Regional Program for the Traditional Energy Sector

GAMBIA

REVIEW OF POLICIES IN THE TRADITIONAL ENERGY SECTOR (RPTES)

PROJECT PROPOSALS

Directed by The World Bank, Africa Region

Supported by Directorate General for International Cooperation The Netherlands
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THE REPUBLIC OF THE GAMBIA

REVIEW OF POLICIES IN
THE TRADITIONAL ENERGY SECTOR (RPTES)

PROJECT PROPOSALS

DECEMBER 1994
Project Proposal

Implementation of the Gambian Forest Management Concept enabled on a large scale

Forestry Department

March 1995
1. Project description

Goal

"The forest resources are managed in a sustainable way within the framework of the Gambian resource policy."

Project purpose

"Implementation of the Gambian Forest Management Concept enabled on a large scale"

Results

1. A national forest inventory is completed.

2. The physical infrastructure of the Forestry Department in L.R.D. and U.R.D. is improved.

3. Jollofin (448 ha), Nyanaberi (1132 ha) and Berikolon (1468 ha) forest parks in L.R.D., Jeloki (873 ha) and Jundala (357 ha) forest parks in U.R.D. are managed according to forest management plans for training and demonstration purposes.

4. Community forestry is introduced and implemented in L.R.D. and U.R.D. through Preliminary Agreements (PCFMA) and Community Forestry Management Agreements (CFMA).

Proposed duration of project: 5 years.

1. Forest inventory 18 months: 1/96 - 6/97

2. Forest Management in Jollofin, Nyanaberi, Berikolon, Jeloki and Jundala forest parks: 5 years. 1/96 - 12/2000

3. Community Forestry: 5 years. 1/96 - 12/2000

Estimated project costs:

From Donor: US$ 5 500 000
From GOTG: US$ 350 000

Total: US$ 5 850 000

Estimated personnel requirements:

Forestry staff: 1176 PM; Long-term TA: 120 PM; Short-term TA: 19 PM; NGO: 360 PM.
2. Background

The vast majority of the Gambian population depends on natural resources and especially on forest products. Therefore the rapid degradation of gambian forests constitutes a threat to the country's development. The main cause of forest destruction is mainly resulting from forest degradation rather than from forest clearing. There are still about 453,400 ha forest area which are covering 43% of total land area. However most of it or about 75% is already in a poor condition and is classified as a tree and bush savanna which has less than 10% tree cover (see annex 1).

Human activities are mainly responsible for forest destruction through bushfires and uncontrolled tree felling. Bushfires are certainly the most important cause of forest degradation. Using satellite imagery an USAID funded study has shown that most of the forest area is burnt on a yearly basis. Such fires do not only fully destroy the natural regeneration but also larger trees, thus gradually impoverishing forest stands. Fires are either set intentionally to clear the land for agricultural production or to kill trees to extract dry firewood, or they are set unintentionally due to the lack of people awareness.

A recent population census (1993) has shown that The Gambia has a population growth rate 4.1% per annum, one of the highest in the world. Thus the population will more than double in the next 20 years while forest stock will be reduced by half in the next 10 years (over 5% deforestation rate per year) or by three quarters in the next 20 years unless actions are taken.

This deforestation generates environmental degradation with, in addition to the depletion of natural resources and the decline in biodiversity, major direct economic consequences:

- loss of soil fertility through soil erosion and poor rainfall retention has led to decreased crop yields and expansion of crop area;

- the displacement of livestock onto marginal lands has resulted in poor animal nutrition and lower milk and meat production;

- decreased rainfall and massive runoff have allowed deeper salt intrusion, thus reducing the suitable areas for rice cultivation.

The Government of The Gambia has recognized the problems of resource degradation and has taken steps to address them. By mid-1985 the Government instituted an Economic Recovery Program (ERP) which aimed to reverse these negative economic trends towards positive stability and development. To consolidate the gains made by the ERP the Government recently introduced a 10-year Program for Sustained Development (PSD) which is designed to "achieve a long-run expansion of the productive capacity of the economy that will support improvement in the living standards of the Gambian population ... that does not compromise the welfare of future
generations either by increasing onerous debts or despoiling the environment". One relevant environmental policy objective of the PSD has been stated as follow: "To address the task of environmental protection, including the issues of deforestation, soil management and solid waste disposal with renewed vigour and improved technology."

Within the framework of the PSD, the government elaborated and adopted in 1992 the Gambian Environmental Action Plan (GEAP) which defines broad environmental policy objectives and strategies of implementation. The GEAP provides the basic framework for a sound and sustainable management of The Gambia's environment and natural resources.

Although The Gambia has recently experienced some political changes, the new Government has already reiterated its support to programs especially designed to alleviate poverty among the rural population.

Shortly after the GEAP, the former Ministry of Natural Resources recognized the need to develop a new forest policy which would be in line with the environmental and socio-economic policy objectives of the country's program for sustained development. The new forest policy has been already drafted and is awaiting cabinet approval. This policy has been also designed to recognize and contribute to the poverty alleviation effort of government by calling for the involvement of the private sector and local communities in the management and development of a healthy forestry sector.

The forestry sector in The Gambia is undoubtedly beset with a considerable number of problems like most other west african countries. However, The Gambia has strong assets which should enable the country to reverse the trend of forest degradation.

There is a strong government commitment to manage and restore natural resources in The Gambia, as the very complete policy framework elaborated in the past years shows. This favorable policy environment contributes to the elaboration of clear strategies.

The new forest policy was prepared on the basis of ten years of extensive field experience gained through the implementation of pilot projects in forest parks and community forestry. Thus policy statements are based on solutions that already exist; objectives set in this policy are realistic and could be achieved with sufficient initial funding.

The involvement of local population is the main pillar of the new forest policy. Population participation in community forestry have been tested very successfully in around 12 villages in the Western and Lower River Division. The basic principle is to transfer the ownership rights of the resources to the community through a Community Forestry Management Agreement (CFMA). This agreement is subjected to some conditions such as the management of the forest according to a simple management plan developed in collaboration with the villagers. Since the introduction of these CFMA the concerned areas have no longer been burnt and illegal felling has been completely stopped. This indicates the population's genuine concern and
understanding of the value of natural resources on which their existence absolutely depends.
For this reason the Gambian Government has decided to expand the community forestry program to achieve a nationwide application of this forest management system.

To ensure the success of this forest policy strategy a new forest legislation will be prepared to support the new objectives within a more relevant and coherent framework. This legislative process should last about two years until its planned enactment in 1996.
3. Project purpose

The project purpose is:

"Implementation of the Gambian Forest Management Concept enabled on a large scale."

The Gambian Forest Management Concept (GFMC) consists of the integrated implementation of specified management plans for state owned forest parks and community forestry reserves with active involvement of the local population (see annex 2).

This project goal should contribute to the forest policy objective to manage 75% of forest lands either as forest parks or as community forest reserves. The forest parks will serve as demonstration, development and training centers for a large scale community forestry multiplication.

The main indicators of achievement towards the project goal are:

- by mid-1997 national forest inventory results are available and conclusions are made by comparing them with the 1983 inventory results;

- as soon as forest management is implemented no more illegal felling will take place in the selected forest parks (4278 ha) and in the community forest reserves (20 000 ha);

- during the initial implementation period the frequency of bushfires will be reduced and after three years of management activities bush fires occurrence will be exceptional;

- after 10 years of forest management a closed forest canopy is achieved through natural regeneration and enrichment planting in the selected areas;

- forestry staff, NGOs and villagers in the L.R.D. and the U.R.D. are qualified to implement sustainable forest management activities.

This project should contribute to the following goal:

"The forest resources are managed in a sustainable way within the framework of the Gambian resource policy."

With this goal the project is in line with government of The Gambia (GOTG) environmental policy (GEAP) and contributes to the fulfillment of forest policy objectives.

In the long-term this project will provide a better and safer environment as well as a better supply of forest products to the whole Gambian population.
4. On-going interventions

The Gambian Environment Action Plan, in a Technical Cooperation Package (TCP), has elaborated strategies of intervention in various natural resources and environment sectors. Although most of these have yet to receive funding, a National Environment Agency has been created under the office of the President which will assist and coordinate the implementation of various natural resource interventions.

Prior to the elaboration of the GEAP, the Department of Forestry, with assistance from GTZ, has been engaged in the implementation of various forestry interventions since 1979, including a national forest inventory in 1983, species site trials, natural forest management, community forestry, training, forest policy and forest legislation development. Models have been successfully developed for the management of natural forests in forest parks and in community forest reserves in the Western Division and Lower River Division. These have been in addition to governments public awareness campaigns on tree planting and fire prevention, forest plantation development and management and staff development.

A feasibility study has been sponsored by the Federal republic of Germany to assess the needs of the Department of Forestry for both financial and technical assistance to replicate the Gambian Forest Management Concept in forested areas in the MacCarthy Island Division (MID). It is planned to manage 7230 ha of forest parks and about 11000 ha of community forests. Project start is targeted for early 1996.

In 1993 a five-year USAID/Gambia Government Agriculture and Natural Resource (ANR) project was launched which is designed to examine policy needs, manpower development and limited resource surveys for the Ministries of Agriculture and Natural Resources. This project has an NGO grant component for funding NGO activities in Community Resource Management. Within the scope of the ANR-program an aerial photography survey was made in December 1993 providing up-to-date information about natural resources. However, this project was abruptly terminated in December 94 following a US government decision.

The World Bank and the International Fund for Agricultural Development (IFAD) launched an Agricultural Services Project (ASP) in February 1994 in the Ministry of Agriculture. The objective of this project is to boost agricultural productivity. The project will train polyvalent extension agents so that other environmental and natural resources concerns are also taken into account during agricultural production. It also includes an institutional strengthening component.

The UNDP has supported an integrated "rangeland and water development project" which has introduced a controlled rangeland management within forested areas. Results of this project are highly relevant for the multi-purpose use of forest resources.

The EU is financing a regional program on the introduction of butane gas as an alternative to fuelwood. The substitution of firewood by butane gas should reduce the demand for traditional energy and therefore the exploitation rate of forest resources.
The EU is also funding forestry activities such as the fencing of Jeloki forest park within its "U.R.D. integrated program".

It has been the Gambia-Government policy to encourage the prudent involvement of the Non-Governmental Organizations (NGOs) in its national development efforts. A few NGOs are therefore involved in the natural resource sector, mainly in tree planting, public awareness and soil and water conservation. The Forestry Department and GGFP will continue to actively involve the NGOs in their activities.

5. Project activities and their outputs

5.1 Brief description of project methodology

At present the information available on the forest condition is based on the national forest inventory of 1983. The deforestation trend has been estimated using satellite imagery from 1988. Thus, up-to-date data are lacking to measure exactly to what extent the forest stock and area has been depleted. Such information is of vital importance for planning forestry and natural resources projects. USAID has recognized this need and has funded an aerial survey which is now available. Photo-interpretation work to assess the forest cover will be done in collaboration with GGFP. Results should be available by the end of 1995. However, due to limited funding neither USAID nor GGFP will be able to conduct a forest inventory to acquire a better knowledge about timber volume and forest composition in The Gambia. For this reason it is strongly recommended for this project to plan and implement a national forest inventory which will provide valuable data for the development of the forestry sector. This inventory should also benefit the region, as The Gambia will be the first country in West Africa to have conducted two successive inventories of the same accuracy.

The Forestry Department is developing a "Gambian Forest Management Concept" (GFMC) as a follow-up to its forest policy. While not yet finalized, this concept is much advanced and its strategies are known. This concept foresees the conservation of forests on 30% of total land area or about 318,000 ha (453,300 ha were considered as forest land in 1983 but 347,700 ha are classified tree and bush savanna). The long-term objective is to manage 240,000 ha of these forests, by managing around 17,000 ha of natural forest within forest parks and the balance within community forest reserves.

The area of forest parks to be managed is intentionally limited in size to minimize as far as possible the management costs to be paid by the Gambian administration. However, the GFMC recognizes that the management of these forest parks is necessary to initiate forest activities in a given region. These forest stations can be seen as demonstration and training centers in which the population can visualize and experience the benefits of forest management. At a subsequent stage, community forestry can be introduced in the surrounding communities, where the notion of forest management is already known.
Such managed forest parks already exist in the Western Division, the Lower River Division. Additional forest parks will be managed in the MacCarthy Island Division with the assistance of the German Government (KfW) as well as in the Upper River Division with the support of the EU (URD Integrated Project).

The forest parks selected for this project proposal should contribute to the implementation of a countrywide network of managed natural forests and of forest stations.

In order to keep the number of forestry staff to a manageable size and also to ensure effective implementation of communities sensitization, NGOs should be involved. At present different type of collaborative work with NGOs are tested within the GGFP community forestry activities. NGOs can play an important role especially during the introduction of the community forestry concept to new villages. They can also carry out some technical tasks. Their assistance to the villagers should last until they are sufficiently organized to manage their resources on their own.

An efficient forest service is necessary for both the forest parks and the community forest reserves. The forest policy makes provision for a better integration of forestry project into the Forestry Department's structure as well as for the creation of a national forestry fund. A reorganization of the Forestry Department already took place in January 1995.

The integration of projects in the forestry administration will ensure a better handing over of activities as no structures will be made redundant and no additional ones will have to be created to accommodate them.

The national forestry fund will enable the Department to retain most of its revenues while giving it more autonomy to finance forest management operations. In the long run the sustainability of the forestry sector should be increased, but it is realistic to assume that it will need some external assistance, from the government or from the donor community, for the foreseeable future.

The forestry activities within the divisions are administrated and coordinated from the divisional headquarters. The implementation of these activities are done at forest station level which requires the creation of infrastructure such as office buildings, well, nursery, stores and staff building to accommodate the resident staff. This station should be centrally located to minimize transport distances to the field. A sub-station will be eventually build for community forestry reserves which are to remote from the main station but not important enough to warrant the building of a main station. A similar structure is already in place in the Western Division, the Lower River Division and should be implemented in the MacCarthy Island Division with the support of the German assistance (KfW).

During project implementation close collaboration will be maintained with the existing GGFP and the forthcoming MID project in order to exchange project experience, facilitate discussions and to coordinate activities.
As far as possible dead wood utilization would be promoted not only to generate revenue but also to demonstrate that forest management does not prevent access to the resource. Furthermore, forest protection cannot be achieved if some returns are not available in the short term. In the initial phase the project will assess what potential might be used. Similar experience in this field has already been documented within the GGFP.
5.2 Outputs and activities

Output 1:

A national forest inventory is completed.

Indicators:
- An evaluation report of the national forest inventory is available.
- A report on a comparative analysis of both the 1983 and 1997 national forest inventories is available.

Activities:

1.1 Training of the field crews.
1.2 Field sampling of around 400 sampling units.
1.3 Data recording and processing.
1.4 Compiling of results of the national forest inventory.
1.5 Preparation of an evaluation report of the national forest inventory.
1.6 Preparation of a comparative analysis report on both the 1983 and 1997 national forest inventories.

Output 2:

The physical infrastructure of the Forestry Department in L.R.D. and U.R.D. is improved.

Indicators:
- Rehabilitation and upgrading of the divisional headquarters (Jenoi and Basse) by the end of the first year of project implementation.
- Construction of Naneko (L.R.D.) and of Chami Bunda (U.R.D.) forest stations (60 m² office and 200 m² staff quarters each) by the end of the first year.
- Construction of Kolior (L.R.D.) Samba Kunda (U.R.D.) forestry sub-stations (40 m² office and 200 m² staff quarters each) by the end of the second year.
- Construction of Manduar (L.R.D.) and of Sare Jallow (U.R.D.) community forestry sub-station (40 m² office and 200 m² staff quarters each) by the end of the second year.

Activities:

2.1 Securing of land for buildings.
2.2 Construction of buildings.
2.3 Procurement of equipments, vehicles and machineries necessary for headquarters, station and sub-station operations.
Output 3:

Jollofin (448 ha), Nyanaberi (1132 ha) and Berikolon (1468 ha) forest parks in L.R.D., Jeloki (873 ha) and Jundala (357 ha) forest parks in U.R.D. are managed according to forest management plans for training and demonstration purposes.

Indicators:

- The forest parks are no longer subject to bush fires or illegal felling.
- The management plans are readily available within one year after completion of forest protection infrastructure.
- Forest activities are implemented according to the management plans.

Activities:

3.1 Preparation of infrastructure plans for the selected forest parks.
3.2 Construction of forest roads, access lines and soil preparation for live fences.
3.3 Maintenance of fences.
3.4 Plantation of live fences.
3.5 Organization of controlled grazing.
3.6 Inventory of forest parks.
3.7 Preparation of management plans.
3.8 Organization of village nurseries.
3.9 Implementation of planned activities (enrichment planting, thinning, deadwood utilization, etc.).

Output 4:

Community forestry is introduced and implemented in L.R.D. and U.R.D. through Preliminary Agreements (PCFMA) and Community Forestry Management Agreements (CFMA).

Indicators:

- At the end of project phase 20 000 ha of forests are under CFMA.
- Forests under community forestry agreements are not anymore subject to illegal felling and bushfire occurrence is very rare.

Activities:

4.1 Identification of forest areas suitable for community forestry (use of photo-interpretation results and community forestry criteria).
4.2 Ensuring of training of required forestry and NGOs staff.
4.3 Identification of a potential NGO for Community Forestry implementation and signature of a Memorandum of Understanding.
4.4 Adaption of community forestry guidelines to L.R.D. and U.R.D. conditions.
4.5 Introduction of community forestry, sensitization and organization of selected villages.

4.6 Awarding of PCFMA and CFMA to qualified villages.

4.7 Development of community forestry management plans following the CFMA.

5.3 Time plan

The first project phase should take 5 years. A project start could be planned for January 1996. Depending on the results achieved during this first phase, a project extension to further promote community forestry should be considered.

6. Project implementors

6.1 Legal aspects, duties, responsibilities.

Within the Ministry of Agriculture and Natural Resources the Forestry Department is responsible for the management of forest parks, the enforcement of forest legislation, for issuing forest exploitation licenses and for awarding Community Forestry Agreements (CFMA). Village committees supported by forestry, NGOs and other organizations staff are responsible for community forest reserves.

6.2 Organizational structure of the Forestry Department.

The Forestry Department has been recently reorganized (January 1995) and is subdivided in four units: technical, natural forest management, extension and community forestry (see annex 3). The natural forest management and the community forestry units are represented in each of the five divisions and actually represent the Department in these divisions. They are headed by forest officers supported by a varying number of forest rangers, forest guards and scouts.

The staff of the Forestry Department is 146 among whom 112 are civil servants. Among the 17 senior officers 12 have a professional education, 3 have M.Sc. and 4 have B.Sc. degrees. The others are holding a diploma degree. Forest rangers, guards and scout have received no technical training except for the first five forest guards who have graduated in September 1994 from the GGFP training course. For the last four years all new forest guards have completed "O" levels to enable, when possible, further academic training.

It should be noted that most of the professional staff is working or has been working with the GGFP and have gained a sound knowledge about natural forest management and community forest management. GGFP staff has been recently fully integrated in the departmental structure.

Despite the harsh economical constraints for staff recruitment within the civil service 30 positions have been approved on behalf of the Forestry Department for a period
of 6 years (5/year). This personal is of utmost importance for project implementation. Efforts are currently made to recruit more staff to meet future needs.

As opposed to many forestry departments in West Africa, The Gambia does not have an entrenched forest service that has engendered deep resentment among local populations through repressive measures. Thus, well managed and organized training can be extremely beneficial for progress in the forestry sector.

6.3 Budget and revenues

The total recurrent budget allocated to the Forestry Department for financial year 93/94 was Dal. 1.6 Mio. About 70% of this budget is spent on salaries and wages and about 7% on vehicle maintenance and operation. The yearly revenue derived from licenses, permits, royalties and the sale of confiscated product in 92/93 was Dal. 312,000. These revenues are paid to central government. Since these financial means are obviously insufficient to implement forest activities, most of the Department's development work is donor-supported. However, the new forest policy incorporating the creation of a national forestry fund should improve the financial situation of the Department and ensure the sustainability of its operation.

6.4 Need for financial and technical support

It is clear that the Forestry Department is not yet in a position to finance the implementation of the GFMC countrywide without external assistance. Until its financial condition can be improved its contribution will be limited to providing qualified technical staff for forest activity implementation. However, this type of project will require some technical assistance for project management and for the community forest management.

7. Expected project benefits

The project should contribute to the improvement of the overall situation in the sector of natural resources by strengthening the Forestry Department, local communities and NGOs. It will encourage the Gambian Government to continue the implementation of reforms formulated in its policies framework. The L.R.D. and U.R.D. will receive most attention in this project, thus will increase the role played by these divisions in the management of natural resources. At the end of this project local capacity will be build up to a level which will ensure a sustainable forest management and an improved environment.
8. **Project funding**

Total amount of funds required by this project are estimated at $5,459,500.

**Tentative budget (in US$)**

**Financial assistance**

- Forest inventory: 270,000
- Forest stations and sub-stations: 870,000 (including vehicles and machinery)
- Forest protection and management: 385,000
- Running costs: 620,000
- Salaries: 790,000
- NGO support: 180,000
- Inflation/physical contingencies (10%): 308,000

Total financial assistance: 3,423,000

**Technical assistance**

**Long-term technical assistance (TA)**

- 1 forester/administrator, 5 years: 880,000
- 1 community forester, 5 years: 880,000

**Short-term technical assistance**

- Forest management, 10 months: 167,000
- Forest Inventory, 6 months: 100,000
- Evaluation/audit, 3 months: 50,000

Total technical assistance: 2,077,000

**Total project assistance:** 5,500,000
Annex 1

Forest Area in The Gambia
# Forest Area in The Gambia

<table>
<thead>
<tr>
<th>Division</th>
<th>Total area (ha)</th>
<th>Total forest area (ha)</th>
<th>Tree &amp; Shrub savanna area (ha)</th>
<th>Forest Parks area (ha)</th>
<th>Potential Community Forestry area (ha)</th>
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Sources: National Forest Inventory, 1983 and GGFP aerial observation

Forest Policy objectives:
- 30% of land area under forest cover
- 75% of forest under management

<table>
<thead>
<tr>
<th>Division</th>
<th>Total land area (ha)</th>
<th>Policy objective Managed area ha *</th>
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* assuming an even distribution of forest area
Annex 2

Gambian Forest Management Concept (GFMC)
THE GAMBIAN FOREST MANAGEMENT CONCEPT (GFMC)

1. Summary

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 is 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 actions. If these actions fail 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 cause vital negative impacts on the welfare of the Gambian population.

Since 1984 the Forestry Department has established 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. All in all 66 forest parks exist in The Gambia covering an area of approximately 34,000 ha out of a total forest area of over 350,000 ha. However, despite the necessity of developing a network of managed forest parks throughout the country, it has been 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.

At a very early stage of developing the model, it was been realized that the only way to stop forest destruction and to sustainably manage forest resources is to involve the local population. However, at that time, conditions did not allow the introduction of community forestry. At the end of the 80's these framework conditions became more favorable, and a community forestry model has been developed and is being tested with very encouraging results.

Forestry activities are interrelated with farming activities including livestock husbandry, and so 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 in order to recognize and understand those linkages, and to take-up necessary actions aiming at restoring the balance. This calls for an integrated approach which is beyond the mandate of the Forestry Department. Thus, assistance is necessary at both levels the execution and the implementation.

In The Gambia, there are various NGOs (both national and international) and government agencies (in part foreign assisted) which could provide the desired assistance. Among others, to mention are: Action Aid The Gambia, Save the Children Foundation/USA, Catholic Relief Services, The Gambia Family Planning Association (all multi-disciplinary), Peace Corps/The Gambia (agro-forestry, environmental education), the Gambian-German Family Planning Project, the Soil and Water Management Unit (erosion control, agro-forestry) under the Department of Agricultural Services, and the ITC Project (improved livestock husbandry, controlled grazing systems) under the Department of Livestock Services.
On the other hand, besides financial constraints, the rate of deforestation (6% per year) 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 Forestry Department has decided to develop a simplified approach to community forestry in order to cover a larger area with a limited number of staff. Also, this simplified approach has 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 done by the Forestry Department. Some of them are already participating in community forestry activities.

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 new forest policy of The Gambia aims at managing 75% of the forest cover. It is foreseen to develop some 17,000 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 forest reserves. Currently, there are some 5,000 ha of forest parks and some 1,200 ha of community forest reserves under management.

To achieve this target based on the experience of the Forestry Department and the Gambian-German Forestry Project, the Gambian Forest Management Concept (GFMC) has been developed which merges both above mentioned models. Also, this concept aims at creating 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 center of managing the Gambians' forest resources. Consequently, its introduction has to follow participatory approaches so that local people are fully involved in planning, decision making, organization and administration. The introduction initiates socio-cultural, economic, and ecological transformation processes which do not perform linearly. Therefore, intervention planning and implementation must be flexible, iterative, and oriented towards the processes.

Long-term sustainability of the GFMC calls for minimal investments and adaption 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 paternalism, creating problems, and devaluing resource management objectives.

The continuing forest devastation process does not allow the expenditure of more time on conducting comprehensive investigations, studies, and planning procedures. Instead, the GFMC needs to be rigorously introduced with the aim of transferring the management responsibility of as much forest land as possible to adjacent communities through preliminary community forest management agreements. Thereby, existing forest parks have to be considered as means to an end or as nuclei in which appropriate management systems are developed, tested and demonstrated and then adapted to the surrounding forests.
2. The Nucleus Concept

Gambian forests are unevenly distributed throughout the country. They fulfill 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 savanna, 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.

The forest stations are ideally to be located within a cluster of forest parks surrounded by other forest lands. 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 serve as a means to an end in order to bring the remaining countries forest resources under controlled management. They should not be seen in isolation, but are an important element of and fully integrated into the GFMC.

The GFMC distinguishes four different forest categories according to management responsibilities:

Forest Parks (FPs): the management concept has been developed. However if new experience is gained, the concept needs to be further refined.

Community Forest Reserves (CFRs): a first CF concept has been developed and successfully tested during the CF pilot scheme within the Western Division. Based on the experience gained, the concept is being improved and further developed. Likewise, specific approaches that may be necessary in other areas require further development.

Open Access Forests (OAFs): the management objectives have been defined. The management systems, however, have not yet been developed.

Protected Areas (PAs): they are under the responsibility of the Department of Wildlife and, therefore, not directly subject to the GFMC. The management of National Parks and Nature Reserves is regulated by the Wildlife Conservation Act of 1977. According to this act, any form of forest exploitation and utilization is strictly prohibited. The following national parks and wildlife reserves exist in The Gambia:

<table>
<thead>
<tr>
<th>Name</th>
<th>Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abuko Nature Reserves</td>
<td>105</td>
</tr>
<tr>
<td>Baboon Island</td>
<td>579</td>
</tr>
<tr>
<td>Kiang West National Park</td>
<td>11,000</td>
</tr>
<tr>
<td>Niumi National Park</td>
<td>4,900</td>
</tr>
<tr>
<td>Tanji Bird Reserve</td>
<td>400</td>
</tr>
<tr>
<td>Baobolong Wetland Reserve</td>
<td>20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36,984</strong></td>
</tr>
</tbody>
</table>
3. Management Objectives and Forest Functions

Forest Parks

In the past, the objectives of FP management were more oriented towards the production of forest products in order to supply the local and urban markets. FP management as integral component of the GFMC since 1989, the objectives have been re-oriented towards community involvement by considering the interests of both the government representing the entire population and the local population.

Therefore, and except for special functions such as dune stabilization, wood production (plantation forests), etc., management objectives have to respond to the local people's needs and demands as well. Depending on the particular situation of a FP or parts of it, the following management objectives can be distinguished:

- research and development;
- training and demonstration;
- production of timber and firewood;
- accessibility for ecotourism; and
- protection of rare habitats.

Research and development should not only focus on the development of silvicultural or management solutions for FPs; this is equally important to CFR and OAF management. It is the major task of the FD to assist and advise the local population on potential silvicultural solutions based on their priorities. Since CFR compared to FP management might focus more on the production of minor forest products (e.g. oil palm kernels, rhun palm leaves, bee keeping) than on wood, the required silvicultural options and technical solutions must be developed, too.

Promoting FPs as nuclei for developing locally adapted forest management systems, demonstration and training deserves the highest priority in ranking the objectives and justifies the comparatively high initial investment cost. The other objectives justify that FPs are not only needed temporarily until CFR and OAF management systems are established. Rather, their long-term existence lies in the national interest which is the protection of rare habitats and timber and fuel wood production with the priority of satisfying the local markets.

Of the 66 existing FPs covering an area of some 34,000 ha, it is estimated that at least 17,000 ha are needed for demonstration and training purposes. The remaining FP area shall be managed according to the other management objectives. Criteria which FP shall serve for the one or other purpose may include site conditions, spatial distribution, mere protection functions, population density and distribution, etc..

Community Forest Reserves

The objectives of CFR management have to be oriented towards the needs and demands of the people who are responsible for managing the forest or who own it. CFR management, therefore, aims at generating the most socio-economic benefits in the view of the managers within the framework of the national forest and environmental policy, the forestry legislation and regulations. Consequently, the spectrum of management objectives are wider compared to that of FPs. Depending on the particular condition of the CFR, the traditional use and users, and villagers' needs and demands, one or several of the following management objectives or even others may be identified by the community:
production of timber and fuel wood
production of forest by-products such as fruits, nuts, fibers, resin, leaves, etc.
fodder production
game production
tourism especially bird watching
mere protection and conservation for future benefits

Conflicting management objectives need to be prioritized or the management activities need to be spatially separated in order to achieve the individual objective.

In most cases, CFRs will have to fulfill multiple functions in order to cover the villagers' basic needs and to generate additional income through the sale of both wood and non-wood forest products.

Open Access Forests

OAFs are currently managed by applying the licensing system. This system must be urgently improved as the exploitation is not linked to the forest condition. Within the OAF areas there may exist some rare forest types or extremely fragile sites which need to be protected. At present, OAFs are the major source of forest products for the rural population as well as the primary grazing areas. OAFs are being converted to CFRs.

Consequently, the management objectives include:

- production of timber and firewood;
- production of forest by-products such as fruits, nuts, fibers, resin, leaves, etc.
- fodder production
- protection of rare habitats; and
- conversion (land reserve for agriculture)

Forest Functions

Management activities directed to achieve the above mentioned objectives should not interfere with the ecological and socio-economic functions of all Gambian forests, in particular with

- prevention of soil erosion;
- maintenance of the water retention capacity;
- conservation of flora and fauna;
- stabilizing climate and CO₂-equilibrium; and
- supply of minor forest products for the benefit of the local population.

The management options have to be generally developed to achieve these objectives and to fulfill the above mentioned functions. Socio-economic acceptance, risk minimization, stability and long-term economic sustainability have to be the guiding factors in developing forest management systems.
4. Forest Management Concepts

Forest Parks

During the past 10 years, the GGFP developed a natural forest management concept involving 7 FPs in the Western and Lower River Division. In order to demonstrate the economic value of the forests, 2 semi-stationary sawmill units were established for the conversion of dead wood at the Kafuta and Dumbutu Forest Stations. Both FP management and dead wood processing generate considerable income in the surrounding villages. At the same time the FPs were protected and rehabilitated in a very economic way.

Community Forestry

Up to the mid 80's, the general attitude of the local population towards the forests was quite negative. Groundnuts were the only cash crop for the local farmer. For their production, he depended on the practice of shifting cultivation using fire as a cheap and easy tool for clearing. The production of groundnuts competed directly with the forest cover. Forests had always been there and were not used by anybody and did not produce anything valuable for the farmer except for the subsistence use of fuel and minor products. At that time these forest products were still available in abundance and the rural as well as the urban societies did not suffer as yet from any shortages of these. In clearing forests for cultivation, the farmers followed their fathers tradition.

By putting the first FPs under management, it was clear that the Gambian forests could only be conserved if the local population would actively support forest conservation and protection efforts. However, the framework conditions were not conducive to the introduction of this concept.

Fortunately these conditions changed in favor of community forestry. Due to the breakdown of the market prices groundnut production was considerably reduced along with the shifting cultivation practice. Also, for the first time in their lives, the Gambians felt the negative impacts of forest degradation. The supply of rhun splits for house construction dropped almost to nil because of excessive over-exploitation. Firewood had to be produced far inside the country which led to an increase of its market price. Also climatic changes were realized by the people, annual rainfall dropped, droughts became more frequent and severe and the groundwater table sunk. On the other hand, the people close to the forest stations Kafuta and Dumbutu in the meantime had realized the positive effects of natural forest management.

Now, the time had come to actively involve the rural population in forest management. For this purpose the GGFP conducted several studies on the possibility of introducing community forestry in The Gambia. Also the government positively reacted to this development by formulating a sound policy that calls for the involvement of the local people in managing the forest resources and supports the transfer of management responsibilities and even ownership.

An approach and a methodology of community forest management was developed and the first community forest management agreement (CFMA) was signed in 1991 by the village of Brefet. 2 more agreements followed and 8 applications for CFMA were forwarded to the Forestry Department. At present 29 villages take part in the CF program. The effects of introducing community forestry have been extremely positive. All identified and declared CFRs were protected by the responsible communities from fire, and illegal exploitation was immediately stopped.

In brief, the CF approach has been based on the following considerations and comprises:
Local farming practice is based on subsistence. Except for a 2 to 3 year fallow planning for the outer fields, farm development plans do not exist. Even within one cropping period, most farmers do not plan. Thus, many activities are undertaken based on ad hoc decisions and the availability of cash and labor. Although most of the country's surface is flat, the soils are highly susceptible to erosion. Consequently, soil degradation is a serious problem. Therefore, forest management planning must go hand in hand with farm development planning not least in those areas where conflicting interests exist (e.g. livestock husbandry).

Experience gained in other countries as well as in The Gambia has clearly shown that long-term resource development interventions do not work unless they are integrated into general village development. Inter-disciplinary collaboration is a key-element for this kind of approach. This refers to training of villagers, village based land use planning, and identification and propagation of sustainable land use practices which ideally results in a village land use and development plan.

Villagers need assistance in developing a genuinely critical view of their own situation and a realistic assessment of their ability to take-up necessary steps and to implement activities according to the priorities set by them. Therefore, participatory approaches are proposed in which villagers are fully involved in planning, decision making, organization and administration from the very project beginning. This has to go along with adequate training in managerial and also technical skills.

Past experience teaches that many projects failed because, among other things, too high initial direct incentives were granted. Consequently, direct incentives should be generally confined to the successful implementation of long-term resource conservation activities. This especially concerns numerous NGOs and their, in part, charitable activities in The Gambia.

Introducing CF on a large scale would only be feasible step-by-step according to the capacity of the FD in administering projects. Therefore, technical and financial assistance is required to implement the program nationwide. NGOs and other agencies need to be involved which assist the FD in CF project implementation and provide other services which are beyond FD's mandate. Collaborative relationships have to be established at both levels, the executing and implementing. These joint effort have to respond to the local people's needs and demands at the village and field level.

Depending on the level of villagers' awareness of environmental degradation and their capacity to solve and manage the problems, the approach strategy to be adopted usually varies from village to village. Thus, external inputs in terms of time and personnel to attain an adequate level vary, too.

Inevitably, high intensity of personnel inputs provided during the CF pilot scheme cannot be maintained to introduce CF on a larger scale. This implies that the FD has to concentrate on pure forestry activities only, while other, complementary or non sector related, activities need to be implemented by NGOs or other agencies. Second, the approach and forest management planning procedure have to be simplified and certain services such as boundary and forest surveys, technical skills training, etc., postponed to a later stage. Therefore, the instrument of the preliminary forest management agreement (PCFMA) has been developed which shall be employed for all new CF projects.

The basic idea of the PCFMA is to probe the bargaining room of all involved parties, to develop a suitable procedure for managing the conflicts and conducting negotiations, and to see how seriously participants take up protecting 'their' forests. Other reasons for having a 'preliminary project phase' are the high rate of forest degradation and, thus, the need to quickly bring as much forest land under management as possible, the above mentioned personnel constraints within the
FD to maintain continuous presence in order to provide all needed advice and guidance, and to allow nature time to initiate itself the restoration process if the forests are protected from fire.

The PCFMA is valid for a maximum of 3 years and will then be automatically replaced by the CFMA if the community fulfilled its duties. Depending on the community's performance and capacity, the CFMA can also be granted earlier. Since with the PCFMA only temporarily defined use permits but no long-term user rights are granted to the community, PCFMAs can be issued by the director of the FD. Hence, the issuance procedure takes a comparatively short period of time.

The PCFMA considers just a few activities related to capacity building, environmental education, and forest demarcation. It is more or less designed to speed-up the transfer of responsibility over the identified forest area to the community by promising resource ownership whenever an effective forest protection system is in place.

The FD has set the priority of handing over the responsibility for forest protection to villages by rigorously using the instrument of the PCFMA in order to bring as much forest land as possible under villagers' control in a comparatively short time. This preliminary approach must be carefully monitored and evaluated. If it should fail, it is recommended to immediately go back to the original concept so that the CF program will be not endangered.

By employing the PCFMA, personnel inputs are the highest in launching CF projects until the forest reserve is identified, a simple work plan prepared, and the PCFMA signed. Then personnel inputs can be reduced. Another reduction is possible whenever the community has gained enough managerial and technical skills, and a forest management plan is jointly developed. Thereafter, it is assumed that 1 forest ranger is able to supervise an CFR area of some 5,000 ha.

Just as initial investments are necessary in FP management, the personnel inputs constitute the investment in launching CF projects and in providing advice and training during the initial project phase. As long as insufficient FD staff is available, efforts must be made and funding provided either to engage NGOs or other agencies or to contract local consultants.

**OAF management concept**

The OAF management concept still needs to be developed by the FD with GGFP assistance. Compared to FP and CFR management it has lower priority since the potential CFRs actually constitute the OAFs. During the transition period from OAFs to CFRs, the licensing system has to be reviewed and probably adjusted in favor of rural communities, at least for those forest lands which are neither FPs nor CFRs but adjacent to the villages. Also, it has to be kept in mind that the OAFs (a desired area of some 25% of the existing forest cover according to the forest policy) constitute agricultural land reserves and, thus, may be converted.

**5. The Gambian Forest Management Concept**

**Objectives**

The Gambian Forest Management Concept (GFMC) is an approach to contributing to the achievement of the main goals of the forestry policy of The Gambia which are:
• To reserve, maintain and develop forest resources covering at least 30% of the total land area which is are designated for environmental protection through:
  - minimizing soil desiccation and soil erosion
  - improving, conserving and preserving biodiversity
  - maintaining river bank stability (mangroves)
  - protecting the swamp lands.

• To ensure that 75% of forest lands are managed and protected according to sustainable forest management principles in order to increase forest resource base.

• To ensure that sufficient supply of forest products needed by both urban and rural population is available through the rehabilitation of forest lands and the establishment of fast growing plantations and woodlots.

Since 1980, the GFMC has been developed and implemented by the Gambian-German Forestry Project (GGFP) in joint cooperation with the Forestry Department (FD). It needs periodic updating according to new experiences gained and changing external conditions. Therefore, this description of the GFMC is not final.

**Approach**

In contrast to ‘classical’ management of state owned forests, the GFMC requires a quite different approach since the primary planners, implementors, and actors are rural people who are usually engaged in subsistence farming and to whom forestry in the sense of sustainable forest management is new. On the other hand, FPs were already identified some 40 years ago. They are managed by professionals who receive regular salaries, and the work is carried out by paid laborers and contractors, and to a certain extent by involving machinery.

The success of adopting the GFMC primarily depends on the peoples’ willingness, interest, capacity and capability to sustainably manage their resources, but also on the persons/agencies who are charged with providing initiative and motivation, and supposed to provide the necessary technical advice and training.

Disregarding the level of villagers' awareness and capacity, the following basic approach strategies have to be considered when introducing the GFMC:

**Participative approach methods**

It is of utmost importance that from the very beginning all participants and forest user groups are actively involved in all phases of the project, i.e. in resource assessments and surveys, in the planning and implementation of activities, and, finally, in monitoring and evaluation. Also, attempts should be made to include as early as possible project opponents as well as user groups that may be initially disadvantaged through the project. Participation should be viewed as an objective in and of itself, and as a means for achieving some higher objectives such as self-help and sustainability.

**Putting the people first**

Foresters educated in technical forestry have to be further trained in order to accept the often less educated farmers as equal partners in the development process and to be adapted to their new role of facilitators. This especially includes improved skills in communication and a change in the
attitude towards seeing well known situations from a new angle or thinking about the real effect of their own actions on others. Both can be taught and trained, respectively.

Similarly, farmers need to be trained in recognizing and accepting foresters as resource persons for training and providing advice in various fields.

**Process orientation**

Long-term resource management interventions should be understood as the initiation of ecological, economic, and socio-cultural transformation processes in de-stabilized systems to make a new balance. Such processes cover several phases, each with different problems for which over time a wide spectrum of technical and methodical resolving mechanisms must be available. The development of problem resolving mechanisms has to be considered in a flexible and iterative intervention planning and implementation.

By nature, transformation processes do not perform linearly. Rather they are subject to leaps, draw-backs, deviations, and unpredictable turns. Therefore, qualitative criteria used for project monitoring and evaluation (e.g., sustainability, adaptability, self-control systems, etc.) gain in significance compared to quantitative results (e.g., number of agreements signed, number of seedlings produced/planted, area of forest protected, etc.).

This does not mean that process orientation relinquishes indicators for result achievement. However, an isolated view of results may often lead to wrong conclusions. Rather results must be seen by stages in the process and they should only be evaluated in this context.

**External incentives and subsidies**

Heavy-handed use of incentives causes more problems than it solves, not least by inducing paternalism, creating conflicts, and devaluing resource management objectives. Full participation cannot evolve if incentives are given to buy people's willingness and motivation. In general, the more people participate in project promoted activities, and the more community resources are used, the more likely these activities will be sustained after the project withdraws.

Another danger is that not only the recipients may become addicted to incentives, but the project staff may also derive power and influence from the practice. To reorient staff used to such practices and to get them surrender some degree of power towards a more rigorous and participative approach may then become extremely difficult.

Therefore, external incentives have to be used sparingly, i.e. pursuing a low input approach and adopting a low input technology. In general, an incentive should:

- be judged both by its effectiveness in motivating the desired change (always taking into account the perceived needs and the villagers' socio-cultural perspectives) and by whether motivation will be maintained after the incentive withdrawal (the incentive should be the catalyst and not the cause of the change);
- not be introduced on hidden agenda, rather the donor-recipient relationship must be kept transparent and based on an incentive policy understandable by all parties involved; and
- be based on a clearly established cost-benefit relationship to enable a conscious decision to be taken by the community (thus, first, an 'easy-handing' of incentives in order to obtain quick results is avoided, what donor-funded projects often tend to do and which distorts the real production cost; and, secondly, the project is not the final arbiter).
Forestry approach versus multi-sectoral approach

Long-term interventions such as tree planting or forestry in general most often cannot answer the people's directly felt needs. They place much greater priorities on measures that contribute to facilitating their day-to-day problems (activities aiming at improving the social and physical village infrastructure) and/or generate additional income in the short-run. Consequently, the acceptance of forestry projects and the willingness to cooperate may be extremely weak in the initial stage. In addition, some 95% of the target groups depends on farming as the primary source of income. Forest management and the possibility of generating long-term benefits from the forests is new to them. Thus, farming activities may always have priority to others.

Experience in The Gambia as well as in other countries has shown that long-term resource management measures hardly work in isolation. The prospects of obtaining adequate support and participation are evidently higher if confidence-stimulating measures are backed-up by those measures which are directly relevant to achieving the project goal.

This implies a chance of focus. Rather than viewing GFMC implementation as autonomous projects, they become part of the overall village development. Likewise forest management planning becomes part of village development planning. The FD is hardly capable of introducing CF and implementing CF projects by using its own resources and, hence, depends on external inputs. How should it then be capable of implementing GFMC projects in the wider context of village development? The next question would be whether village development is within FD's mandate which must be negated.

This dilemma is only to be resolved through inter-sectoral collaboration both with government agencies and NGOs. On the donors' side, it calls for a diversified counterpart structure.

The need for activities generating short-term benefits

The rehabilitation of degraded natural forests constitutes a transformation process in which usually no immediate economic returns are to be expected. Measures aiming at goal achievement in many cases impose restricted resource use (apart from initial investments mainly in terms of labor) which may even cause temporary shortages. Such measures adversely affect participation and motivation. The implications are threefold:

- the planning of measures generating perceivable benefits for the target groups in the short-run;
- the provision of objective-oriented incentives/subsidies based on a clearly formulated policy (see above); and
- pursuing a multi-sectoral approach (see above).

Activities/measures generating short-term benefits primarily focus on the introduction and/or development of improved and new technologies. For forestry, such technologies largely depend on the forest condition and tree species composition, but not on wood extraction (except dead trees). They may include: bee keeping; fruit collecting and processing; development of small-scale handicrafts such as basket, mat, rope, incense production; tourism; game production; etc.. However, all gathering/collection activities in the forest have to be carefully evaluated so that the resource will not be further depleted and/or certain species extinguished.

A higher potential of introducing/developing improved or new technologies certainly lies in the non-forestry sector aiming at agricultural diversification (vegetable gardening, promotion of improved fruit tree varieties, hay and fodder production, etc.), soil and water conservation (mainly soil and water engineering, agro-forestry and composting techniques), and the improvement of the village infrastructure (wells, roads, basic health care, school education). Especially through the latter
measures, farmers will benefit in terms of reduced labor inputs which then can be invested in other, probably forestry related activities. But again, all measures in the non-forestry sector depend on multi-sectoral collaboration.

**Principles**

The GFMC adheres to the following principles:

- to obtain and maintain a diversified structure in executing and implementing forest management activities;
- to increase the awareness of individuals, communities, and the Gambian population on the importance of forests;
- 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;
- to develop, test, and introduce new techniques and methods designed to mitigate and/or eliminate interest conflicts between agriculture and forestry production.

**Merging the management concepts**

The GFMC merges the forest management concepts described in the last chapter into one concept with the rural population as main actors. The FP development has to be embedded in the CF approach and to respond to the people's needs and demands. The local people are considered the main actors in forest management since the power of forest protection (including FPs and OAFs) is vested with them. The major task of the FD is to provide technical advice and training, and to steer the forest management activities in the view of sustainable management.

Pursuing the integrated GFMC approach calls for a flexible and iterative project planning and implementation in which the development of problem resolving mechanisms should be incorporated. GFMC implementation needs to be process oriented in order to react to unpredictable turns.

By introducing the GFMC, the responsibilities of the FD staff have to be adequately adapted. While the former primarily control and jurisdictional functions remain, other tasks such as actively managing the forest, forest land use planning, providing management advice and supervision have to be added. This requires that 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 favor of involving the rural population in management and rational use of their forests.
The organizational structure of the FD has to be adjusted accordingly. The restructuring of the FD with effect from 1st of January 1995 is a first step towards this direction and is an adequate form of organization for a transition period until the GFMC is introduced on a national level. The final organizational structure must contain regional and sectoral elements wherein responsibilities have to be decentralized as much as possible at the divisional headquarter and forest station levels.

For each division a divisional headquarter is to be established which will be responsible for forest management and planning on division level. It has to head and administer regional forest stations which are the real acting units. The location of forest stations depends on the distribution of forest land and forest categories including the location of potential CFRs. If required, sub-stations for forests in remote areas should be set up, after having identified the CFRs. The responsibility of the forest station should include:

- to conduct sensitization campaigns;
- to collaborate with NGOs and other agencies;
- to manage FPs;
- to train and advise villagers in CF and to supervise and control the management of CFRs;
- to issue licenses and to control the management activities within OAFs;
- to market forest products; and
- to advise in and supervise wood processing activities (sawmilling, pit-sawing, etc.).

According to these tasks, a sectoral subdivision of responsibilities at station level needs to be done. This does not mean, that for each section an own section head is required. Rather activities such as OAF management, forest product marketing, etc. are to be put under the responsibility of the head of station while others, e.g. CFR and FP management, are carried out by specialists. The distribution of duties and responsibilities may, of course, vary from station to station depending on the distribution and extent of FPs/CFRs/OAFs.

Introducing the GFMC into a region starts with conducting information and sensitization campaigns at the divisional and district level. Principally these campaigns aim at disseminating information on the GFMC and especially CF by using various media (local radio, press, brochures, posters, etc.) and at preselecting potential CFRs and the location of forest stations/ sub-stations by organizing workshops involving local leaders and authorities and government officials concerned.

Potential CFR areas are preselected with the help of available forest resource maps, other thematic maps, and the most recent aerial photographs. The preselection criteria to be used consist primarily of the spatial distribution of forest lands and settlements, the size of forested areas, the forest density, and, in the case of forest stations, the location and distribution of FPs.

Based on the preselection results, the first village contacts are established. Thereby, priority has to be given to villages adjacent to FPs, where comparatively intact forests still exist, and in which forest stations are to be established. During general village meetings information dissemination and sensitization continues. At this stage, extension focuses on the villagers' perception and acceptance of being involved in forest management whereby equal emphasis must be placed on CFR and on FP management. In villages in which the establishment of forest stations has been proposed, formal approval needs to be acquired prior to the initiation of construction.
Depending on the assessment of villagers' perceptions and attitudes towards forest management gained during the first contacts (which may be coupled with informal interviews of both village groups and individuals) and information/data collected from other sources, the next approach to be adopted has to be decided upon. If the response, confirmed by other information obtained, is positively evaluated, a specific approach strategy or intensive information program needs to be developed. If not, general sensitization aiming at environmental awareness creation needs to be continued.

Implementing the specific approach strategy aims at identifying the CFR and its extent on the ground by demarcating the corner points, reaching a common understanding on CFR and FP management, and at filing the application for awarding the PCFMA. During basis workshops involving different village groups (elders, women, youth), basic resource information on both human and natural resources needs to be collected based upon which a simple work plan is jointly developed describing the work to be carried out in the CFR. At the same time, FD management activities need to be properly explained in order to receive villagers' active participation in protecting the FPs. Thereafter, the PCFMA is concluded between the village and the FD.

After having approached all villages within the catchment area of a forest station following the procedure described, the preliminary management plan for FPs has to be prepared. This plan has to consider as much as possible the villagers' interests and needs identified so far. Thereafter, the field work within FPs can commence.

For FP management activities, labor is to be recruited from nearby villages and from those more remote villages which have concluded the PCFMA. For villages which are not interested in being involved in forest management sensitization needs to be continued.

The implementation of forest management activities through paid laborers has to be generally seen as part of forestry extension, meaning that for each and every activity the reason and the purpose must be explained. By doing so, the recruited laborers will serve as facilitators and multipliers for CF. This especially refers to activities which have to be carried out in FPs as well as in CFRs. At the initial forest development process, these activities include the establishment of external fire breaks (with or without live fences), internal stand demarcation, nursery work, deadwood utilization and marketing.

Great attention must be paid in recruiting laborers. Creating employment opportunities may attract many people and priority has to be given to employing local labor forces so that the multiplier effect takes place. A certain amount of vacancies has to be reserved for laborers coming from villages which have already concluded the PCFMA. Their recruitment has to be based on clear conditions and time limits so that as many villagers as possible can benefit from the employment and training opportunity.
Annex 3

Forestry Department

Organization Chart
Project Proposal

Implementation of Community Forestry Management
within the Framework of the
Gambian Forest Management Concept

Forestry Department
March 1995
1. Project description

Goal

"The forest resources are managed in a sustainable way within the framework of the Gambian resource policy."

Project purpose

"Implementation of Community Forestry Management within the framework of the Gambian Forest Management Concept enabled nationwide"

Results

1. A general sensitization campaign on community forestry is implemented.
2. A Community Forestry Task Force (CFTF) is set up.
3. Preliminary Community Forestry Agreements (PCFMAs), covering a forest area of 100,000 ha, are signed.
4. Community Forestry Agreements (CFMAs), covering a forest area of 60,000 ha, are signed.
5. A permanent and sustainable structure is established by the Forestry Department to support community forestry management.

Proposed duration of project: 7 years.

Estimated project costs:

From Donor: US$ 3,847,000
From GOTG: US$ 280,000

Total: US$ 4,127,000

Estimated personnel requirements:

Forestry staff: 2,034 PM; Long-term TA: 84 PM; Short-term TA: 22 PM; Peace Corps: 756 PM; European Volunteers: 360 PM; NGO: 900 PM.
2. **Background**

The vast majority of the Gambian population depends on natural resources and especially on forest products. Therefore the rapid degradation of gambian forests constitutes a threat to the country's development. The main cause of forest destruction is mainly resulting from forest degradation rather than from forest clearing. There are still about 453,400 ha forest area which are covering 43% of total land area. However most of it or about 75% is already in a poor condition and is classified as a tree and bush savanna which has less than 10% tree cover (see annex 1).

Human activities are mainly responsible for forest destruction through bushfires and uncontrolled tree felling. Bushfires are certainly the most important cause of forest degradation. Using satellite imagery an USAID funded study has shown that most of the forest area is burnt on a yearly basis. Such fires do not only fully destroy the natural regeneration but also larger trees, thus gradually impoverishing forest stands. Fires are either set intentionally to clear the land for agricultural production or to kill trees to extract dry firewood, or they are set unintentionally due to the lack of people awareness.

A recent population census (1993) has shown that The Gambia has a population growth rate 4.1% per annum, one of the highest in the world. Thus the population will more than double in the next 20 years while forest stock will be reduced by half in the next 10 years (over 5% deforestation rate per year) or by three quarters in the next 20 years unless actions are taken.

This deforestation generates environmental degradation with, in addition to the depletion of natural resources and the decline in biodiversity, major direct economic consequences:

- loss of soil fertility through soil erosion and poor rainfall retention has led to decreased crop yields and expansion of crop area;
- the displacement of livestock onto marginal lands has resulted in poor animal nutrition and lower milk and meat production;
- decreased rainfall and massive runoff have allowed deeper salt intrusion, thus reducing the suitable areas for rice cultivation.

The Government of The Gambia has recognized the problems of resource degradation and has taken steps to address them. By mid-1985 the Government instituted an Economic Recovery Program (ERP) which aimed to reverse these negative economic trends towards positive stability and development. To consolidate the gains made by the ERP the Government recently introduced a 10-year Program for Sustained Development (PSD) which is designed to "achieve a long-run expansion of the productive capacity of the economy that will support improvement in the living standards of the Gambian population ... that does not compromise the welfare of future
generations either by increasing onerous debts or despoiling the environment". One relevant environmental policy objective of the PSD has been stated as follow:
"To address the task of environmental protection, including the issues of deforestation, soil management and solid waste disposal with renewed vigour and improved technology."

Within the framework of the PSD, the government elaborated and adopted in 1992 the Gambian Environmental Action Plan (GEAP) which defines broad environmental policy objectives and strategies of implementation. The GEAP provides the basic framework for a sound and sustainable management of The Gambia's environment and natural resources.

Although The Gambia has recently experienced some political changes, the new Government has already reiterated its support to programs especially designed to alleviate poverty among the rural population.

Shortly after the GEAP, the former Ministry of Natural Resources recognized the need to develop a new forest policy which would be in line with the environmental and socio-economic policy objectives of the country's program for sustained development. The new forest policy has been already drafted and is awaiting cabinet approval. This policy has been also designed to recognize and contribute to the poverty alleviation effort of government by calling for the involvement of the private sector and local communities in the management and development of a healthy forestry sector.

The forestry sector in The Gambia is undoubtedly beset with a considerable number of problems like most other west african countries. However, The Gambia has strong assets which should enable the country to reverse the trend of forest degradation.

There is a strong government commitment to manage and restore natural resources in The Gambia, as the very complete policy framework elaborated in the past years shows. This favorable policy environment contributes to the elaboration of clear strategies.

The new forest policy was prepared on the basis of ten years of extensive field experience gained through the implementation of pilot projects in forest parks and community forestry. Thus policy statements are based on solutions that already exist; objectives set in this policy are realistic and could be achieved with sufficient initial funding.

The involvement of local population is the main pillar of the new forest policy. Population participation in community forestry have been tested very successfully in around 12 villages in the Western and Lower River Division. The basic principle is to transfer the ownership rights of the resources to the community through a Community Forestry Management Agreement (CFMA). This agreement is subjected to some conditions such has the management of the forest according to a simple management plan developed in collaboration with the villagers. Since the introduction of these CFMA the concerned areas have no longer been burnt and illegal felling has been completely stopped. This indicates the population's genuine concern and
understanding of the value of natural resources on which their existence absolutely depends.

For this reason the Gambian Government has decided to expand the community forestry program to achieve a nationwide application of this forest management system.

To ensure the success of this forest policy strategy a new forest legislation will be prepared to support the new objectives within a more relevant and coherent framework. This legislative process should last about two years until its planned enactment in 1996.
3. Project purpose

The project purpose is:

"Implementation of Community Forestry Management within the framework of the Gambian Forest Management Concept enabled nationwide."

It has been estimated that about 240,000 ha of forest should be kept under management in order to maintain a forest cover that would both preserve the environment and supply forest products in a sustainable way for the Gambian population. This represents 53% of the area that has been classified as "forest" after the national forest inventory of 1983. Therefore, except for some areas located close to the main urban centers, competition for land should not be a major obstacle to the realization of the goal set in the forest policy.

However, up to now only 20,509 ha of forest land, or 8.6% of the target, are under management or protection (see annex 2). The solutions that should lead to the realization of the aim have been developed and formulated in a Gambian Forest Management Concept (GFMC) using the broad experience gained by FD/GGFP. But the implementation work will need additional human and financial resources.

Therefore, this project is designed to overcome the constraints set by the limited resources and to mobilize all the capacity available in the country to ensure, as soon as possible, the management of these forests.

The project supports fully the GFMC implementation. It should be recalled at this point that the GFMC foresees the development of forest parks (about 17,000 ha), as demonstration and training centers, and of community forestry, on a large scale (about 200,000 ha), in an integrated implementation (see GFMC document, annex 3).

This integration is necessary as the introduction of community forestry management can only be efficient and successful if the management of forest parks is taking place at the same time in not too far distances (less than 50 km) from the potential Community Forest Reserves (CFRs). Then, the managed forest parks will form a nucleus, with a technical and an administrative role, around which CF can be developed and supported.

Among the 5 divisions in The Gambia, the Western and the Lower River Divisions have almost an adequate number of managed forest parks. Forest parks will be most probably developed in the MacCarthy Island Division in the near future through the assistance of the German technical cooperation. The North Bank and the Upper River Divisions have at the moment only limited activities going on in the forest parks. Therefore, demonstration and training in the context of introducing CF are quite limited. For these last two divisions and to a limited extend for the LRD, donors should be contacted and encouraged to participate to the implementation of the GFMC.
The project approach is designed to achieve a countrywide involvement of the rural population in forest management and protection within a minimum time (5 to 7 years), and with minimum personnel inputs. This approach is justified by the rapid deforestation rate that may leave little forest to manage if implementation delays are too long.

The main indicators of achievement towards the project goal are:

- by 1998 the gambian population is aware of the community forestry management concept;
- as soon as the PCFMAs are signed no more illegal felling will take place in the community forest reserves (100 000 ha);
- during the initial implementation period the frequency of bushfires will be reduced and after three years (signing of the CFMA) of management activities bush fires occurrence will be exceptional;
- after 10 years of forest management a closed forest canopy is achieved through natural regeneration and enrichment planting in the selected areas;
- the Community Forestry Unit is adequately staffed and is operational in all divisions.
- villagers and NGOs are qualified to implement sustainable forest management activities.

This project should contribute to the following goal:

"The forest resources are managed in a sustainable way within the framework of the Gambian resource policy."

With this goal the project is in line with government of The Gambia (GOTG) environmental policy (GEAP) and contributes to the fulfillment of forest policy objectives.

In the long-term this project will provide a better and safer environment as well as a better supply of forest products to the whole Gambian population.
4. On-going interventions

The Gambian Environment Action Plan, in a Technical Cooperation Package (TCP), has elaborated strategies of intervention in various natural resources and environment sectors. Although most of these have yet to receive funding, a National Environment Agency has been created under the office of the President which will assist and coordinate the implementation of various natural resource interventions.

Prior to the elaboration of the GEAP, the Department of Forestry, with assistance from GTZ, has been engaged in the implementation of various forestry interventions since 1979, including a national forest inventory in 1983, species site trials, natural forest management, community forestry, training, forest policy and forest legislation development. Models have been successfully developed for the management of natural forests in forest parks and in community forest reserves in the Western Division and Lower River Division. These have been in addition to governments public awareness campaigns on tree planting and fire prevention, forest plantation development and management and staff development.

A feasibility study has been sponsored by the Federal republic of Germany to assess the needs of the Department of Forestry for both financial and technical assistance to replicate the Gambian Forest Management Concept in forested areas in the MacCarthy Island Division (MID). It is planned to manage 7230 ha of forest parks and about 11000 ha of community forests. Project start is targeted for early 1996.

In 1993 a five-year USAID/Gambia Government Agriculture and Natural Resource (ANR) project was launched which is designed to examine policy needs, manpower development and limited resource surveys for the Ministries of Agriculture and Natural Resources. This project has an NGO grant component for funding NGO activities in Community Resource Management. Within the scope of the ANR-program an aerial photography survey was made in December 1993 providing up-to-date information about natural resources. However, this project was abruptly terminated in December 94 following a US government decision.

The World Bank and the International Fund for Agricultural Development (IFAD) launched an Agricultural Services Project (ASP) in February 1994 in the Ministry of Agriculture. The objective of this project is to boost agricultural productivity. The project will train polyvalent extension agents so that other environmental and natural resources concerns are also taken into account during agricultural production. It also includes an institutional strengthening component.

The UNDP has supported an integrated "rangeland and water development project" which has introduced a controlled rangeland management within forested areas. Results of this project are highly relevant for the multi-purpose use of forest resources.

The EU is financing a regional program on the introduction of butane gas as an alternative to fuelwood. The substitution of firewood by butane gas should reduce the demand for traditional energy and therefore the exploitation rate of forest resources.
The EU is also funding forestry activities such as the fencing of Jeloki forest park within its "U.R.D. integrated program".

It has been the Gambia-Government policy to encourage the prudent involvement of the Non-Governmental Organizations (NGOs) in its national development efforts. A few NGOs are therefore involved in the natural resource sector, mainly in tree planting, public awareness and soil and water conservation. The Forestry Department and GGFP will continue to actively involve the NGOs in their activities.

5. Project activities and their outputs

5.1 Brief description of project methodology

5.1.1. General sensitization on CF:

Prior to the countrywide launching of the community forestry program, a massive extension campaign should be prepared and implemented using the most popular medias. The most adequate media is certainly the radio. Some radio programs have already been developed by the FD/GGFP to that effect.

The FD has already an extension unit which could take up this extension campaign in collaboration with the CF Unit.

NGOs are already present in a large number of villages and they could provide a very effective way of disseminating the extension messages during their usual contacts with the communities. To gain their participation, NGOs should be sensitized and kept informed about GFMC development at frequent and regular intervals.

Series of workshops should be organized at divisional and district level with the local authorities on a regular basis to gain the support of commissioners, chiefs and alkalos.

Finally, the ministry of education should be contacted to introduce the GFMC, and in particular CF, in the already existing environmental subjects to reach as many schools as possible.

Such a campaign will enhance the awareness of the gambian population on the CF issue. Furthermore, the villagers will be, to a certain extend, already informed about CF principles and benefits before they will be approached by CF staff. Their awareness will certainly contribute to swifter conclusions of CF agreements.

5.1.2. Setting-up of the CF Task Force:

Due to the rapid degradation of the forest cover in The Gambia, the GFMC recommends, beside the development of forest parks and as fast as a certain efficiency will allow, to extend community forestry management countrywide through
the preparation and the conclusion of Preliminary Community Forestry Agreements (PCFMA).

These agreements require at the initial stage an important sensitization work to reach a common understanding among the population and between the local authorities and the Government.

The responsibility of this task could be given to "extensionists" who would work in teams of two persons. According to FD/GGFP experience one extensionists team can contact and involve about 20 villages in one year, considering that it will visit one village every two weeks and that six months are necessary until the PCFMA is signed. During these 6 months the teams will develop in collaboration with the villagers a work plan to be attached to the PCFMA. A simple work plan is necessary to ensure a clear understanding of the responsibilities during the transition period up to the signature of the CFMA.

This type of work requires qualified and highly motivated people. If the implementation of CF should be promoted countrywide at a fast rate, it will be of prime importance that the extensionists will concentrate on this task only, in order to reach the maximum number of villages as possible. They should also work along the guidelines set by the Forestry Department to achieve an homogeneous CF management throughout the country.

Due to the above reasons and for the sole purpose of introducing the PCFMA in a first stage, it is proposed to create a "CF Task Force" (CFTF) of around 10 extensionists, or 5 teams, who should be grouped in a local consulting company or a local NGO.

For a matter of efficiency it would be advisable to recruit and train this staff according to the criteria set by the FD/GGFP rather than to enter in an agreement with an NGO and to train its staff for the specific need of introducing PCFMA (the role of well established NGOs will be explained later). This procedure will ensure a necessary consistency in CF management as the extensionists will be trained and subcontracted by the FD/GGFP. Delays will be minimized and success maximized due the common understanding of the CF approach developed by the FD/GGFP.

To ensure a certain degree of continuity, the FD staff (Forest Ranger, Forest Guard) who will take in charge the CF villages after the signature of the PCFMA (see 5.1.3.) should participate to the sensibilization work of the CFTF right from the beginning.

On the average a village will be managing around 200 ha of CFR. Generally other forests surrounding or close to the CFR will benefit from the CF activities. The area of these forests is often more important or at least equivalent to the one of the CFR. Therefore one team could contribute to the protection of at least 8 000 ha of forest (4 000 ha CFR (20 villages with 200 ha each) and 4 000 ha other forests) per year.

If the objectives defined above are met, the CFTF would be able to get around 20 000 ha of future CFRs and about the same area of other forests under protection within
one year. At that rate, a countrywide introduction of the PCFMA could be achieved within 5 to 7 years.

5.1.3. Strengthening of CF up to the CFMA award:

The CFTF, with a relative small staff, could achieve a major break through in the forestry sector and a very important step in the sustainable implementation of CF. Of course this first step should be followed by adapted measures to strengthen the CF committees.

The PCFMA, once achieved, is seen as a mean to sensibilize the villages population on CF management and to evaluate their involvement and their understanding on this issue. After a maximum period of three years and after a positive evaluation of their commitment and their achievement in protecting their forests, the PCFMA will be automatically upgraded in a Community Forestry Agreement (CFMA) which grant them the ownership rights of the forest resources.

During this transition period a careful monitoring and technical support should be provided by a joint CFMA-team composed of one extensionist and one FD officer. This team should be in a position to conclude a CFMA with the villagers within 3 years. This time will permit to strengthen the necessary village structure (forest committee), to survey and demarcate the future CFR and to implement the work plan. It is planned that such a team could take care of 20 villages for this given period of three years.

Assuming that one CFTF-team will conclude 100 PCFMAs in 5 years, then 5 CFMA-teams will be required to ensure the follow-up of these villages. Thus the 5 CFTF-teams will create work for 25 CFMA-teams within 5 years (see implementation table, annex 4).

To meet these requirements the FD will have to provide 5 officers per year during 5 consecutive years for a total staff of 25 permanent officers for the CF in The Gambia. The civil service might not be in a position to create a sufficient number of positions to fulfill this need in this relatively short period of time. It is therefore proposed to involve the Peace Corps volunteers who are already working with the FD to bridge the gap. About 35 volunteers are presently posted throughout the country and are assigned to agro-forestry activities. On the other hand it will be strongly advisable to convince the gambian government to continue its policy to recruit at least 5 Forest Guards a year for the next 10 years to cover the need for both the forest park and the CF management.

According to 5.1.4. hereunder, 15 additional extensionists (10 for two 3-year contracts and 5 for one 3-year contract) will be needed to support the villagers and the FD staff up to the signature of the CFMA.

To fulfill the extensionists staff requirement, existing NGOs could be contacted to take up this role or new personnel could be trained and integrated in the planned structure of the CFTF. In any case training is essential.
Ideally, one member of the CFTF-team should remain in the region and become member of the CFMA-team. He will be then replaced in the CFTF-team by a new intake who will continue to implement the PCFMA with the experienced CFTF-team member. This procedure will have the advantage to ensure an element of continuity in the process. It is important to build up a relation of confidence with the population. Such confidence could be affected if CF staff is changing too often.

5.1.4. Consolidation of CFMA:

With the signature of the CFMA the ownership of the forest resources will be granted to the communities. While it is a significant step, appropriate forest management systems need to be further developed and properly understood by the villagers.

The approval of a CFMA is certainly not the final stage of CF implementation. Once the communities are empowered with the ownership of their forest resources, they still need further assistance to consolidate their village structure and to start to manage (and use) their resources on a sustainable basis. The advisory role of the FD will play an important role in this process. Furthermore, ownership rights are also bound to some obligations that have to be properly and regularly monitored.

To reduce costs, the extensionists of the CFMA-team will phase out after 3 years or once the CFMA are concluded, leaving behind the FD staff on a permanent basis for further support to the villages. The manpower requirement for 100 villages is 5 FD officers, thus 25 officers countrywide.

However, even if the number of extensionists can probably be reduced once the population has gained sufficient understanding and confidence in CF management, it is certainly advisable to keep about two experienced extensionists per division, or 10 extensionists for the all country, on a long-term basis (10 years) to provide assistance to FD staff for conflict solving duties. These extensionists should be selected among the experienced CFTF or CFMA-teams as they will be the most qualified to take up this duty.

The relatively large staff posted in the division will require an efficient CF section at divisional level to enable a good flow of information and a good coordination between the divisional headquarters and the fieldworkers. Each of these sections should be headed by a Senior Forest Ranger and in a later stage by a Forest Officer. To help to build up these sections the European Volunteer Program (EVP) or the DED could be contacted to recruit 5 foresters, one per division, to ensure with their counterparts a coordinating function among all the villages but also at a national level. The expatriate personnel should be put in place preferably at the beginning of the program implementation but not later than towards the end of year 2 and should remain in post for at least 4 to 6 years. They should be in a position to provide a substantial support to the elaboration of management plans, as the consolidation of CFMAs will require a high technical input.
5.1.5. **Long term CF management and supervision:**

Throughout and after the CF implementation program the FD staff will remain on the ground without changes in number. After a period of 10 years after the CFMA implementation, it is assumed that the most important conflicts will be solved and a reduction of the number of long-term extensionists could be adjusted to keep only one of them per division on a permanent basis.

The integration of these permanent extensionists in the Forestry Department could be envisaged.
5.2 Outputs and activities

Output 1:

A general sensitization campaign on community forestry is implemented.

Indicators:

- By 1998 about 80% of the Gambian rural population is aware about community forestry management and its benefits.

Activities:

1.1 Creation of radio programs.
1.2 Sensitization of NGOs to disseminate extension messages to the villages.
1.3 Organizations of workshops at divisional and district levels.
1.4 Development of teaching materials on environmental and CF subjects for schools.
1.5 Development of griot songs in the main local languages.

Output 2:

A Community Forestry Task Force (CFTF) is set up.

Indicators:

- Ten extensionist are recruited and qualified to introduce community forestry management throughout the country.

Activities:

2.1 Recruitment of extensionists.
2.2 Development of training material.
2.3 Training of selected extensionists.
2.4 Creation of a structure to support the extensionists.
2.5 Procurement of equipment-necessary to the CFTF.
Output 3:

Preliminary Community Forestry Agreements (PCFMAs), covering a forest area of 100 000 ha, are signed.

Indicators:

- Around 500 PCFMAs are signed.
- The forests under PCFMA are no longer subject to illegal felling and bushfire occurrence is very rare.
- The work plans are readily available.
- Forest activities are implemented according to the work plans.

Activities:

3.1 Sensitization of villages on PCFMA.
3.2 Identification of community forests.
3.3 Preparation of applications for the PCFMA.
3.4 Elaboration of work plans.
3.5 Awarding of PCFMAs to qualified villages.

Output 4:

Community Forestry Agreements (CFMAs), covering a forest area of 60 000 ha, are signed.

Indicators:

- At the end of project phase around 300 CFMAs are signed.
- Forests under community forestry agreements are no longer subject to illegal felling and bushfire occurrence is very rare.
- The managements plans are readily available.
- Forest activities are implemented according to the management plans.

Activities:

4.1 Demarcation of Community Forest Reserves suitable for community forestry.
4.2 Ensuring of training of required forestry and NGOs staff.
4.3 Identification of potential NGOs for CF implementation (signing of MoU).
4.4 Support to the strengthening of village forest committees.
4.5 Adaptation of community forestry guidelines to the local conditions.
4.6 Awarding of CFMA to qualified villages.
4.7 Training of villagers in forest management.
4.8 Development of community forestry management plans.
4.9 Organization of controlled grazing.
4.10 Organization of village nurseries.
4.11 Implementation of planned activities (enrichment planting, thinning, deadwood utilization, etc.).
Output 5

A permanent and sustainable structure is established by the Forestry Department to support community forestry management.

Indicator:
- The Community Forestry Unit of the Forestry Department is adequately staffed.
- NGOs are supporting community forestry management.

Activities:

5.1 Training of 5 Forest Rangers per year.
5.2 Training of 5 Senior Forest Rangers.
5.3 Training of 2 Forest Officers.
5.4 Creation of positions in the Forestry Department to accommodate CF staff.
5.5 Employment of permanent extensionists at divisional level.
5.6 Training of NGO staff.

5.3 Time plan

The first project phase should take 7 years. A project start could be planned for January 1996. Depending on the results achieved during this first phase, a project extension to further promote community forestry should be considered.

6. Project implementors

6.1 Legal aspects, duties, responsibilities.

Within the Ministry of Agriculture and Natural Resources the Forestry Department is responsible for the management of forest parks, the enforcement of forest legislation, for issuing forest exploitation licenses and for awarding Community Forestry Agreements (CFMA). Village committees supported by forestry, NGOs and other organizations staff are responsible for community forest reserves.

6.2 Organizational structure of the Forestry Department.

The Forestry Department has been recently reorganized (January 1995) and is subdivided in four units: technical, natural forest management, extension and community forestry (see annex 5). The natural forest management and the community forestry units are represented in each of the five divisions and actually represent the Department in these divisions. They are headed by forest officers supported by a varying number of forest rangers, forest guards and scouts.
The staff of the Forestry Department is 146 among whom 112 are civil servants. Among the 17 senior officers 12 have a professional education, 3 have M.Sc. and 4 have B.Sc. degrees. The others are holding a diploma degree. Forest rangers, guards and scout have received no technical training except for the first five forest guards who have graduated in September 1994 from the GGFP training course. For the last four years all new forest guards have completed "O" levels to enable, when possible, further academic training.

It should be noted that most of the professional staff is working or has been working with the GGFP and have gained a sound knowledge about natural forest management and community forest management. GGFP staff has been recently fully integrated in the departmental structure.

Despite the harsh economical constraints for staff recruitment within the civil service 30 positions have been approved on behalf of the Forestry Department for a period of 6 years (5/year). This personal is of utmost importance for project implementation. Efforts are currently made to recruit more staff to meet future needs.

As opposed to many forestry departments in West Africa, The Gambia does not have an entrenched forest service that has engendered deep resentment among local populations through repressive measures. Thus, well managed and organized training can be extremely beneficial for progress in the forestry sector.

6.3 Budget and revenues

The total recurrent budget allocated to the Forestry Department for financial year 93/94 was Dal. 1.6 Mio. About 70% of this budget is spent on salaries and wages and about 7% on vehicle maintenance and operation. The yearly revenue derived from licenses, permits, royalties and the sale of confiscated product in 92/93 was Dal. 312,000. These revenues are paid to central government. Since these financial means are obviously insufficient to implement forest activities, most of the Department’s development work is donor-supported. However, the new forest policy incorporating the creation of a national forestry fund should improve the financial situation of the Department and ensure the sustainability of its operation.

6.4 Need for financial and technical support

It is clear that the Forestry Department is not yet in a position to finance the implementation of the GFMC countrywide without external assistance. Until its financial condition can be improved, its contribution will be limited to providing qualified technical staff for forest activity implementation. However, this type of project will require some technical assistance for the community forest management.
7. Expected project benefits

The project should contribute to a nationwide improvement of the overall situation in the sector of natural resources by strengthening the Forestry Department, local communities and NGOs. It will encourage the Gambian Government to continue the implementation of reforms formulated in its policies framework.

At the end of this project local capacity will be build up to a level which will ensure a sustainable forest management and an improved environment.
8. Project funding

Total amount of funds required by this project are estimated at $ 3 847 000.

Tentative budget (in US$)

<table>
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<tr>
<th>Financial assistance</th>
<th>Amount (US$)</th>
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<td>Training of FD staff:</td>
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<td>Inflation/physical contingencies (10%):</td>
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**Total financial assistance:** 2 450 000

Technical assistance

Long-term technical assistance (TA)

- 1 community forester, 7 years: 1 025 000

Short-term technical assistance

- Training of trainers in CF approach, 6 months: 100 000
- Adapted forestry technic, 2 months: 35 000
- Adapted forest management planning, 3 months: 50 000
- Management of CF funds, 1 month: 17 000
- Others, 7 months: 120 000
- Evaluation/audit, 3 months: 50 000

**Total technical assistance:** 1 397 000

**Total project assistance:** 3 847 000

Estimated external funding:

- European Volunteers (360 PM): 780 000
- Peace Corps (756 PM): 756 000
Annex 1

Forest Area in The Gambia
### Forest Area in The Gambia

<table>
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<tr>
<th>Division</th>
<th>Total area (ha)</th>
<th>Total forest area (ha)</th>
<th>Tree &amp; Shrub savanna (ha)</th>
<th>Forest Parks area (ha)</th>
<th>Potential Community Forestry area (ha)</th>
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<td>MacCarthy Island</td>
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<td>153700</td>
<td>136600</td>
<td>16996</td>
<td>7550</td>
</tr>
<tr>
<td>Upper River Division</td>
<td>198900</td>
<td>108200</td>
<td>105000</td>
<td>3440</td>
<td>15830</td>
</tr>
<tr>
<td>North Bank Division</td>
<td>211400</td>
<td>51700</td>
<td>38800</td>
<td>2256</td>
<td>3815</td>
</tr>
<tr>
<td>Gambia</td>
<td>52700</td>
<td>453400</td>
<td>347700</td>
<td>32729</td>
<td>32821</td>
</tr>
<tr>
<td>Total Gambia</td>
<td>1114700</td>
<td>453400</td>
<td>347700</td>
<td>32729</td>
<td>32821</td>
</tr>
</tbody>
</table>

Sources: National Forest Inventory, 1983 and GGFP aerial observation

Forest Policy objectives:
- 30% of land area under forest cover
- 75% of forest under management

<table>
<thead>
<tr>
<th>Division</th>
<th>Total land area ha</th>
<th>Policy objective Managed area ha *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Div.</td>
<td>188500</td>
<td>42413</td>
</tr>
<tr>
<td>Lower River Div.</td>
<td>155800</td>
<td>35055</td>
</tr>
<tr>
<td>MacCarthy Island</td>
<td>307400</td>
<td>69165</td>
</tr>
<tr>
<td>Upper River Div.</td>
<td>198900</td>
<td>44753</td>
</tr>
<tr>
<td>North Bank Div.</td>
<td>211400</td>
<td>47565</td>
</tr>
<tr>
<td>Gambia</td>
<td>1062000</td>
<td>238950</td>
</tr>
</tbody>
</table>

* assuming an even distribution of forest area
Annex 2

On-going Forest Management Activities
1. **On-going forest management activities by division:**

The objective of the new forest policy is to maintain 30% of the land area under forest cover and to manage 75% of this area on a sustainable basis. A distribution of the forestry cover per division (National Forest Inventory 1983) as well as estimated potential community forestry area is given in annex 1.

A breakdown of managed or protected forest areas per division is given hereunder. Only the forests under active management or protection are listed. This list does not include areas that are legally reserved but do not benefit from such management due to insufficient funding or staffing.

### 1.1. Western Division:

<table>
<thead>
<tr>
<th>Forest Parks:</th>
<th>Name</th>
<th>Area (ha)</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bama Kuno</td>
<td>1092</td>
<td>FD/GGFP</td>
</tr>
<tr>
<td></td>
<td>Katilenge</td>
<td>407</td>
<td>FD/GGFP</td>
</tr>
<tr>
<td></td>
<td>Bijilo</td>
<td>51</td>
<td>FD/GGFP</td>
</tr>
<tr>
<td></td>
<td>Pirang</td>
<td>60</td>
<td>FD/GGFP</td>
</tr>
<tr>
<td></td>
<td>Nyambai</td>
<td>202</td>
<td>FD - Gmelina plantation</td>
</tr>
<tr>
<td></td>
<td>Nyambai/Bamba</td>
<td>389</td>
<td>FD - &quot;</td>
</tr>
<tr>
<td></td>
<td>Kabafita</td>
<td>243</td>
<td>FD - &quot;</td>
</tr>
<tr>
<td></td>
<td>Furuyar</td>
<td>488</td>
<td>FD - &quot;</td>
</tr>
<tr>
<td></td>
<td>Salagi</td>
<td>312</td>
<td>FD - &quot;</td>
</tr>
<tr>
<td></td>
<td>Finto Manereg</td>
<td>1106</td>
<td>FD - &quot;</td>
</tr>
</tbody>
</table>

Total 4350

% of total forest parks in the WD: 100%

Community Forestry: 1374 ha

Others: Abuko 105 ha, Wildlife & Conservation
        Tanji 400 ha

Grand total: 6229 ha or 15% of forest policy target
1.2. **Lower River Division:**

<table>
<thead>
<tr>
<th>Forest Parks: Name</th>
<th>Area (ha)</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutaro Kunda</td>
<td>803</td>
<td>FD/GGFP</td>
</tr>
<tr>
<td>Brikama</td>
<td>357</td>
<td>FD/GGFP</td>
</tr>
<tr>
<td>Faba</td>
<td>517</td>
<td>FD/GGFP</td>
</tr>
<tr>
<td>Kaiaf</td>
<td>28</td>
<td>FD/GGFP</td>
</tr>
</tbody>
</table>

Total 1705

% of total forest parks in the LRD: 30%

Community forestry: activities just starting in 2 villages

Others: Kiang Nat. Park 11000 ha Wildlife & Conservation

Grand total: 12705 ha or 36% of forest policy target

1.3. **MacCarthy Island Division:**

No management activities on-going

Others: Baboon Island 579 ha Wildlife & Conservation

Grand total: 579 ha or 0.8% of forest policy target

1.4. **Upper River Division:**

<table>
<thead>
<tr>
<th>Forest Parks: Name</th>
<th>Area (ha)</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeloki</td>
<td>872</td>
<td>FD/EDF</td>
</tr>
</tbody>
</table>

% of total forest parks in the URD: 25%

Grand total: 872 ha or 2% of forest policy target

1.5. **North Bank Division:**

No management activities on-going

Community Forestry: 124 ha.

Grand total: 124 ha or 0.3% of forest policy target
1.6. **Total managed forest for The Gambia:**

Total forest parks: 6927 ha or 21% of total forest parks in The Gambia (32 730 ha)

Total forest under conservation: 12084 ha

Total community forestry: 1498 ha

Grand total: 20509 ha or 8.6% of forest policy target
Annex 3

Gambian Forest Management Concept (GFMC)
THE GAMBIAN FOREST MANAGEMENT CONCEPT (GFMC)

1. Summary

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 is 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 actions. If these actions fail 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 cause vital negative impacts on the welfare of the Gambian population.

Since 1984 the Forestry Department has established 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. All in all 66 forest parks exist in The Gambia covering an area of approximately 34,000 ha out of a total forest area of over 350,000 ha. However, despite the necessity of developing a network of managed forest parks throughout the country, it has been 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.

At a very early stage of developing the model, it was been realized that the only way to stop forest destruction and to sustainably manage forest resources is to involve the local population. However, at that time, conditions did not allow the introduction of community forestry. At the end of the 80's these framework conditions became more favorable, and a community forestry model has been developed and is being tested with very encouraging results.

Forestry activities are interrelated with farming activities including livestock husbandry, and so 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 in order to recognize and understand those linkages, and to take-up necessary actions aiming at restoring the balance. This calls for an integrated approach which is beyond the mandate of the Forestry Department. Thus, assistance is necessary at both levels the execution and the implementation.

In The Gambia, there are various NGOs (both national and international) and government agencies (in part foreign assisted) which could provide the desired assistance. Among others, to mention are: Action Aid The Gambia, Save the Children Foundation/USA, Catholic Relief Services, The Gambia Family Planning Association (all multi-disciplinary), Peace Corps/The Gambia (agro-forestry, environmental education), the Gambian-German Family Planning Project, the Soil and Water Management Unit (erosion control, agro-forestry) under the Department of Agricultural Services, and the ITC Project (improved livestock husbandry, controlled grazing systems) under the Department of Livestock Services.
On the other hand, besides financial constraints, the rate of deforestation (6% per year) 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 Forestry Department has decided to develop a simplified approach to community forestry in order to cover a larger area with a limited number of staff. Also, this simplified approach has 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 done by the Forestry Department. Some of them are already participating in community forestry activities.

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 new forest policy of The Gambia aims at managing 75% of the forest cover. It is foreseen to develop some 17,000 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 forest reserves. Currently, there are some 5,000 ha of forest parks and some 1,200 ha of community forest reserves under management.

To achieve this target based on the experience of the Forestry Department and the Gambian-German Forestry Project, the Gambian Forest Management Concept (GFMC) has been developed which merges both above mentioned models. Also, this concept aims at creating 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 center of managing the Gambians' forest resources. Consequently, its introduction has to follow participatory approaches so that local people are fully involved in planning, decision making, organization and administration. The introduction initiates socio-cultural, economic, and ecological transformation processes which do not perform linearly. Therefore, intervention planning and implementation must 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 paternalism, creating problems, and devaluing resource management objectives.

The continuing forest devastation process does not allow the expenditure of more time on conducting comprehensive investigations, studies, and planning procedures. Instead, the GFMC needs to be rigorously introduced with the aim of transferring the management responsibility of as much forest land as possible to adjacent communities through preliminary community forest management agreements. Thereby, existing forest parks have to be considered as means to an end or as nuclei in which appropriate management systems are developed, tested and demonstrated and then adapted to the surrounding forests.
2. The Nucleus Concept

Gambian forests are unevenly distributed throughout the country. They fulfill 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 savanna, 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.

The forest stations are ideally to be located within a cluster of forest parks surrounded by other forest lands. 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 serve as a means to an end in order to bring the remaining countries forest resources under controlled management. They should not be seen in isolation, but are an important element of and fully integrated into the GFMC.

The GFMC distinguishes four different forest categories according to management responsibilities:

- **Forest Parks (FPs):** the management concept has been developed. However if new experience is gained, the concept needs to be further refined.

- **Community Forest Reserves (CFRs):** a first CF concept has been developed and successfully tested during the CF pilot scheme within the Western Division. Based on the experience gained, the concept is being improved and further developed. Likewise, specific approaches that may be necessary in other areas require further development.

- **Open Access Forests (OAFs):** the management objectives have been defined. The management systems, however, have not yet been developed.

- **Protected Areas (PAs):** they are under the responsibility of the Department of Wildlife and, therefore, not directly subject to the GFMC. The management of National Parks and Nature Reserves is regulated by the Wildlife Conservation Act of 1977. According to this act, any form of forest exploitation and utilization is strictly prohibited. The following national parks and wildlife reserves exist in The Gambia:

  - Abuko Nature Reserves 105 ha
  - Baboon Island 579 ha
  - Kiang West National Park 11,000 ha
  - Niumi National Park 4,900 ha
  - Tanji Bird Reserve 400 ha
  - Baobolong Wetland Reserve 20,000 ha

  **Total** 36,984 ha
3. Management Objectives and Forest Functions

**Forest Parks**

In the past, the objectives of FP management were more oriented towards the production of forest products in order to supply the local and urban markets. FP management as integral component of the GFMC since 1989, the objectives have been re-oriented towards community involvement by considering the interests of both the government representing the entire population and the local population.

Therefore, and except for special functions such as dune stabilization, wood production (plantation forests), etc., management objectives have to respond to the local people's needs and demands as well. Depending on the particular situation of a FP or parts of it, the following management objectives can be distinguished:

- research and development;
- training and demonstration;
- production of timber and firewood;
- accessibility for ecotourism; and
- protection of rare habitats.

Research and development should not only focus on the development of silvicultural or management solutions for FPs; this is equally important to CFR and OAF management. It is the major task of the FD to assist and advise the local population on potential silvicultural solutions based on their priorities. Since CFR compared to FP management might focus more on the production of minor forest products (e.g. oil palm kernels, rhun palm leaves, bee keeping) than on wood, the required silvicultural options and technical solutions must be developed, too.

Promoting FPs as nuclei for developing locally adapted forest management systems, demonstration and training deserves the highest priority in ranking the objectives and justifies the comparatively high initial investment cost. The other objectives justify that FPs are not only needed temporarily until CFR and OAF management systems are established. Rather, their long-term existence lies in the national interest which is the protection of rare habitats and timber and fuel wood production with the priority of satisfying the local markets.

Of the 66 existing FPs covering an area of some 34,000 ha, it is estimated that at least 17,000 ha are needed for demonstration and training purposes. The remaining FP area shall be managed according to the other management objectives. Criteria which FP shall serve for the one or other purpose may include site conditions, spatial distribution, mere protection functions, population density and distribution, etc..

**Community Forest Reserves**

The objectives of CFR management have to be oriented towards the needs and demands of the people who are responsible for managing the forest or who own it. CFR management, therefore, aims at generating the most socio-economic benefits in the view of the managers within the framework of the national forest and environmental policy, the forestry legislation and regulations. Consequently, the spectrum of management objectives are wider compared to that of FPs. Depending on the particular condition of the CFR, the traditional use and users, and villagers' needs and demands, one or several of the following management objectives or even others may be identified by the community:
- production of timber and fuel wood
- production of forest by-products such as fruits, nuts, fibers, resin, leaves, etc.
- fodder production
- game production
- tourism especially bird watching
- mere protection and conservation for future benefits

Conflicting management objectives need to be prioritized or the management activities need to be spatially separated in order to achieve the individual objective.

In most cases, CFRs will have to fulfill multiple functions in order to cover the villagers' basic needs and to generate additional income through the sale of both wood and non-wood forest products.

Open Access Forests

OAFs are currently managed by applying the licensing system. This system must be urgently improved as the exploitation is not linked to the forest condition. Within the OAF areas there may exist some rare forest types or extremely fragile sites which need to be protected. At present, OAFs are the major source of forest products for the rural population as well as the primary grazing areas. OAFs are being converted to CFRs.

Consequently, the management objectives include:

- production of timber and firewood;
- production of forest by-products such as fruits, nuts, fibers, resin, leaves, etc.
- fodder production
- protection of rare habitats; and
- conversion (land reserve for agriculture)

Forest Functions

Management activities directed to achieve the above mentioned objectives should not interfere with the ecological and socio-economic functions of all Gambian forests, in particular with

- prevention of soil erosion;
- maintenance of the water retention capacity;
- conservation of flora and fauna;
- stabilizing climate and CO₂-equilibrium; and
- supply of minor forest products for the benefit of the local population.

The management options have to be generally developed to achieve these objectives and to fulfill the above mentioned functions. Socio-economic acceptance, risk minimization, stability and long-term economic sustainability have to be the guiding factors in developing forest management systems.
4. Forest Management Concepts

**Forest Parks**

During the past 10 years, the GGFP developed a natural forest management concept involving 7 FPs in the Western and Lower River Division. In order to demonstrate the economic value of the forests, 2 semi-stationary sawmill units were established for the conversion of dead wood at the Kafuta and Dumbutu Forest Stations. Both FP management and dead wood processing generate considerable income in the surrounding villages. At the same time the FPs were protected and rehabilitated in a very economic way.

**Community Forestry**

Up to the mid 80's, the general attitude of the local population towards the forests was quite negative. Groundnuts were the only cash crop for the local farmer. For their production, he depended on the practice of shifting cultivation using fire as a cheap and easy tool for clearing. The production of groundnuts competed directly with the forest cover. Forests had always been there and were not used by anybody and did not produce anything valuable for the farmer except for the subsistence use of fuel and minor products. At that time these forest products were still available in abundance and the rural as well as the urban societies did not suffer as yet from any shortages of these. In clearing forests for cultivation, the farmers followed their fathers tradition.

By putting the first FPs under management, it was clear that the Gambian forests could only be conserved if the local population would actively support forest conservation and protection efforts. However, the framework conditions were not conducive to the introduction of this concept.

Fortunately these conditions changed in favor of community forestry. Due to the breakdown of the market prices groundnut production was considerably reduced along with the shifting cultivation practice. Also, for the first time in their lives, the Gambians felt the negative impacts of forest degradation. The supply of rhun splits for house construction dropped almost to nil because of excessive over-exploitation. Firewood had to be produced far inside the country which led to an increase of its market price. Also climatic changes were realized by the people, annual rainfall dropped, droughts became more frequent and severe and the groundwater table sunk. On the other hand, the people close to the forest stations Kafuta and Dumbutu in the meantime had realized the positive effects of natural forest management.

Now, the time had come to actively involve the rural population in forest management. For this purpose the GGFP conducted several studies on the possibility of introducing community forestry in The Gambia. Also the government positively reacted to this development by formulating a sound policy that calls for the involvement of the local people in managing the forest resources and supports the transfer of management responsibilities and even ownership.

An approach and a methodology of community forest management was developed and the first community forest management agreement (CFMA) was signed in 1991 by the village of Brefet. 2 more agreements followed and 8 applications for CFMA were forwarded to the Forestry Department. At present 29 villages take part in the CF program. The effects of introducing community forestry have been extremely positive. All identified and declared CFRs were protected by the responsible communities from fire, and illegal exploitation was immediately stopped.

In brief, the CF approach has been based on the following considerations and comprises:
Local farming practice is based on subsistence. Except for a 2 to 3 year fallow planning for the outer fields, farm development plans do not exist. Even within one cropping period, most farmers do not plan. Thus, many activities are undertaken based on ad hoc decisions and the availability of cash and labor. Although most of the country's surface is flat, the soils are highly susceptible to erosion. Consequently, soil degradation is a serious problem. Therefore, forest management planning must go hand in hand with farm development planning not least in those areas where conflicting interests exist (e.g. livestock husbandry).

Experience gained in other countries as well as in The Gambia has clearly shown that long-term resource development interventions do not work unless they are integrated into general village development. Inter-disciplinary collaboration is a key-element for this kind of approach. This refers to training of villagers, village based land use planning, and identification and propagation of sustainable land use practices which ideally results in a village land use and development plan.

Villagers need assistance in developing a genuinely critical view of their own situation and a realistic assessment of their ability to take-up necessary steps and to implement activities according to the priorities set by them. Therefore, participatory approaches are proposed in which villagers are fully involved in planning, decision making, organization and administration from the very project beginning. This has to go along with adequate training in managerial and also technical skills.

Past experience teaches that many projects failed because, among other things, too high initial direct incentives were granted. Consequently, direct incentives should be generally confined to the successful implementation of long-term resource conservation activities. This especially concerns numerous NGOs and their, in part, charitable activities in The Gambia.

Introducing CF on a large scale would only be feasible step-by-step according to the capacity of the FD in administering projects. Therefore, technical and financial assistance is required to implement the program nationwide. NGOs and other agencies need to be involved which assist the FD in CF project implementation and provide other services which are beyond FD's mandate. Collaborative relationships have to be established at both levels, the executing and implementing. These joint effort have to respond to the local people's needs and demands at the village and field level.

Depending on the level of villagers' awareness of environmental degradation and their capacity to solve and manage the problems, the approach strategy to be adopted usually varies from village to village. Thus, external inputs in terms of time and personnel to attain an adequate level vary, too.

Inevitably, high intensity of personnel inputs provided during the CF pilot scheme cannot be maintained to introduce CF on a larger scale. This implies that the FD has to concentrate on pure forestry activities only, while other, complementary or non sector related, activities need to be implemented by NGOs or other agencies. Second, the approach and forest management planning procedure have to be simplified and certain services such as boundary and forest surveys, technical skills training, etc., postponed to a later stage. Therefore, the instrument of the preliminary forest management agreement (PCFMA) has been developed which shall be employed for all new CF projects.

The basic idea of the PCFMA is to probe the bargaining room of all involved parties, to develop a suitable procedure for managing the conflicts and conducting negotiations, and to see how seriously participants take up protecting 'their' forests. Other reasons for having a 'preliminary project phase' are the high rate of forest degradation and, thus, the need to quickly bring as much forest land under management as possible, the above mentioned personnel constraints within the
FD to maintain continuous presence in order to provide all needed advice and guidance, and to allow nature time to initiate itself the restoration process if the forests are protected from fire.

The PCFMA is valid for a maximum of 3 years and will then be automatically replaced by the CFMA if the community fulfilled its duties. Depending on the community's performance and capacity, the CFMA can also be granted earlier. Since with the PCFMA only temporarily defined use permits but no long-term user rights are granted to the community, PCFMA can be issued by the director of the FD. Hence, the issuance procedure takes a comparatively short period of time.

The PCFMA considers just a few activities related to capacity building, environmental education, and forest demarcation. It is more or less designed to speed-up the transfer of responsibility over the identified forest area to the community by promising resource ownership whenever an effective forest protection system is in place.

The FD has set the priority of handing over the responsibility for forest protection to villages by rigorously using the instrument of the PCFMA in order to bring as much forest land as possible under villagers' control in a comparatively short time. This preliminary approach must be carefully monitored and evaluated. If it should fail, it is recommended to immediately go back to the original concept so that the CF program will be not endangered.

By employing the PCFMA, personnel inputs are the highest in launching CF projects until the forest reserve is identified, a simple work plan prepared, and the PCFMA signed. Then personnel inputs can be reduced. Another reduction is possible whenever the community has gained enough managerial and technical skills, and a forest management plan is jointly developed. Thereafter, it is assumed that 1 forest ranger is able to supervise an CFR area of some 5,000 ha.

Just as initial investments are necessary in FP management, the personnel inputs constitute the investment in launching CF projects and in providing advice and training during the initial project phase. As long as insufficient FD staff is available, efforts must be made and funding provided either to engage NGOs or other agencies or to contract local consultants.

OAF management concept

The OAF management concept still needs to be developed by the FD with GGFP assistance. Compared to FP and CFR management it has lower priority since the potential CFRs actually constitute the OAFs. During the transition period from OAFs to CFRs, the licensing system has to be reviewed and probably adjusted in favor of rural communities, at least for those forest lands which are neither FPs nor CFRs but adjacent to the villages. Also, it has to be kept in mind that the OAFs (a desired area of some 25% of the existing forest cover according to the forest policy) constitute agricultural land reserves and, thus, may be converted.

5. The Gambian Forest Management Concept

Objectives

The Gambian Forest Management Concept (GFMC) is an approach to contributing to the achievement of the main goals of the forestry policy of The Gambia which are:
• To reserve, maintain and develop forest resources covering at least 30% of the total land area which is are designated for environmental protection through:
  o minimizing soil desiccation and soil erosion
  o improving, conserving and preserving biodiversity
  o maintaining river bank stability (mangroves)
  o protecting the swamp lands.

• To ensure that 75% of forest lands are managed and protected according to sustainable forest management principles in order to increase forest resource base.

• To ensure that sufficient supply of forest products needed by both urban and rural population is available through the rehabilitation of forest lands and the establishment of fast growing plantations and woodlots.

Since 1980, the GFMC has been developed and implemented by the Gambian-German Forestry Project (GGFP) in joint cooperation with the Forestry Department (FD). It needs periodic updating according to new experiences gained and changing external conditions. Therefore, this description of the GFMC is not final.

Approach

In contrast to 'classical' management of state owned forests, the GFMC requires a quite different approach since the primary planners, implementors, and actors are rural people who are usually engaged in subsistence farming and to whom forestry in the sense of sustainable forest management is new. On the other hand, FPs were already identified some 40 years ago. They are managed by professionals who receive regular salaries, and the work is carried out by paid laborers and contractors, and to a certain extent by involving machinery.

The success of adopting the GFMC primarily depends on the peoples' willingness, interest, capacity and capability to sustainably manage their resources, but also on the persons/agencies who are charged with providing initiative and motivation, and supposed to provide the necessary technical advice and training.

Disregarding the level of villagers' awareness and capacity, the following basic approach strategies have to be considered when introducing the GFMC:

Participative approach methods

It is of utmost importance that from the very beginning all participants and forest user groups are actively involved in all phases of the project, i.e. in resource assessments and surveys, in the planning and implementation of activities, and, finally, in monitoring and evaluation. Also, attempts should be made to include as early as possible project opponents as well as user groups that may be initially disadvantaged through the project. Participation should be viewed as an objective in and of itself, and as a means for achieving some higher objectives such as self-help and sustainability.

Putting the people first

Foresters educated in technical forestry have to be further trained in order to accept the often less educated farmers as equal partners in the development process and to be adapted to their new role of facilitators. This especially includes improved skills in communication and a change in the
attitude towards seeing well known situations from a new angle or thinking about the real effect of their own actions on others. Both can be taught and trained, respectively.

Similarly, farmers need to be trained in recognizing and accepting foresters as resource persons for training and providing advice in various fields.

**Process orientation**

Long-term resource management interventions should be understood as the initiation of ecological, economic, and socio-cultural transformation processes in de-stabilized systems to make a new balance. Such processes cover several phases, each with different problems for which over time a wide spectrum of technical and methodical resolving mechanisms must be available. The development of problem resolving mechanisms has to be considered in a flexible and iterative intervention planning and implementation.

By nature, transformation processes do not perform linearly. Rather they are subject to leaps, draw-backs, deviations, and unpredictable turns. Therefore, qualitative criteria used for project monitoring and evaluation (e.g., sustainability, adaptability, self-control systems, etc.) gain in significance compared to quantitative results (e.g., number of agreements signed, number of seedlings produced/planted, area of forest protected, etc.).

This does not mean that process orientation relinquishes indicators for result achievement. However, an isolated view of results may often lead to wrong conclusions. Rather results must be seen by stages in the process and they should only be evaluated in this context.

**External incentives and subsidies**

Heavy-handed use of incentives causes more problems than it solves, not least by inducing paternalism, creating conflicts, and devaluing resource management objectives. Full participation cannot evolve if incentives are given to buy people's willingness and motivation. In general, the more people participate in project promoted activities, and the more community resources are used, the more likely these activities will be sustained after the project withdraws.

Another danger is that not only the recipients may become addicted to incentives, but the project staff may also derive power and influence from the practice. To reorient staff used to such practices and to get them surrender some degree of power towards a more rigorous and participative approach may then become extremely difficult.

Therefore, external incentives have to be used sparingly, i.e. pursuing a low input approach and adopting a low input technology. In general, an incentive should:

- be judged both by its effectiveness in motivating the desired change (always taking into account the perceived needs and the villagers' socio-cultural perspectives) and by whether motivation will be maintained after the incentive withdrawal (the incentive should be the catalyst and not the cause of the change);

- not be introduced on hidden agenda, rather the donor-recipient relationship must be kept transparent and based on an incentive policy understandable by all parties involved; and

- be based on a clearly established cost-benefit relationship to enable a conscious decision to be taken by the community (thus, first, an 'easy-handing' of incentives in order to obtain quick results is avoided, what donor-funded projects often tend to do and which distorts the real production cost; and, secondly, the project is not the final arbiter).
Forestry approach versus multi-sectoral approach

Long-term interventions such as tree planting or forestry in general most often cannot answer the people's directly felt needs. They place much greater priorities on measures that contribute to facilitating their day-to-day problems (activities aiming at improving the social and physical village infrastructure) and/or generate additional income in the short-run. Consequently, the acceptance of forestry projects and the willingness to cooperate may be extremely weak in the initial stage. In addition, some 95% of the target groups depends on farming as the primary source of income. Forest management and the possibility of generating long-term benefits from the forests is new to them. Thus, farming activities may always have priority to others.

Experience in The Gambia as well as in other countries has shown that long-term resource management measures hardly work in isolation. The prospects of obtaining adequate support and participation are evidently higher if confidence-stimulating measures are backed-up by those measures which are directly relevant to achieving the project goal.

This implies a chance of focus. Rather than viewing GFMC implementation as autonomous projects, they become part of the overall village development. Likewise forest management planning becomes part of village development planning. The FD is hardly capable of introducing CF and implementing CF projects by using its own resources and, hence, depends on external inputs. How should it then be capable of implementing GFMC projects in the wider context of village development? The next question would be whether village development is within FD's mandate which must be negated.

This dilemma is only to be resolved through inter-sectoral collaboration both with government agencies and NGOs. On the donors' side, it calls for a diversified counterpart structure.

The need for activities generating short-term benefits

The rehabilitation of degraded natural forests constitutes a transformation process in which usually no immediate economic returns are to be expected. Measures aiming at goal achievement in many cases impose restricted resource use (apart from initial investments mainly in terms of labor) which may even cause temporary shortages. Such measures adversely affect participation and motivation. The implications are threefold:

- the planning of measures generating perceivable benefits for the target groups in the short-run;
- the provision of objective-oriented incentives/subsidies based on a clearly formulated policy (see above); and
- pursuing a multi-sectoral approach (see above).

Activities/measures generating short-term benefits primarily focus on the introduction and/or development of improved and new technologies. For forestry, such technologies largely depend on the forest condition and tree species composition, but not on wood extraction (except dead trees). They may include: bee keeping; fruit collecting and processing; development of small-scale handicrafts such as basket, mat, rope, incense production; tourism; game production; etc.

However, all gathering/collection activities in the forest have to be carefully evaluated so that the resource will not be further depleted and/or certain species extinguished.

A higher potential of introducing/developing improved or new technologies certainly lies in the non-forestry sector aiming at agricultural diversification (vegetable gardening, promotion of improved fruit tree varieties, hay and fodder production, etc.); soil and water conservation (mainly soil and water engineering, agro-forestry and composting techniques), and the improvement of the village infrastructure (wells, roads, basic health care, school education). Especially through the latter
measures, farmers will benefit in terms of reduced labor inputs which then can be invested in other, probably forestry related activities. But again, all measures in the non-forestry sector depend on multi-sectoral collaboration.

**Principles**

The GFMC adheres to the following principles:

- to obtain and maintain a diversified structure in executing and implementing forest management activities;
- to increase the awareness of individuals, communities, and the Gambian population on the importance of forests;
- 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;
- to develop, test, and introduce new techniques and methods designed to mitigate and/or eliminate interest conflicts between agriculture and forestry production.

**Merging the management concepts**

The GFMC merges the forest management concepts described in the last chapter into one concept with the rural population as main actors. The FP development has to be embedded in the CF approach and to respond to the peoples' needs and demands. The local people are considered the main actors in forest management since the power of forest protection (including FPs and OAFs) is vested with them. The major task of the FD is to provide technical advice and training, and to steer the forest management activities in the view of sustainable management.

Pursuing the integrated GFMC approach calls for a flexible and iterative project planning and implementation in which the development of problem resolving mechanisms should be incorporated. GFMC implementation needs to be process oriented in order to react to unpredictable turns.

By introducing the GFMC, the responsibilities of the FD staff have to be adequately adapted. While the former primarily control and jurisdictional functions remain, other tasks such as actively managing the forest, forest land use planning, providing management advice and supervision have to be added. This requires that 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 favor of involving the rural population in management and rational use of their forests.
The organizational structure of the FD has to be adjusted accordingly. The restructuring of the FD with effect from 1st of January 1995 is a first step towards this direction and is an adequate form of organization for a transition period until the GFMC is introduced on a national level. The final organizational structure must contain regional and sectoral elements wherein responsibilities have to be decentralized as much as possible at the divisional headquarters and forest station levels.

For each division a divisional headquarters is to be established which will be responsible for forest management and planning on division level. It has to head and administer regional forest stations which are the real acting units. The location of forest stations depends on the distribution of forest land and forest categories including the location of potential CFRs. If required, sub-stations for forests in remote areas should be set up, after having identified the CFRs. The responsibility of the forest station should include:

- to conduct sensitization campaigns;
- to collaborate with NGOs and other agencies;
- to manage FPs;
- to train and advise villagers in CF and to supervise and control the management of CFRs;
- to issue licenses and to control the management activities within OAFs;
- to market forest products; and
- to advise in and supervise wood processing activities (sawmilling, pit-sawing, etc.).

According to these tasks, a sectoral subdivision of responsibilities at station level needs to be done. This does not mean, that for each section an own section head is required. Rather activities such as OAF management, forest product marketing, etc. are to be put under the responsibility of the head of station while others, e.g. CFR and FP management, are carried out by specialists. The distribution of duties and responsibilities may, of course, vary from station to station depending on the distribution and extent of FPs/CFRs/OAFs.

Introducing the GFMC into a region starts with conducting information and sensitization campaigns at the divisional and district level. Principally these campaigns aim at disseminating information on the GFMC and especially CF by using various media (local radio, press, brochures, posters, etc.) and at preselecting potential CFRs and the location of forest stations/sub-stations by organizing workshops involving local leaders and authorities and government officials concerned.

Potential CFR areas are preselected with the help of available forest resource maps, other thematic maps, and the most recent aerial photographs. The preselection criteria to be used consist primarily of the spatial distribution of forest lands and settlements, the size of forested areas, the forest density, and, in the case of forest stations, the location and distribution of FPs.

Based on the preselection results, the first village contacts are established. Thereby, priority has to be given to villages adjacent to FPs, where comparatively intact forests still exist, and in which forest stations are to be established. During general village meetings information dissemination and sensitization continues. At this stage, extension focuses on the villagers' perception and acceptance of being involved in forest management whereby equal emphasis must be placed on CFR and on FP management. In villages in which the establishment of forest stations has been proposed, formal approval needs to be acquired prior to the initiation of construction.
Depending on the assessment of villagers' perceptions and attitudes towards forest management
gained during the first contacts (which may be coupled with informal interviews of both village
groups and individuals) and information/data collected from other sources, the next approach to
be adopted has to be decided upon. If the response, confirmed by other information obtained, is
positively evaluated, a specific approach strategy or intensive information program needs to be
developed. If not, general sensitization aiming at environmental awareness creation needs to be
continued.

Implementing the specific approach strategy aims at identifying the CFR and its extent on the
ground by demarcating the corner points, reaching a common understanding on CFR and FP
management, and at filing the application for awarding the PCFMA. During basis workshops
involving different village groups (elders, women, youth), basic resource information on both human
and natural resources needs to be collected based upon which a simple work plan is jointly
developed describing the work to be carried out in the CFR. At the same time, FD management
activities need to be properly explained in order to receive villagers' active participation in
protecting the FPs. Thereafter, the PCFMA is concluded between the village and the FD.

After having approached all villages within the catchment area of a forest station following the
procedure described, the preliminary management plan for FPs has to be prepared. This plan has
to consider as much as possible the villagers' interests and needs identified so far. Thereafter, the
field work within FPs can commence.

For FP management activities, labor is to be recruited from nearby villages and from those more
remote villages which have concluded the PCFMA. For villages which are not interested in being
involved in forest management sensitization needs to be continued.

The implementation of forest management activities through paid laborers has to be generally seen
as part of forestry extension, meaning that for each and every activity the reason and the purpose
must be explained. By doing so, the recruited laborers will serve as facilitators and multipliers for
CF. This especially refers to activities which have to be carried out in FPs as well as in CFRs. At
the initial forest development process, these activities include the establishment of external fire
breaks (with or without live fences), internal stand demarcation, nursery work, deadwood utilization
and marketing.

Great attention must be paid in recruiting laborers. Creating employment opportunities may attract
many people and priority has to be given to employing local labor forces so that the multiplier
effect takes place. A certain amount of vacancies has to be reserved for laborers coming from
villages which have already concluded the PCFMA. Their recruitment has to be based on clear
conditions and time limits so that as many villagers as possible can benefit from the employment
and training opportunity.
Annex 4

Time Table and Staff requirement
Figure 1: time table and field staff requirement for the introduction of community forestry in 100 villages (40,000 ha of forest)

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Villages

1 - 20

PCFMA  | CFMA

21 - 40

PCFMA  | CFMA

41 - 60

PCFMA  | CFMA

61 - 80

PCFMA  | CFMA

81 - 100

Legend

- 2 CFTF extensionists + 1 Forest Ranger
- 1 Forest Ranger + 1 CFMA extensionist
- 1 Forest Ranger

Staff requirement:
- 2 PCFMA extensionists for 5 years
- 5 Forest Rangers on a permanent basis
- 3 CFMA extensionists (2 for 2 x 3 years and 1 for 1 x 3 years)
Table 1: Staff requirement for 100 villages or 1/5 of overall target

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### Table 2: Countrywide staff requirement

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Annex 5

Forestry Department

Organization Chart
Project Proposal

Support to Capacity building

in the Forestry Sector

Forestry Department

March 1995
1. Project description

Goal

"The forest resources are managed in a sustainable way within the framework of the Gambian resource policy."

Project purpose

"Support to capacity building in the forestry sector"

Results

1. Training facilities are provided.

2. A forestry certificate for Forest Guards and extensionists is institutionalized.

3. Forestry subjects are included into Gambia College agriculture diploma course.

4. Seven Forest Guards and five Extensionists are trained on a yearly basis.

5. Eight forest officers obtain a diploma degree (Senior Forest Ranger).

6. Three forest officers obtain a B.Sc. degree (Forest Officer).

Proposed duration of project: 5 years. 1/1996 - 12/2000

Estimated project costs:

From Donor: US$ 1,323,000
From GOTG: US$ 110,000

Total: US$ 1,433,000

Estimated personnel requirements:

Forestry staff: 708 PM; Long-term TA: 48 PM; Short-term TA: 2 PM; Extensionists: 300 PM.
2. Background

The vast majority of the Gambian population depends on natural resources and especially on forest products. Therefore the rapid degradation of gambia forests constitutes a threat to the country's development.

The main cause of forest destruction is mainly resulting from forest degradation rather than from forest clearing. There are still about 453 400 ha forest area which are covering 43% of total land area. However most of it or about 75% is already in a poor condition and is classified as a tree and bush savanna which has less than 10% tree cover (see annex 1).

Human activities are mainly responsible for forest destruction through bushfires and uncontrolled tree felling. Bushfires are certainly the most important cause of forest degradation. Using satellite imagery an USAID funded study has shown that most of the forest area is burnt on a yearly basis. Such fires do not only fully destroy the natural regeneration but also larger trees, thus gradually impoverishing forest stands. Fires are either set intentionally to clear the land for agricultural production or to kill trees to extract dry firewood, or they are set unintentionally due to the lack of people awareness.

A recent population census (1993) has shown that The Gambia has a population growth rate 4.1% per annum, one of the highest in the world. Thus the population will more than double in the next 20 years while forest stock will be reduced by half in the next 10 years (over 5% deforestation rate per year) or by three quarters in the next 20 years unless actions are taken.

This deforestation generates environmental degradation with, in addition to the depletion of natural resources and the decline in biodiversity, major direct economic consequences:

- loss of soil fertility through soil erosion and poor rainfall retention has led to decreased crop yields and expansion of crop area;

- the displacement of livestock onto marginal lands has resulted in poor animal nutrition and lower milk and meat production;

- decreased rainfall and massive runoff have allowed deeper salt intrusion, thus reducing the suitable areas for rice cultivation.

The Government of The Gambia has recognized the problems of resource degradation and has taken steps to address them. By mid-1985 the Government instituted an Economic Recovery Program (ERP) which aimed to reverse these negative economic trends towards positive stability and development. To consolidate the gains made by the ERP the Government recently introduced a 10-year Program for Sustained Development (PSD) which is designed to "achieve a long-run expansion of the productive capacity of the economy that will support improvement in the living standards of the Gambian population ... that does not compromise the welfare of future
generations either by increasing onerous debts or despoiling the environment". One
relevant environmental policy objective of the PSD has been stated as follow:
"To address the task of environmental protection, including the issues of deforestation,
soil management and solid waste disposal with renewed vigour and improved
technology."

Within the framework of the PSD, the government elaborated and adopted in 1992 the
Gambian Environmental Action Plan (GEAP) which defines broad environmental policy
objectives and strategies of implementation. The GEAP provides the basic framework
for a sound and sustainable management of The Gambia's environment and natural
resources.

Although The Gambia has recently experienced some political changes, the new
Government has already reiterated its support to programs especially designed to
alleviate poverty among the rural population.

Shortly after the GEAP, the former Ministry of Natural Resources recognized the need
to develop a new forest policy which would be in line with the environmental and
socio-economic policy objectives of the country's program for sustained development.
The new forest policy has been already drafted and is awaiting cabinet approval. This
policy has been also designed to recognize and contribute to the poverty alleviation
effort of government by calling for the involvement of the private sector and local
communities in the management and development of a healthy forestry sector.

The forestry sector in The Gambia is undoubtedly beset with a considerable number
of problems like most other west african countries. However, The Gambia has strong
assets which should enable the country to reverse the trend of forest degradation.

There is a strong government commitment to manage and restore natural resources
in The Gambia, as the very complete policy framework elaborated in the past years
shows. This favorable policy environment contributes to the elaboration of clear
strategies.

The new forest policy was prepared on the basis of ten years of extensive field
experience gained through the implementation of pilot projects in forest parks and
community forestry. Thus policy statements are based on solutions that already exist;
objectives set in this policy are realistic and could be achieved with sufficient initial
funding.

The involvement of local population is the main pillar of the new forest policy.
Population participation in community forestry have been tested very successfully in
around 12 villages in the Western and Lower River Division. The basic principle is to
transfer the ownership rights of the resources to the community through a Community
Forestry Management Agreement (CFMA). This agreement is subjected to some
conditions such has the management of the forest according to a simple management
plan developed in collaboration with the villagers. Since the introduction of these
CFMA the concerned areas have no longer been burnt and illegal felling has been
completely stopped. This indicates the population's genuine concern and
understanding of the value of natural resources on which their existence absolutely depends.
For this reason the Gambian Government has decided to expand the community forestry program to achieve a nationwide application of this forest management system.

To ensure the success of this forest policy strategy a new forest legislation will be prepared to support the new objectives within a more relevant and coherent framework. This legislative process should last about two years until its planned enactment in 1996.
3. Project purpose

The project purpose is:

"Support to capacity building in the forestry sector."

In view of the nationwide implementation of the Gambian Forest management Concept (GFMC) (see annex 2), additional staff with a sound background in forestry and in extension will be needed. The present human resources in the forestry sector are limited and need to be developed.

The project goal should contribute to the forestry policy objective to manage about 240 000 ha of forests in The Gambia by strengthening the human resources of the Forestry Department, NGOs and other organizations.

The main indicators of achievement are:

- The Gambian Government acknowledge in-country forestry training at certificate and diploma level.

- Staff needs for the implementation of the GFMC are timely fulfilled with qualified forestry officers and extensionists.

This project should contribute to the following goal:

"The forest resources are managed in a sustainable way within the framework of the Gambian resource policy."

With this goal the project is in line with government of The Gambia (GOTG) environmental policy (GEAP) and contributes to the fulfillment of forest policy objectives.

In the long-term this project will provide a better and safer environment as well as a better supply of forest products to the whole Gambian population.
4. On-going interventions

The Gambian Environment Action Plan, in a Technical Cooperation Package (TCP), has elaborated strategies of intervention in various natural resources and environment sectors. Although most of these have yet to receive funding, a National Environment Agency has been created under the office of the President which will assist and coordinate the implementation of various natural resource interventions.

Prior to the elaboration of the GEAP, the Department of Forestry, with assistance from GTZ, has been engaged in the implementation of various forestry interventions since 1979, including a national forest inventory in 1983, species site trials, natural forest management, community forestry, training, forest policy and forest legislation development. Models have been successfully developed for the management of natural forests in forest parks and in community forest reserves in the Western Division and Lower River Division. These have been in addition to governments public awareness campaigns on tree planting and fire prevention, forest plantation development and management and staff development.

A feasibility study has been sponsored by the Federal republic of Germany to assess the needs of the Department of Forestry for both financial and technical assistance to replicate the Gambian Forest Management Concept in forested areas in the MacCarthy Island Division (MID). It is planned to manage 7230 ha of forest parks and about 11000 ha of community forests. Project start is targeted for early 1996.

In 1993 a five-year USAID/Gambia Government Agriculture and Natural Resource (ANR) project was launched which is designed to examine policy needs, manpower development and limited resource surveys for the Ministries of Agriculture and Natural Resources. This project has an NGO grant component for funding NGO activities in Community Resource Management. Within the scope of the ANR-program an aerial photography survey was made in December 1993 providing up-to-date information about natural resources. However, this project was abruptly terminated in December 94 following a US government decision.

The World Bank and the International Fund for Agricultural Development (IFAD) launched an Agricultural Services Project (ASP) in February 1994 in the Ministry of Agriculture. The objective of this project is to boost agricultural productivity. The project will train polyvalent extension agents so that other environmental and natural resources concerns are also taken into account during agricultural production. It also includes an institutional strengthening component.

The UNDP has supported an integrated "rangeland and water development project" which has introduced a controlled rangeland management within forested areas. Results of this project are highly relevant for the multi-purpose use of forest resources.

The EU is financing a regional program on the introduction of butane gas as an alternative to fuelwood. The substitution of firewood by butane gas should reduce the demand for traditional energy and therefore the exploitation rate of forest resources.
The EU is also funding forestry activities such as the fencing of Jeloki forest park within its "U.R.D. integrated program".

It has been the Gambia-Government policy to encourage the prudent involvement of the Non-Governmental Organizations (NGOs) in its national development efforts. A few NGOs are therefore involved in the natural resource sector, mainly in tree planting, public awareness and soil and water conservation. The Forestry Department and GGFP will continue to actively involve the NGOs in their activities.

5. Project activities and their outputs

5.1 Brief description of project methodology

The Forestry Department is developing a "Gambian Forest Management Concept" (GFMC) as a follow-up to its forest policy. While not yet finalized, this concept is much advanced and its strategies are known. This concept foresees the conservation of forests on 30% of total land area or about 318 000 ha (453 300 ha were considered as forest land in 1983 but 347 700 ha are classified tree and bush savanna). The long-term objective is to manage 240 000 ha of these forests, by managing about 17 000 ha of natural forest within forest parks and the balance within community forest reserves.

The area of forest parks to be managed is intentionally limited in size to minimize as far as possible the management costs to be paid by the Gambian administration. However, the GFMC recognizes that the management of these forest parks is necessary to initiate forest activities in a given region. These forest stations can be seen as demonstration and training centers in which the population can visualize and experience the benefits of forest management. At a subsequent stage, community forestry can be introduced in the surrounding communities, where the notion of forest management is already known.

Such managed forest parks already exist in the Western Division, the Lower River Division. Additional forest parks will be managed in the MacCarthy Island Division with the assistance of the German Government (KfW) as well as in the Upper River Division with the support of the EU (URD Integrated Project).

In order to keep the number of forestry staff to a manageable size and also to ensure effective implementation of communities sensitization, NGOs should be involved. At present different type of collaborative work with NGOs are tested within the GGFP community forestry activities. NGOs can play an important role especially during the introduction of the community forestry concept to new villages. They can also carry out some technical tasks. Their assistance to the villagers should last until they are sufficiently organized to manage their resources on their own.

An efficient forest service is necessary for both the forest parks and the community forest reserves. The forest policy makes provision for a better integration of forestry project into the Forestry Department's structure as well as for the creation of a national

The integration of projects in the forestry administration will ensure a better handing over of activities as no structures will be made redundant and no additional ones will have to be created to accommodate them.

While the GFMC has been elaborated with a view to minimize the role of the Government and to enhance the responsibilities of the rural population, there is still an important requirement of qualified staff to implement it and then to supervise its application. For example, it is estimated that a countrywide introduction of community forestry will require a minimum of 25 additional Forest Guards/Rangers, 5 Forest Officers and about 25 extensionists (see annex 3). More officers will also be needed to manage further forest parks and to administrate the forestry service. The restructuring of the Forestry Department asks also for better qualified personnel, hence training of existing staff is required as well.

To meet these needs The Gambia has to develop a training program for the forestry sector if the Government wants to address with success the forest policy objectives. On the other hand, such training should remain affordable to be sustainable.

There are already some training institutions or programs within the country. The project will make use of these facilities to minimize risks and costs.

The Gambian German Forestry Project (GGFP) is conducting a one year training program for forest technicians (Forest Guards) and extensionists since October 1993. The program comprises education in theory and principles in all forestry related activities as well as further development of expertise in practical work. Prerequisite for admission to the training program is proof of Gambian citizenship, "O" level certification, the successful completion of an oral and written examination administered by GGFP and a three months probation time. The training center is located at Kafuta Forest Station, but practical training is taking place in both Kafuta and Dumbutu Forest Station which have a model character for the management of natural forests in The Gambia. Upon successful completion of the courses and examinations the students, as trained Forest Guards or extensionists, receive a certificate issued by the Forestry Department.

The results of this program have been very encouraging. The students who graduate from this course have a sound and practical forestry knowledge and are highly motivated. As the German assistance to the training section of GGFP will phase out in June 1995, this project should continue to support this program for its further development. The responsible forest officer should be sent for university training (B.Sc.) as soon as the project starts. After his return, he will spend one year with his expatriate counterpart before taking over full responsibility of the training section.

The Gambia College located in Brikama is already offering a two years diploma course in agriculture in a well established campus. To meet the Forestry Department needs for diploma holders, the project will support Gambia College to develop a field of
specialization in forestry/community forestry within their diploma course curriculum. A number of resource persons selected within the senior Forestry Department staff will be identified, selected and trained to give series of lectures on specific subjects. Students will have the opportunity to realize their own project within the framework of the existing forestry operations. 

Prerequisite for admission for this course will be the successful completion of the FD/GGFP training course and the admission test of Gambia College. This will ensure a good academical training with a strong forestry background. Such an in-country training will also certainly be of more benefit for the student as they will study under known local conditions. Furthermore, in-country training is by far more affordable than training abroad and eliminate the search for externally sponsored scholarships.

Of course, University training can only be provided abroad. This project will sponsored one B.Sc. for the head of the training section and two B.Sc. for two officers involved in community forestry. An african university should be preferably selected. Good experience has been already made with graduates from the Sokoine University in Tanzania.

The project will greatly contribute to capacity building in the forestry sector at all levels and will ensure sustainable and adapted training programs at basic and technical levels.
5.2 Outputs and activities

Output 1:

Training facilities are provided.

Indicators:
- A training center is build in Kafuta.

Activities:
1.1 Construction of buildings (classrooms, office and staff quarters).
1.2 Procurement of teaching material.

Output 2:

A forestry certificate for Forest Guards and extensionists is institutionalized.

Indicators:
- Teaching manuals are ready.
- Gambia Government approval of the course.

Activities:
2.1 Development of teaching subjects.
2.2 Training of trainers or resource persons.
2.3 Set standards of training.
2.4 Seeking official approval and acknowledgement of program.

Output 3:

Forestry subjects are included into Gambia College agriculture diploma course.

Indicators:
- A diploma in agriculture with a field of specialization in forestry/community forestry is offered by Gambia College.

Activities:
3.1 Development of teaching subjects.
3.2 Training resource persons.
3.3 Seeking official approval and acknowledgement of program.
Output 4:

Seven Forest Guards and five extensionists are trained on a yearly basis.

Indicators:

- Twelve certificates are awarded by the Kafuta training center on a yearly basis.

Activities:

4.1 Selection of candidates (tests, interviews).
4.2 Supervision of candidates during their probation time.
4.3 Final selection of candidates.
4.4 Preparation and implementation of training schedule.
4.5 Training and assessment of students.
4.6 Coordination of training activities with forest management and community forestry sections.
4.7 Awarding of certificates.

Output 5:

Eight forest officers obtain a diploma degree (Senior Forest Ranger).

Indicators:

- Eight diplomas in agriculture with a specialization in forestry/community forestry are awarded by Gambia College.

Activities:

5.1 Selection of candidates.
5.2 Preparation and implementation of training schedule.
5.3 Training and assessment of students.
5.4 Coordination of training activities with forest management and community forestry sections.
5.5 Awarding of diplomas.
Output 6:

Three forest officers obtain a B.Sc.(Forest Officer).

Indicators:

- B.Sc. degrees in forestry/community forestry are awarded by an african university to three gambian Forest Officers.

Activities:

6.1 Selection of candidates.
6.2 Selection of the institution.
6.3 Secure admission of candidates.
6.4 Organization and administration of scholarships.

5.3 Time plan

The first project phase should take 5 years. A project start could be planned for January 1996.

6. Project implementors

6.1 Legal aspects, duties, responsibilities.

Within the Ministry of Agriculture and Natural Resources the Forestry Department is responsible for the management of forest parks, the enforcement of forest legislation, for issuing forest exploitation licenses and for awarding Community Forestry Agreements (CFMA).

Within the Ministry of Education the Gambia College is responsible for the training of agricultural field workers and agricultural officers.

6.2 Organizational structure of the Forestry Department.

The Forestry Department has been recently reorganized (January 1995) and is subdivided in four units: technical, natural forest management, extension and community forestry (see annex 4). The training section is under the responsibility of the Technical Unit.

The staff of the Forestry Department is 146 among whom 112 are civil servants. Among the 17 senior officers 12 have a professional education, 3 have M.Sc. and 4 have B.Sc. degrees. The others are holding a diploma degree. Forest rangers, guards and scout have received no technical training except for the first five forest guards who have graduated in September 1994 from the GGFP training course. For the last four years all new forest guards have completed "O" levels to enable, when possible, further academic training.
It should be noted that most of the professional staff is working or has been working with the GGFP and have gained a sound knowledge about natural forest management and community forest management. GGFP staff has been recently fully integrated in the departmental structure.

Despite the harsh economical constraints for staff recruitment within the civil service 30 positions have been approved on behalf of the Forestry Department for a period of 6 years (5/year). This personal is of utmost importance for project implementation. Efforts are currently made to recruit more staff to meet future needs.

As opposed to many forestry departments in West Africa, The Gambia does not have an entrenched forest service that has engendered deep resentment among local populations through repressive measures. Thus, well managed and organized training can be extremely beneficial for progress in the forestry sector.

6.3 Budget and revenues

The total recurrent budget allocated to the Forestry Department for financial year 93/94 was Dal. 1.6 Mio. About 70% of this budget is spent on salaries and wages and about 7% on vehicle maintenance and operation. The yearly revenue derived from licenses, permits, royalties and the sale of confiscated product in 92/93 was Dal. 312,000. These revenues are paid to central government. Since these financial means are obviously insufficient to implement forest activities, most of the Department's development work is donor-supported. However, the new forest policy incorporating the creation of a national forestry fund should improve the financial situation of the Department and ensure the sustainability of its operation.

6.4 Need for financial and technical support

The national forestry fund will enable the Department to retain most of its revenues while giving it more autonomy to finance forest management operations. In the long run the sustainability of the forestry sector should be increased, but it is realistic to assume that it will need some external assistance, from the government or from the donor community, for the foreseeable future.

The Forestry Department is not yet in a position to finance the implementation of the GFMC countrywide without external assistance. Until its financial condition can be improved, its contribution will be limited to providing qualified technical staff for forest activity implementation. Thus, improved training facilities will strongly enhance the contribution of the gambian government in the management of the forest resources. Capacity building in the forestry sector will enable the realization of the forest policy objectives which require limited but efficient and qualified human resources.
7. Expected project benefits

The project should contribute to the improvement of the overall situation in the sector of natural resources by strengthening the Forestry Department, local communities and NGOs. It will encourage the Gambian Government to continue the implementation of reforms formulated in its policies framework.

At the end of this project local capacity will be build up to a level which will ensure a sustainable forest management and an improved environment.
8. Project funding

Total amount of funds required by this project are estimated at $1 323 000.

Tentative budget (in US$)

Financial assistance

- Forestry training center: 135 000
  (including vehicles)
- Running costs: 150 000
- Salaries: 25 000
- Scholarships: 220 000
- Inflation/physical contingencies (10%): 53 000

Total financial assistance: 583 000

Technical assistance

Long-term technical assistance (TA)

- 1 forester/lecturer, 4 years: 705 000

Short-term technical assistance

- Evaluation/audit, 2 months: 35 000

Total technical assistance: 740 000

Total project assistance: 1 323 000
Annex 1

Forest Area in The Gambia
THE GAMBIAN FOREST MANAGEMENT CONCEPT (GFMC)

1. Summary

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 is 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 actions. If these actions fail 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 cause vital negative impacts on the welfare of the Gambian population.

Since 1984 the Forestry Department has established 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. All in all 66 forest parks exist in The Gambia covering an area of approximately 34,000 ha out of a total forest area of over 350,000 ha. However, despite the necessity of developing a network of managed forest parks throughout the country, it has been 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.

At a very early stage of developing the model, it was been realized that the only way to stop forest destruction and to sustainably manage forest resources is to involve the local population. However, at that time, conditions did not allow the introduction of community forestry. At the end of the 80's these framework conditions became more favorable, and a community forestry model has been developed and is being tested with very encouraging results.

Forestry activities are interrelated with farming activities including livestock husbandry, and so 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 in order to recognize and understand those linkages, and to take-up necessary actions aiming at restoring the balance. This calls for an integrated approach which is beyond the mandate of the Forestry Department. Thus, assistance is necessary at both levels the execution and the implementation.

In The Gambia, there are various NGOs (both national and international) and government agencies (in part foreign assisted) which could provide the desired assistance. Among others, to mention are: Action Aid The Gambia, Save the Children Foundation/USA, Catholic Relief Services, The Gambia Family Planning Association (all multi-disciplinary), Peace Corps/The Gambia (agro-forestry, environmental education), the Gambian-German Family Planning Project, the Soil and Water Management Unit (erosion control, agro-forestry) under the Department of Agricultural Services, and the ITC Project (improved livestock husbandry, controlled grazing systems) under the Department of Livestock Services.
On the other hand, besides financial constraints, the rate of deforestation (6% per year) 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 Forestry Department has decided to develop a simplified approach to community forestry in order to cover a larger area with a limited number of staff. Also, this simplified approach has 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 done by the Forestry Department. Some of them are already participating in community forestry activities.

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 new forest policy of The Gambia aims at managing 75% of the forest cover. It is foreseen to develop some 17,000 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 forest reserves. Currently, there are some 5,000 ha of forest parks and some 1,200 ha of community forest reserves under management.

To achieve this target based on the experience of the Forestry Department and the Gambian-German Forestry Project, the Gambian Forest Management Concept (GFMC) has been developed which merges both above mentioned models. Also, this concept aims at creating 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 center of managing the Gambians' forest resources. Consequently, its introduction has to follow participatory approaches so that local people are fully involved in planning, decision making, organization and administration. The introduction initiates socio-cultural, economic, and ecological transformation processes which do not perform linearly. Therefore, intervention planning and implementation must be flexible, iterative, and oriented towards the processes.

Long-term sustainability of the GFMC calls for minimal investments and adaptation 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 paternalism, creating problems, and devaluing resource management objectives.

The continuing forest devastation process does not allow the expenditure of more time on conducting comprehensive investigations, studies, and planning procedures. Instead, the GFMC needs to be rigorously introduced with the aim of transferring the management responsibility of as much forest land as possible to adjacent communities through preliminary community forest management agreements. Thereby, existing forest parks have to be considered as means to an end or as nuclei in which appropriate management systems are developed, tested and demonstrated and then adapted to the surrounding forests.
2. The Nucleus Concept

Gambian forests are unevenly distributed throughout the country. They fulfill 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 savanna, 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.

The forest stations are ideally to be located within a cluster of forest parks surrounded by other forest lands. 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 serve as a means to an end in order to bring the remaining countries forest resources under controlled management. They should not be seen in isolation, but are an important element of and fully integrated into the GFMC.

The GFMC distinguishes four different forest categories according to management responsibilities:

- **Forest Parks (FPs):** the management concept has been developed. However if new experience is gained, the concept needs to be further refined.

- **Community Forest Reserves (CFRs):** a first CF concept has been developed and successfully tested during the CF pilot scheme within the Western Division. Based on the experience gained, the concept is being improved and further developed. Likewise, specific approaches that may be necessary in other areas require further development.

- **Open Access Forests (OAFs):** the management objectives have been defined. The management systems, however, have not yet been developed.

- **Protected Areas (PAs):** they are under the responsibility of the Department of Wildlife and, therefore, not directly subject to the GFMC. The management of National Parks and Nature Reserves is regulated by the Wildlife Conservation Act of 1977. According to this act, any form of forest exploitation and utilization is strictly prohibited. The following national parks and wildlife reserves exist in The Gambia:

  Abuko Nature Reserve  105  ha  
  Baboon Island         579  ha  
  Kiang West National Park  11,000  ha  
  Niumi National Park   4,900  ha  
  Tanji Bird Reserve    400  ha  
  Baobolong Wetland Reserve  20,000  ha  

  **Total**          36,984  ha
3. Management Objectives and Forest Functions

Forest Parks

In the past, the objectives of FP management were more oriented towards the production of forest products in order to supply the local and urban markets. FP management as integral component of the GFMC since 1989, the objectives have been re-oriented towards community involvement by considering the interests of both the government representing the entire population and the local population.

Therefore, and except for special functions such as dune stabilization, wood production (plantation forests), etc., management objectives have to respond to the local people's needs and demands as well. Depending on the particular situation of a FP or parts of it, the following management objectives can be distinguished:

- research and development;
- training and demonstration;
- production of timber and firewood;
- accessibility for ecotourism; and
- protection of rare habitats.

Research and development should not only focus on the development of silvicultural or management solutions for FPs; this is equally important to CFR and OAF management. It is the major task of the FD to assist and advise the local population on potential silvicultural solutions based on their priorities. Since CFR compared to FP management might focus more on the production of minor forest products (e.g. oil palm kernels, rhun palm leaves, bee keeping) than on wood, the required silvicultural options and technical solutions must be developed, too.

Promoting FPs as nuclei for developing locally adapted forest management systems, demonstration and training deserves the highest priority in ranking the objectives and justifies the comparatively high initial investment cost. The other objectives justify that FPs are not only needed temporarily until CFR and OAF management systems are established. Rather, their long-term existence lies in the national interest which is the protection of rare habitats and timber and fuel wood production with the priority of satisfying the local markets.

Of the 66 existing FPs covering an area of some 34,000 ha, it is estimated that at least 17,000 ha are needed for demonstration and training purposes. The remaining FP area shall be managed according to the other management objectives. Criteria which FP shall serve for the one or other purpose may include site conditions, spatial distribution, mere protection functions, population density and distribution, etc..

Community Forest Reserves

The objectives of CFR management have to be oriented towards the needs and demands of the people who are responsible for managing the forest or who own it. CFR management, therefore, aims at generating the most socio-economic benefits in the view of the managers within the framework of the national forest and environmental policy, the forestry legislation and regulations. Consequently, the spectrum of management objectives are wider compared to that of FPs. Depending on the particular condition of the CFR, the traditional use and users, and villagers' needs and demands, one or several of the following management objectives or even others may be identified by the community:
- production of timber and fuel wood
- production of forest by-products such as fruits, nuts, fibers, resin, leaves, etc.
- fodder production
- game production
- tourism especially bird watching
- mere protection and conservation for future benefits

Conflicting management objectives need to be prioritized or the management activities need to be spatially separated in order to achieve the individual objective.

In most cases, CFRs will have to fulfill multiple functions in order to cover the villagers' basic needs and to generate additional income through the sale of both wood and non-wood forest products.

**Open Access Forests**

OAFs are currently managed by applying the licensing system. This system must be urgently improved as the exploitation is not linked to the forest condition. Within the OAF areas there may exist some rare forest types or extremely fragile sites which need to be protected. At present, OAFs are the major source of forest products for the rural population as well as the primary grazing areas. OAFs are being converted to CFRs.

Consequently, the management objectives include:

- production of timber and firewood;
- production of forest by-products such as fruits, nuts, fibers, resin, leaves, etc.
- fodder production
- protection of rare habitats; and
- conversion (land reserve for agriculture)

**Forest Functions**

Management activities directed to achieve the above mentioned objectives should not interfere with the ecological and socio-economic functions of all Gambian forests, in particular with

- prevention of soil erosion;
- maintenance of the water retention capacity;
- conservation of flora and fauna;
- stabilizing climate and CO₂-equilibrium; and
- supply of minor forest products for the benefit of the local population.

The management options have to be generally developed to achieve these objectives and to fulfill the above mentioned functions. Socio-economic acceptance, risk minimization, stability and long-term economic sustainability have to be the guiding factors in developing forest management systems.
4. Forest Management Concepts

Forest Parks

During the past 10 years, the GGFP developed a natural forest management concept involving 7 FPs in the Western and Lower River Division. In order to demonstrate the economic value of the forests, 2 semi-stationary sawmill units were established for the conversion of dead wood at the Kafuta and Dumbutu Forest Stations. Both FP management and dead wood processing generate considerable income in the surrounding villages. At the same time the FPs were protected and rehabilitated in a very economic way.

Community Forestry

Up to the mid 80's, the general attitude of the local population towards the forests was quite negative. Groundnuts were the only cash crop for the local farmer. For their production, he depended on the practice of shifting cultivation using fire as a cheap and easy tool for clearing. The production of groundnuts competed directly with the forest cover. Forests had always been there and were not used by anybody and did not produce anything valuable for the farmer except for the subsistence use of fuel and minor products. At that time these forest products were still available in abundance and the rural as well as the urban societies did not suffer as yet from any shortages of these. In clearing forests for cultivation, the farmers followed their fathers tradition.

By putting the first FPs under management, it was clear that the Gambian forests could only be conserved if the local population would actively support forest conservation and protection efforts. However, the framework conditions were not conducive to the introduction of this concept.

Fortunately these conditions changed in favor of community forestry. Due to the breakdown of the market prices groundnut production was considerably reduced along with the shifting cultivation practice. Also, for the first time in their lives, the Gambians felt the negative impacts of forest degradation. The supply of rhun splits for house construction dropped almost to nil because of excessive over-exploitation. Firewood had to be produced far inside the country which led to an increase of its market price. Also climatic changes were realized by the people, annual rainfall dropped, droughts became more frequent and severe and the groundwater table sunk. On the other hand, the people close to the forest stations Kafuta and Dumbutu in the meantime had realized the positive effects of natural forest management.

Now, the time had come to actively involve the rural population in forest management. For this purpose the GGFP conducted several studies on the possibility of introducing community forestry in The Gambia. Also the government positively reacted to this development by formulating a sound policy that calls for the involvement of the local people in managing the forest resources and supports the transfer of management responsibilities and even ownership.

An approach and a methodology of community forest management was developed and the first community forest management agreement (CFMA) was signed in 1991 by the village of Brefet. 2 more agreements followed and 8 applications for CFMA were forwarded to the Forestry Department. At present 29 villages take part in the CF program. The effects of introducing community forestry have been extremely positive. All identified and declared CFRs were protected by the responsible communities from fire, and illegal exploitation was immediately stopped.

In brief, the CF approach has been based on the following considerations and comprises:
Local farming practice is based on subsistence. Except for a 2 to 3 year fallow planning for the outer fields, farm development plans do not exist. Even within one cropping period, most farmers do not plan. Thus, many activities are undertaken based on ad hoc decisions and the availability of cash and labor. Although most of the country’s surface is flat, the soils are highly susceptible to erosion. Consequently, soil degradation is a serious problem. Therefore, forest management planning must go hand in hand with farm development planning not least in those areas where conflicting interests exist (e.g. livestock husbandry).

Experience gained in other countries as well as in The Gambia has clearly shown that long-term resource development interventions do not work unless they are integrated into general village development. Inter-disciplinary collaboration is a key-element for this kind of approach. This refers to training of villagers, village based land use planning, and identification and propagation of sustainable land use practices which ideally results in a village land use and development plan.

Villagers need assistance in developing a genuinely critical view of their own situation and a realistic assessment of their ability to take-up necessary steps and to implement activities according to the priorities set by them. Therefore, participatory approaches are proposed in which villagers are fully involved in planning, decision making, organization and administration from the very project beginning. This has to go along with adequate training in managerial and also technical skills.

Past experience teaches that many projects failed because, among other things, too high initial direct incentives were granted. Consequently, direct incentives should be generally confined to the successful implementation of long-term resource conservation activities. This especially concerns numerous NGOs and their, in part, charitable activities in The Gambia.

Introducing CF on a large scale would only be feasible step-by-step according to the capacity of the FD in administering projects. Therefore, technical and financial assistance is required to implement the program nationwide. NGOs and other agencies need to be involved which assist the FD in CF project implementation and provide other services which are beyond FD’s mandate. Collaborative relationships have to be established at both levels, the executing and implementing. These joint effort have to respond to the local people’s needs and demands at the village and field level.

Depending on the level of villagers' awareness of environmental degradation and their capacity to solve and manage the problems, the approach strategy to be adopted usually varies from village to village. Thus, external inputs in terms of time and personnel to attain an adequate level vary, too.

Inevitably, high intensity of personnel inputs provided during the CF pilot scheme cannot be maintained to introduce CF on a larger scale. This implies that the FD has to concentrate on pure forestry activities only, while other, complementary or non sector related, activities need to be implemented by NGOs or other agencies. Second, the approach and forest management planning procedure have to be simplified and certain services such as boundary and forest surveys, technical skills training, etc., postponed to a later stage. Therefore, the instrument of the preliminary forest management agreement (PCFMA) has been developed which shall be employed for all new CF projects.

The basic idea of the PCFMA is to probe the bargaining room of all involved parties, to develop a suitable procedure for managing the conflicts and conducting negotiations, and to see how seriously participants take up protecting 'their' forests. Other reasons for having a 'preliminary project phase' are the high rate of forest degradation and, thus, the need to quickly bring as much forest land under management as possible, the above mentioned personnel constraints within the
FD to maintain continuous presence in order to provide all needed advice and guidance, and to allow nature time to initiate itself the restoration process if the forests are protected from fire.

The PCFMA is valid for a maximum of 3 years and will then be automatically replaced by the CFMA if the community fulfilled its duties. Depending on the community's performance and capacity, the CFMA can also be granted earlier. Since with the PCFMA only temporarily defined use permits but no long-term user rights are granted to the community, PCFMAs can be issued by the director of the FD. Hence, the issuance procedure takes a comparatively short period of time.

The PCFMA considers just a few activities related to capacity building, environmental education, and forest demarcation. It is more or less designed to speed-up the transfer of responsibility over the identified forest area to the community by promising resource ownership whenever an effective forest protection system is in place.

The FD has set the priority of handing over the responsibility for forest protection to villages by rigorously using the instrument of the PCFMA in order to bring as much forest land as possible under villagers' control in a comparatively short time. This preliminary approach must be carefully monitored and evaluated. If it should fail, it is recommended to immediately go back to the original concept so that the CF program will be not endangered.

By employing the PCFMA, personnel inputs are the highest in launching CF projects until the forest reserve is identified, a simple work plan prepared, and the PCFMA signed. Then personnel inputs can be reduced. Another reduction is possible whenever the community has gained enough managerial and technical skills, and a forest management plan is jointly developed. Thereafter, it is assumed that 1 forest ranger is able to supervise an CFR area of some 5,000 ha.

Just as initial investments are necessary in FP management, the personnel inputs constitute the investment in launching CF projects and in providing advice and training during the initial project phase. As long as insufficient FD staff is available, efforts must be made and funding provided either to engage NGOs or other agencies or to contract local consultants.

OAF management concept

The OAF management concept still needs to be developed by the FD with GGFP assistance. Compared to FP and CFR management it has lower priority since the potential CFRs actually constitute the OAFs. During the transition period from OAFs to CFRs, the licensing system has to be reviewed and probably adjusted in favor of rural communities, at least for those forest lands which are neither FPs nor CFRs but adjacent to the villages. Also, it has to be kept in mind that the OAFs (a desired area of some 25% of the existing forest cover according to the forest policy) constitute agricultural land reserves and, thus, may be converted.

5. The Gambian Forest Management Concept

Objectives

The Gambian Forest Management Concept (GFMC) is an approach to contributing to the achievement of the main goals of the forestry policy of The Gambia which are:
• To reserve, maintain and develop forest resources covering at least 30% of the total land area which is are designated for environmental protection through:
  
  o minimizing soil desiccation and soil erosion
  o improving, conserving and preserving biodiversity
  o maintaining river bank stability (mangroves)
  o protecting the swamp lands.

• To ensure that 75% of forest lands are managed and protected according to sustainable forest management principles in order to increase forest resource base.

• To ensure that sufficient supply of forest products needed by both urban and rural population is available through the rehabilitation of forest lands and the establishment of fast growing plantations and woodlots.

Since 1980, the GFMC has been developed and implemented by the Gambian-German Forestry Project (GGFP) in joint cooperation with the Forestry Department (FD). It needs periodic updating according to new experiences gained and changing external conditions. Therefore, this description of the GFMC is not final.

**Approach**

In contrast to 'classical' management of state owned forests, the GFMC requires a quite different approach since the primary planners, implementors, and actors are rural people who are usually engaged in subsistence farming and to whom forestry in the sense of sustainable forest management is new. On the other hand, FPs were already identified some 40 years ago. They are managed by professionals who receive regular salaries, and the work is carried out by paid laborers and contractors, and to a certain extent by involving machinery.

The success of adopting the GFMC primarily depends on the peoples' willingness, interest, capacity and capability to sustainably manage their resources, but also on the persons/agencies who are charged with providing initiative and motivation, and supposed to provide the necessary technical advice and training.

Disregarding the level of villagers' awareness and capacity, the following basic approach strategies have to be considered when introducing the GFMC:

**Participative approach methods**

It is of utmost importance that from the very beginning all participants and forest user groups are actively involved in all phases of the project, i.e. in resource assessments and surveys, in the planning and implementation of activities, and, finally, in monitoring and evaluation. Also, attempts should be made to include as early as possible project opponents as well as user groups that may be initially disadvantaged through the project. Participation should be viewed as an objective in and of itself, and as a means for achieving some higher objectives such as self-help and sustainability.

**Putting the people first**

Foresters educated in technical forestry have to be further trained in order to accept the often less educated farmers as equal partners in the development process and to be adapted to their new role of facilitators. This especially includes improved skills in communication and a change in the
attitude towards seeing well-known situations from a new angle or thinking about the real effect of their own actions on others. Both can be taught and trained, respectively.

Similarly, farmers need to be trained in recognizing and accepting foresters as resource persons for training and providing advice in various fields.

Process orientation

Long-term resource management interventions should be understood as the initiation of ecological, economic, and socio-cultural transformation processes in de-stabilized systems to make a new balance. Such processes cover several phases, each with different problems for which over time a wide spectrum of technical and methodical resolving mechanisms must be available. The development of problem resolving mechanisms has to be considered in a flexible and iterative intervention planning and implementation.

By nature, transformation processes do not perform linearly. Rather they are subject to leaps, draw-backs, deviations, and unpredictable turns. Therefore, qualitative criteria used for project monitoring and evaluation (e.g., sustainability, adaptability, self-control systems, etc.) gain in significance compared to quantitative results (e.g., number of agreements signed, number of seedlings produced/planted, area of forest protected, etc.).

This does not mean that process orientation relinquishes indicators for result achievement. However, an isolated view of results may often lead to wrong conclusions. Rather results must be seen by stages in the process and they should only be evaluated in this context.

External incentives and subsidies

Heavy-handed use of incentives causes more problems than it solves, not least by inducing paternalism, creating conflicts, and devaluing resource management objectives. Full participation cannot evolve if incentives are given to buy people's willingness and motivation. In general, the more people participate in project-promoted activities, and the more community resources are used, the more likely these activities will be sustained after the project withdraws.

Another danger is that not only the recipients may become addicted to incentives, but the project staff may also derive power and influence from the practice. To reorient staff used to such practices and to get them surrender some degree of power towards a more rigorous and participative approach may then become extremely difficult.

Therefore, external incentives have to be used sparingly, i.e., pursuing a low input approach and adopting a low input technology. In general, an incentive should:

- be judged both by its effectiveness in motivating the desired change (always taking into account the perceived needs and the villagers' socio-cultural perspectives) and by whether motivation will be maintained after the incentive withdrawal (the incentive should be the catalyst and not the cause of the change);

- not be introduced on hidden agenda, rather the donor-recipient relationship must be kept transparent and based on an incentive policy understandable by all parties involved; and

- be based on a clearly established cost-benefit relationship to enable a conscious decision to be taken by the community (thus, first, an 'easy-handing' of incentives in order to obtain quick results is avoided, what donor-funded projects often tend to do and which distorts the real production cost; and, secondly, the project is not the final arbiter).
Forestry approach versus multi-sectoral approach

Long-term interventions such as tree planting or forestry in general most often cannot answer the people's directly felt needs. They place much greater priorities on measures that contribute to facilitating their day-to-day problems (activities aiming at improving the social and physical village infrastructure) and/or generate additional income in the short-run. Consequently, the acceptance of forestry projects and the willingness to cooperate may be extremely weak in the initial stage. In addition, some 95% of the target groups depends on farming as the primary source of income. Forest management and the possibility of generating long-term benefits from the forests is new to them. Thus, farming activities may always have priority to others.

Experience in The Gambia as well as in other countries has shown that long-term resource management measures hardly work in isolation. The prospects of obtaining adequate support and participation are evidently higher if confidence-stimulating measures are backed-up by those measures which are directly relevant to achieving the project goal.

This implies a chance of focus. Rather than viewing GFMC implementation as autonomous projects, they become part of the overall village development. Likewise forest management planning becomes part of village development planning. The FD is hardly capable of introducing CF and implementing CF projects by using its own resources and, hence, depends on external inputs. How should it then be capable of implementing GFMC projects in the wider context of village development? The next question would be whether village development is within FD's mandate which must be negated.

This dilemma is only to be resolved through inter-sectoral collaboration both with government agencies and NGOs. On the donors' side, it calls for a diversified counterpart structure.

The need for activities generating short-term benefits

The rehabilitation of degraded natural forests constitutes a transformation process in which usually no immediate economic returns are to be expected. Measures aiming at goal achievement in many cases impose restricted resource use (apart from initial investments mainly in terms of labor) which may even cause temporary shortages. Such measures adversely affect participation and motivation. The implications are threefold:

- the planning of measures generating perceivable benefits for the target groups in the short-run;
- the provision of objective-oriented incentives/subsidies based on a clearly formulated policy (see above); and
- pursuing a multi-sectoral approach (see above).

Activities/measures generating short-term benefits primarily focus on the introduction and/or development of improved and new technologies. For forestry, such technologies largely depend on the forest condition and tree species composition, but not on wood extraction (except dead trees). They may include: bee keeping; fruit collecting and processing; development of small-scale handicrafts such as basket, mat, rope, incense production; tourism; game production; etc. However, all gathering/collection activities in the forest have to be carefully evaluated so that the resource will not be further depleted and/or certain species extinguished.

A higher potential of introducing/developing improved or new technologies certainly lies in the non-forestry sector aiming at agricultural diversification (vegetable gardening, promotion of improved fruit tree varieties, hay and fodder production, etc.), soil and water conservation (mainly soil and water engineering, agro-forestry and composting techniques), and the improvement of the village infrastructure (wells, roads, basic health care, school education). Especially through the latter
measures, farmers will benefit in terms of reduced labor inputs which then can be invested in other, probably forestry related activities. But again, all measures in the non-forestry sector depend on multi-sectoral collaboration.

**Principles**

The GFMC adheres to the following principles:

- to obtain and maintain a diversified structure in executing and implementing forest management activities;
- to increase the awareness of individuals, communities, and the Gambian population on the importance of forests;
- 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;
- to develop, test, and introduce new techniques and methods designed to mitigate and/or eliminate interest conflicts between agriculture and forestry production.

**Merging the management concepts**

The GFMC merges the forest management concepts described in the last chapter into one concept with the rural population as main actors. The FP development has to be embedded in the CF approach and to respond to the peoples' needs and demands. The local people are considered the main actors in forest management since the power of forest protection (including FPs and OAFs) is vested with them. The major task of the FD is to provide technical advice and training, and to steer the forest management activities in the view of sustainable management.

Pursuing the integrated GFMC approach calls for a flexible and iterative project planning and implementation in which the development of problem resolving mechanisms should be incorporated. GFMC implementation needs to be process oriented in order to react to unpredictable turns.

By introducing the GFMC, the responsibilities of the FD staff have to be adequately adapted. While the former primarily control and jurisdictional functions remain, other tasks such as actively managing the forest, forest land use planning, providing management advice and supervision have to be added. This requires that 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 favor of involving the rural population in management and rational use of their forests.
The organizational structure of the FD has to be adjusted accordingly. The restructuring of the FD with effect from 1st of January 1995 is a first step towards this direction and is an adequate form of organization for a transition period until the GFMC is introduced on a national level. The final organizational structure must contain regional and sectoral elements wherein responsibilities have to be decentralized as much as possible at the divisional headquarter and forest station levels.

For each division a divisional headquarter is to be established which will be responsible for forest management and planning on division level. It has to head and administer regional forest stations which are the real acting units. The location of forest stations depends on the distribution of forest land and forest categories including the location of potential CFRs. If required, sub-stations for forests in remote areas should be set up, after having identified the CFRs. The responsibility of the forest station should include:

- to conduct sensitization campaigns;
- to collaborate with NGOs and other agencies;
- to manage FPs;
- to train and advise villagers in CF and to supervise and control the management of CFRs;
- to issue licenses and to control the management activities within OAFs;
- to market forest products; and
- to advise in and supervise wood processing activities (sawmilling, pit-sawing, etc.).

According to these tasks, a sectoral subdivision of responsibilities at station level needs to be done. This does not mean, that for each section an own section head is required. Rather activities such as OAF management, forest product marketing, etc. are to be put under the responsibility of the head of station while others, e.g. CFR and FP management, are carried out by specialists. The distribution of duties and responsibilities may, of course, vary from station to station depending on the distribution and extent of FPs/CFRs/OAFs.

Introducing the GFMC into a region starts with conducting information and sensitization campaigns at the divisional and district level. Principally these campaigns aim at disseminating information on the GFMC and especially CF by using various media (local radio, press, brochures, posters, etc.) and at preselecting potential CFRs and the location of forest stations/sub-stations by organizing workshops involving local leaders and authorities and government officials concerned.

Potential CFR areas are preselected with the help of available forest resource maps, other thematic maps, and the most recent aerial photographs. The preselection criteria to be used consist primarily of the spatial distribution of forest lands and settlements, the size of forested areas, the forest density, and, in the case of forest stations, the location and distribution of FPs.

Based on the preselection results, the first village contacts are established. Thereby, priority has to be given to villages adjacent to FPs, where comparatively intact forests still exist, and in which forest stations are to be established. During general village meetings information dissemination and sensitization continues. At this stage, extension focuses on the villagers' perception and acceptance of being involved in forest management whereby equal emphasis must be placed on CFR and on FP management. In villages in which the establishment of forest stations has been proposed, formal approval needs to be acquired prior to the initiation of construction.
Depending on the assessment of villagers' perceptions and attitudes towards forest management gained during the first contacts (which may be coupled with informal interviews of both village groups and individuals) and information/data collected from other sources, the next approach to be adopted has to be decided upon. If the response, confirmed by other information obtained, is positively evaluated, a specific approach strategy or intensive information program needs to be developed. If not, general sensitization aiming at environmental awareness creation needs to be continued.

Implementing the specific approach strategy aims at identifying the CFR and its extent on the ground by demarcating the corner points, reaching a common understanding on CFR and FP management, and at filing the application for awarding the PCFMA. During basis workshops involving different village groups (elders, women, youth), basic resource information on both human and natural resources needs to be collected based upon which a simple work plan is jointly developed describing the work to be carried out in the CFR. At the same time, FD management activities need to be properly explained in order to receive villagers' active participation in protecting the FPs. Thereafter, the PCFMA is concluded between the village and the FD.

After having approached all villages within the catchment area of a forest station following the procedure described, the preliminary management plan for FPs has to be prepared. This plan has to consider as much as possible the villagers' interests and needs identified so far. Thereafter, the field work within FPs can commence.

For FP management activities, labor is to be recruited from nearby villages and from those more remote villages which have concluded the PCFMA. For villages which are not interested in being involved in forest management sensitization needs to be continued.

The implementation of forest management activities through paid laborers has to be generally seen as part of forestry extension, meaning that for each and every activity the reason and the purpose must be explained. By doing so, the recruited laborers will serve as facilitators and multipliers for CF. This especially refers to activities which have to be carried out in FPs as well as in CFRs. At the initial forest development process, these activities include the establishment of external fire breaks (with or without live fences), internal stand demarcation, nursery work, deadwood utilization and marketing.

Great attention must be paid in recruiting laborers. Creating employment opportunities may attract many people and priority has to be given to employing local labor forces so that the multiplier effect takes place. A certain amount of vacancies has to be reserved for laborers coming from villages which have already concluded the PCFMA. Their recruitment has to be based on clear conditions and time limits so that as many villagers as possible can benefit from the employment and training opportunity.
Annex 2

Gambian Forest Management Concept (GFMC)
## Forest Area in The Gambia

<table>
<thead>
<tr>
<th>Division</th>
<th>Total area (ha)</th>
<th>Total forest area (ha)</th>
<th>Tree &amp; Shrub savanna (ha)</th>
<th>Forest Parks area (ha)</th>
<th>Potential Community Forestry area (ha)</th>
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<td><strong>32729</strong></td>
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Sources: National Forest Inventory, 1983 and GGFP aerial observation

**Forest Policy objectives:**
- 30% of land area under forest cover
- 75% of forest under management

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<th>Division</th>
<th>Total land area</th>
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</table>

* assuming an even distribution of forest area
Annex 3

Staff Requirement

Source: A strategy for the diversification of supporting organizations for the community forestry sector in The Gambia. (Forestry Department, March 1995).
Table 2: Option 2 - Countrywide staff requirement (field workers only)

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<th>Year</th>
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Figure 2
Staff requirement for the implementation of Community Forestry

![Graph showing staff requirement for Community Forestry over 20 years.](image)
Staff requirement for the implementation of Community Forestry

Figure 3

[Graph showing staff requirement over years for two options: Option 1 and Option 2.]
Annex 4

Forestry Department

Organization Chart