# Towards Sustainable Forest Management of Tropical Forests in West and Central Africa

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## Sustainable Forest Management as a Contribution to Sustainable Development

The principle of sustainable forest management implies to protect large-scale forest ecosystems and to use them in such a manner that they can fulfill important social, economic and cultural needs of people on a permanent basis. However, not any kind of utilization is possible. The present use of forests has to take into consideration the requirements of future generations in such a way that they will have an opportunity to manage forests according to their then prevailing needs and values. Sustainability in forestry implies the preservation of bio-diversity of fauna and flora, the conservation and increase of the productivity of forest stands, sufficient regeneration, and the maintaining of the vitality of the forests. A careful utilization of forests as renewable natural resources is an important contribution to sustainable development and to the protection of an environment worthwhile to live in.

In Europe, forests have been managed in a sustainable manner for more than 200 years and provide multiple goods and services for forest owners and for the population. Forestry production and processing of wood as a versatile raw material for many purposes in modern industrial enterprises is an important part of national economies. After long periods of overexploitation, stand volumes and yearly increment rates have risen continuously thanks to a highly developed and efficient forest economy. Today we are in a position to harvest a considerably higher volume of wood on an annual and sustainable basis in comparison to what has been possible in previous times.

## Sustainable Forestry and Development Policy in the Tropics

In many developing regions of the tropics and sub-tropics a sustainable and efficient forestry and wood processing sector still needs to be built up step by step. It is the clearly formulated goal of country and government programs to continue wood utilization and where feasible to increase the production potential in order to foster economic development. Only a combination of sustainable wood production and economic and profitable processing offers a sound basis for the steady development of a modern forest and forest industry sector. Sustainable forestry practices and new technology in wood processing are indispensable

prerequisites for efficient value-added processes, which result in improved use of the available forest resources.

In the forest regions industrial utilization and processing of timber resources are among the few available economic development factors. Without economic benefits which accrue to local communities in rural areas, forest protection and conservation have little chances to be successful. The growth of a sustainable forest and wood economy is thus a tangible economic and social incentive for the population to maintain the forest cover on a permanent basis. This requires fundamental decisions, which forest areas should permanently remain available for economic and profitable forestry practices. It also requires decisions with regard to those areas which due to their uniqueness, have to be preserved as nature protection areas and national parks. In addition the demand of a growing population for additional land to be used for agriculture, settlements and infrastructure has to be taken into account in national and local land use planning.

Parliaments and governments have by now elaborated the framework and public policy regulations in order to determine which areas shall be used as permanent production forests for timber growth. Their objective is to foster efficient and innovative wood industries that are in a position to take advantage of the competitive opportunities in international markets and to supply the growing demands of their own national economies. As a consequence, the central task of national forest policies is to replace the unregulated utilization in natural forests which still exists in many places by a regime of sustainable forest management which full-fills the requirements of world-wide demanded standards.

## Sustainable Production of Wood in the African Region

The tropical forests in West- and Central Africa are valuable renewable resources which make a substantial contribution to economic growth and to the development of a modern industrial sector. Wood utilization is the basis for the creation of jobs, for providing income to the population, and for generating considerable export earnings. Timber harvesting is undertaken in these forest areas in a selective way by utilizing commercially marketable species, timber grades and stem dimensions. This implies that only part of the standing volume is removed during each cutting cycle. Clear cutting is not possible due to the large number of species and the resulting structure of forest stands, the limited number of commercial species on markets and high transportation costs. Clear cutting is not a feasible basis for sustainable forest management of such forests.

The selective logging regime, based on cutting cycles following each other, offers clear alternatives. It allows to develop sustainable forest management in a manner which corresponds to the ecological and economic realities of production forests in West and Central Africa. Determining factors are the variety of tree species, the uneven structure of forests, the possibilities of natural regeneration and planting in managed stands, and the economic forest utilization pattern. Factors to be taken into account are the prevailing conditions related to infrastructure, transport distances, distribution of settlements as well as investment needs for a comprehensive development of the forest regions. Equally to be considered are the frame regulations for industrial forest utilization which are largely based on timber utilization concessions and forest management contracts issued by government to private companies and individual operators.

A decisive factor is that government regulations as well as economic planning of private companies of the forest and wood industry are based on properly defined, realistic and workable forest management plans. Considerable progress has been made during the last years with regard to the applicable legislation. The new forest laws of Cameroon, Congo Gabon and Ivory Coast, for instance, contain today more concrete requirements on sustainable forest management as has been the case in the past. They refer to minimum diameter cutting limits by various groups of tree species, cutting cycle regulations, and minimum requirements concerning regeneration and tending of younger stands. The regulations in Congo/Brazzaville are of particular interest which provide since considerable time for large scale forest management units with a determined maximum utilization volume per year.

**Co-operation between Governments, People and Industry**

On the side of the industry, the knowledge has gained ground that practicable forest management plans are a pre-condition for sustainable use of renewable natural resources. Moreover solid and realistic planing increases considerably the economic efficiency of annual timber harvesting. A useful support for the preparation of forest management plans, which keep up with standards feasible today, are the Guidelines of the International Technical Association for Tropical Woods which have been published in French recently (ATIBT 2001). An English translation is in preparation. A number of large industrial operators are presently elaborating new forest management plans or have started to implement the measures of such plans.

Implementation of sustainable forest management planning requires concrete measures among governments, the private forestry and wood processing sector, and non-governmental organizations. This concerns, for instance, the introduction of modern timber harvesting

techniques and timber transport systems (Low Impact Logging), co-operation with regard to a more effective protection of fauna and flora, and an increased involvement of the local population. Another task, which can only be solved through co-operation, is the formation and training of professionals both in the industrial sector of wood-processing as well as in domains such as forestry techniques and silviculture, and nature and landscape protection.

Considering the actual development in West and Central Africa on the whole, it becomes obvious that important steps have been undertaken in order to reach more closely the objective of sustainable management in economically used production forests. The critical issue is at present to transfer available knowledge and experiences made by the industry more effectively and on a broader scale. The CEO/AWG in which representatives from industry, international nature protection organizations, the World Bank, and development co-operation institutions co-operate, actively promotes such processes. One of the main objectives Of the CEO/AWG is, to make sure that within five years an area of 15 million hectares will be operated under a sustainable forest management regime.