ETFRN NEWS 21

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ETFRN and European Commission News

ETFRN NEWS

by Willemine Brinkman

The ETFRN Institutes directory has now been transferred to a database, and we have started updating and correcting the entries. If your organisation's entry in the last version (dated 1997) of the ETFRN Directory of European Reserach Institutions in the field of Tropical, Subtropical and Mediterranean Forests is incorrect or incomplete, please let us know. We intend to have the institutes...
Work on improvements and new links to the ETFRN Internet site is ongoing. Feedback on the accessibility of information, type of links available, relevance and use for your work, ideas for improvements or additions will help us tailor the site to your needs. I would also like to kindly ask you to check if your Internet site has the correct link to the ETFRN site. The new address is http://www.etfrn.org.

I attended the EIARD (European Initiative for Agricultural Research for Development) colloquium in Montpellier on 25 and 26 of September, organised by the ECART and NATURA networks and supported by EC-DGXII.

Parallel to this invitation, NRI (UK) was commissioned to write a background paper presenting cases of existing networks, where the IPM and ETFRN networks should be included as examples of thematic networks. Within NRI, the section on ETFRN was delegated to Jane Thornback, who promptly contacted the ETFRN Coordination Unit to ask for assistance and existing documentation which could be used as a basis for the ETFRN paper. This resulted in a visit from Jane Thornback to the Coordination Unit last 23 July and a joint paper written by Jane Thornback and myself, which is based on the existing ETFRN documentation, particularly the 1997 -1999 plan.

Jelle Maas represented the ETFRN Coordination Unit at the Accra consultation on forestry research in Sub Saharan Africa, organised by FAO, IUFRO and several African Forest Research organisations on 30 September - 2 October. A short report on the results of the meeting should appear in the December Issue of the ETFRN News.

The ETFRN side meeting at the World Forestry Congress will have the same theme as the December issue of the ETFRN News: "Research Priority Setting Methods: experiences relevant for tropical forest research". After a general presentation on ETFRN, Professor F. Owino of the African Academy of Sciences will hold a presentation titled: "African Forest Research Priorities: Research for Development This will be followed by discussion. I hope this will be an occasion to meet many ETFRN News readers attending the World Forestry Congress. Observations, comments, or suggestions on the work of the Coordination Unit are always welcome.

EC NEWS

The European Commission's Budget Line for Tropical Forests was created by the European Parliament in 1991, after passing several resolutions on the issue. From 1992 onwards, approximately 50 million ECU per year were spent on the EC tropical forest programme. The largest percentage was spent in Latin America, followed by the ACP countries and Asia. A review of the relevant publication Sustainable Management of Tropical Forests - A mid-term report is reviewed on.
Sustainable forest management is usually defined as the process of managing permanent forest land to achieve one or more clearly specified productive and/or ecological management objectives without undue reduction of its inherent values and future productivity and without undesirable effects on the physical and social environment. Sustainable forest management should thus guarantee the continuity of all recognised principal functions of a particular forest, without undue effect to other (global) functions.

This definition illustrates that the current development of sustainable forest management pays specific attention to the maintenance of forest functions (products & environmental services). Although it is recognised that various types of forests may be present, the types of forests to be considered are not further specified. In developing criteria for sustainable forest management, two types of forest are normally considered, i.e. natural forests and timber plantations. This distinction reflects that forests can be conceived either as a basically natural ecosystem or as a man-made agroecosystem.

Recent research has demonstrated that in addition to man-made timber plantations, a large variety of other man-made forest types are present in tropical countries. These forests have gradually developed as a result of an evolutionary continuum in interactions between local communities and forests (Wiersum, 1997). During this evolution a process of co-domestication of forests and tree species took place (Table 1). Most of these human-created forest types have until now scarcely been acknowledged by forest science. As illustrated by a recent book on the nature of forests in the West African forest-savanna edge (Fairhead & Leach, 1996), the origin of such man-made forests is often not recognised and ecologists and foresters have often ignored positive human influences on forest composition. The usual perception is that local communities are either destroyers of forests (by necessity or ignorance) or conservers of ancestral forest lands. The option that they may also be active manipulators of forests is not usually considered. Little attention has been given to the possibility that local communities have enriched forests with tree species valued by them or even reconstructed forests to suit their needs for specific forest resources, while maintaining many of the characteristics of natural forests in respect to structure and biodiversity. In many cases, such manipulations are not directed at timber species, but rather at fruit species or species providing commercial non-timber forest products.

At present many of these indigenously-developed forest types have mainly local significance; some also play an important role in the commercial production of non-timber forest products (De Foresta & Michon, 1997). For instance, in Indonesia the majority of rubber is produced in "jungle rubber" gardens. It can be expected that in the future these
forest types will become increasingly important. As indicated by the example of rubber, many of the indigenously-developed forest types are eminently suited to the production of non-timber forest products and with the growing attention to such production, their role is likely to increase. Moreover, with the decreasing area of natural forests subject to timber logging, also the relevance of these forests for timber production will likely increase. Already now it can be observed in a country such as the Philippines that timber sales from tree species such as coconut, rubber and Jackfruit, which are often grown in forest gardens or mixed-species village plantations is rapidly increasing. In contrast to commercial tree estates these indigenously-developed domesticated forests are characterized by a mixed-species composition. They often play an important role in biodiversity conservation, eg with respect to the preservation of a wide variety of genotypes of locally-valued tree species. These forest gardens illustrate the local relevance of biodiversity.

It is generally agreed that one of the criteria for sustainable forest management should be that the forest-related needs of local communities are taken into account and that they can be actively involved in managing forests. As indicated by the presence of the various types of indigenously-developed forests, these criteria should be extended to include the notion that forest management by local communities may result in the development of various types of modified or reconstructed forests, which to an important degree ecologically resemble natural forests. These forests are not static, but gradually evolve in response to changes in production factors, institutional and marketing conditions, and changing relations between forests and other land-use systems. Although many of such smallholder forests are not located on officially designated permanent forest lands, they can still be considered as being sustainably managed.

In order to obtain a better scientific understanding of the relations between local communities and forest environment, and the various indigenous methods of forest management, the Forestry Department of Wageningen Agricultural University is carrying out a research programme on "Community forestry development and rural transformations in tropical countries". This research focuses on the identification of different types of indigenously-developed forests and of the various factors which influence both their dynamics and sustainability. The basic premise underlying the research is that to understand the full scope of human effects on forests, people should not be conceived as an unnatural external factor to forests, but rather as a highly specialized ecological agent acting within the forest. People may have either positive or negative influences on the forests; these influences are time and location dependent. It is expected that this research programme will provide fundamental information to raise awareness on the need to operationalize the term sustainable forest management not only with respect to timber production from professionally managed production forest estates but also with respect to the wide variety of indigenously-developed forest types. This means that the concept of sustainable forest management should incorporate the notion that not only the ecological integrity and social functions of forests should be maintained, but also the indigenous ingenuity and creativity in conserving, enriching or even reconstructing forests.

References

- Wiersum, K.F., 1997. Indigenous exploitation and management of tropical forest resources: an evolutionary continuum, in forest-people interactions. Agriculture,
Ecosystems and Environment 63: 1-16.

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CIFOR's research on secondary forests

by Cesar Sabogal, Joyotee Smith, Dean Current and Manuel Guariguata

One of the main focus areas for CIFOR is on issues which are critical for improving the perception and understanding of the sustainable use of tropical forests by society in general and by local communities at the forest margin in particular. Secondary forests which regenerate on land where primary forest has been cleared for agricultural purposes, are an increasingly important component in land-use dynamics of forested areas under agricultural pressure. They provide a wide range of traditional and potential roles for alleviating poverty and contributing to environmental conservation. Research on tropical secondary forests is timely in the context of current international concerns for sustainable development.

The management potential of secondary forests

Within the generally pessimistic scenarios about tropical deforestation, one optimistic development is that the areas in secondary forests appears to be increasing, particularly in Latin America. The importance of secondary forests in generating incomes for the small farmer and environmental benefits for society as a whole is growing. It has already been demonstrated that the productivity of secondary forests can be increased through management practices (e.g. Brown and Lugo1; Finegan 19922). These findings have lead to the hypothesis that secondary forests may be able to partially compensate for some of the economic and ecological services originally provided by primary forests. Further policy and technological interventions may be able to increase the value of secondary forests to farmers and thus induce them to increase the area in secondary forests and/or delay its re-conversion to other uses (Smith et al. in press3). A multi-disciplinary team in CIFOR is investigating this hypothesis together with the Tropical Agricultural Centre for Research and Higher Education (CATIE) and partners from national research systems in three Latin American countries (Peru, Brazil and Nicaragua). The research is partially funded by grants from the Inter American Development Bank and recently from the Spanish Agency for International Cooperation (AECI).

Main research objectives are:

1. to determine the management potential of secondary forests for production and conservation in biophysical and socioeconomic terms under distinct land-use intensification conditions;
2. to develop and validate techniques for the multiple-use management of secondary forests in each of the research sites with the collaboration and participation of farmers (Pucallpa in Peru; the Micro-Region Bragantina in Para State, Brazil; and the agricultural frontier of Rio San Juan, Nicaragua).

Specific objectives are:
(a) to provide baseline information on the current status of secondary forests;
b) a better understanding of the dynamics of forest conversion;
(c) to determine most appropriate silvicultural options and those options for institutional and policy reform;
(d) to develop local capacity, both for research and operational forest management with sustainability criteria.

During the current *first phase* of the research, baseline studies on biophysical, socio-cultural, economic and policy aspects which may have an impact on the productivity and the management potential of secondary forests are being carried out in the selected sites. A number of small to medium scale farmers will be selected following a set of defined criteria. Permanent plots will be established on their land for long-term biophysical research. Technologies and candidate species and products with potential for generating economic and environmental benefits will be identified. Other studies include market surveys for secondary forest products. Financial analyses on the profitability of secondary forest management compared to alternative land-use systems are also being considered. These studies will focus on the profitability and benefits from the point of view of resource-poor farmers.

In a *second phase* the research will concentrate on the problems and constraints to the technical/operational, administrative, economic, socio-cultural and biophysical aspects which impede the sustainable management of secondary forests, and identify interventions at the level of policies and incentives which may contribute to overcome them. The interdisciplinary research team will develop bio-economic models to study how changes in biophysical, socio-cultural, economic and policy factors influence the profitability and potential for adopting management practices in secondary forests by small farmers in the forest margin. The feasibility of paying farmers for the environmental services they contribute to society by adopting sustainable management practices in secondary forests will also be considered.

**Related research activities**

**Silvicultural interventions in young secondary forests.** This activity focuses on evaluating the effects of silviculture on enhancing forest productivity for timber in small farms, and its impact on plant community biodiversity in young secondary forest stands in Costa Rica. By examining target tree species with wide geographical range and ecological uniformity throughout the lowland humid neotropics, this research has clear potential for applications which may be generalised at the regional level. Compared to older successional stages, young stands are attractive to silvicultural manipulations due to the manageable size of the vegetation, and anticipated growth responsiveness of selected tree species. The initial phase of the activity consisted of site identification, detailed inventories, and design of the silvicultural treatment in a pilot experimental area (4-year old secondary forests stand). A thinning operation was executed in mid 1996 after one year of obtaining baseline information on stand dynamics. Currently, inventories are being made of stands with similar age but different floristic composition to obtain additional species-specific information on target timber species. Stand inventories in additional sites are currently underway and application of silvicultural treatments will follow. This sub-activity will be replicated during 1998 in the Peruvian Amazon and Nicaragua. The research is being conducted in collaboration with CATIE.

**Management of logged-over and second growth forests in the humid Tropics. A Review and annotated bibliography with emphasis on silviculture.** The main output of this activity will be a book focusing on forests which have been extensively modified through human activities or natural events, i.e. including logged-over forests. The comparison among the three major tropical regions should look for common features and differences between the regions/eco-regions regarding the biophysical, socio-economic and policy dimensions of
secondary forest management. CIFOR is currently exploring possibilities to collaborate with related initiatives by international and regional organizations.

A conceptual framework (Smith et al. in press) for identifying appropriate policy and technological interventions to increase the value of secondary forests was recently presented at an international workshop on the potential for secondary forests management in Pucallpa, Peru. The paper developed hypotheses on how the area and characteristics of Secondary forests are expected to change as frontier areas in the forest margins develop over time. It also proposed the types of technologies likely to be adopted and policy interventions required to improve adoption.


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CIFOR's research on criteria and indicators for sustainable forest management

by Ravi Prabhu

We close the twentieth century much in the way we began it: reiterating a consensus that sustainability continues to be the single most important principle to guide forest management. Perhaps one of the most important lessons learnt in trying to achieve sustainable forest management in tropical forests has been the recognition that there is no such thing as a universal management prescription, even in a regional context. Furthermore initial achievements of a management system are not a guarantee of later success. Our perception of what constitutes sustainable forest management has changed over the course of the century, expanding it now to encompass both social sustainability and the maintenance of biodiversity. We must recognise that as human society develops so will its understanding of what constitutes sustainability. We are thus faced with a moving target.

The first step is to recognise the need for sustainable management of natural resources to follow an adaptive management philosophy that embraces the attributes of persistence, change and unpredictability (Holling and Meffe, 1996). Thus management will need to continuously challenge and evaluate its own hypotheses. This implies feedback among planning, implementation, control and results (or impacts) related to social, economic, and ecological issues. Relevant, up to date information is one of the cornerstones for the success of an adaptive management system. As the value of information lies in the way it is organised (Larsen in Rauscher and Hacker, 1989), criteria and indicators for sustainable
forest management (C&I) are the tools which can be used to organise information in a manner useful to conceptualise, evaluate and implement sustainable forest management. Thus, criteria and indicators are tools to pin down the target of sustainable forest management, without loss of its inherently dynamic character.

**Phase 1: August 1994-July 1996**

CIFOR's focus has been on developing criteria and indicators at the forest management unit (FMU) level. Based on field evaluations of 1,100 Criteria & Indicators in FMUs in Indonesia, Côte d'Ivoire, and Brazil during the first phase of the project we were able to identify a set of C&I held in common among the sites (Prabhu et al. 1996). Additional Phase 1 tests took place in Germany and Austria. We have since also completed a test in Cameroon. One important result was the establishment of the more inherently site-specific nature of social C&I compared to ecological or production systems C&I. We also identified a range of issues which need to be addressed through further research.

These included:

- further clarification of the terms and concepts used;
- focusing research on biodiversity and social C&I, two areas considered problematic during phase 1;
- extending research on C&I to other management types, such as community managed forests and plantations;
- important issues such as cost-effectiveness, the determination of performance and how to integrate information for decision making based on C&I.

**Phase 2 - August 1996-July 1998**

The aim of the second phase[^1], is to deliver a tool-box for the development of C&I. During the first phase it became clear to us that if our efforts were to be useful, then they must be directed towards enabling national initiatives to develop C&I sets that were not only locally relevant but scientifically sound and internationally compatible. The only way to satisfy what we anticipated would be very diverse needs for help, would be to provide the basic tools necessary for C&I development. We envisage the tool-box as initially containing all the tools necessary for C&I development. At later stages it could also be expanded to contain the tools necessary for C&I application.

The tool-box will contain tools for most of the following needs:

1. **Development of an initial set of FMU level C&I.** A manual describing the methods we are proposing is currently in preparation (Prabhu, Colfer and Dudley, in prep.)
2. **Addressing gaps and problems** with existing sets of C&I, especially with respect to:
   1. Structure and definition of C&I. Important steps in this direction have already been taken in Prabhu et al. (1996) and Lammerts van Bueren and Blom (1997).
   2. **Biodiversity C&I.** CIFOR's work on developing C&I for impacts on biodiversity are summarised in Namkoong et al. (1996) and Stork et al. (1997). Whereas the proposals in the first paper have undergone a successful field evaluation in Cameroon, the proposals in the second one are due to be tested in a forest concession in Indonesia in November 1997.
   3. **Social C&I.** Our focus is on C&I related to inter-generational access to resources and participation/co-management and how these can be meaningfully...
adapted to local site conditions. Another important tool we are working on is a method to enable identification of important stakeholders in forest management. Without identification of the stakeholders, it is not possible to effectively implement the previous tools for local adaptation of C&I\(^2\) (Colfer 1995, Colfer et al. 1996a, 1996b, 1997).

3. Development of C&I for forests managed by local communities. Based on an adaptation of the approach taken in Phase 1 in natural forests, CIFOR is developing C&I for community forests based on field tests in Cameroon, Indonesia and Brazil. The first test in Cameroon was completed in May 1997; a report is under preparation.

4. Development of C&I for planted forests. As the objectives and management of planted forests in the tropics are very different to those of natural forests and as these forests are becoming increasingly important, we have commenced a research program on appropriate C&I for plantations. This research will take place in Indonesia and India with the possibility of extension to Brazil.

Using C&I for management decision making, with consideration to problems of scale. We have taken exploratory steps towards developing a Knowledge Based System or Expert System based on C&I for this purpose.

Our primary target group for the tool-box in Phase 2 are the developers of C&I for the assessment of sustainable forest management at the FMU level. These can be national agencies involved in the C&I development process, certification groups etc. Secondary targets include developers of C&I at levels other than that of the FMU and forest managers and policy makers with interest in FMU level. We must ensure that it is both generic and practicable, that it is user friendly for as broad a group as is feasible, and that it is scientifically sound, without being of academic interest only.

\(^1\)Some activities have a completion date in January 1999.

\(^2\)It would also not be possible to carry out an effective assessment of sustainable forest management without this information.

**Literature**

- Colfer, Carol J. Pierce with Reed L. Wadley, Emily Harwell and Ravi Prabhu (1997). Intergenerational Access to Resources: Developing Criteria and Indicators. CIFOR Working Paper no. 18
- Prabhu, R., C.J.P. Colfer, R.G. Dudley (1997) Guidelines for developing,
testing & selecting criteria and indicators for sustainable forest management.
CIFOR, Bogor (In preparation)

- Prabhu, R., Colfer, C.J.P., Venkateswarlu, P., Tan, L.C., Soekmadi, R.,
  Management of Forests: Final Report of Phase I. CIFOR Special Publication,
  Bogor

  Applications in Natural Resource Management. AI and Growth Models for
  Forest Management Decisions. Pub. No. FWS-I-89. School of Forestry and
  Wildlife Resources, Virginia Polytechnical Institute and University.

- Stork, N.E., Boyle, T.J.B., Dale, V., Eeley.H., Finegan, B., Lawes, M.,
  Assessing the Sustainability of Forest Management: Conservation of
  Biodiversity. CIFOR Working Paper no. 17

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Criteria and indicators for sustainable forest management

by Esther Blom

In January 1997, the Tropenbos Foundation published the document 'Hierarchical
framework for the formulation of sustainable management standards'. The document
provides a manual for the development of hierarchically consistent standards and a
guideline for the formulation of principles, criteria and indicators for sustainable
forest management (C&I). The document was written to provide practical backup to
the different processes directed at the development of C&I.

After the theoretical exercise, the ideas were put into practice in the following ways.
First of all, Tropenbos gave assistance to the improvement and completion of the
standard (set of C&I) developed by the Dutch Working Group on Sustainable Forest
Management (DBB). The Tropenbos Hierarchical Framework showed that the
consistency of the DBB set could be further improved. In addition, the C&I were too
abstract for use in practice. For this reason, Professor Stortenbeker, Chairman of the
DBB, approached the Tropenbos Foundation requesting assistance in revising the
existing set. A forestry student provides additional support by comparing several
existing standards, to identify gaps and inconsistencies in the DBB set.

In March of this year, Esther Blom, co-author of the document, visited the Centre of
International Forestry Research (CIFOR) in Bogor, Indonesia. CIFOR has conducted
various field tests in tropical rain forest countries, to assess several sets of C&I. The
author used the information from the last test, which was conducted at the Tropenbos-
Cameroon site, to complement and improve the DBB set. She also made a study of
the setup of the CIFOR C&I tests, resulting in various recommendations which will
be processed in the CIFOR report of the Cameroon test. Furthermore, the author
attended meetings of the International Project Advisory Panel (IPAP) and the Scientific Support Group (SGG) of the CIFOR C&I project, presenting the Tropenbos Hierarchical Framework and discussing it with its members.

Erik Lammerts van Bueren visited the 22\textsuperscript{nd} session of the International Tropical Timber Council (ITTO), which took place from May 21-29, 1997 in Bolivia. Here too, the Tropenbos Hierarchical Framework was received with great interest. Representatives from Colombia, Gabon and Malaysia in particular considered the framework to be of use in the development of their countries' standards.

The Tropenbos Foundation is planning to continue its work on C&I in the future. It will deepen its insight into theoretical guidelines for the development of C&I and continue to support countries and organizations in the development of their own sets of C&I.

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**Lessons to be learned from the history of tropical silviculture**

*by C Mueller-Edzards and J Heuveldop*

The Institute for World Forestry at the Federal Research Centre for Forestry and Forest Products is currently preparing a research project on the history of tropical silviculture. The project aims at highlighting the major geographical and possible eco-regional differences of silvicultural systems proposed and/or implemented in the humid tropics from the late 19\textsuperscript{th} century onwards. It pays special attention to systems that were worked out and proposed up to around 1950.

As a first step the Institute of World Forestry started an intensive literature study to identify specific silvicultural systems in various tropical countries. Also, several international research institutions have been asked to contribute their experience and for cooperation in this field of research.

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**Management of dense tropical rainforests in Africa**
Prompted by the FORAFRI project, CIRAD-Forêt has capitalized on the results of research in dense tropical rainforests in Africa. This 3 year project started in 1995. It is financed by the FAC (French Ministry of Cooperation), and is realized in collaboration with CIFOR.

This project intends to improve sustainable management of dense tropical rainforests in Africa. It concerns five countries: Gabon, Cameroon, Congo, Republic of Central Africa and Ivory Coast. This project fits in a context of regional cooperation which it aims to further develop and strengthen. A similar project, directly led by CIFOR exists for the 'Anglophone countries' (Nigeria, Ghana, West-Cameroon and Liberia).

The FORAFRI project pays attention to different subjects such as:

- the capitalization and synthesis of knowledge on the forest ecosystems in the humid zone of Africa;
- the valuation and the communication of results to professionals, public administration and education organizations.

Thus, one of the principal objectives of FORAFRI is to capitalize on the available results of research developments and to make them available to the users. Within the context of the project, the subject 'capitalization and syntheses' has been entrusted to CIRAD-Forêt's charge. This stage of the FORAFRI project started with a workshop held at Bangui from 6 to 11 May 1996. Within this context, in 1997, different articles have been published in the journal 'Bois et Forêts des Tropiques' edited by CIRAD:


In Gabon, studies on Okoumé stand dynamics in the coastal zone have enabled the formulation of methods to regenerate these stands on the border of large forest areas. The results have been compared to those obtained in forest formations in central Gabon.

In the Ivory Coast, the effect of the two types of thinning has been evaluated in
evergreen and semi-deciduous forests (2). Thus elementary data are available on the regeneration rate of these dense forests. Indications on the productivity and silviculture of these forests are also given. The composition and dynamics of natural regeneration (stems of one to 10cm diameter) have also been studied in different contexts: thinning operations, logging, burning (3). Elementary silvicultural prescriptions have been recommended to favour this natural regeneration. In Cameroon, particular attention has been paid to the study of diametric structures of forest stands to be exploited for timber (4). Within the framework of sustainable management a compromise between diametric structure, exploitation diameter and rotation periods has been recommended.

A synthesis article (5) compares the available results of the different research efforts in which CIRAD-Forest has participated since 1974. The reactions of the forest stands to silvicultural interventions has been broadly outlined. The integration of local populations in the management of forests has been developed following a Cameroonian example (6). The study on the rights they exercise or intend to exercise on the natural resources has been introduced. The authors share with us their reflections on the management methods in Francophone Africa. They recommend combining, organising and coordinating the different uses of an ecosystem rather than to aim at specialising the use of specific partitioned areas.

Other studies, useful to forest management, are ongoing in different fields (inventories, biometry, silviculture, exploitation, forest techniques, forest politics). The combination of these synthesis studies makes it possible to lay the foundation of sustainable management of African production forests. The first results are at the users' disposal.

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Research Cooperation Sought

**Dr Sampson K Agodzo** is appealing for financial support and is offering partnership for interested researchers. An initial study has been conducted on Agroforestry Costs and Benefits in an irrigated area in Ghana on a very thin budget. The research areas are: methods for natural resource accounting and quantifying agroforestry benefits.

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The Center for Field Research at **Earthwatch** is now accepting proposals from scientists conducting fieldwork in the ecology, biology, sustainable development, and forestry. Earthwatch is a non-profit institution that sponsors scholarly field research in the biological, physical, social and cultural sciences. For information on field grant application guidelines, proposal forms, and recent grants lists see CFR's homepage at [http://www.earthwatch.org/cfr/cfr/html](http://www.earthwatch.org/cfr/cfr/html)

**George Mwambu** is a lecturer in Uganda currently undertaking a PhD programme at the Agricultural University of Norway whose research topic focusses on harvesting efficiency to promote forest resource conservation. He is looking for current literature and information on the subjects of logging, forest management under efficient and economical harvesting regimes, with an emphasis on forest resource conservation, for both natural and plantation forests.

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**Matthias Dieter** from the Lehrstuhl für Wirtschaftslehre, Freising, Germany, is interested in up to date studies and investigations which deal with the impacts of global climate change on timber markets and is looking for different timber market models, especially those which consider climate change.

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**Asst Professor R S Prasher** is working in the field of natural resource economics and policy and is presently doing research on "Issues in Tropical Timber Trade and Deforestation" and wishes to establish contacts with others working in the same field.

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**Tree City** - an initiative for urban green for local needs with a focus on vulnerable groups in developing countries - is looking for partners to develop an Electronic Reference Library on Multipurpose Urban Forestry in Developing Countries. This searchable database will contain proven solutions to common urban problems facing the world's cities today through sound urban forestry practices. It will include an annotated bibliography, directory of resource persons, training opportunities, project profiles, multipurpose urban trees database.

Contact:
Guido Kuchelmeister
Tree City - Urban Forestry & Arboricultural Program
Graf-Kirchberg-Strasse 26, 89257 Illertissen
Germany
Tel: +49 7303 43776, Fax: +49 7303 42114
E-mail: 100441.3577@Compuserve.com

Later this year, members of **Accao Ambiental para O Barlavento** will be driving from Mexico to Panama to visit forested areas that governmental and nongovernmental sources consider both most valuable in terms of flora and fauna but also most vulnerable to future damage or destruction. Before then, they would like to formulate an itinerary based on candidate sites and welcome any proposals. Ideally, the land they seek will border and provide important expansion of an already protected strategic area or it could serve as a vital corridor between two such sites. It might also be something isolated yet very special in its own right.

They hope to select and purchase land and would be grateful to make contact with any interested debt-for-nature or carbon sequestration incentives, and then live and work, preferably in coordination with NGO(s) to reforest and restore, if necessary, degraded parts of that land. A small section of the deforested land will also be devoted to sustainable agriculture in the hope that the project may eventually become self-supporting. Any suggestions or contacts with further information in Spanish, English, French or Portuguese, ideally via E-mail are very welcome.

Contact:
Antonio Lambe
Accao Ambiental para O Barlavento
Apartado 373
8500 - Portimao, Portugal
Tel: +351 82 442 345
E-mail: tlambe@undp.org

**Solomon Gebreyohannis** is an agroforester in a watershed management planning team which proposes different types of tree plantation techniques and agroforestry schemes in Ethiopia. He is seeking scientifically oriented information and literature on tree plantation and agroforestry topics.

Contact:
Solomon Gebreyohannis
PO Box 631
Bahirdar, Ethiopia

**CIFOR** is currently exploring possibilities to collaborate with related initiatives by international and regional organizations in the field of Secondary Forests (see article page 5).

Contact:
Cesar Sabogal
Internet Features

by Jelle Maas

The following sites may be relevant for anyone interested in sustainable forest management.

The Gaia Forest Archives provide an overview of relevant pages and also news on sustainable forest management at: http://forests.org/forests/susforest.html. This site has links to other relevant sites such as Good Wood Alliance (http://www.goodwood.org/goodwood) which features a directory of suppliers of sustainably-harvested lumber, and information about programmes such as the Greenwood Furniture Project in Honduras, or the Forest Stewardship Council (http://antequera.antequera.com/FSC/).

The International Journal of Ecoforestry (http://www.uidaho.edu/e-journal/ecoforestry/) features general information and reviews and is part of the Ecoforestry Institutes in the US and Canada which are educational, nonprofit, NGOs aiming at education and training, establishment of a demonstration forest and certification of forest products. Although the Ecoforestry Institute is mainly focused on forestry in North America it provides relevant ideas on sustainable forest management which could also be applicable to tropical forests.

This northern focus is also present at the websites of the Canadian based Sustainable Forest Management Standards (http://www.sfms.com/welcome.htm) and Canada’s Forest & Stewardship (http://www.sfms.com/canada.htm) but these pages also provide ideas for general sustainable forest management practices applicable to tropical regions.

Also based in Canada is the Sustainable Forest Management Research Network which was launched in 1995. The network links researchers, industry participants and other stakeholders from 45 organizations across Canada. Their website at http://nce.nserc.ca/news/sfmeng.htm/ gives background information on the network and its objectives.

Other websites focus more on tropical regions such as Guyana. The Iwokrama International Centre for Rain Forest Conservation and Development, in Guyana, was initiated to demonstrate to the global community that tropical rain forests can provide sustainable economic, environmental and social benefits without destroying the biological diversity contained within it. Information on the Centre is provided by the International Development Research Centre in Canada and is reachable through http://www.idrc.ca/iwokrama/.

More information on Guyana in general can be found at http://www.lasalle.edu/~daniels/guyana/h2intro.htm. The World Resource Publication 'Profit without plunder: reaping revenue from Guyana's tropical forests without destroying them', deals more specifically with the deterioration of natural resources in Guyana and is accessible through http://www.wri.org/wri/biodiv/guyana/index.html.

The ASEAN Institute of Forest Management (AIFM) established by ASEAN in...
cooperation with the Canadian International Development Agency (CIDA) focusses mainly on Asia. Based in Kuala Lumpur the institute aims to become a centre of excellence in tropical rainforest management and to provide ASEAN member countries with the technology and expertise to upgrade their capabilities in sustainable forest management. More information at http://www.jaring.my/aifm/.

Another source of information on sustainable forest management is the ELDIS database. This internet linked database (http://www.ids.susx.ac.uk:80/eldis/) covers 5200 items. The database can be searched; it also has a browse option.

International organisations such as IUFRO, FAO, CIFOR and IPF also provide information on sustainable forest management or related subjects. IUFRO has established a taskforce on sustainable forest management which will prepare a state of knowledge report, connecting the operational implementation of sustainability principles in natural forests and plantations with research. The report will also identify areas where research has contributed to this implementation and areas where significant knowledge gaps remain. Information on the Task Force's activities and terms of reference is provided at http://iufro.boku.ac.at/iufro/taskforce/tfsfm/. A seminar will be organised by the Task Force in Australia, August 1998.

The FAO provides some relevant literature through the WAICENT server at http://www.fao.org/waicent which summarises the technical papers on sustainable forest management. The interactive FAO catalogue (at http://www.fao.org/catalog/interact/inter-e.htm) searches agricultural subjects including forestry.

The CIFOR website provides many relevant links and information on sustainable forest management http://www.cgiar.org/cifor.

Some information is provided through e-mail list servers such as the Forestry Policy Experts list server. One of CIFOR's objectives is to keep key opinion leaders in the area of forest policy informed about recent relevant CIFOR policy research results. The list forms part of CIFOR's project on the 'underlying causes of deforestation, forest degradation, and poverty in forested areas', but will also be used to share other CIFOR research results. The average mailing frequency is once every two months. For subscription contact David Kaimowitz (d.kaimowitz@cgnet.com).

The Intergovernmental Panel on Forests website (http://www.un.org/pcs/dsd/ipf.htm), based at the Department for Policy Coordination and Sustainable Development of the United Nations, contains all papers and minutes of the IPF meetings and other activities related to the Panel on Forests.

The International Service for National Agricultural Research (ISNAR), based in the Netherlands, recently established the AROW database which provides easy access to agricultural research organizations around the world through internet. The database is accessible at http://www.cgiar.org/isnar/arow/arowintr.htm.

The Global Biodiversity Magazine is published quarterly by the Canadian Museum of Nature including topics such as sustainable agriculture and biodiversity. The autumn 1997 issue will be on Ecoforestry. The magazine is accessible through
Internet in English at http://www.nature.ca/english/gbzine.htm and in French at: http://www.nature.ca/francais/biodive.htm.

LEUCNET is an informal network of scientists, extensionists and tree growers who share a common interest in improving the productivity and utility of leucaena. *LEUCNET News* the newsletter of the *International Leucaena Research and Development Network* can be seen at http://users.ox.ac.uk/~dops0024.
Other News

Study day: remote sensing for tropical forest resources and sustainable land use management - Brussels - 5 February 1998.

The TELSAT programme (on behalf of the Belgian Office for Scientific, Technical and Cultural Affairs) will organise jointly with the Netherlands Society for Earth Observation and Geo-informatics, a study day entitled: ‘Remote Sensing for Tropical Forest resources and sustainable land use management’.

Invited EC, Belgian and Dutch experts will present their most recent research experience in the field. The programme will include communications related to the global deforestation and land use change process, to regional and local forest management applications and to advanced instruments and algorithms, and also a poster session.

A continuously updated homepage will be soon available on: http://www.vito/tropical.forest. The study day will be chaired by Mr J P Malingreau under the patronage of HRH Prince Laurent of Belgium.

For more information please contact:
B. Decadt
TELSAT
Tel: +32 2 238 3570
Fax: +32 2 230 5912
E-mail: deca@belspo.be

G Nieuwenhuis
Netherlands Society for Earth Observation and Geo-informatics
Tel: +3115 269 1111
Fax: +31 15 261 8962
E-mail: s.j.fraikin@mdi.rws.minvenw.nl

Database on fire management

A database containing some 40,000 references of publications on all aspects of fire management, including basic research, is compiled and continuously updated by the International Association of Wildland Fire (IAWF). IAWF provides members (institutions and individuals are eligible) with additional services, eg the scientific Journal of Wildland Fire, the magazine Wildfire and regular announcements of new publications.

For further information contact:
International Association of Wildland Fire
103 E. Main
PO Box 328
Fairfield
WA 99012, USA
Source: ITTO Guidelines on Fire Management in Tropical Forests
ITTO INFORMATION NETWORK

The ITTO Information Network provides a literature search and retrieval service for individuals and organisations active in tropical forest research and management. This service is only available to people living and working in the tropics. For further information contact:
ITTO Information Network
International Organizations Center, 5th Floor
Pacifico-Yokohama, 1-1-1 Minato-Mirai
Nishi-ku, Yokohama 220
Japan
< Forests Tropical in Management Fire on Guidelines ITTO>
VOLUNTARY SERVICE OVERSEAS

Are you:

- Aged 20 - 70
- Without dependent children
- Willing to work for a modest living allowance
- In good health
- Entitled to unrestricted entry to the UK
- Able to spend two years overseas
- Qualified
- Experienced, usually with a minimum of 18 months' work experience
- Willing to work where you are most needed?

If you answered yes to each of the above questions, you meet the basic VSO criteria and we would welcome you to apply to become a VSO volunteer.

VSO deals with hundreds of individual placements overseas and the above criteria are a guide only. Placements will be more limited at either extreme of the age range and employers in certain skill areas may ask for several years' experience, whereas others might be willing to employ someone recently qualified.

WHAT IS VSO?

VSO is the biggest independent volunteer sending agency in the world. Since VSO started in 1958 we have sent over 21,000 volunteers to work in Africa, Asia, Eastern Europe, the Pacific and the Caribbean at the request of governments, local organisations or other development agencies or non-governmental organisations.

VSO aims to promote and support human development through working to improve people's education and health, income and employment opportunities, and ability to contribute to their society. VSO also works for development back home through a commitment to raising awareness of the issues and by working to change public attitudes.

Volunteers work alongside local people and this can involve teaching, sharing ideas and different ways of working and training in particular skills.

Whilst overseas you are not employed by VSO. VSO is a recruitment agency for employers overseas. VSO works in partnership with these employers. The employer will be contributing to your allowance and accommodation whilst you are overseas. Therefore the demand for you - the volunteer - will be real.

WHAT CAN I OFFER VSO?

Overseas employers insist on people who have specific skills, qualifications and experience. You will need to be willing to share your skills, to pass on what you have learnt in your own education and working life and be happy to learn new methods from your colleagues. As important as your qualifications and work experience are personal qualities such as adaptability, a desire to learn and the ability to get on with people. VSO sees these as vital if you are to be effective overseas. The VSO assessment day focuses on these.
For more information, please contact:
Voluntary Service Overseas
Enquiries Unit
317 Putney Bridge Road
LONDON SW15 2PN, United Kingdom
Tel: +44 181 780 7500
Fax: +44 181 780 7300
http://www.oneworld.org/vso

Source: VSO Information Leaflet
Publications

- **ITTO guidelines on fire management in tropical forests** [ITTO](1997)
- **International forest fire news** UN-ECE Trade Division
- **L'Amenagement durable des forest dense tropicales humides** [René Catinot](1997)
- **ITTO guidelines for the establishment and sustainable management of planted tropical forests** [ITTO Policy Development Series 4](1993)
- **The world's forests - Rio + 5: International initiatives towards sustainable management** Eds. [A J Grayson and W B Maynard](1997)
- **Ecosystem based management of natural resources: A step towards sustainable development** [Rodolphe Schlaepfer](1997)
- **Sustainable management of tropical forests - Mid-term report on cooperation activities financed under Budget Line B7-6201 (formerly B7-5041)** [European Commission](1997)
- **PhD Manuscript - Sustainable forest management modelling: a case study in the PT ASIALOG production forest, Jambi, Indonesia** [Bambang Supriyanto](1997)
- **ODI ural development forestry study guide series**
- **Missing a moving target? Colonist technology development on the Amazon frontier** [Michael Richards](1997)
- **Guyana fragile frontier** [Marcus Colchester](1997)
- **Rain forest program pilot update**
- **Forest participation series**. Forestry and Land Use Programme, International Institute for Environment and Development (IIED)
- **The Pucallpa proposal for the sustainable development of secondary forests in tropical america (brochure, 27 p.) and Memorias del taller internacional sobre el estado y potential de manejo y desarrollo del bosque secindario tropical en América Latina - Pucallpa, Perú. 2 al 6 de Junio de 1997 (proceedings, 272 + IX p.)**
- **Trees of the Tapajos: A photographic field guide** [John A Parrotta, John K Francis, Rionaldo Rolo de Almeida]
- **Los bosques de roble (quercus) de la Cordillera de Talamanca, Costa Rica: Biodiversidad, ecologia conservacion y desarrollo** [Maarten Kappelle](1996)
- **Impact of land use change on the hydrology and erosion of rain forest land in South Cameroon** [Waterloo M J., Ntonga J.C., Dolman, A.J. & Ayangma, A.B.](1997).
- **Non-Timber forest products from the tropical forests of Africa: A bibliography** [Netherlands Committee for IUCN](1997)
- **FAO technical papers: Non-Wood Forest Products 9 -Domestication and commercialization of Non-timber forest products in agroforestry systems** [Eds. R R B Leakey, A B Temu, M Melnyk and P Vantomme]
- **Last frontier forests: ecosystems and economies on the edge** [Bryant, D., D. Nielsen and L. Tangle, 1997. The Last Frontier Forests; Ecosystems and Economies on the Edge. World Resources Institute; Forest Frontiers Initiative.]

**ITTO GUIDELINES ON FIRE MANAGEMENT IN TROPICAL FORESTS**

*ITTO* (1997)
This is the sixth publication in the ITTO Policy Development Series which aims to provide practical assistance to member countries in their efforts to ensure the protection and sustainable management of tropical forests. These fire management guidelines are designed to provide a base for policy makers and managers at various levels to develop programmes and projects in which the specific national, socio-economic, and natural problems related to fire in tropical natural and planted forests will be addressed. The scope of the Guidelines is to assist the ITTO producer and consumer countries to develop programmes for reducing damage caused by fire; and to help tropical forest managers and rural residents to safely use and take advantage of the beneficial effects of fire in land-use systems.

The Guidelines are in accordance with the UN Resolution 44/236 in which the 1990’s were designated as the International Decade on Natural Disaster Reduction (IDNDR). One objective of IDNDR is to reduce damage, economic disruption, and loss of life caused by wildfires through concerted international actions, especially in developing countries.

This document is well-written and concise. It treats a range of issues, including policy and legislation, strategies, monitoring and research, institutional framework and capacity development, socio-economic considerations, land resources management and utilization, and training and public education.


INTERNATIONAL FOREST FIRE NEWS

UN-ECE Trade Division

This newsletter covers fire management and fire research issues at global scale and intends, among others, to build a bridge between fire researchers and fire managers. It also contains information on fire seminars, conferences and training courses. IFFN is distributed twice per year through the United Nations system. For further information contact: Timber Section, UN-ECE Trade Division, Palais des Nations, CH-1211 Geneva 10, Switzerland.

L’AMENAGEMENT DURABLE DES FORETS DENSE TROPICALES HUMIDES

René Catinot (1997)

This new publication from ATIBT (Association Technique Internationale des Bois Tropicaux) describes an approach to the methodology of sustainable management of moist dense tropical forests. In particular the methods used in calculating alternatives, one of the fundamentals of management, is explained.

The book is divided into three parts. The first part deals with the basic knowledge indispensible to the understanding of sustainable management. Experiments in Africa, Asia and America are compared. Next to regeneration and biodiversity greater care should be taken during transport and reducing wastage.

The second part of the book describes the practicalities of management, with
considerations on the institutional framework, human and social factors, land use and forest management units. Finally the technical appendices in part three introduce two methods for estimating the management possibilities of a dense forest zone. Preliminary studies needed to prepare forest zone management are discussed and solutions towards sustainable management are given.

Orders: (publication available in English and French) Editions Scytale, 24 bis, Rue Tournefort, 75005 Paris, France. Tel: +33 143 370 373, Fax: +33 145 870 784, E-mail: scytale@aol.com. Price ff 100. ISBN 2-912309-00-X.

ITTO GUIDELINES FOR THE ESTABLISHMENT AND SUSTAINABLE MANAGEMENT OF PLANTED TROPICAL FORESTS


The guidelines provide a summary of the major issues and principles that need to be addressed in the planning, establishment and management of planted forests in tropical environments. They also aim to introduce readers to the existing literature on various aspects of the establishment and management of planted forests in the tropics that has been produced by FAO and other agencies. It is hoped that this will help to make this already well documented wealth of both research and management experience more accessible to operational forest managers and planners working in tropical countries. The report has four major sections which emphasise the various steps in the sustainable establishment and management of planted tropical forests vis, the development of appropriate policy and legislation, feasibility assessment, planted forest establishment and post-establishment management. Each of these sections contains a set of basic principles and recommended actions. The text has been intentionally kept concise to appeal to a wider audience. The recommended actions are proposed in general terms because the primary target group is the tropical forest managers and administrators who work in settings where ecological, economic and social circumstances can vary considerably. The framework of these guidelines should therefore be modified and shaped into more specific guidelines which are compatible with regional and national circumstances.

There are still 30 copies of this publication available free of charge. Orders: International Tropical Timber Organization (ITTO), International Organizations Center - 5th Floor, Pacifico-Yokohama, 1-1-1 Minato-Mirai, Nishi-Ku, Yokohama 220, Japan. Tel: +81 45 223 1110, Fax: +81 45 223 1111

THE WORLD'S FORESTS - RIO + 5 : INTERNATIONAL INITIATIVES TOWARDS SUSTAINABLE MANAGEMENT


The purpose of this publication is to provide a source document setting out recent developments in thinking and conclusions concerning (mainly) international steps towards ensuring sustainable forest management. The booklet records principal decisions concerning forests emerging from the 1992 Rio Conference and summarises international conventions bearing on forests which were agreed at that conference or earlier. Summaries are given of two major initiatives (Malaya-Canada and India-UK) which were organised in
support of international discussion of the case for a world agreement on conservation and sustainable management of forests. These are followed by summaries of 11 initiatives organised by a wide range of countries to support the Intergovernmental Panel on Forests (IPF) which was established by the United Nations in 1995 to carry forward the international debate, together with the June 1997 decision of the Special Session of the UN General Assembly (Rio +5) which registered the continued failure to achieve international agreement on a world convention. Other chapters record recent discussions and thinking on criteria and indicators of sustainable management, certification and labelling, activities of other institutions and 4 examples of national forest accords. A supplement is planned which will record the full texts of the 11 IPF initiatives.


ECOSYSTEM-BASED MANAGEMENT OF NATURAL RESOURCES: A STEP TOWARDS SUSTAINABLE DEVELOPMENT

Rodolphe Schlaepfer (1997)

Sustainability, and in particular the sustainable use of natural resources, is the subject of much debate. This paper is a conceptual contribution to the management of natural resources, including forests, for sustainable development. Though inspired by North American work for forest ecosystems, the ideas described are applicable to other natural resources and in different ecoregions.

The author first briefly reviews relevant results from the Earth Summit held in Rio de Janeiro in 1992, the 1993 Helsinki Ministerial Conference on the Protection of Forests in Europe and several other international efforts. This is followed by short discussions on sustainability and ecosystems and the concept of ecosystem management, as developed in the US. The main section of the report presents principles of managing natural resources for sustainable development, a definition of ecosystem-based management, as well as instruments and scientific challenges.

IUFRO Occational Paper 6. ISSN 1024-414X. Orders: IUFRO Secretariat, Seckendorff-Gudent Weg 8, A-1131 Vienna, Austria. Fax: +43 1 877 93 55, E-mail: iufro@forvie.ac.at

SUSTAINABLE MANAGEMENT OF TROPICAL FORESTS - Mid-term report on cooperation activities financed under Budget Line B7-6201 (formerly B7-5041)

European Commission (1997)

This 17 page report, including annexes, provides general information on programmes and projects funded by the European Commission's Tropical Forests Budget Line. The Annex tables contain programme and project titles and budget, arranged per country and region for each of the years of the period 1992 - 1995.

The new tropical forests Regulation adopted by the European Council in December 1995 establishes a framework for cooperation in the period 1996 -
1999. The provisional amount allocated for the years 1996-99 is ECU 200 million.
The budget line is managed by the European Commission's DG VIII for the ACP countries, and DG 1B, for Asia and Latin America. In addition to the tropical forest budget line, 10% of the resources provided under financial and technical cooperation with the Asian and Latin American countries are earmarked for environmental and tropical forest operations. Similarly, a number of tropical forest programmes are carried out in the ACP states under the Lomé convention. These programmes are not covered by this report, nor are the scientific programmes financed by the Community, such as Science and Technology for Development and Tropical Ecosystem Environment Observation by Satellite (TREES).
The report is available in English, French, German, Portuguese and Spanish language versions.
For free copies of the report please contact the ETFRN Coordination Unit indicating the preferred language version.

**PhD MANUSCRIPT - SUSTAINABLE FOREST MANAGEMENT MODELLING: A CASE STUDY IN THE PT ASIALOG PRODUCTION FOREST, JAMBI, INDONESIA**

*Bambang Supriyanto (1997)*

This PhD manuscript has recently been completed and will not formally be published, but can be made available at net cost to interested researchers in Indonesia and abroad. If you want to find out more about Dr. Supriyanto's work or wish to make an order please contact:

Prof. Dr. ir. Robert De Wulf, Laboratory of Forest Management and Spatial Information Techniques, Department of Forest and Water Management, University of Gent, Coupure 653, B90000 Gent, Belgium.

Tel: +32 9 264 61 10, Fax: +32 9 264 62 40,
E-mail: Robert.Dewulf@rug.ac.be

**ODI RURAL DEVELOPMENT FORESTRY STUDY GUIDE SERIES**

Intended to be used at undergraduate and postgraduate degree course level, as well as in short courses and at workshops. They will be of interest to policy makers, mid-level professionals and programme coordinators. The titles in this series are:

1. The Organisation of Small-Scale Tree Nurseries: Studies from Africa, Asia and Latin America
   *Edwin Shanks and Jane Carter*
   The authors examine the managerial and organisational aspects of supporting small-scale nurseries and explore the benefits and advantages of decentralisation. Illustrated with case studies from Tanzania, Bolivia, Vietnam, Kenya, Nepal and Sudan.

2. Recent Approaches to Participatory Forest Resource Assessment
   *Jane Carter (ed)*
   Analyses recent experience in participatory approaches to forest resource assessment, from mapping to complex inventories of many
species. Provides case studies from Nigeria, Ecuador, Mexico, Ghana, Nepal, Indonesia and Uganda, supplemented by discussion chapters.

3. Participatory Forest Management in South Asia: The Process of Change in India and Nepal

Mary Hobley

Discusses and reviews recent developments in participatory forest management (PFM) approaches in India and Nepal. Drawing on the rich diversity of ecological, social, political and institutional conditions in this region, the author develops generic principles which are widely applicable outside South Asia.

Orders: ODI Publications, Portland House, Stag Place, London SW1E 5DP, UK. Tel: +44 171 393 1600, Fax: +44 171 393 1699, E-mail: publications@odi.org.uk. Price: Study Guide 1 - £10.95 (+ postage, UK & Europe £163.20 per book, other countries £4.00 per book). Study Guide 2 - £14.95 (+ postage as above). Study Guide 3 - £14.95 (+ postage as above). Special price for all 3 Study Guides: £39.00 (including postage & packing).

MISSING A MOVING TARGET? COLONIST TECHNOLOGY DEVELOPMENT ON THE AMAZON FRONTIER

Michael Richards (1997)

This study brings together recent literature and the author's regional experience to assess the problem of rapid land turnover in colonisation zones in the Amazon Region. Based on field or project experience, various land use alternatives are assessed, including 'slash and burn' farming. The study indicates that institutional factors and market incentives are more powerful determinants of colonist farmer stability than land productivity, and discusses why development efforts need to pay particular attention to the dynamic nature of the frontier. Farmer response to economic and institutional incentives changes as the frontier matures, and projects/technologies have often missed their 'moving target'. Greater success has come when policy, institutional and technical strategies have been more integrated.

Orders: ODI Publications, Portland House, Stag Place, London SW1E 5DP, UK. Tel: +44 171 393 1600, Fax: +44 171 393 1699, E-mail: publications@odi.org.uk. Price £10.95 + postage (UK and Europe £2.00 per book, other countries £4.00 per book).

GUYANA FRAGILE FRONTIER

Marcus Colchester (1997)

Until recently Guyana was a country with vast areas of natural forests untouched by destructive human activities. This treasure is now under threat as never before. Both mining and logging companies have been invited by Guyana's government and are currently leasing nearly half of the country's area. Plans for new concessions are in the pipeline. The most affected by these developments are the Amazon indians, referred to locally as Amerindians. With a journey through Guyana's history the author shows the ever increasing demand on the natural resources. Although several environmental plans have been launched and financial aid is granted there are serious obstacles to overcome. What is promising is the increase in organization and expression of views of the Amerindians. This book is a must for all those interested in Guyana, its people and natural resources.

Published by: Latin American Bureau, World Rainforest Movement, 1c Fosseway Business Centre, Stratford Road, Moreton-in Marsh, Gloucestershire GL56 9NQ, UK

RAIN FOREST PILOT PROGRAM UPDATE

The Pilot Program to conserve the Brazilian Rain Forest publishes a quarterly newsletter. The Pilot Program supports an integrated set of projects that will contribute to a reduction in the rate of deforestation of Brazil's rain forests in a manner consistent with the sustainable development of the area's natural and human resources, and that will provide lessons for designing future activities. The Pilot Program is designed to address the underlying causes of deforestation in Brazil's rain forests through a three-pronged approach. Projects will help strengthen the capacity of the public sector to set and enforce sound environmental policy; improve management of special protected areas, including parks, extractive reserves, national forests and indigenous lands; and increase the knowledge base on conservation of the rain forest and sustainable utilisation of its resources.

For more information about the newsletter please contact:
Judith Lisansky and Loretta Sprissler, The World Bank, Pilot Program to Conserve the Brazilian Rain Forest, Rain Forest Pilot Program Update, 1818 H Street, N.W. Room Q7-057, Washington DC 20433, USA

Source: Rain Forest Pilot Program Update

FOREST PARTICIPATION SERIES

Forestry and Land Use Programme
International Institute for Environment and Development (IIED)

Papers 6 to 10 in the Forest Participation Series focus on the need for negotiation in the implementation of participatory forest management, and in particular the roles of different stakeholders. The papers illustrate the different constraints created by imbalances in stakeholders' roles. They also show how such imbalances can evolve towards forms of collaboration which are conducive to more sustainable management of the forest. All five papers are based on examples from Africa. They are:

- No 8 : Community Forestry: it may indeed be a New Management Tool, but is it Accessible? Two case studies in Eastern Cameroon. Alain Pénelon.
- No 10: Rights and Wrongs of Rights to Land and Forest Resources in sub-Saharan Africa: bridging the gap between customary and formal rules. Olivier Dubois.

Orders: All papers in the Forest Participation Series are priced £3 each, plus postage and packing (15% UK; 35% Europe; 40% airmail).
THE PUCALLPA PROPOSAL FOR THE SUSTAINABLE DEVELOPMENT OF SECONDARY FORESTS IN TROPICAL AMERICA

(brochure, 27 p.) and

MEMORIAS DEL TALLER INTERNATIONAL SOBRE EL ESTADO ACTUAL Y POTENTIAL DE MANEJO Y DESARROLLO DEL BOSQUE SECUNDARIO TROPICAL EN AMÉRICA LATINA - PUCALLPA, PERÚ 2 AL 6 DE JUNIO DE 1997

(proceedings, 272 + IX p.)

These publications are the result of an international workshop on "The Current and Potential State of Management and Development of Secondary Tropical Forests in Latin America", which was held in Pucallpa, Peru from June 2-6 1997. It was funded by the German Development Cooperation Agency (GTZ), the Directorate General for International Cooperation (DGIS) of the Netherlands and the Ministry of Agriculture, Nature Management and Fisheries of the Netherlands. Technical assistance was provided by the GTZ and the National Reference Centre for Nature Management (IKC NATUURBEHEER) of the Ministry of Agriculture, Nature Management and Fisheries of the Netherlands.

Specialists from the FAO and the United Nations Development Programme (UNDP) attended the workshop, as did representatives from national and international institutions such as the Centre for International Forestry Research (CIFOR), the International Centre for Research in Agroforestry (ICRAF), and Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), which work on secondary forests in Latin America.

The brochure is published in English and Spanish. It contains a short general section on secondary forests, their origin, definition, extent and potential, followed by an introduction to the workshop and its objectives.

The third section, the Pucallpa proposal, contains the general and specific conclusions and recommendations of the workshop.

The proceedings of the workshop are published in Spanish, except for one paper which was submitted in English.

For copies of both publications, please contact either of the following:

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TREES OF THE TAPAJOS : A PHOTOGRAPHIC FIELD GUIDE

John A Parrotta, John K Francis, Rionaldo Rolo de Almeida

This book contains illustrations and descriptions, in English and Portuguese, of 172 tree species commonly found in primary and secondary forests of the central Brazilian Amazon region, focussing on the Tapajós National Forest in western Pará State. Photographic illustrations for each species include foliage (plus flowers and/or fruits for some species), seedling, bark and trunk features that are intended to facilitate field identification. Written descriptions of each species include identification characteristics not apparent from illustrations, as well as information on wood and nonwood uses. Also included are a general introduction to the ecological characteristics of the Tapajós National Forest, a glossary of botanical terms used in the text, and indices of scientific and local common names.

Orders: Single copies are available, free of charge, on request for departmental or institutional libraries, or individuals actively engaged in botanical, ecological or forestry research and development activities in the Amazon region. Please send your requests to: Dr John Parrotta, International Institute of Tropical Forestry, USDA Forest Service, PO Box 25000, Rio Piedras, PR 00928-5000, USA. Fax: +1 787 766 6302

**LOS BOSQUES DE ROBLE (QUERCUS) DE LA CORDILLERA DE TALAMANCA, COSTA RICA: BIODIVERSIDAD, ECOLOGIA, CONSERVACION Y DESARROLLO**

*Maarten Kappelle (1996)*

Tropical Montane Cloud Forests have recently received considerable attention. Considered as probably one of the most fragile ecosystems in the world, they are also recognized as one of the world's main centres of biodiversity. At present their future is at stake.

This book, written in Spanish, focuses on one particular Tropical Montane Cloud Forest area in the Neotropical Realm: the Talamancan oak dominated mountain forests of Costa Rica's Amistad Biosphere Reserve. It seeks patterns in biodiversity, especially vascular and non-vascular plant diversity, and addresses current issues in ecology, nature conservation and sustainable development. This forest area is considered one of the most biodiverse regions worldwide and is presently increasingly threatened due to population pressure and unsustainable land use. This book presents the results of a ten-year joint research effort conducted by Costa Rican and Dutch research institutions. It offers detailed information on advanced and strategic plant and community ecological research in a threatened neotropical montane cloud forest region. Simultaneously, it represents a major contribution to local and regional knowledge which is urgently needed for the development and implementation of land management systems with an ecologically sound socioeconomic approach. This edition is directed towards scientists, students, governmental and non-governmental policy makers as well as to local community leaders active in the field of biodiversity, ecology, environmental education, nature conservation and sustainable development. It intends to provide a framework for a much needed sustainable land management system for the fragmented tropical montane forest region of the Talamancan mountain range in Costa Rica.

First edition in Spanish. xvi and 320 pages, paperbound and illustrated with 32 full colour photos, 52 b/w figures and 38 tables. ISBN 99 6870 205 6. Price: Dfl 45.00 or US$ 25.00 (excluding shipping/postage costs). Orders: Hugo de Vries Laboratory, c/o Secretary, University of Amsterdam, Kruislaan 318, 1098 SM Amsterdam, The Netherlands, Fax: +31 20 5257662, E-mail: santos@bio.uva.nl, or: INBio Institute, c/o Publication Department, Apartado Postal 22-3100, Santo Domingo, Heredia, Costa
IMPACT OF LAND USE CHANGE ON THE HYDROLOGY AND EROSION OF RAIN FOREST LAND IN SOUTH CAMEROON


As part of the Tropenbos Cameroon Programme, a hydrological study is being carried out in the rain forest area of South Cameroon by the "Institut de Recherches Géologiques et Minières" (Cameroon) in collaboration with the DLO Winand Staring Centre (The Netherlands). The study aims to provide information on the spatial distribution of rainfall, surface runoff and evaporation in a 2000 km² research area, as well as to assess the impact of selective logging (low intensity, 1 tree ha⁻¹) and shifting cultivation on soil properties, catchment water yield and sediment yield. The present report gives an overview of the results obtained in the first year of the study.

Rainfall varied considerably, ranging from about 1700 mm y⁻¹ in the western lowlands (<100 m a.s.l.) and eastern uplands (>700 m a.s.l.) to 2100-2300 mm y⁻¹ in the lowland-upland transition zone. The spatial variation of rainfall was reflected in the runoff from three small catchments (2.7-7.7 km²) under primary rain forest, selectively logged forest, and forest (65%) - shifting cultivation (35%). Catchment water balance calculations indicate that the impact of land use changes on the annual evaporation (1209-1314 mm y⁻¹) is small at the prevailing low land use intensities and falls within the range of measurement errors. Rainfall must therefore be considered as the main factor affecting the spatial variation of runoff in the area. Catchment sediment yields, however, were clearly affected by the land use changes, with the lowest annual total (56 kg ha⁻¹) observed for primary rain forests, and significantly higher yields for the catchments under forest - shifting cultivation (105 kg ha⁻¹) and selective logging (564 kg ha⁻¹). In the latter, most of the sediment was produced on skid tracks where the topsoil was severely disturbed and compacted. The first results of the study do not give rise to great concern on the impact of the present low-intensity land use changes on the regional hydrology. However, in view of the increased sediment concentrations in streamwater observed after selective logging, and to a lesser extent after shifting cultivation, special attention should be given to the protection of village water supply areas to guarantee an adequate supply of good-quality water in the future.

Orders: Winand Staring Center for Integrated Land, soil and Water Research, P.O. Box 125, 6700 AC Wageningen, The Netherlands. Tel: +31 317 474304, Fax: +31 317 424812. E-mail: m.j.waterloo@sc.dlo.nl

NON-TIMBER FOREST PRODUCTS FROM THE TROPICAL FORESTS OF AFRICA: A BIBLIOGRAPHY

Netherlands Committee for IUCN (1997)

The objective of this bibliography is to provide an overview of available literature (up to January 1997) concerning non-timber forest products in the tropical forests of Africa. With this publication, NC-IUCN hopes to facilitate and encourage the work of government institutions, non governmental organisations and others who wish to engage in studies or activities on NTFPs in tropical Africa.
Although it is fully recognised that non-timber forest products are of importance in all types of forests, this particular bibliography has been restricted to the tropical forests of Africa. Included are the tropical lowland forests, swamp forests, montane forests and mangroves of West, Central and East Africa and Madagascar as described by Sayer et al (1992).

The definition of non-timber forest products which has been used for this bibliography is that used by de Beer & McDermott (1996): "The term Non-timber forest products encompasses all biological materials other than timber which are extracted from natural forests for human use". Hence, no literature on agroforestry and enrichment of forests has been included.

As the subject of NTFPs is related to many research disciplines, an effort has been made to collect information in the fields of ecology, (ethno)botany, pharmacology, anthropology, socio-economy and management, and references have been annotated where possible. The bibliography is divided into three parts: references relevant to 1) the African continent and supranational regions, 2) specific countries, and 3) to the subject in general. The third part was included because much information was found on subjects related to NTFPs that are applicable worldwide (e.g. marketing and tourism). The growing interest in NTFPs over the last decade has resulted in an increase of articles and reports, therefore this present bibliography does not pretend to be complete and NC-IUCN welcomes any additions readers may wish to provide.


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FAO TECHNICAL PAPERS: NON-WOOD FOREST PRODUCTS 9 - DOMESTICATION AND COMMERCIALIZATION OF NON-TIMBER FOREST PRODUCTS IN AGROFORESTRY SYSTEMS

Eds. R R B Leakey, A B Temu, M Melnyk and P Vantomme

This volume contains the proceedings of the International Conference on Domestification and Commercialization of Non-Timber Forest Products in Agroforestry Systems, held in Nairobi, Kenya from 19 to 23 February 1996. It includes the conference recommendations to FAO for the World Food Summit (Rome, 13-17 November 1996), a summary of the Working Group reports, background papers and poster abstracts. The report is organised according to the five thematic areas considered by the conference: assessment and monitoring of non-timber forest products; indigenous knowledge and ethnobotany; product development and management; product domestication and adoption by farmers; and policy and institutional aspects. The 26 background papers give a comprehensive overview of resource identification and assessment, domestication, policy issues and product development prospects of non-timber forest products.

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LAST FRONTIER FORESTS: ECOSYSTEMS AND ECONOMIES ON THE EDGE

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