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Biodiversity and management of West African forests

(EU-funded projects ECOSYN [1] and ECODES [2])

Problem

The increasing global respect for diversity and demand for timber and forestland requires a careful management of the remaining forest resources. For such management basic information is needed about the taxonomy, distribution and ecology of plant species, distribution of forest types, and the patterns in biodiversity. This knowledge is indispensable to answer questions like: which areas should be set aside for conservation? Which areas have the highest densities of commercial species? And what are the environmental requirements of the different tree species?

This baseline information is not readily available, despite the fact that West African forests are amongst the most intensively studied in the tropics. Information is inaccessible because it is either scattered over different sources, confined to grey literature, present in the form of raw data, or simply has not been recorded.

Objectives

The ECOSYN project aims to facilitate the exchange of information and experiences between neighbouring countries differing in research tradition and language. This is achieved by a synthesis of information regarding plant diversity and management of the forests of Upper Guinea.
The main objectives are:

- To map the forests of Upper Guinea and measure their condition;
- To develop an overview and guide of the plants in these forests;
- To characterize plant diversity in an overall picture;
- To collect all available information about lianas in the tropical and moist forests;
- To apply this information for improved forest management.

Approach

We collected the available information and prepared a series of books, book chapters and papers in scientific journals to meet our objectives. Furthermore we supported and facilitated collaborative work among researchers in West Africa.

Results

The ECOSYN and ECODES projects resulted in four books, 53 scientific articles in national and international journals, and several book chapters. Nine theses (DEA, MSc, PhD) were prepared and 26 presentations were given at international symposia. The four main books are:

Biodiversity of West African forests. An ecological atlas of woody plant species (2004). Edited by L. Poorter, F. Bongers, F.N. Kouamé and W.D. Hawthorne (CAB International, Wallingford UK).

Forest climbing plants of West Africa: diversity, ecology and management (2005). Edited by F. Bongers, M.P.E. Parren and D. Traoré (CAB International, Wallingford UK).

The woody plants of western African forests. A guide to the forest trees, shrubs and lianes from Senegal to Ghana (2005). By W.D. Hawthorne and C.C.H. Jongkind. Illustrated by R.Wise and M. Spitteler (KEW Botanical Gardens, London, UK).

Ecology and management of moist tropical forests in Upper Guinea (2005). Edited by F. Bongers and others.

Follow-up

The project results will be implemented in the management and conservation of West African forests.

1) ECOSYN: Guides, BIOGIS et Eco-Atlas des arbres et des lianes pour mieux gérer et conserver les forêts d'Afrique Occidentale (de la Guinée au Ghana) (1996-2003).

2) ECODES: ECOlogical synthesis on forests and forest plants: DEcision Support for Sustainable forest management in Upper Guinea, West-Africa (2003-2005).

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