be in accordance with all regulations and guidelines specified in the above-mentioned documents and may require the special approval of the FD or even the Secretary of State.

If the GFMC 2nd Version is tested successfully, it may be therefore necessary to revise the documents specified above accordingly.

Furthermore, the GFMC (1st Version) was considered when the National Forest Action Plan (NFAP) and the National Action Programme to Combat Desertification (NAP) were formulated in year 2000.

1.2 Long-term Vision

The GFMC's the long-term vision is that at least 30% of the land cover will be gazetted as permanent forest cover and managed according to the objectives defined by management plans. When this process is finalised, the permanent forest area will consist of legally gazetted

- forest parks,
- community forests,
- private forests, and
- protected areas.

The identification of these permanent forest areas is based on an iterative planning process on village level taking into account the needs and requirements of the local population, customary land rights, land capability and environmental needs. It is expected that in the end about 200,000 ha of community forests and 10,000 ha of private forests will be established.

The fragile ecosystems of mangrove and riverine forest belong to the permanent forest area (protected forests, Forest Act 9 (8)) and shall, therefore, become the status of forest parks (i.e. legally gazetted state forest). This will increase the protection status since the conversion into other land-use (i.e. aqua-culture) will then require a de-gazettement process³. The total forest park or gazetted state forest area⁴ will then be about 105,000 ha.

The remaining, at present unclassified, forests thereafter called forest reserves, shall be conserved and managed as long as they are not converted to other land uses or protected areas⁵. Depending on the future development of the country it can neither be predicted nor planned how much of these

³ As the GFMC foresees the joint management of forest park, mangroves and riverine forests can still be managed with the adjacent communities.

⁴ So far, forest parks are the only state forest, which are legally gazetted beside the protected areas. This should be taken into consideration, when the Forest Act is being revised. Also, instead of forest parks, the term gazetted state forests should then be used.

⁵ Some of the state forest reserve may be converted to protected areas in future. It is the objective of the Department of Parks and Wildlife Management, which is responsible for the management of protected areas, that in the long run 5% of the land area shall be declared protected areas. However, not all of these areas are forested.

forests will be actually converted and when. As such the final forest cover of The Gambia will be 30% plus.

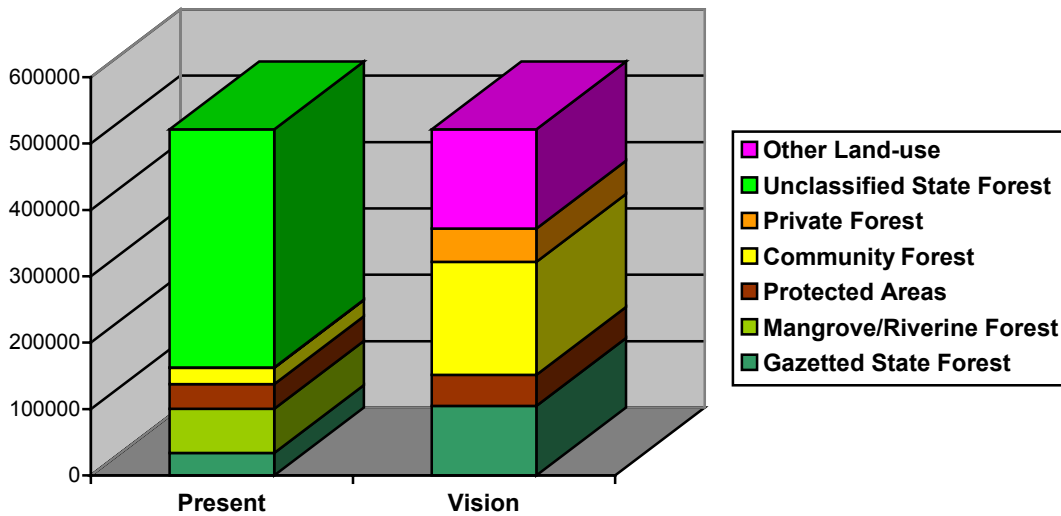


Figure 1: Present and future distribution of forest categories

1.3 Objectives, Principles and Approach

1.3.1 Objectives

The objectives of the Gambian Forest Management Concept (GFMC) are

“to conserve and improve the forest resources of The Gambia in order to supply as much as possible of the country’s demand for forest products through sustainable management of it’s forest resources.”

1.3.2 Principles

The GFMC assumes that the management of forests can only be successfully implemented if the interests and needs of the adjacent communities and the nation as a whole are adequately addressed.

The participation of people in forest management is a pre-requisite.

The GFMC adheres to the following principles:

- to conserve the existing forest areas;
- to manage these forests according to the principle of natural forest management in a sustainable, ecologically adapted and socially accepted way;
- to minimize the cost for management and conservation by using the resource's capacity of self-regeneration and to improve its production capacity with a minimum of silvicultural inputs;
- to hand over responsibility and management functions to communities and other managers in order to minimize government input in terms of man-power and finance;
- to maximize economic returns by optimal use of forest products; and
- to develop, test and introduce new techniques and methods designed to mitigate and/or eliminate interest conflicts between agriculture and forestry.

1.3.3 Approach

So far, the management of gazetted forest parks has been carried out in a “classical” way. Management decisions were taken by professionals who receive regular salaries, work was carried out by paid labourers and contractors and to a certain extent by using expensive machinery and equipment.

When CF was introduced a different approach was required since the primary planners, implementers and actors are rural people who are usually engaged in subsistence farming and to whom forestry in a sense of sustainable management is new.

The revised GFMC merges the two management concepts into one with the rural population as main actors. “Classical” management of forest park shall be limited in future to forest areas which shall be managed with the objective of research and development and testing of silvicultural methods or new technologies. All other state forest areas shall now be jointly managed with the local people (see chapter 1.4) in order to increase conservation efforts and to reduce costs. The participative, process oriented and flexible approach in planning and implementation, regardless of the forest status, in which all concerned local communities are to be involved from the beginning, is supposed to identify and, if possible, to solve conflicts at an early stage.

The future management of state forests is embedded into the CF-approach⁶ and shall respond to the peoples’ needs and demands. While the responsibility of forest conservation and protection will be gradually vested with them, the task of the FD will be to provide advice and training and to steer forest management with the view of sustainable management.

The success of adopting the revised GFMC, therefore, depends primarily on the people’s willingness, interest, capacity and capabilities on sustainable resource management, but also on the persons/agencies who are charged with providing initiative and motivation and are supposed to provide the necessary advice and training.

At the same time, the participation of local people in the conservation and protection of state forests can only be assured if they gain short-term benefits. These benefits shall be generated directly from the resource managed, e.g. grazing permits, free collection of minor forest products, bee keeping, etc. This would have a positive effect on poverty alleviation in the rural areas.

External subsidies and incentives should be used sparingly, i.e. pursuing a low input approach and adopting a low input technology. The provision of incentives shall be based on a clearly established cost-benefit relationship and must be valued by its effectiveness in motivating the desired change in a sustained way.

The integration of GFMC implementation into village development planning is a pre-requisite as long-term land-use decisions (i.e. deciding what shall be permanent forest land) are taken. This requires inter-sectoral collaboration (see chapter 2.4) with other government agencies and NGOs. Land-use decisions cannot be made from only the foresters point of view, but have to take into consideration population development, need for agricultural land, etc. The policy of establishing Multi-disciplinary Facilitation Teams (MDFT)⁷ at ward level would ensure the inter-sectoral collaboration.

1.4 Forest Status and Involvement of Local People in Forest Management

According to the degree of involvement, at present five different management options are distinguished.

State management applies only for portions of forest park for the purpose of research, development and testing of new technologies. All other forest park areas shall be managed in collaboration with the local people. Within one forest park both types of management options may be applied.

⁶ A detailed description of the community forestry approach can be derived from the Community Forestry Implementing Guidelines.

⁷ For more details refer to “Draft Policy for the Establishment and Operationalization of Multi-disciplinary Facilitation Teams (MDFTs), Dept. of State for Local Government.

Table 1: Management options according to the degree of local people's involvement⁸

Management Option	Forest Status	Degree of involvement
State management	Forest Park Forest Reserve	Minor
Joint forest park management (JFPM)	Forest Park	Consultative and co-operative, sharing of benefits and tasks, access to forest products based on mutually agreed conditions (e.g. cattle browsing, etc.).
Community controlled state forest management (CCSF)	Forest Reserve	Management function, but directed by FD
Community forestry (CF)	Community Forest	Decisive
Private forest management	Private Forest	Decisive

In the long run (see chapter 1.1) there will be no more forest reserves. As such, CCSF has to be seen as an intermediate step, which will ideally end either as a community forest or as a forest park that is jointly managed.

Community and private forest management is entirely up to the decision of the owner. However, restrictions imposed by the Forest Act have to be observed.

The principles for people's participation are elaborated in the respective chapters of this GFMC.

1.5 The Nucleus Concept

Gambian forests are unevenly distributed throughout the country. They fulfil different ecological (wildlife habitats, biodiversity, soil protection, water retention, etc.) and economic (forest products, cattle browsing, tourism, etc.) functions; they grow on different sites and terrain; vary in their conditions (dense forests, open woodlands, tree and shrub savannah, etc.); are used by different people (villagers, firewood producers, FD) in a different way; and are close to villages or in remote and less accessible areas.

For each particular situation an optimal management system needs to be adopted. Forestry has to master each situation for which an integrated approach is best suited. While legislation and regulations provide the implementation structure, foresters need to be present on the spot to identify the most appropriate management system, to provide advice and training to the local population, and to supervise and control the activities taking place in the forests. Therefore, a network of forest stations throughout the country is required where professional foresters are posted.

Ideally, the forest stations are to be located within a cluster of forest parks surrounded by other forests. These parks will constitute the nuclei, in which appropriate management systems and silvicultural techniques will be developed, tested, and then adapted to all the surrounding forests in one or another way. Under the nucleus concept forest parks and the gazetted community forests serve as a means to an end in order to bring the remaining forest resources under controlled management. They should not be seen in isolation, but are an important element of, and need to be fully integrated into, the GFMC.

The GFMC distinguishes 3 administrative units:

- Forest Division
- Administrative Circle
- Implementation Area

⁸ Refers only to forest resources under the jurisdiction of the Forestry Department.

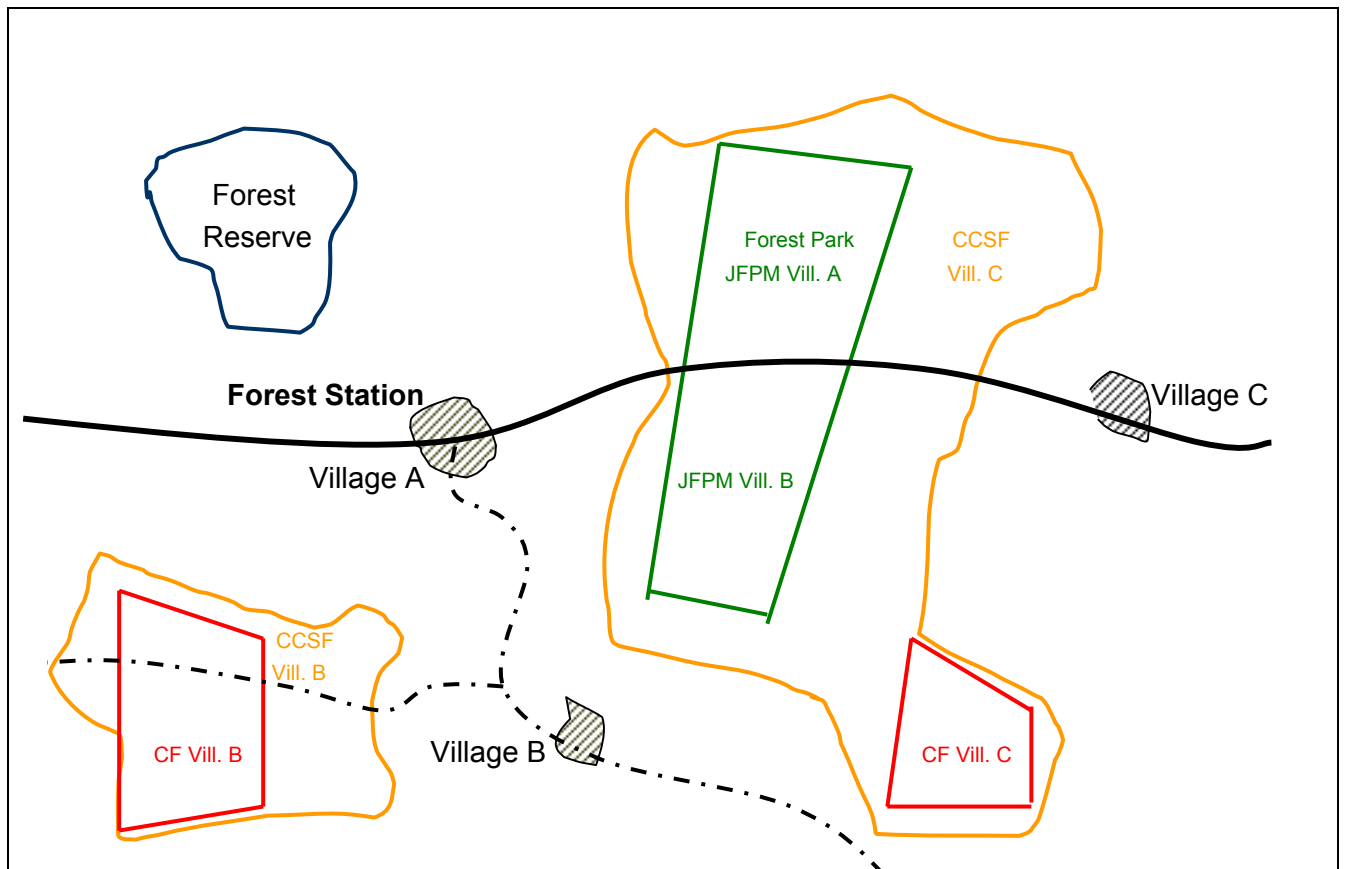
Each Division is sub-divided into administrative circles with a forest station as the core for management in its centre. Each administrative circle is further subdivided into implementation areas depending on the size of the circle and the manageable forest area (i.e. FPs and community forests).

Under the GFMC four different forest categories are managed:

- **Forest Park (FP):** The management responsibility of forest parks lies entirely with the FD. Management models for state management have been developed and tested. The concept of joint forest park management with the adjacent population has been developed and introduced.
- **Forest Reserve (FR):** FRs are state forests and as such under the management responsibility of the FD. Since the FD does not have the capacity of managing all FRs, the concept of “Community Controlled State Forests” was developed.
- **Community Forest:** Local communities based on a Community Forest Management Agreement (CFMA) manage community forests. The CF-concept is fully developed and is already institutionalised.
- **Private Forest:** The ownership of the land and trees is a private person or enterprise. Management is up to the objectives of the owner, but the provisions of the Forest Act need to be observed.

The Department of Parks and Wildlife Management (DPWM) is responsible for the management of protected areas. Therefore, they are not subject to the GFMC.

Figure 2: Example of an administrative circle with a forest station in its centre

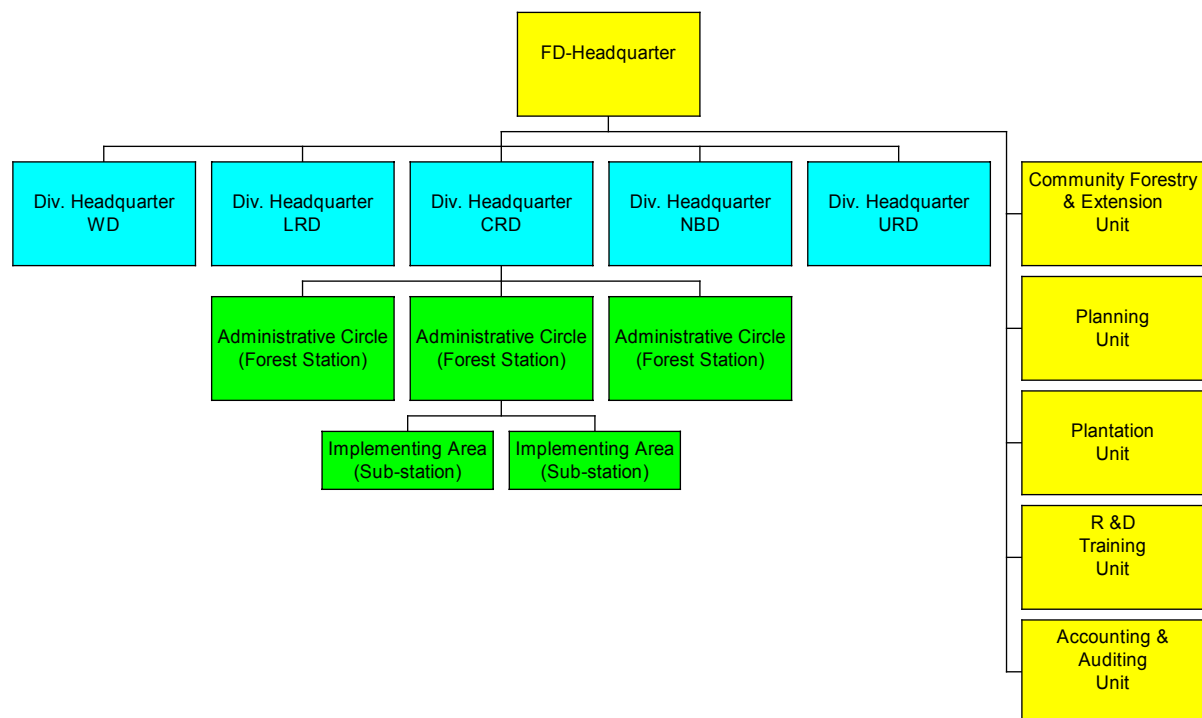


1.6 Organizational Requirements

For countrywide GFMC implementation, the responsibilities of the FD staff have to be adequately adapted. While the former primarily control and jurisdictional functions remain, other tasks such as actual management of the forest, forestland use planning, providing management advice and supervision have to be added to the job descriptions of the concerned staff. Based on these additional tasks the forest administration and individual forest officer have to see beyond the trees and become more concerned with people and the multiple-use potential of forest lands. The traditional approach of foresters needs to be widened in favour of involving the rural population in management and rational use of their forests.

The organizational structure and the job descriptions of the Forestry Department need to go along with this development. The restructuring of the FD with effect from 1st of January 1995 was a first step towards this direction and has been an adequate form of organization for a transition period until the GFMC is introduced on a national level. An appropriate organizational structure for GFMC implementation is shown in Figure 3.

Figure 3: Proposed structure of the Forestry Department for GFMC implementation



The territorial structure of the forest department according to administrative units shall be assisted by technical support units⁹, which are attached to the headquarters in Banjul.

The task of these support units is to support the various administrative levels in subject related issues, such as

- the preparation and revision of specific guidelines,
- the provision of assistance in subject related planning (i.e. preparation of management plans incl. inventory, site mapping),
- monitoring and evaluation of subject related activities (i.e. inspection),
- extension and public awareness creation on national level, and
- subject related in-service training of forestry staff.

⁹ Some of the support units may be required only temporarily (i.e. Planning Unit, CF and Extension Unit) until the territorial staff are qualified enough to take over their functions.

The support units shall become active on demand of the Director of Forestry or of the DFOs. Their specific tasks need to be specified in detailed work profiles.

Actual forest management is decentralised to the divisional level. The FD headquarters takes care of overall administration and budgeting, policymaking, legislative matters, inter-sectoral and international cooperation, etc.

A Division Forest Officer (DFO) heads a forest division. This person is responsible for all forest management activities within the division. Actual forest management is carried out on forest station level by the head of the administrative circle (AC-head). The AC-head is directly responsible to the DFO and is supported by the heads of the implementing areas (IA-head).

The merging of community forests and FP management and the introduction of joint forest park management of state forests requires an adjustment of the previously proposed (GFMC 1st Version) sectoral subdivision of tasks (i.e. separate community forestry and state forest management section) on station level. All forest management activities independent from the forest status shall now lie within the responsibility of the same person. This has the advantage that for the local population there is only one person which need to be addressed for forest related matters. Furthermore, it reduces the number of staff and infrastructure required.

On station level, the following main activities shall be carried out

- to prepare forest management plans with the support of the special units,
- to implement management activities according to plans,
- to conduct sensitisation programs,
- to collaborate with other agencies and NGOs,
- to train and advise villagers in community forestry, CCSF and joint forest park management,
- to issue licenses and to control management activities within forest reserves jointly with the local population,
- to assist in the marketing of forest products, and
- to assist, advice, control and supervise wood processing (i.e. mobile sawmills, pit-sawing, etc.).

Research and development of silvicultural techniques is an essential requirement to improve the economic implementation of the GFMC. For each division, at least one of the forest stations shall be assigned as research and development station which shall conduct R&D in selected areas within gazetted forest parks.

The Training Section at Kafuta Forest Station is responsible for the training of new forest guards in all GFMC related subjects.

Staff requirements for GFMC implementation and training needs can be derived from the NFAP.

2 General Management of Administrative Circles

2.1 Administrative Circles

The FD identified the following administrative circles based on the criteria described in GFMC 1st Version.

Table 2: Administrative units within the Forestry Department (February 2001)

Division	Administrative Circle (AC)	District
Western Division (WD)	Brikama (BR)	Kombo North, Kombo Central, Kombo South
	Kafuta (KA)	Kombo East, Foni Brefet, Foni Bintang
	Bondali (BO)	Foni Kansala, Foni Bondali, Foni Jarrol
Lower River Division (LRD)	Manduar (MA)	Kiang West (starting at Jiffarong)
	Dumbutu (DU)	Kiang West (up to Bajana), Kiang Central
	Soma (SO)	Kiang East, Jarra West, Jarra Central (up to Jappen)
	Bureng (BU)	Jarra Central (starting at Jappen), Jarra East
Central River Division (CRD)	Kudang (KU)	Niamina Dankunku, Niamina West, Niamina East
	Yoro Beri Kunda (YB)	Fulladu West
	Jarume Koto (JK)	Niani (up to Pallan Bolon), Sami
	Bakadagy (BA)	Niani (starting at Pallan Bolon), Upper Saloum, Lower Saloum
Upper River Division (UR)	Diabugu (DI)	Sandu
	Jeloki (JE)	Wuli
	Sudowol (SU)	Kantora, Fulladu East (up to Basse/ Velingara highway)
	Bakadagy (BA)	Fulladu East (starting at Basse/ Velingara highway)
North Bank Division (NBD)	Medina Seringe Mass (MS)	Lower Niumi, Upper Niumi
	Kerewan (KE)	Jokadu, Lower Baddibu, Central Baddibu
	Farafenni (FA)	Upper Baddibu

2.2 Set-up of Forest Station

Forest stations are considered “nuclei” from which all forest management activities within an administrative circle are co-ordinated.

So far, the forest stations of the administrative circles Manduar, Soma, Diabugu, Sudowol and Bakadagy consist only of field offices, which have been rented. They need to be replaced by full-fledged forest stations owned by the FD. For the ACs of the NBD no forest stations exist at all; they have to be constructed. For all the other ACs forest stations have already been established and are fully operational.

2.2.1 Location and Size

The location of a forest station needs to be carefully selected. It should ideally be located

- close to the centre of the administrative circle,
- in the village, where a chief resides, and
- where basic infrastructure such as public transport and telecommunication exists.

For large administrative circles it is necessary to set-up field offices or sub-stations, as the maximum distance of forests to be managed by a (sub-)station should not exceed 25 km.

The village head of the respective village is responsible for the allocation of the land. For an average forest station about 0.25 ha of land is required, for a substation about 0.1 ha.

2.2.2 Physical Infrastructure

The FD personnel managing the administrative circle must be permanently posted at the forest station. As they are the contact persons who will be addressed by the local people in all forest related matters, they will need to be on the spot at any time. Living together with the people will help to build up a confident relationship of paramount importance for successful participatory forest management. A forest station shall furthermore provide the facilities for meetings with villagers and extension work.

A standard forest station shall therefore consist of

- office building with 3 offices
- staff quarters for the head of AC and his assistant
- small store for equipment
- conference room or bantaba with roof
- small demonstration nursery
- well with water reservoir
- small generator or access to public electricity supply
- basic fire fighting equipment

All buildings shall be constructed locally. The offices shall be equipped with adequate furniture and basic equipment including a complete set of the Administrative Guidelines.

The infrastructure for a sub-station or field office is similar to the forest station but without a store, conference room and only 1-2 offices.

The provision with machinery and equipment depends on the types and status of forest to be managed and on the type of forest station. Stations assigned for R&D and/or those having a high ratio of FPs might require more technical equipment than FS with a large proportion of community forests. However, due to economic and socio-economic reasons, the use of machinery and technical equipment should be kept to the absolute minimum.

The mobility of the staff must be ensured, otherwise they cannot fulfil their duties. This requires that each station is equipped with one pick-up, one motorbike (for AC-head) and one moped for the assistant and each IA-head. Forest scouts should be provided with a bicycle. The pick-up should only be used for the transport of materials and the transport of people for village meetings (CF, CCSF and JFPM). In addition there shall be 2 bicycles per station.

At least each division shall be provided with a tractor and trailer for forest protection and road construction, which shall be jointly used by all forest stations on demand.

For deadwood utilization the use of small mobile sawmills shall be tested. This would help to create short-term benefits for CF and make forest management and protection measures more economic. How this is to be organised (e.g. utilisation section of FD, private local entrepreneurs, community owned) needs to be developed and tested carefully.

2.3 Administration and Organisation

2.3.1 Staff Requirement and Responsibilities

A station officer or head of the administrative circle (AC-head) holding at least a Diploma in forestry manages each forest station. The AC-head is responsible for all forest related activities within his jurisdiction and is supported by an assistant, the heads of the implementation areas and a number of forest scouts. The main function of the AC-head is overall administration and planning, organising, supervising and monitoring of all forest extension and management activities in accordance with the Administrative Guidelines and the annual plan of operations.

Furthermore, the AC-head shall play a major role in the issue of all permits and licensees, as he is the custodian of the state forests within his jurisdiction¹⁰. Without his recommendation from the technical point of view, no license or permit shall be issued.¹¹

The AC-head is directly responsible to the DFO. The AC-head's tasks and duties have to be clearly specified in a detailed job description to be prepared by the DFO.

The IA-heads form the interface to the local population. They are responsible for extension, supervision and technical assistance in CF, CCSF and JFPM, for the actual implementation of forest management activities (forest park management, fire management) and for control of all forest related activities within their IA. Forest scouts for patrolling may support them. They are directly responsible to the AC-head.

The number of auxiliary staff (i.e. nursery man, watchman, daily paid labourers) required depends on the type of station and the forest resources to be managed.

2.3.2 Budget and Revenue Administration

There are two financial sources of financing. The government budget for the Forestry Department and the National Forest Fund (NFF).

The government budget is allocated yearly to the FD and is paid to finance the forest administration. Two budget lines are distinguished. The *regular budget* covers salaries, maintenance cost and office equipment, and the *development budget* finances investment measures.

The NFF is financed from forest management activities and shall be used for the protection, the development and the sustainable use of forest resources and to promote community forestry. It shall not be considered as a saving account of the FD but as a supplementary source of finance to pay the operational costs¹² of forest management that cannot be met by the government budget.

Allocation of both budgets to the FD is based on yearly budget estimates submitted to the Secretary of State by the FD.

The GFMC decentralises forest management activities to division level. This requires yearly budget estimates of each division to be submitted to the FD and an allocation of funds accordingly.

These divisional budget estimates are based on the annual work plans prepared by the various AC-heads according to the provisions of the Administrative Guidelines.

CF management activities are financed from the local forest funds, which are established separately for each community forest.

Revenues collected from the issue of permits, licensees, the sale of timber and other revenues derived from forest management activities are to be paid to the NFF and to the treasury as regulated by the Forest Act.

2.3.3 Planning and Reporting

Each AC has to prepare an annual plan of operation (AOP) according to a standardised format specified in the Administrative Guidelines. The AOPs are broken down into quarterly work plans for each IA and contain all activities to be implemented within the planning period. Based on the individual AOPs the AOP for the Division is prepared, which has then to be submitted to the FD directorate for approval.

Reporting shall follow the prescriptions of the Administrative Guidelines. It must be done quarterly from AC-head to DFO and from DFO to FD directorate. The same applies to the heads of the supporting units. The reporting system is standardised and based on monitoring and evaluation of

¹⁰ Ideally, the Forest Regulations shall regulate the responsibility of the AC-head for the issue of a license or permit.

¹¹ It is recommended, that trees to be harvested shall be identified by the IA-heads and marked with a number (hammer-mark). The permits shall indicate the location and the hammer-mark numbers.

¹² To ensure mobility of the staff, fuel and maintenance cost of the vehicles and motorbikes should be supplemented - if required - from the NFF.

the achievement of the quarterly working plans. The DFOs and the heads of the supporting units shall present the quarterly reports to the Director of Forestry at the quarterly senior staff meetings. Data collection and the filing system is standardised and should be the same for each DFO, AC and IA in the country. It provides all information required for the preparation of AOPs and quarterly reports.

2.4 Coordination and Cooperation with other Sectors and Organisation

The management of forest resources with the local population as main actors requires an interdisciplinary approach.

The Multidisciplinary Facilitation Teams (MDFT), which act on behalf of the Divisional Coordinating Committee (DCC)¹³ on ward level, shall render the extension, advisory and training services to the communities and shall be involved in all planning activities related to CF, CCSF and JFPM and in questions related to land-use, agriculture, live-stock and village development. The AC-and IA-heads shall be members of the MDFTs within their area of jurisdiction and represent the forest sector. On demand, they shall be supported by NGOs that should serve as facilitators, moderators and assist in conflict resolution.

For more details on inter-sectoral collaboration refer to NAP and the draft policy on MDFTs.

3 Forest Management Concepts

While the GFMC 1st version emphasized the management of forest parks as nuclei and introduced the concept of CF countrywide, this revised version focuses on the concept of how to expand forest management now to the other forest reserves in order to conserve and protect them. This requires a broader planning and management approach, that is, not to look only at a particular community forest or FP but also to its surrounding forests. Doing this, the interests and needs of the local people in relation to land and forest use have to be considered and reflected in the management system. This means, that especially for the CRD and URD the objective of forest management must be oriented more towards cattle grazing rather than to focus on mere protection or on the production of timber and other forest produce. Only if parts of the forestlands are managed as silvo-pastoral systems, will the needs and objectives of the local people be adequately addressed and their interest to conserve and manage forestlands together with the FD be sustained. This may require addressing the problem of forest fires from another perspective. For silvo-pastoral systems, fire could be a management tool and controlled burning (i.e. early burning) may be required to sustain it, though currently not much is known about this relation¹⁴. Therefore more information is urgently required on silvo-pastoral systems and on their relation to forest fire. In the mean time the policy to generally protect forests from fire shall continue.

3.1 Forest Fire Management Plans

3.1.1 Legal Situation concerning Forest Fire

According to the Forest Act of 1998 all forests shall be protected from fire. However, Section 21 (1) of the Forest Regulations provides for an exception: *"The Director may allow the setting of fires on any land for any protective or other purpose for any specified area and period of time, and subject to such conditions as he may think of."*

¹³ The forest sector is well represented by the DFO, who is a member of the DCC.

¹⁴ Under the strict policy of fire protection, nobody will admit that fire also has positive effects. However, the experience made by protecting Bama Kuno and Katilenge forest parks for several years clearly show, that these parks are now covered by dense undergrowth and that the potential for grazing has become very low compared to the previous situation.

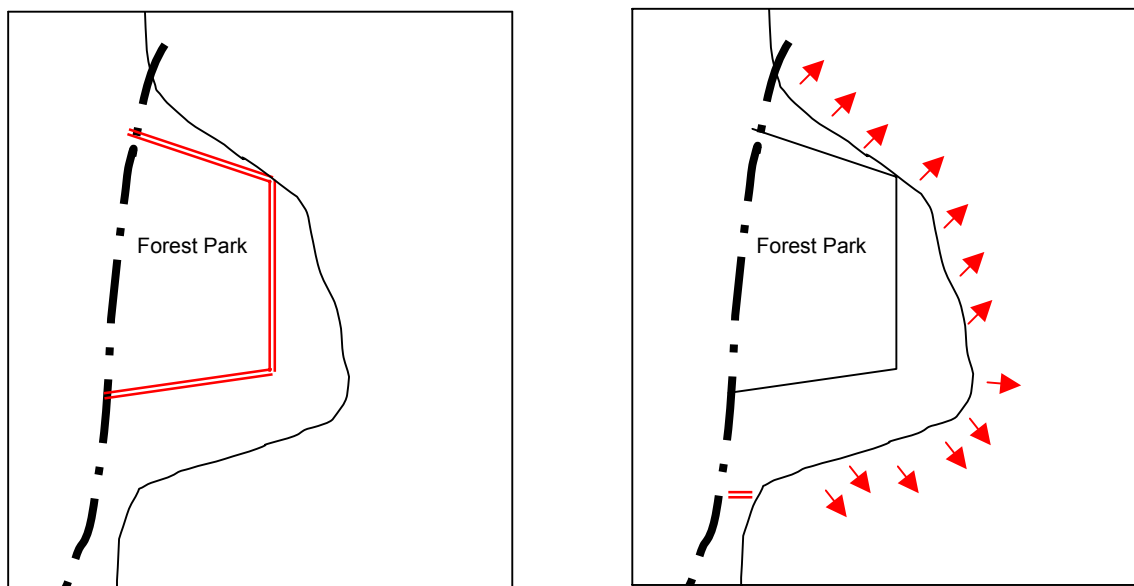
3.1.2 Elements of a Forest Fire Management Plan – Planning Procedure

With the exception of the NBD, forest stations have been successfully established all over the country and are operational. Forest staff is on the spot and sensitisation and extension programs are being implemented for the introduction of CF. The function of forestry staff has been changed from policemen to management partners.

This provides the foundation to address the forest fire problem in a more general way and to expand the protection efforts to all forested areas as described below.

On station-level a forest fire management plan¹⁵ shall be elaborated in close co-operation with the local communities. By introducing this concept, the protection of individual FPs and community forests may become more effective and more cost efficient, as it might not be necessary to set-up expensive fire protection infrastructure for each individual park (see Figure 4).

Figure 4: Comparison of new fire prevention strategy with the approach to date



Mapping of forest areas with high fire risk

Based on the fire reports of previous years, a map shall be prepared indicating the areas that are frequently burnt and the direction from where the fire usually starts. Memos of village meetings prepared in context of community forestry extension will provide additional information.

Identification of forest areas with high priority for protection

Forest with a good potential for natural regeneration (i.e. dry woodland, savannah woodland/ woodland transition) stocking on good sites shall have high priority for protection. The same applies to areas where FPs and community forests are located. Shrub lands on marginal sites, permanent livestock grazing areas, fallow land and shifting cultivation areas should have low priority. A GIS-based¹⁶ analysis based on the maps on *Land Suitability for Upland Agriculture* and the latest land use maps will provide preliminary information. This should be done with the assistance of the EIS-section of National Environment Agency (NEA).

Communities living adjacent to the preliminarily identified high priority areas shall be consulted and their interest to protect these areas shall be verified. If they share the objective to protect this area permanently from forest fire, than it shall become a highest priority area.

¹⁵ The individual plans need to be co-ordinated with the neighbouring ACs.

¹⁶ This could also be done manually by preparing overlays on transparencies of both maps.

The identification of priority areas requires an inter-sectoral approach. The co-operation with the MDFTs and other organisation involved in resource management (i.e. NGOs) is required.

Many fires originate in neighbouring Senegal. This requires the co-ordination of fire prevention and fire management activities on a regional level.

Preparation of Fire Management Map

The fire management map basically combines the fire risk map with the forest protection priority map. It divides the forest areas of one AC into fire management units for the purpose of fire prevention and fire fighting. For this purpose the map shall specify, among others,

- natural fire breaks and attack lines (i.e. roads, land-use boundaries, etc);
- a lay-out for preparing additional fire breaks;
- zones (i.e. low priority zones of high fire risk) where early burning may be a tolerable and effective tool, and
- the names of villages and persons to be contacted for support in fire fighting for each unit.

The input in terms of fire prevention measures (i.e. establishment of and clearing of fire breaks, patrolling, etc.) shall be determined by the unit's protection priority and fire risk.

Preparation of Forest Fire Management Plan

Based on the fire management map the forest fire management plan is prepared which shall specify, among others, the following:

- list of villages and persons to be contacted in case of fire for each fire management unit;
- distribution of responsibilities (incident command system);
- plan for sensitising and extension program;
- time period when burning of land is permitted;
- list of fire fighting equipment, location where it is stored and to whom it should be distributed; and
- detailed plans for the protection of individual FPs and community forests.

Motivation of local communities to participate

For the motivation of people to invest labour and other means for fire prevention measures, the following issues need to be considered:

- According to the Forest Act people have to participate in fire prevention and fire fighting. By providing the logistics and access to fire fighting equipment, this task is facilitated.
- The protection of their community forests is improved.
- Fire fighting efforts are limited to priority areas, meaning less effort to fight fires.
- Early fires within low priority areas that are used for cattle grazing may be tolerated.
- The same benefits may be granted as for CCSF¹⁷.
- Proactive communities may have priority in supporting measures (i.e. marketing of products, village woodlots, etc.).

3.1.3 Introduction of fire management planning

The differences in forest type and forest use (i.e. grazing problem) makes it necessary to develop and test the concept for the preparation of fire management plans in at least two different ACs, one should be in the LRD (e.g. Dumbutu), the other one in CRD (e.g. Kudang). Specific guidelines need to be prepared.

¹⁷ In fact, the preparation of the fire management map can be seen as a preliminary forest land-use map. High priority areas may become CCSF or even community forests (permanent forests) in future.

3.2 General Approach of Expanding GFMC to Forest Reserves

Expanding the concept of forest management to forest reserves (i.e. which are neither FPs nor community forests) requires, as mentioned earlier, looking at the forest area from the people's perspective and defining the management objectives accordingly. As the expansion process starts from FPs¹⁸ and community forests, as nuclei to the surrounding forests, the planning of management activities within these gazetted forests shall no longer be seen in isolation, rather it shall be carried out together with the adjacent communities. Infrastructure measures such as road construction, orientation lines for the sub-division of forest park, fencing and the set-up of fire breaks shall be seen in the overall context and take into account the people's needs and requirements.

3.3 Joint Forest Park Management

3.3.1 Forest Status, Legislative Matters and Management Objectives

FPs are state forests that have been gazetted with the objective to secure permanent forest cover. They are to be solely managed by the FD with the purpose of forest production, demonstration of forest management techniques, training of forestry staff and other persons involved in forestry activities, for applied research and for conservation (Forest Act Section 9 (2)).

The management of forest parks must be based on forest inventories and management plans conducted and developed by the FD (Forest Act Section 93 and 96) in 10 years intervals.

The FD as the manager of the FP can permit the exploitation of any type of forest products:

- For the local use of forest products a written permission is required from the DFO or a forest officer mandated by the DFO (Forest Act Section 109).
- For the purpose of commercial exploitation a valid license or permit must be issued (Forest Regulations Section 27 and 34).
- The director can regulate the payment of fees for the issue of licenses from time to time according to circumstances of each case (Forest Regulations Section 27 (3)).

As such, there are no legal restrictions for the FD in the implementation of joint forest park management activities¹⁹ and it is up to the FD to involve local people in park management up to the degree desired. However, it is proposed to amend the Forestry Act and Regulations in such a way, that the terms and conditions of joint forest park management are clearly specified.

3.3.2 Principles

As already specified in the 1st Version of the GFMC, forest park management shall consider the needs and requirements of the people living adjacent to it. The revised GFMC goes a step further; it actively tries to involve the adjacent villages in actual park management.

All parks shall be managed jointly with the adjacent community. However, some areas within FPs shall be exempted for the purpose of R&D in silviculture, forest technology, etc. Whether to join the FD in managing FPs or not shall be entirely left to the discretion of the concerned communities.

JFPM is based on the principle of sharing benefits and responsibilities. As more benefits and rights are transferred to the local people, the more responsibilities and tasks they shall take over. It is a deal among equal partners, which is to be based on a formal management agreement that specifies the conditions mutually agreed upon. However, in contrast to community forestry, the final management decision always remains with the FD.

Both parties shall benefit from this deal equally. In return for granting user privileges the FD shall be supported by the local people in its effort of forest protection and management. This will increase

¹⁸ The implementation of CCSF requires that the community has the capacity to manage forests and has established the necessary structures (i.e. management committee, etc.). This is only the case for communities having a CFMA or which will be actively involved in JFPM in future.

¹⁹ With the exception, that the forest cannot be cleared and transformed into another land-use.

cost efficiency and effectiveness of park management and ensure people's access to forest products in their immediate vicinity.

Joint forest park management within a park shall only be carried out, where both partners share the same management objectives. If the objectives differ, then it is up to the FD to manage these parts on its own, as the ownership of land and trees remains with the state.

The adjacent villages need to be involved in forest park management from the very beginning, starting with resource assessment and management planning. Wherever possible, their management objectives shall be considered.

As it is the objective to expand forest management from the FP as nuclei to the surrounding state forests (CCSF concept) the specific situation and condition of surrounding forests needs to be considered in management planning.

JFPM needs to be very flexible. The involvement of forest adjacent communities may be low at the beginning but may increase in time or vice versa. As such this management option requires continuous dialogue. The preparation of annual work plans with distribution of tasks provides the required platform.

3.3.3 Constraints

Most of the user privileges the FD can offer to the people are already common law. In many forest parks, especially in the CRD and URD, there is not much potential for any type of commercial exploitation and it is therefore difficult to find something which can be offered in addition, except for paid labour.

However, the FD shall also have a strong position and make it clear to the villagers, that their "common law" is in fact illegal and can only be turned legal if they are willing to co-operate and to take a part of the burden to protect and conserve the forest. The forest parks belong to all the people of The Gambia; why should only a portion of them have all the benefits?

3.3.4 Sharing of Responsibilities, Tasks and Benefits

Table 3 indicates some of the major responsibilities and benefits for both partners.

Table 3: Benefits and responsibilities in JFPM

Adjacent Community		Forestry Department	
Benefits	Responsibilities	Benefits	Responsibilities
<ul style="list-style-type: none"> • Access for grazing • Access to domestic use of forest products • Incentives • Income from labour • Transfer of knowledge 	<ul style="list-style-type: none"> • Control and patrolling • Fire protection and fire fighting • Monitoring of activities • Planting and tending of trees 	<ul style="list-style-type: none"> • Improved conservation and protection • Reduced cost • Reduced illegal activities • Permanent presence and control • Promotion of CCSF 	<ul style="list-style-type: none"> • Provision of material (plants, fence) • Strengthening management capacity of community • Training in forest management activities

3.3.5 Approach

Based on the principles of JFPM as described in chapter 3.3.2 the following steps are required to start-up JFPM (more specific information can be derived from THOMA 1999):

- (1) Revision and analysis of available information related to park history, surrounding villages, past and present forest use and conflicts/problems.
- (2) Based on results of step 1, select adjacent communities, user groups and/or other relevant stakeholders and organise joint meetings together with MDFT.

- (3) Based on the results of the meeting, potential management partners willing to join are identified. Furthermore, the decision whether the park area shall be partitioned²⁰ according to villages or not shall be taken in consensus with the future partners.
- (4) Forest committee(s) need(s) to be formed and management agreement(s) need to be jointly prepared specifying the conditions for joint management.

3.3.6 Management Planning

Infrastructure Planning

Planning of forest management activities starts with the joint preparation of the infrastructure plan. The first step is the sub-division of the park according to villages, if partitioning has been decided. Then the park is further sub-divided into divisions/compartments based on forest management considerations. It is of importance that the partitioning is executed with all partners in the field and that boundaries are permanently marked. A map needs to be prepared and signed by all partners as an attachment to the forest management agreement.

The next step is the planning of the required main access roads, also taking into account the surrounding forests (i.e. the potential CCSF) and the needs and requirements of the surrounding villages.

Finally the set up of the required infrastructure for fire protection (i.e. establishment of fire breaks) needs to be jointly planned. Already existing natural boundaries such as roads, footpaths and land-use boundaries shall be considered. The planning has to take into account the specific situation and has to be done in an over-all context (i.e. include surrounding forests), taking into account the fire management strategy as prescribed by the Forest Fire Management Plan of the respective AC. The type of firebreak to be established depends on the specific situation, and the most appropriate option (e.g. green fire belt, burning of fire strip, etc.) needs to be identified.

Resource Assessment

The objective of resource assessment is twofold (i) to identify the site capability and (ii) to assess the present forest condition. Information of both is required for the determination of potential management objectives.

Based on already existing information such as land suitability maps, land-use maps, and aerial photographs, the park can already be preliminarily zoned according to site potential and existing forest cover. The joint verification of the pre-determined classification with the management partner is essential and helps to match site classification and potential management objectives later on. Adequate map overlays will provide sufficient information for the purpose of management planning.²¹

Forest utilization shall be confined to deadwood only. As such the criteria of sustainable exploitation (i.e. increment versus cut) does not apply here. Furthermore, investment in expensive harvesting technology is not planned. Therefore, there is no reason to justify an expensive forest management inventory. A simple resource assessment based on transects as it is applied in CF would provide sufficient accurate information to regulate deadwood utilisation and firewood collection.

Monitoring of changes (control inventory)

It is of importance to monitor the changes in forest cover in order to evaluate the effectiveness of management activities, especially with regard to silvo-pastoral systems. This calls for the introduction of a new and simple inventory design that has to be based on a system of hidden permanent sample plots to be assessed in 5-year intervals.

²⁰ Partitioning of the forest park according to traditional user boundaries would facilitate JFPM for the FD, as for every activity only one partner needs to be involved. This would save time and cost for organising joint village meetings and help to minimize the conflict potential.

²¹ Site mapping as it has been done in the past is too expensive and only necessary in areas bond for reforestation. In this case it shall be done prior to the planting activities.

Preparation of the Forest Management Plan

It is the objective of management planning to plan forest management activities for a period of 10 years. This planning needs to be done together with all partners, taking into account site capability, present forest condition, silvicultural aspects and the needs and requirements of the adjacent participating villages. The role of the FD is to determine the potential management options (i.e. deadwood utilisation, enrichment planting, thinning, silvo-pastoral systems, etc.) from the technical point of view. The final decision on management objective has to be done in consensus with the management partners by taking into account their needs and capacity.

The over-all responsibility for management planning is with the AC-head. This person shall be supported by the DFO who may involve, if required, the Planning Unit of the FD headquarters. This unit should provide technical assistance and the required means and tools for planning.

Need to revise management planning guidelines

Following the planning concept above requires a revision of the existing Forest Management Planning Guidelines (TRAINER 1994).

3.3.7 Preparation of Annual Plan of Operations

The preparation of an annual plan of operations is a standard procedure (refer to Administrative Guidelines) for each AC and IA. In areas, where JFPM is applied, the management partners need to be involved.

3.3.8 Implementation

The FD still needs to develop detailed technical guidelines concerning FP management. For the time being it refers to those given in GFMC 1st version, with some additional innovations as briefly described below.

Silvo-pastoral systems shall be included in the management options of the forest park, as it is simply not feasible and even unnecessary to abandon grazing within the whole park area. However, fire as a management tool to maintain the quality of pasture should be prohibited. FPs shall be strictly protected from fire.

As such, it is no longer necessary to fence entire FPs²². Instead, areas identified for regeneration (i.e., enrichment planting, reforestation and natural regeneration areas) shall be temporarily fenced. It shall then be the obligation of the management partners (e.g. herdsman and/ or other forest user groups) to take over the responsibility of fence maintenance. However, the partners must be aware that misconduct or negligence of duties may result in the cancellation of the granted user privileges.

In order to make the best economic use of the forest resources, valuable dead trees shall be converted to timber and the benefit shall be shared with the management partners. This would serve as an incentive which is resource related. There are three options of how to make use of dead logs -

- to sell them to private sawmills,
- to transport them to Dumbutu or Kafuta forest station for processing, or
- to convert them on the spot by using a walkabout sawmill or pitsaw.

The potential FP development with the primary management objective of "eco-tourism" shall be considered from case to case but in particular for gallery and riverine forests.

3.4 Community Forest Management

The CF-concept is fully developed and institutionalized²³. The Community Forestry Implementing Guidelines from 1998 provide detailed information on all procedures and activities related to CF.

²² Fencing of the whole park would be dangerous, as cattle would be trapped in cases of forest fire.

²³ The revised Forestry Act from 1998 provides the legal basis for CF and includes specific regulations on CF establishment and management.

3.4.1 Forest Status, Legislative Matters and Management Objectives

Community forests are gazetted permanent forests. They are forests that are managed by a designated community based on a Community Forest Management Agreement (CFMA) for the purpose of timber, firewood and non-wood produce production, forest grazing, protection and conservation (Forest Act Section 9 (3)).

Based on a Community Forest Management Agreement (CFMA) the concerned community gains ownership rights of the designated community forests for an indefinite period of time under the condition that it is not deleted or endangered or not sustainably used (Forest Act Section 67 (5) and 72).

It was the objective of introducing CF that through it, local communities recognize the value of trees and forests and gain a vested interest in their protection as permanent sources of income and/or livelihood. The purpose of CF is thus to contribute to the protection and maintenance of an adequate national forest cover and to slow down and eventually stop environment degradation.

Based on the experiences of CF-extension it seems, however, not to be possible to achieve the anticipated target of designating 200.000 ha of forestland as community forests. Local communities consider most of the forests on their customary land as land reserve for future development and are only willing to set aside a small portion as permanent forest. This made it necessary to develop a new concept (i.e. CCSF, see chapter 3.5) for how to conserve and manage the remaining forest reserves together with the communities, where the regulation on land conversion is not as strict as in CF.

3.4.2 Establishment of Community Forests

Community forestry transfers the ownership on land and trees to a designated community. Before this is done the community has to prove their capacity and willingness to manage the concerned forest area in a sustainable way. The set-up of CF is therefore done in three phases:

1. A start-up phase during which the forest management by local communities is prepared;
2. A preliminary phase during which the communities shall demonstrate their capacity in forest protection and management, and
3. A consolidation phase during which the communities gain further managerial and technical forestry skills aiming at self-management;

Start-up Phase

Villagers and local authorities agree on setting land aside for the purpose of CF and testify that this land is free from any individual claim, subject to common management.

Villagers establish a formal body or forest committee acting on their behalf.

The forest committee establishes a preliminary forest management plan and applies for Preliminary Community Forest Management Agreement (PCFMA) conclusion.

Preliminary Phase

The Preliminary Phase or Probation Phase lasts 3 to 5 years and begins with the approval of the preliminary management plan by the DFO and with the approval of the PCFMA by the Director. Upon approval the PCFMA is concluded and the forest committee is registered with the FD.

The forest committee agrees with the local authorities on a final community forest boundary and establishes by-laws if deemed necessary.

The DFO in collaboration with the CF-Unit, local authorities and participating NGOs conducts the PCFMA evaluation.

During the preliminary phase the community has the exclusive user right for the domestic use of forest products within the proposed community forest.

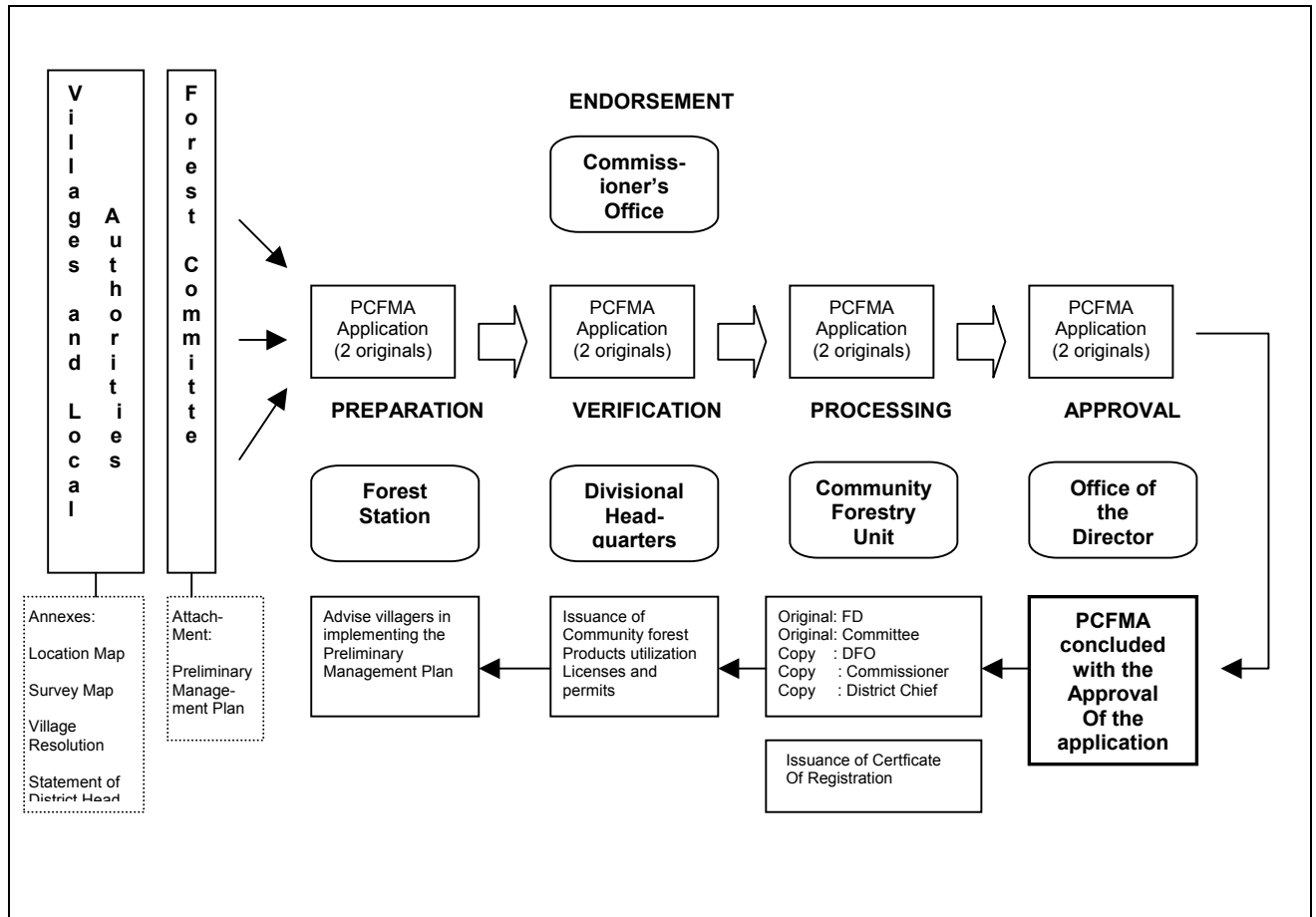
Consolidation Phase

The consolidation phase starts when the CFMA is concluded between the forest committee and the Director provided that the committee performed well and that the community forest boundaries are definitely fixed. The community will be further trained in managerial and technical forestry skills until they are able to sustainably manage their forest.

They have the right to commercially utilize the community forest to the provisions specified in an approved management plan.

This phase is open ended.

Figure 5: Concluding the PCFMA



3.4.3 Principle Features

CF introduction and implementation requires a diversified implementation structure and multi-sectoral approach. Collaboration with both governmental and NGOs is essential. The MDFTs on ward level are best suited to collaborate with and to assist the FD in CF establishment.

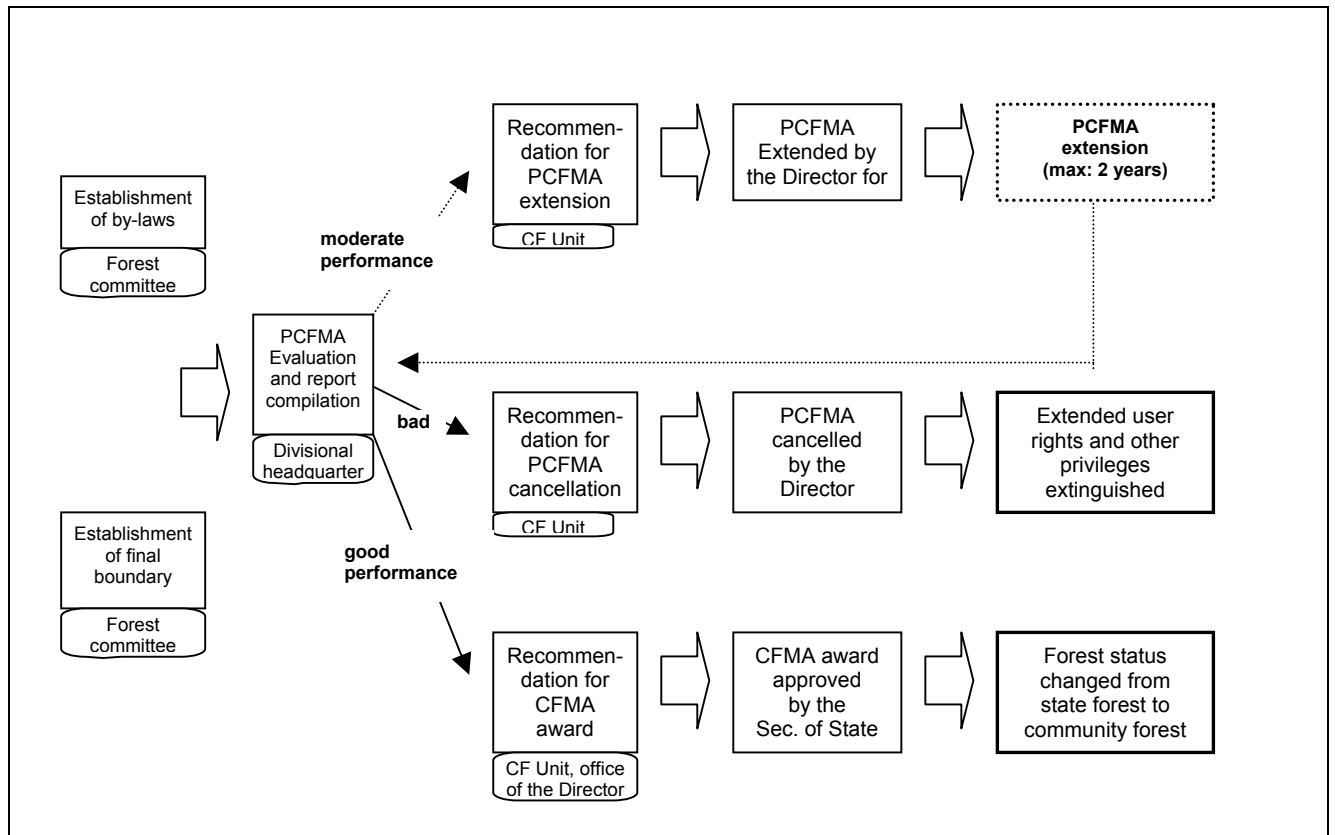
From the very beginning all local leaders and authorities of a community or a group of communities such as chiefs, village heads, elders, household heads and women leaders, as well as forest user groups are actively involved in all phases and activities of CF, including stakeholders, which are most probably disadvantaged by CF establishment such as wood cutters, herders, etc. as early as possible (people participation).

CF needs to be process oriented. External incentives shall be kept to a minimum, and, if required at all, should be of low input and resource-linked.

A core element of CF establishment is training of committee and community members in administration and organisation, planning and management and technical forestry skills.

The management of community forests is based on management plans established by the communities and approved by the FD. Applying low cost and low input technologies shall be a basic principle. Therefore, forest management systems and techniques need to be adapted to the requirements and capacities of the community.

Figure 6: Concluding the CFMA



3.4.4 Distribution of Tasks, Responsibilities and Benefits

Community forests are administered and managed by the forest committee, which is duly registered with the FD and represents the communities in all administrative and legal matters regarding community forest management.

The FD plays a major function in CF, however with changing responsibilities over time. In the beginning its major task is sensitisation and extension for the introduction of CF, later on it has to provide technical assistance and has to supervise and monitor field activities, but in the long run, when managerial and technical skills are available in the community, the main function of the FD is to control, whether the management of the community forests is done according to the management plans and CF regulations.

CF is decentralized to divisional level. Support is provided on request by the CF-Unit of the FD. The DFO has the overall responsibility to coordinate, support and monitor CF implementation. Main actors on behalf of the FD are, however, the AC- and IA-heads. They form the interface between FD and community and are responsible for all activities related to CF. They have the task to plan and organise village meetings, assist in the preparation of management plans, provide technical assistance, supervise field activities and finally to ensure that CF is implemented according to the regulations. To fulfil these tasks they need to be trained in participatory approaches, must be familiar with the Community Forestry Implementation Guidelines and must be mobile. CF requires a strong and capable FD.

During the various phases of CF, a number of other institutions and organisations are involved, in particular in the start-up phase, which are, among others, representatives of the local government, other governmental organisations (represented by the MDFTs) and NGOs. Their functions and tasks are described in detail by the Community Forestry Implementation Guidelines.

The Forest Act of 1998 regulates in Section 36-38 the distribution of benefits from CF. 85% of the collected revenues shall be paid into a local fund, which has to be established and administered by the forest committee. The proceeds of the local fund shall be used to promote the development of

community forests and the sustainable use of the forest resources as well as general community development. The remaining 15% shall be paid into the NFF as a contribution to national forest management and as compensation for the technical services rendered by the FD in managing community forests.

3.4.5 Planning

Forest Management Planning

Forest management planning starts with resourced assessment, which provides the basic information for future management planning. It is done after the demarcation and the conclusion of the land tenure agreement. The community forest is stratified according to forest cover and site capability using existing information (i.e. land-use maps, aerial photographs, etc.) that is verified in the field during transects walks.

The preliminary forest management plan is prepared for the probation period. It is a simple plan and includes basically forest protection measures such as the establishment of fire breaks. It shall be compiled by the AC-head.

The forest management plan is established for a period of 5 years. It is a work plan, which is based on a detailed problem and solution analysis and describes in detail all activities to be carried out within the planning period. The realisation of the management is subject to external evaluations, which will be initiated by the DFO at the end of the planning period.

The forest committee shall compile Forest management plans with the assistance of the FD (i.e. AC-head). Formal approval by the FD is required.

Annual Work Plans

The implementation of the forest management plan is based on annual work plans prepared by the forest committee. Annual work plans do not require the approval of the FD but the committee is obliged to forward a copy to the AC-head.

3.4.6 Implementation

The implementation of CF is described and regulated in detail by:

- the Community Forestry Implementing Guidelines (FD, 1998) and
- the Field Manual on Community Forestry Start-up and Implementation (FD, 1999)

3.5 Community Controlled State Forest Management

Details on the CCSF-concept can be derived from THOMA and SONKO (1999) and REEB (1999 and 2000). However, the concept has not been tested so far.

3.5.1 Forest Status, Legislative Matters and Management Objectives

The main objective of introducing the CCSF concept was to bring the remaining forest areas situated on customary village land under controlled management in order to conserve and protect them²⁴ as long as they are not converted to other land uses.

A community controlled state forest is a forest reserve (i.e. state forest) that shall be jointly managed by the FD and a forest committee (Forest Act Section 2). It has the legal status of a forest reserve (see chapter 3.6) and as such it can still be converted to other land uses. In CCSF no ownership rights on trees or land are transferred (as this is the case with CF), both remain with the state. However, the government grants forest utilization privileges to local communities based on a joint forest park management agreement.

The forest committee is responsible, among others, for the protection from forest fire and illegal activities (Forest Act Section 85).

²⁴ It is the objective that 30% of the countries land cover shall remain forest land. So far, only a small portion has been identified as permanent forest areas (i.e. FP or CF).

The Director may at any time revoke the responsibilities and the rights of any forest committee over a state forest where the committee fails to protect the state forest from fire and illegal activities (Forest Act Section 117).

According to Forest Act Section 73 the designation of a state forest as a CCSF is up to the DFO on behalf of the Director but is restricted to a community or a group of communities, which are managing a CF under a CFMA.

This restriction was required to ensure the managerial capacity and the willingness of the community to protect and conserve the forest concerned. Now, with the introduction of JFPM, the CCSF concept should be expanded to communities actively participating in JFPM based on a joint forest park management agreement. However, a probation period of 3 years shall be introduced, where the managerial capacity of the community is being tested.

By extending CCSF to communities participating in JFPM more state forest can be brought under management. However, this requires adjusting the Forest Act and Regulations accordingly.

3.5.2 General Approach

The CCSF approach may vary depending on the interest of the people, the general management objective (i.e. timber production, grazing, conservation, etc.), the type of nucleus (i.e. community forest or FP) and the division where the forest is located in. Each division may have a slightly different approach, depending on the specific framework conditions. As such the CCSF concept must be very flexible.

The CCSF procedures should be kept as simple as possible and coordinated with the respective JFPM- or CF-procedures.

Forest reserves, which have been identified as highest priority areas in course of the forest fire management planning, are especially suited for CCSF. They have been indirectly pre-selected as potential permanent forest areas in consensus with the local population and the local authorities, and forest fire protection has been given highest priority. Thus they perfectly meet the objective of CCSF: to conserve and protect forests from forest fire.

CCSF establishment should be driven by the communities rather than by the FD.

CCSF is based on the principle of sharing benefits and responsibilities with the FD, as for JFPM, too. However, as most of the potential CCSF areas are located on customary village land, the management decisions shall be taken in consensus with the people. As such, the degree of participation is higher than in JFPM.

Both parties shall share the objectives of CCSF. Basically they include -

- conservation and protection, and
- controlled forest utilization.

It is expected, that CCSF in the long run may be transferred into gazetted community forests. CCSF is a new approach to promote CF for forests where the communities at the moment are not yet ready to make a final land-use decision.

3.5.3 Constraints

In contrast to CF, the CCSF concept has already been considered in the Forestry Act of 1998 without being field-tested. The communities are made entirely responsible for the protection of the CCSF from forest fire and illegal activities (Sec. 85) and according to For Reg. 17 they may even be held liable to the payment of a penalty.

It seems that these conditions are quite strong and may be the reason why the response to the CCSF concept has been relatively weak so far.

First of all, the villagers are not policemen and they will attract trouble if they try to stop illegal activities and apprehend the culprits. Secondly, in areas primarily use for grazing, the permanent protection from forest fire is in contradiction with the management objectives of cattle owners and herdsmen. As such, they simply may not be in the position to fulfil the responsibility and keep the CCSF free of fire and illegal activities. However, if they are not able to protect the forests, CCSF may be revoked and villagers may be held liable for payment of penalties. Instead of handing-over

the full responsibility of forest protection, the villagers' function should rather be to patrol, control and report on illegal activities to the AC-head, to be committed to the reporting of each fire immediately, and to actively take part in fire prevention and fire fighting activities.

Land dispute among villages may be another reason why it is difficult to establish CCSF, as villagers don't like to share the benefits of forest management with villagers having no traditional rights in the forest concerned. This calls for smaller size or portioning of CCSF according to village or user boundaries.

Finally, the advantage the people have from CCSF, in relation to their tasks and responsibilities, seems to be an inadequate incentive. Especially in CCSF linked with CF, the present status quo not to issue licenses in the surrounding state forest has already met the interest of the people, as outsiders are kept out of "their" forests. They see no reason or additional incentives to change this situation²⁵.

3.5.4 *Sharing of Responsibilities, Tasks and Benefit*

CCSF is a deal among equal partners. Benefits, tasks and responsibilities shall be equally distributed among the community and the FD.

Table 4: Benefits and responsibilities in CCSF

Adjacent Community		Forestry Department	
Benefits	Responsibilities	Benefits	Responsibilities
<ul style="list-style-type: none"> • Access for grazing • Access to domestic use of forest products • 50% of proceeds from the sale of forest produce • exemption from paying fees for licenses and permits • 30-50% of proceeds from the sale of confiscated products 	<ul style="list-style-type: none"> • Control and patrolling • Fire protection and fire fighting • Monitoring of activities 	<ul style="list-style-type: none"> • Improved conservation and protection • 50% of proceeds from the sale of forest produce • Revenues from royalties • Reduced illegal activities • Permanent presence and control • Promotion of CF 	<ul style="list-style-type: none"> • Provision of management advice • Prioritise villagers in issuing licenses and permits • Strengthening management capacity of community (in connection with JFPM) • Training in forest management activities (in connection with JFPM) • Authorize communities to apprehend persons performing illegal activities

3.5.5 *Administration of Funds*

The community shall pay all revenues²⁶ derived from CCSF management into its local fund established for the purpose of administering community forest revenues. A sub-title "CCSF management" needs to be opened in order to keep financial transactions as transparent as possible. For CCSF linked to JFPM, a similar type of local fund needs to be established.

According to Forest Act Section 38 (4) not less than 40% of the local fund shall be spent on forest management activities.

3.5.6 *Start-up Procedure*

The following steps are required to introduce CCSF (more specific information can be derived from THOMA and SONKO 1999, REEB (1999 and 2000).

(1) Organization of meetings involving forest committees, villagers and local authorities;

²⁵ As they don't like that their forests are used by foreigners based on licenses and permits, there is no benefit created and nothing to be shared.

²⁶ Except the proceeds made from the sale of branch wood from which women shall directly benefit.

- (2) Submission of CCSF application by the forest committee;
- (3) Determination of the CCSF borders: representatives from the committee and adjacent villages and the AC/IA-head are involved;
- (4) Approval of the CCSF application by the AC-head, preparation of the CCSF location map and management agreement, and forwarding the signed agreement to the DFO.
- (5) Conclusion of CCSF agreement by approval given by the DFO who then recommends to the director the CCSF declaration;
- (6) CCSF declaration by notice of the director sent to the commissioner and local authorities.

For CCSF linked with JFPM, the precondition is that the probation period of 3 years has been passed successfully. Based on the recommendation of the AC-head, a brief evaluation of the management capacity of the forest committee, similar to that in CF, shall be conducted.

In the view of decentralizing forest administration from divisional to AC/IA-level, the CCSF start-up procedure must be kept as simple as possible. The main actors are the forest committees and the AC/IA-heads. The procedure presumes that any disputes on issues related to land and traditional forest uses are resolved prior to filing the CCSF application.

3.5.7 Planning

After CCSF declaration, the forest situation shall be jointly analysed based on a simple resource assessment procedure (i.e. zoning of forest according to management objectives, based on already existing information). If no fire management plan for the AC has been prepared so far, a fire protection strategy shall be jointly developed which shall then be integrated into the fire management plan of the AC at a later stage. Based on transect walks the potential for forest products utilization shall be identified.

Management and operational planning shall be linked with the planning of the community forest or the FP. A simple management map, indicating zones according to management objectives and basic infrastructure shall be jointly developed. A simple schedule of planned activities indicating time; location and responsibilities shall comprise the plan.

3.5.8 Implementation

Silvo-pastoral systems may be a major management objective. This objective requires that controlled and early burning is permitted in the long run in order to maintain pasture quality. However, before introducing fire as a management tool, the relation between fire and silvo-pastoral systems needs to be studied carefully. A fire management activity in the CCSF shall be coordinated with the station-level forest fire management plan.

As long as the decision to declare the forest 'permanent forest' (i.e. conversion into community forest or FP) is not taken, no active planting operations shall be implemented. In any case, by protecting the forests from hazardous forest fires, natural regeneration is promoted.

In order to make the best economic use of the forest resources and to increase revenue for the community and the FD, valuable dead trees shall be converted to timber by using a mobile sawmill or by selling the logs (refer also to chapter 3.3.8 and 4.3).

3.5.9 Testing

The CCSF shall be tested at least in two divisions (LRD and CRD) and for both combinations (i.e. CCSF/CF, CCSF/JFPM).

3.6 Management of Other State Forests (Forest Reserves)

3.6.1 Forest Status, Legislative Matters and Management Objectives

Forest reserves are state forests. They include all other forests neither classified as forest parks, nor as community forests or private forests. They are managed by the FD except where they exist in

national parks or in nature reserves (protected areas), which are managed by the Department of Parks and Wildlife Conservation (Forest Act Section 9 (5)).

The management of forest reserves and CCSF (see above) shall be in accordance with a plan of operations annually prepared by each forest division for all forest reserves under its jurisdiction (Forest Act Section 98).

Forest reserves can be transformed into other land-uses as regulated by Forest Act Section 81 as long as the forest cover does not fall below the minimum percentage of 30%. As the word “reserve” already expresses, they are considered as a land reserve for future development for all different type of land uses and as such are not considered as permanent forests. However, as long as they are not converted to another land-use, law protects them. The provisions regulating forest product use and exploitation in FRs are similar to those established for FPs (see Forest Act Section 116).

3.6.2 *Extended Community Controlled State Forest Management Concept*

The revised GFMC outlines a theory (CCSF) on how to bring forest reserves in the vicinity of successfully managed community forest or FP under management. Still missing however, is a proposal of how the remaining forest reserves can be managed in a participatory way. Many communities, especially in the more densely populated areas have expressed their interest to share the responsibility of forest management (i.e. control and protection) with the FD. However, they are not able or willing to set aside a piece of forest as a community forest due to land disputes or lack of resources (i.e. the forest is seen as land reserve for future development). It shall be carefully considered, whether and if so, how, the CCSF concept can be extended to these areas without contravening further CF establishment.

Suitable areas for this extended CCSF concept would be areas identified by the Forest Fire Management Plan as highest priority areas, as there, the objective of forest protection is shared by the people. These areas are also very suited to becoming designated gazetted permanent forests (i.e. community forest, FP) in the future.

3.7 Private Forest Management

3.7.1 *Forest Status, Legislative Matters and Management Objectives*

Private forests are forests growing or planted on lands privately owned and/or leased in accordance with the relevant land legislation and subject to conditions specified in the Forest Act Section 74 and 76.

Private natural forests are gazetted permanent forests and as such cannot be converted to non-forest land without the approval of the Secretary of State (Forest Act Section 76 (6)).

Management objectives and management decisions are up to the owner. While for exploitation of plantation forest only a valid removal permit is required (Forest Act Section 74 (2)), the management of private natural forests has to be based on a management plan which needs to be approved by the Director (Forest Act Section 76 (3), (4)).

Owners of private natural forests shall be responsible for the protection of their natural forest, and where they have been found guilty of any neglect of duty with such fires, they may be held liable to a penalty prescribed for contravention (Forest Regulations Section 18).

3.7.2 *General Policy on Private Forest Development*

So far only a few private forests exist in the Gambia, and most of these are plantations.

The landowners shall drive the establishment of private forests. However, the priority of designating permanent forests shall remain with the establishment of community forests and FPs (e.g. mangroves, riverine forests, etc.).

Private forestry has to be seen as an option for the future, when cultural and traditional changes are in favour of privatisation.

4 Required Complementary Measures

4.1 Revision of Forest Act and Regulations

Once the different management concepts have been fully developed and successfully tested, the Forest Act and Regulations need to be revised accordingly. This refers in particular to the extension of the CCSF-concept; to JFPM and to controlled burning in context of establishing forest fire management plans.

The involvement of the AC-head in the issue of permits and licenses shall be specified in the regulations.

4.2 Preparation of Guidelines

The following guidelines need to be prepared/reviewed:

- Guidelines on JFPM including forest management planning, resource assessment and control inventory.
- Guidelines on CCSF management.
- Guidelines on preparation of forest fire management plans.
- Natural Forest Management and Silvicultural Guidelines.

4.3 Others

Marketing systems and commercialisation of forest products shall be improved in order to increase short-term benefits from forest management (applies for all management concepts). Utilisation of dead logs with mobile saws and the controlled production of charcoal would be potential options.

The revised GFMC has included forest pasture as a management option in all forest management concepts. So far, little is known about the relation of forest fire and silvo-pastoral systems. A study conducted on this subject, in co-operation with the Department of Livestock Services, is urgently required.

The Forest Training Centre at Kafuta shall put more emphasise on the training of nursery and planting techniques for local tree species, and include forest history and GFMC development in its curricula.

Annex 1

List of Guidelines and Other Relevant Literature

List of Guidelines and Other Relevant Literature

- BACH, C.; 1993: Auswertung der "Tree Species Plantation Trials" des GGFP, Republic Gambia. Diplomarbeit, Freising-Weihenstephan.
- CAMARA, K., DAMPHA, A., Beck, C.; 2000: Management of forest fires through the involvement of local communities. Case study The Gambia. Commissioned by FAO.
- DECHERES, P., LUDWIG, R.; 1994: The influence on grazing pressure on regeneration of forest trees in Kasila Community Forest Reserve.
- FORESTRY DEPARTMENT; 1995: Forest Policy. Republic of The Gambia (1995-2005)
- FORESTRY DEPARTMENT; 1998: Community Forestry Implementing Guidelines.
- FORESTRY DEPARTMENT; 1999: Field Manual on Community Forestry Start-up and Implementation.
- FORESTRY DEPARTMENT; 2000: National Forestry Action Plan 2001-2010. Draft.
- FORSTER, H.; 1983: Tree species plantation trials and silvicultural studies in the Gambia 1981-1983.
- KASPER, A.; 1994: Deadwood utilization by GGFP in The Gambia.
- REEB, D.; 1999: Update of the field manual on community forestry. Report on short-term mission for the GGFP.
- REEB, D.; 1999: First steps to introduce the CCSF and recommendations for its implementation. Report on short-term mission for the GGFP.
- REEB, D.; 1999: Guidelines on the gazetting of notices and orders in view of establishing community forests. Report on short-term mission for the GGFP.
- REEB, D.; 2000: Establishment of community controlled state forest management in selected areas and introduction of community-based forest utilization and marketing. Report on short-term mission for the GGFP.
- SCHINDELE W., THOMA, W.; 1995: Gambian Forest Management Concept, Part III: The proposed Gambian Forest Management Concept. 1st Version.
- TRAINER, S.; 1994: Guidelines for the establishment of forest management plans for forest parks and community forests in The Gambia.
- THE GOVERNMENT OF THE GAMBIA; 1995: Forestry Department: Administrative Guidelines.
- THE GOVERNMENT OF THE GAMBIA; 1998: Forest Bill 1998. Arrangement of Clauses.
- THE GOVERNMENT OF THE GAMBIA; 2000: National Action Programme to combat desertification.
- THE GOVERNMENT OF THE GAMBIA; 2001: Re: draft policy for the establishment and operationalization of Multi-disciplinary Facilitation Teams (MDFTs). Department of State for Local Government.
- THOMA, W.; 1999: Opportunities for joint forest park management in the Central River Division.
- THOMA, W., SILLAH, J.; 1999: Action plan on forest and wildlife management. Final Report.
- THOMA, W., SONKO, K. N.; 1999: Developing a management concept for community controlled state forests. Report on short-term mission for the GGFP.