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Enclosure: Agenda
Dear Readers,

in the last issue of ETFRN News, we reported on the five ETFRN Expert Groups working on special aspects related to tropical forestry. In the meantime, the Expert Groups have convened as follows:

- 15 February 1995: Expert Group on Tree Rhizosphere Studies;
- 17 March 1995: Genetic Diversity Studies;
- 27 March 1995: Natural Forests Management and Conservation (Including Agroforestry);

As a result of these meetings, each Expert Group will provide a 6-8 page background information on important research areas within each theme. These reports, which will also include a list of researchers interested in the various topics, are expected to be published in June 1995. They will be available on request from the ETFRN-Coordination Unit.

Concerning the ‘Directory on European Tropical Forest Research Organizations’ which we also announced in our last issue, we regret to have to inform you that there will be a small delay in finalization. It will probably be published at the end of May. We assure you, however, that immediately on receipt the directory will be dispatched to those who have already expressed their interest.

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Editorial Coordination and Design: Monika Reule
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National Forestry Research in Japan

(from Maria Nunez, FFPRI Japan)

Japan is a country covered by forest in about 67% of its area. About 40% of these forests are dedicated to wood production, either by private owners (69%) or by the government (31%). The main forestry species have traditionally been sugi (Cryptomeria japonica, 49% of man-made forests in 1992) and hinoki (Chamaecyparis obtusa). They produce high quality timber, very resistant against rot. Sugi grows fast on moist and fertile soils in all areas of Japan, except Hokkaido. Hinoki is planted on slopes above sugi, as it prefers relatively drier soil. Akamatsu (Pinus densiflora) is planted in poor and drier soils, and karamatsu (Larix leptolepis) replaces the previous species in colder, subalpine areas.

The Forestry and Forest Products Research Institute (FFPRI) is the only national research organization dedicated to forestry in Japan. It depends administratively on the Forestry Agency, affiliated to the Ministry of Agriculture, Forestry and Fisheries. The Institute was founded in Tokyo in November 1905, and was transferred to Tsukuba (50 km northeast of Tokyo) in April 1978, where the headquarters were established. The Institute was reorganized in October 1988, to accommodate research topics to modern demands for the use of forest products.

Nowadays, the FFPRI compiles five regional centres, one forest science garden, and six experimental forests, besides the seven research divisions in Tsukuba headquarters.

The aim of FFPRI is to elucidate forest functions, promote and improve forest productivity, including new usage of wood resources and other forest products, promote the social and environmental function of forests, and enhance international forestry research cooperation. The Institute publishes one annual report, one trimestral, internal bulletin, one yearly report of important research results, one monthly institution letter, and one monthly research bulletin.

Besides FFPRI, there are 60 regional forestry institutes in Japan run by prefectural governments and supervised by the Forestry Agency, mainly doing research on technology adapted to local features.

A brief history of forestry in Japan
The timber market in Japan was already established in Kitayama, north of Kyoto, in the 15th century. Reforestation with Cryptomeria japonica began in Yoshino district of Nara prefecture around 1620. The trees were rafted on Yoshino river and transported to Osaka, the main commercial centre at that time. In the Meiji period (1868-1911) many feudal, temple- and shrine-owned forests were transferred to the government, becoming the first national forests.
During the early 1920's, the forestry infrastructure was improved with technologies introduced from the west founded with the sale of unneeded national forests. After the Second World War, reforestation was promoted to cover industrial timber demands and restore the devastated land. These forests will be mature towards the 21st century, since the cutting age of planted trees is being extended from 40-50 years now to 80-100 years in the near future.

The national timber production has remained much the same over the last two decades due to increasing production costs, low timber prices and shortage of forestry workers. Lower prices of imported wood has been the main factor contributing to ease the national timber production. Imported wood supply has risen from 13.3% in 1960 to over 70% nowadays. The main exporters to Japan are North America, Siberia and South-Eastern Asia. International agreements, as GATT's Uruguay Round which requested Japan to reduce import tariffs on forestry products by 50%, and a strong yen compared with the US dollar, brings about the necessity for domestic forestry to concentrate on alternative forest management, such as water conservation, erosion control, development of new forest products, tidal waves and wind damage prevention, wildlife conservation, and recreation.

Main lines of research at FFPRI
The FFPRI headquarters comprises seven research divisions formed by two to four sections each. Their main activities are as follows:

1. Forest Environment Division
   The study of relationships between abiotic (soil, water, atmosphere) and biotic factors in the forest ecosystem, aiming at a multipurpose use of the forest.

   1.1 Plant Ecology Section
   Influence of abiotic factors on tree physiology, reproduction, and species distribution. Dynamics of forest communities. Change of nutrient dynamics in trees under environmental factors.

   1.2 Forest Site Section
   Chemical and physical properties of forest soils. Formation and classification of soils. Weathering processes. Human impact on forest soils.

   1.3 Soil and Water Conservation Section
   Prediction and control of water flood, landslides, and erosion in forests.

   1.4 Environment Conservation Section

2. Forest Biology Division
   Comprehensive study of the taxonomy, physiology and ecology of living organisms in the forest. Diagnosis and prevention of pests and pathogens. Management of valuable forest organisms.

   2.1 Forest Microbiology Section
   Taxonomy, physiology and ecology of tree pathogens and symbiotic
microorganisms. Diagnosis and prevention of tree diseases. Culture and preservation of wood-decay and soil fungi.

2.2 Forest Zoology Section
Taxonomy, physiology and ecology of insects, soil animals and wildlife. Biocontrol of insect pathogens.

2.3 Pest and Wildlife Management Section
Chemical ecology of forest organisms. Wildlife conservation and management. Pest prevention and management.

3. Bio-Resources Technology Division
Conservation and use of forest genetic resources. Culture of edible mushrooms. Extraction of biologically active metabolites.

3.1 Genetics Section
Molecular phylogeny of forest trees. Maintenance of genetic diversity. Tree reproduction genetics.

3.2 Molecular and Cell Biology Section

3.3 Forest Chemistry Section

3.4 Mushroom Sciences Section
Taxonomy, physiology and cultivation of wild mushrooms. Mushroom reproduction genetics.

4. Forest Technology Division
Development of silvicultural technology to balance optimal productivity, minimum disturbance and highest safety.

4.1 Silviculture Section
Natural regeneration of forests and improvement of stand regeneration. Weed control. Effect of herbicides.

4.2 Forest Operations Section
Balancing harvest optimization, work intensity, and labour safety. Planning of forest roads network.

4.3 Forest Machinery Section
Improvement of silvicultural and logging machinery, including cable logging systems. Development of automatically controlled machinery.

5. Wood Chemistry Division
Processing of weed into other marketable products (food, carbon fibre and chemical products). Wood preservation technology.

5.1 Chemical Utilization Section
Chemical characterization of wood components and extractives. Chemical utilization of lignin and polyphenol. Biotransformation of cellulose and hemi-cellulose.

5.2 Chemical Processing Section
Surface modification of wood by plasma treatment, development of new coatings, development of functional materials from wood (dielectric materials, adhesives...). Evaluation of bond durability.

5.3 Wood Improvement Section
Prevention of biotic and abiotic degradation of wood. Evaluation of
fungicides, insecticides and fire-resistant materials. Manufacture and evaluation of particle-board and fiberboard.

6. Wood Technology Division
   Improvement of timber processing and evaluation of comfort in wood constructions.

6.1 Wood Properties Section
   Physical and microstructural properties of wood. Research on hardwoods and imported woods.

6.2 Wood Processing Section

6.3 Timber Engineering Section
   Evaluation of structural qualities of wood. Improvement of comfort in wooden dwellings.

7. Forest Management Division
   Planning of forest resources, market survey for timber and non-timber products, increase in the use of domestic wood.

7.1 Resources Planning Section
   Evaluation of the state of national forests by remote sensing. Planning of marketable forest resources.

7.2 Managerial Economics Section
   Marketing analyses for forest products.

The FFPRI’s Regional Centres
   The Regional Centres cover strategically all forest diversity in Japan, and adapt research to local forest features: mixed conifer-hardwood forests in Hokkaido, snowy area forests and beech forests in Tohoku, suburban and poor soil forests in Kanto-Kansai, urban forests and wildlife in Kanto-Chubu, man-made forests in steep topography in Shikoku, and warm-temperate and subtropical forests in Kyushu. Regional Centres also take part or lead national research projects.

   In the six FFPI’s experimental forests, research is carried out on snow damage, sub-alpine forestry, nursery, tropical and subtropical forests, grazing forests, and conservation of wild birds.

International research and technical cooperation
   One of the aims of the FFPI is to promote international forest cooperation. The Institute does not have an own budget for overseas research, thus depends on the funds from other institutions, as the Japan International Research Centre for Agricultural Sciences (JIRCAS), the Science and Technology Agency (STA), the Environmental Agency (EA), and the Japan International Cooperation Agency (JICA).

   The first overseas projects (4 to 5 years’ term) were funded by JIRCAS in the 1970’s, concerning silviculture and reforestation in the Philippines, Malaysia and Thailand. 51 research staff members from FFPI took part in these projects.
Following the reorganization of the Institute in 1988, a Coordinator for Overseas Research was established to manage all overseas research projects where experts from FFPRI took part. Technical cooperation as to afforestation, logging, erosion control, tree improvement, etc. has been supplied through 29 JICA-founded projects since 1975 in 15 countries from Eastern Asia, Africa, and South America. Nearly 50 researchers from FFPRI take part yearly in any of these projects. JICA projects include training of researchers from developing countries at the FFPRI for a 3-6 months' period.

STA is today supporting projects as to "Change of tropical forests and their influences" (1990-1999, in cooperation with Thailand), and "Comprehensive methodology for construction of a global research network" (1993-1997, in cooperation with Australia, China, and South-East Asian countries). Besides, STA provides post-doctoral fellowships for foreign researchers who want to cooperate with Japanese colleagues. By January 1995, four fellows from Australia, Finland, the Philippines and Spain were carrying out research on entomology, remote sensing, canopy cover and mycology in Tsukuba headquarters.

EA supported a project on "Estimation of the feedback effect of earth warming in permafrost regions of Siberian forest ecosystems" from 1991 to 1993 in cooperation with the Russian Academy of Sciences. The project "Global change of environment due to tropical deforestation" started in 1990 in cooperation with Malaysia, and will last until 1999.

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The Faculty of Forestry at Sokoine University of Agriculture
Morogoro, Tanzania

The Faculty of Forestry at Sokoine University of Agriculture attained its present status on the first of July, 1984. It is an outcome of short, but interesting changes which started in 1970 at Makerere University, Uganda.

In 1970, a Department of Forestry was established at Makerere University with the objective of training professional foresters for Uganda, Kenya and Tanzania.

As in July 1973 political events in Uganda made it difficult for the project to achieve its objectives, the Government of Tanzania with the support of the Norwegian Agency for Development Cooperation (NORAD) established a Department of Forestry at Morogoro, under the University of Dar es Salaam.

In 1974, the Department was elevated to a Division, giving it the mandate to develop itself into a Faculty. The Division of Forestry became a full-fledged Faculty of For-
The Faculty offers B.Sc. Forestry, M.Sc. Forestry and Ph.D degree programmes. The Faculty now has its own lecture theatres, offices, laboratories, computer facilities and experimental areas in Morogoro. Its campuses at Olmotonyi and at Mazumbai have been developed to serve practical training, research and demonstration functions.

The basic objectives of the Faculty are:
- to provide high quality and relevant professional level education in forestry and related fields to address the manpower needs of Tanzania and other African countries.
- to conduct basic and applied research in forestry and related fields, paying special attention to the problems of the region; and
- to disseminate research findings to users through extension programmes to relevant institutions and individuals.

The Faculty has five Departments formed on the basis of academic specializations:
- Department of Forest Biology
- Department of Forest Engineering
- Department of Forest Economics
- Department of Wood Utilization and
- Department of Forest Mensuration and Management

There are also two training forests, one at Olmotonyi near Arusha and the other at Mazumbai in the Usambara Mountains.
Organisations - Institutions - Programmes

Research Priority Areas
Forestry research, like any other type of research, is an expensive undertaking, requiring various types of inputs, like manpower, physical and financial resources. As these resources are often limited, priority ranking must be made among research programmes. The following are the priority areas in the Faculty of Forestry. The priority areas are indicated by Departments. However, some of the research priority areas require an interdisciplinary approach to get effective results.

Forest Biology
- Community forestry and agroforestry
- Water conservation/watershed management
- Management of natural forests
- Plantation forestry
- Tree improvement

Forest Economics
- Forestry and economic development
- Efficiency studies
- Pricing of forest products
- Social/Community based studies
- Organizational structure, environmental issues, policies and legislation

Forest Engineering
- Forest roads, logging and log transport in plantations and natural forests

Forest Mensuration and Management
- Quantification of forest commodities
- Forest management and planning

Wood Utilization
- Improvement of local technologies of wood utilization
- Utilization of lesser marketable hardwoods
- Utilization of logging and sawmill wastes
- Product development
- Mechanical processing and seasoning

Research Activities
Research is given due attention by the Faculty of Forestry. Many researches have been conducted by both the staff and students since professional forestry education started in Tanzania.

Currently, there are 20 ongoing research projects funded by the University and donor agencies. Some of the research projects are involving other institutions from outside Africa. Further cooperation is warmly welcome.

Research results are published in the series "Faculty of Forestry Records" and in international journals.

For further information please contact:
The Dean
Faculty of Forestry
Sokoine University of Agriculture
P.O. Box 3009
Chuo Kikuu
Morogoro
Tanzania
The Canopy Research Network (CRN) is an interdisciplinary team of scientists linked to explore methods for collecting, storing and displaying three-dimensional data relating to tree crowns and forest canopies. The network intends to:
- assemble existing literature on canopy structure,
- compile research questions and issues requiring information on canopy structure,
- examine useful information models and software tools already in use in allied fields,
- develop conceptual models and recommendations for the types and formats of information necessary to answer research questions posed by canopy researchers.

For further information please contact:
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Fax: + (206) 866-6794
Email: nadkarnn@elwha.evergreen.edu

The "Estação Florestal Nacional" (EFN) is the forest research unit of the National Agrarian Research Institute (INIA) in Portugal dealing with forest science, wood science and technology and natural resources management. The policy or 'mission statement' of the EFN is to maintain the tradition of excellence in research, information, professional training and advice to support management and policy decisions within the Ministry of Agriculture and private forestry organizations. Its mandate covers a vast range of disciplines from sociology to economics, anatomy to genetic and wood quality and transformation, ecology and silviculture to forest management. This range of expertise is obtained by fostering collaborative arrangements with national and foreign forest research institutions and with various university departments as well as by the diversification of scientific staff background.

EFN's staff is specialized in several target areas. Expertise fields cover: land use, silviculture and natural resources assessment, for which a GIS unit was put into operation, forest management, exploitation, growth modelling, fresh water aquaculture, beekeeping, wood and cork characterization and transformation and social forestry. Nowadays, EFN has a university staff of 43 of which 25 have a PhD degree and 15 MSc.
In fulfilling its mandate, the research programme of the EFN includes projects on ecology, breeding, silviculture and forest management and other non-wood resources, on ecological processes in forest soils and fresh water bodies and on the policy, social and economic aspects of forestry. In the silviculture research area, where the main thrust of the institution lies, the main interest is directed to: early management of growing crops; factors which affect stand stability; maintenance of site productivity; protection against pests, diseases and fire. The studies concerning yield models as an essential tool for management planning are of particular interest.

A new mission statement was entrusted to the institution to cooperate with tropical countries and to profit from the tropical expertise of some of its staff in former research or university institutions in the tropics. Collaborative efforts of EFN with tropical forestry institutions in the last few years were directed to areas of forest evaluation, forest ecology, forest protection, forest and natural resources management, pasture ecology, including Rhizobium isolation, identification and selection and species control and dynamics and formation. Although this is an activity in its beginning, they are particularly supported by research funding derived by bilateral agreements or EU projects. Within bilateral agreements, EFN is recognized by the Ministry of Agriculture as one of its units for forestry training, financing an agreed number of posts.

EFN also provides consultancy services for overseas and development projects under contract and special arrangements with individual researchers. The main core of the formation provided is aimed at developing in EFN trainees an awareness of the limited capacity of tropical forests and to prepare the bases needed for them to face the challenges of the future.

Tailor-made training components are provided on request. In-job formation is granted by the integration of the trainee in an ongoing project complemented by theoretical tutorship by the research staff.

Departments and other scientific research units of the Estação Florestal Nacional are located mostly in Lisbon and partly (Wood Quality and Wood Chemistry Department) in Alcobaça.

For further information please contact:
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Ministério da Agricultura
Instituto Nacional de Investigação Agrária
Estação Florestal Nacional
Tapada Nacional das Necessidades
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Portugal
Tel: +3 51-1-3 97 32 06
Fax: +3 51-1-3 97 31 63
The Foundation for Ethnobiology (FEb) and the “Greenheart Project” in Guyana

(from Helen Pardey, UK)

The Foundation for Ethnobiology (FEb) is a scientific research-based organisation in the UK that was set up in 1988 with the aim of linking together teams of local and international specialists from different research fields to achieve the following objectives:

- to record and disseminate endangered knowledge;
- to establish ethnobiological centres in critical areas and provide training programmes for local people;
- to research and present viable alternatives to logging;
- to promote and develop the use of information technology;
- to develop codes of practice to deal with intellectual property rights.

The main project of FEb is "The Greenheart Project" in Guyana, which is now approaching its second year of operation under sponsorship from the UK government’s Darwin Initiative for the Survival of Species. The central aims of the project are to develop a methodology for ethnobiological data retrieval and to study the human usage and perception of the greenheart tree (Ocotea rodiaei). Collection and preservation techniques will be taught to indigenous and rural peoples who will in turn train others in the skills and values of ethnobiology. The greenheart tree is endemic to Guyana and has a symbolic significance as an emblem (i.e. a green heart) both of the biological ecosphere within which it has evolved and of the different human societies that have developed beneath it. FEb’s work places particular emphasis on the gender implications of ethnobiology as part of the growing awareness of how women are often underestimated as repositories of environmental wisdom.

Conservationists worldwide are increasingly concerned about the extensive concessions being granted to logging companies. This depletion of the surrounding natural resources has placed the greenheart tree and the rest of the rainforests under severe threat. A main priority of the Greenheart Project is to investigate alternative strategies for the use of the greenheart forests other than as timber, and biochemical research will be conducted into sustainable non-timber forest products, including possible commercial uses of the nut for oils.

FEb’s field station in Guyana is presently under construction. Local people will be trained there in the use of information technology and the FEb’s ethnobiological database. It is anticipated that this communication centre will serve as a model for the development of similar centres in other remote regions which have a rich biodiversity but no means to provide for the survival or security. The intention is to involve ‘green wardens’ and ‘green monitors’ who will attend to the centre and its activities. The green wardens will be locally employed information gatherers working in close contact with the green monitors - more experienced workers who will handle incoming information and liaise between native ex-
Experts and academics. The most important aspects of this training are to enable local people to manage their own knowledge of their natural resources and to participate as equals in its conservation.

The FEb has recently completed a survey of ethnobiology databases, which takes a critical look at the formats and designs of existing databases. FEb is in the process of collaborating with other organisations on the development, use and monitoring of its own proposed ethnobiology database, with the intention of making it widely available in the future. This database is being designed specifically for 'native' users and will provide local peoples with a vehicle by which to record their own cultural and economic assets. By furnishing them with the means to participate as equitable economic partners, it is hoped that they will be able to obtain a livelihood from their environmental resources.

A wide range of parties who will be affected - directly or indirectly - by the outcomes of this project are being consulted. These include the Guyanese government, local and international non-governmental organisations, local representatives and indigenous groups around the world. These consultative discussions have reiterated the importance of a number of issues that have arisen during the progress of the project. The most pertinent and controversial of these issues concern the intellectual property rights connected to the commercial development of non-timber forest products (such as pharmaceutical, resins, aromatics and oils). Intellectual property rights (IPR) encompasses knowledge, techniques, methods and inventions. Patents are currently the only available method of dealing with issues of ownership, though they are inadequate when it comes to biological resources, which tend to be communally held. The profits obtained from the identification of a new drug through ethnobiological research must ultimately benefit the indigenous groups who have guarded the knowledge and, just as importantly, the environment in which it was discovered. The FEb is currently undertaking research into contract for developing resources derived from biodiversity.

There is an urgency to FEb's mission strengthened by the realisation that much of the valuable knowledge of the surrounding environment is held in the minds of the older generations. The influence of the western world has cast a shadow over the traditional ways of rural societies, and a dearth of local opportunities for the younger generations has caused them to move to nearby towns. In order to continue in the efforts to save the world's endangered environments the emphasis must lie not only on teaching rural people the value of their ethnobiological knowledge, but also on assisting them in using it to their own economic and social benefit.

For further information please contact:

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Fax: +44-865-59 74 3
Research Cooperations

Under this heading the ETFRN Newsletter offers its readers the possibility to write a short article for future issues of the Newsletter offering research cooperation opportunities. Should you be interested in making your cooperation efforts known to the Newsletter readers, please feel free to send us your summaries.

KFRI is Looking for Research Cooperation in Various Fields of Forestry in India

The Kerala Forest Research Institute (KFRI) was established in 1975 as an autonomous institution under the umbrella of the State Committee on Science, Technology and Environment Government of Kerala, India, to undertake research related to the forestry sector in the state. Kerala, one of the smaller states in the Republic of India is located southwest of the Indian peninsula. The state has about one million hectares of forests including forest plantations. The mandate of KFRI is to enhance the contribution of forestry to the needs of Kerala in a sustainable way.

KFRI is located at Peechi near the town of Trichur in Central Kerala. The main campus, spread over an area of 28 ha, straddles a picturesque hillock that forms part of a reserve forest, not far from the Peechi reservoir. The Institute buildings, residential quarters and experimental gardens have been designed to blend with the natural landscape.

Organisation
The Institute has a strength of 45 scientists, 20 technical and 85 ancillary staff, headed by the Director. The Governing Body of the Institute is appointed by the Government of Kerala and consists of representatives of the Government, the State Forest Department and the forest industries. An Executive Committee oversees the policy matters and administration. The 14 research divisions in the institute, each headed by a Scientist-in-Charge, are: Agroforestry, Botany, Ecology, Economics, Entomology, Genetics, Non-Wood Forest Produce, Plant Pathology, Plant Physiology, Silviculture, Soil Science, Statistics, Wildlife Biology and Wood Science.

Facilities
Over the years, the Institute has established the necessary infrastructure to undertake research in diverse areas of forestry and allied disciplines. Facilities include sophisticated laboratory and field equipment for advanced research in vitro and mist propagation facilities and greenhouses are also available. A reasonably good workshop caters to research in wood science and technology. The Institute also has a recognised herbarium, an excellent collection of forest insects, a medicinal plants garden, an orchidarium and a xylarium. Weather data of the locality is being recorded since 1989.
## ETFRN - International Agenda

### Conferences

<table>
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<tr>
<th>Date</th>
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<tr>
<td><strong>May 95</strong></td>
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<tr>
<td>22. - 26.</td>
<td>2nd Symposium on Forest Harvesting, Salvador/Brazil</td>
<td>Laercio Couto, Department of Forest Sciences, Federal University of Vicosa, 36570000 Vicosa MG, Brazil; Fax: +55-31-891 2166; Email: <a href="mailto:Lcouto@brufv.bitnet">Lcouto@brufv.bitnet</a></td>
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<tr>
<td>23. - 25.</td>
<td>Measuring and Monitoring Forest Diversity, Washington DC/USA</td>
<td>Francisco Dallmeier, 1100 Jefferson Drive, S.W. Suite 3123, Washington DC 20560, USA; Tel: +1-202-357 4793; Fax: +1-202-786 2557</td>
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<tr>
<td>24. - 28.</td>
<td>5th Annual Common Property Conference, Bodo/Norway</td>
<td>Research Fellow Erling Berge, Dept. of Land Use and Landscape Planning, AUN, P.O. Box 5029, N-1432 As, Norway; Tel: +47-64-94 8385</td>
</tr>
<tr>
<td>29. - 1. 6.</td>
<td>Sustainable Forests: Global Challenges and Local Solutions, Saskatoon/Canada</td>
<td>Dr. T. Bouman, Prince Albert Model Forest Association, Inc., Box 2406, Prince Albert, SK, Canada S6V 7G3; Fax: +1-306-763 6456</td>
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<td><strong>June 95</strong></td>
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<tr>
<td>2. - 4.</td>
<td>International Symposium on Natural and Human-Induced Change in Madagascar, Chicago/USA</td>
<td>Dr. B. Patterson, Center for Evolutionary and Environmental Biology, the Field Museum, Chicago IL 60605-2496, USA; Fax: +1-312-663 5397; Email: <a href="mailto:symposia@fmnh.org">symposia@fmnh.org</a></td>
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<td>4. - 8.</td>
<td>Forest Seed Collection, Treatment and Storage, Opocno/Czech Republic</td>
<td>Karel Vancura, VULHM, Forestry and Game Management Research Institute, Jiloviste-Stnady 136, 15604 Prague 5, Zbraslav, Czech Republic, Tel: +42-2-591-250; Fax: +42-2-591413</td>
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<tr>
<td>5. - 10.</td>
<td>Multiple Use and Environmental Values in Forest Planning, Tohma-järvi/Finland</td>
<td>Dr. Pentti Hyttinen, European Forest Institute, Torkatu 34, 80100 Joensuu, Finland; Tel: +358-73-252020; Fax: +358-73-124-393; Email: <a href="mailto:efihyt@joil.joensuu.fi">efihyt@joil.joensuu.fi</a></td>
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<td>7. - 16.</td>
<td>24th ISTA Congress, Copenhagen/Denmark</td>
<td>International Conference Services, P.O. Box 41, Strandvejen 171, 2900 Hellerup, Copenhagen, Denmark; or ISTA Secretariat, P.O. Box 412, CH-8046 Zurich, Switzerland; Tel: +41-1-371-3133 Fax: +41-1-371 3427</td>
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<tr>
<td>12. - 17.</td>
<td>Assessment of Biodiversity for Improved Forest Management, Koli/Finland</td>
<td>Mr. Janne Uuttera, European Forest Institute, Torikatu 34, 80100 Joensuu, Finland; Tel: +358-73-252-020 Fax: +358 73 124 393 Email:<a href="mailto:uuttera@joyn.joensuu.fi">uuttera@joyn.joensuu.fi</a></td>
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<tr>
<td>13. - 15.</td>
<td>17th Canadian Symposium on Remote Sensing, Saskatoon/Canada</td>
<td>Jeff Whiting, Saskatchewan Research Council, 15 Innovation Blvd, Saskatoon, Saskatchewan, S7N 2X8, Canada; Tel: +1-306-933 5423 Fax: +1-306-933 7817 Email: <a href="mailto:whij@src4330.src.sk.ca">whij@src4330.src.sk.ca</a></td>
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<tr>
<td>13. - 15.</td>
<td>International Symposium on Environmental Software Systems, Malvern/USA</td>
<td>Dr. David Russell, PennState Great Valley, 30 East Swedesford Road, Malvern PA 19355, USA;</td>
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<tr>
<td>14. - 17.</td>
<td>Integrated Watershed Management, Bhopal/India</td>
<td>Prof. Dr. T.H. Babu, Indian Institute of Forest Management, P.O. Box 357, Nehru Nagar, Bhopal 462 003 (M.P.) India; Tel: +91-755-67978 Fax: +91-755-62878</td>
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<td>15. - 22.</td>
<td>Large-Scale Forestry Scenario Models: Experiences and Requirements, Joensuu/Finland</td>
<td>Dr. Ivo Kupka, European Forest Institute, Torkatur 34, 80100 Jenuuu, Finland; Tel: +358 73 88570 5332 Fax: +358 73 124 393 Email: <a href="mailto:efidat@joyn.joensuu.fi">efidat@joyn.joensuu.fi</a></td>
</tr>
<tr>
<td>19. - 22.</td>
<td>INBAR/FORTIP/IPGRI Expert Consultation of Genetic Enhancement, Los Banos/Philippines</td>
<td>INBAR, 17 Jor Bagh, New Delhi - 110 003 India; Tel: +91-11-461-9411 Fax: +91-11-4622707 Telex: +31-61536 IDRC IN</td>
</tr>
</tbody>
</table>
ETFRN - International Agenda

28. - 1.7. Planted Forests: Contributions to Sustainable Societies, Portland
Planted Forests Symposium, Forestry Conference Office, College of Forestry OSU, Corvallis, OR 97331-5707, USA;
Email DustmanP@ccmail.orst.edu

29. - 1.7. Environment and Informatics, Budapest/Hungary
EN+IN Conference, Viktor Richter, Computer and Automation Research Institute, H-1518 Budapest,
P.O. Box 63, Hungary
Tel: +361-181-0511
Fax: +361-186-9378
Email h8746@ella.hu

July 95

9. - 14. 3rd International Flora Malesiana Symposium'95, Kew/UK
R.J. Johns, The Herbarium, Royal Botanic Gardens, Kew, Richmond,
Surrey TW9 3AE, UK;
Tel: +44-81-3325799
Fax: +44-81-3325278

Dr. Linda Hardey, Dept. of Natural Resource Sciences, Washington State University, Pullman, WA 99164-6410, USA;

31. - 2.8. Bark Beetles, Blue-Stain Fungi and Conifer Defence Systems, As/Norway
Erik Christiansen, Norwegian Forest Research Institute, Høgskolev. 12, N-1432 As, Norway;
Tel: +47-64-949001,
Fax: +47-64-942980

31. - 4.8. XIV Eucarpia Congress: Adaptation in Plant Breeding, Helsinki/Finland
Prof. Dr. P MA Tigerstedt, President, c/o Congress Management Systems, P.O. Box 1 51, 00141,
Helsinki/Finland;
Fax: +3 581 701 22;

31. - 6.8. Climate Change, Biodiversity and Boreal Forest Ecosystems, Joensuu/Finland
Mr. Timo Karjalainen, Univ. of Joensuu, Faculty of Forestry, P.O. Box 111 FIN 80101 Joensuu, Finland;
Tel: +358 73 1513630
Fax: +358 73 151 3590
Email: tkarjalainen@hiyk, hiebszz.fi

Aug. 95

1. - 5. Internet Applications and Electronic Information Resources in Forestry and Environmental Sciences, Pre-IUFRO - World-Congress meeting of Working Party "Computers"
Hannu Saarenmaa, European Forest Institute, Torikatu 34, 80100 Joensuu, Finland; Tel: +358-73-124 395 Fax: +358-73-124 393
Email: hannu.saarenmaa@metla.fi
1. - 6. Afforestation on First Rotation Sites - Production of Appropriate Seedlings, Seedling Establishment, and Stand Treatment - Pre-IUFRO World Congress Meeting in Garpenberg/ Sweden & Helsinki/ Finland
Anders Mattsson, Swedish University of Agricultural Sciences, Faculty of Forestry, Department of Forest Yield Research, S-776 98, Garpenberg, Sweden; Tel: +46-225-26000 Fax: +46-225-26100

1. - 6. Research on Environmentally Sound Forest Practices to Sustain Tropical Forests, immediately prior to the IUFRO World Congress, Tampere/ Finland
Rudolf Heinrich, Chief, Forest Harvesting & Transport Branch, FAO, Via delle Terme di Caracalla, 00100 Rome, Italy; Tel: +39-6-5225 4727 Fax: +39-6-5225 5618

4. - 6. Pre-Congress Meeting on Forest Pathology, Korkeakoski/Finland
Antti, Uotila, Hyytiälä Forestry Field Station, Hyytiälän tie 124, 35500 Korkeakoski, Finland; Tel: +358-31-3355111 Fax: +358-31-3355555

6. - 12. 20th IUFRO World Congress: Caring for the Forest: Research in a Changing World, Tampere/Finnland
Prof. Risto Seppälä, Finnish Forest Research Institute, Unioninkatu 40 A, SF-00170 Helsinki, Finland; Tel: +3 58-0-85 70 51 Fax: +3 58-0-62 53 08

10. Methodological and Theoretical Aspects of Forest Policy Analysis, Tampere/Finnland
Prof. Dr. Birger Solberg/Executive Secretary Anu Williams, European Forest Institute, Finland; Tel: +358 73 252020 Fax: +358 73 124 393 Email:efisec@joycl.joensuu.fi

11. - 15. 9th International Conference on the state-of-the-art of Ecological Modeling, Beijing/China
Dr. I. Kang, ISE M'95 Conference Secretariat, c/o Institute of Zoology, Chinese Academy of Sciences, 19 Zhongguancun Lu, Beijing 100080, China; Tel: +86 1 25 55 56 12 Fax: +86 1 25 65 68 9

Dr. Reinhard Stettler, College of Forest Resources, University of Washington, Seattle, WA 98195, USA; Tel: +1-206-543-2723 Fax: +1-206-685-0791 Email:stettler@coyote.cfr.washington.edu
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. - 8.7.</td>
<td>16th International Seminar on Environmental Assessment &amp; Management, Aberdeen/Scotland</td>
<td>Mrs Barbara Rae, Centre for Environmental Management and Planning, AURIS Environmental Division, 23 St Machar Drive, Old Aberdeen, AB2 8YF Scotland, UK; Fax: +44-224-487658;</td>
</tr>
<tr>
<td>Aug. 95</td>
<td>8th International Training Workshop on Tropical Forestry and Timber Trade Statistics, Merida/Venezuela</td>
<td>ITTO, Paciﬁco-Yokohama, 1-1-1, Minato-Mirai, Nishi-ku, Yokohama 220, Japan; Fax: +81-45-223 1111</td>
</tr>
<tr>
<td>Oct. 95</td>
<td>Project Formulation Manuals Workshop (English), New Delhi/ India</td>
<td>ITTO, Paciﬁco-Yokohama, 1-1-1, Minato-Mirai, Nishi-ku, Yokohama 220, Japan; Fax: +81-45-223 1111</td>
</tr>
</tbody>
</table>

### Training Courses

#### May 95

1. - 6.6. Urban and Rural Planning and Local Development Policy, Armidale /Australia

Programme Director, International Development Training Programme, PO Box U298, University of New England, Armidale NSW 2351, Australia; Fax: +61-67-73 3799

22. - 9.6. 7th International Training Workshop on Tropical Forestry and Timber Trade Statistics/Côte d’Ivoire

ITTO, Paciﬁco-Yokohama, 1-1-1, Minato-Mirai, Nishi-ku, Yokohama 220, Japan; Fax: +81-45-223 1111

#### June 95

5. - 6.10. The 1995 Certificate Course in Community Forestry, Bangkok/Thailand

Dr. Somsak Sukwong, Director, RECOFTC, Kasetsart University, PO Box 1111, Bangkok 10903, Thailand, Tel: +662-5700108 Fax: +662 5634880
ETFRN - International Agenda

22. - 31. Bioindication of Forest Site Pollution, Ljubljana/Slovenia
   Tempus JEP 04667, Slovenian Forestry Institute, Vecna pot 2, 61000
   Ljubljana, Slovenia,
   Tel: +386-61-123-1343
   Fax: +386-61-273-589
   Email: "gozdarski.institut@guest.arnes.si"

28. - 30. Sabo Symposium: Hydrology and Sediment Problems in Volcanoes,
   Tokyo/Japan
   Dr. Touro Araya, General Secretary of ISS95, The Erosion Control Engi-
   neering Society, Japan, Sbokaikan, 2-7-5 Hirakawa-cho, Chiyoda-ku,
   Tokyo 102, Japan
   Tel: +81-3-3222-0747

Sept. 95

4. - 8. International Symposium on Environmental Biogeochemistry, ISEB-12,
   Rio de Janeiro/Brazil
   Instituto de Giocieias, U.E.R.J.,
   Rua Sao Francisco Xavier, 524
   Maracana, Rio de Janeiro 20550-013 Brazil; Fax: +55-21-2 48 48 70

4. - 8. Third International Conference on Modelling of Global Climate Change
   and Variability, Hamburg/Germany
   Dr. Lydia Dümenil, Conference Co-
   ordinator, Local Organizing Com-
   mittee, Max-Planck-Institut für
   Meteorologie, Bundesstraße 55, D-
   20146 Hamburg/Germany;
   Tel: +49-40-41173-310
   Fax: +49-40-41173-366

17. - 20. International Conference: Driven by Nature: plant litter quality and de-
   composition, Wye/UK
   George Cadisch or Ken Ciller, Dept.
   of Biological Sciences, Wye Col-
   lege, Wye, TN25 5AH, UK;
   Fax: +44-233 813 140;

18. - 21. Terrestrial Ecosystem Monitoring, Southampton, UK
   Joint ISPRS-WG VII/5 & Remote Sensing Society Meeting, Prof. P.
   Curran, Tel: +44 (0) 703 59 22 95
   Fax: +44 (0) 703 59 32 95

25. - 29. Global analysis, interpretation and modelling, the first GAIM science
   conference, Berlin/Germany
   IGBP Sekretariat, Institut für Meteorologie, Freie Universität Ber-
   lin, Carl-Heinrich-Becker-Weg 6-10,
   D-12165 Berlin, Germany;

26. - 30. Somatic Cell Genetics and Molecular Genetics of Trees, Gent/Belgium
   Wout Boerjan, Marie Baucher, Marc
   Van Montagu Laboratorium voor
   Genetica, Universiteit K.L.
   Ledeganckstraat 35, B-9000 Gent,
   Belgium; Tel: +32-9-2645202
   Fax: +32-9-2645349
   Email: woboe@genengp.rug.ac.be
ETFRN - International Agenda

Oct. 95


Dr. Mary A. Topa, Boyce Thompson Institute for Plant Research, Tower Road, Ithaca, Ny 14853-1801, USA
Tel: +1-607-254-1263
Fax: +1-607-254-1242
Email: mat8@cornell.edu

11. - 16. International Symposium: People at the heart of development, 50th anniversary of the Food and Agricultural Organization (FAO) of the United Nations, Quebec City/Canada

Symposium or Exhibition Secretariat, 4020, rue Saint-Ambroise, Bureau 453, Montreal, Quebec, Canada; Fax: +1-514-939 6165

16. - 20. Symposium on "Advances in Forest Seed Production in Latin America", Turrialba/Costa Rica

Dr. R. Salazar, PROSEFOR Project, CATIE, 7170-137 Turrialba, Costa Rica; Tel: +(506) 556-1933 or 556-6431, Fax: +(506) 556-1533

21. - 22. ICSU Global Change Forum, Beijing/China

ICSU Secretariat, 51 bd. de Montmorency, F-75016 Paris/ France; Tel: +33-1-45250329
Fax: +33-1-42889431
Internet: icsu@paris7.jussieu.fr

30. - 3.11. International Congress on Soils of Tropical Forest Ecosystems, Bantikpapan (Kalimantan)/Indonesia

Dr. A Schulte, Indonesian-German Government Cooperation, Indonesian German Forestry Project, Faculty of Forestry, Mulawarman University, P.O. Box 1227, Samarinda 75123, East Kalimantan, Indonesia; Tel: +62 (0)541-35089
Fax: +62 (0)541 -35379

Nov. 95

5. - 10. VII Sympósio Latinoamericano de Percepción Remota, Puerto Vallarta /Mexico

Fax: +525-616-2145, Email: rab@igiris.igeograf.unam.mx

5. - 11. Fire Management and Natural Resource Development in Latin America and the Caribbean Guadalajara/Mexico

A. Koonce, Prescribed Fire Research, USDA Forest Service, Pacific SW Station, Forest Fire Laboratory, 4955 Canyon Crest Drive, Riverside, CA 92507-6071, USA; Tel:+1-909-276 65 70
Fax: +1-909-276 64 26
13. - 17. GIS/LIS '95, Nashville, Tennessee/USA
American Society for Photogrammetry and Remote Sensing;
Tel: +301 493 02000
Fax: +301 493 8245

20. - 24. Le Fonctionnement et la Gestion
des Ecosystèmes Forestiers Con-
tractés Sahéliens, Niamey/Niger
RERFT -c/o Cirad-Forêt - 45bis,
Avenue de la Belle Gabrielle -
94736 Nogent-sur-Marne Cedex
(France); Tel: +33-1-43-94-43-62
Fax: +33-1- 43 94 43 81
Email: grison@nogent-cirad.fr

Feb. 96

19. - 23. IUFRO meeting (S4.02-00) Inven-
tory of Non-Timber Forest Products
(NTFP), Nairobi/Kenya
Dr. August B. Temu, ICRAF, United
Nations Ave., Gigiri, P.O. Box
30677, Nairobi, Kenya;
Tel: +254-2-521-450
Fax: +254-2-521-001
Email: CGNET CGI:236

July 96

13. - 18. 5th ISSR Symposium on Root De-

mographics and their Efficiencies in
Sustainable Agriculture, Grassland,
and Forestry Ecosystems, Athens,
Georgia/USA
Prof. James E. Box, USDA, Agricul-
tural Research Service, South At-
lantic Area, Southern Piedmont,
Conservation Research Center,
1429 Experimentation Station
Road, Watkinsville, Georgia 30677,
USA; Fax: +1-706-769 8962

Sept. 96

2. - 7. 5th Working Party Conference,
Bondone, Trento/Italy
Dr. A. Battisti, University of
Padova, Instituto di Entomologia
Agraria, Via Gradenigo 6, 35131
Padova, Italy;
Tel: +39-49-8071337
Fax: +39-498071526

4. - 9. Meeting of Silviculture Professors,
Portugal/Spain
Prof. Dr. A.C. Oliveira, Dept. eng.
Florestal, Inst. Superior Agronom.,
Universidade Técnica Lisboa, Tapada
da Ajuda, P-1399 Lisboa Cedex,
Portugal

23. - 27. Effects of Environmental Factors on
Tree and Stand Growth, Dresden/
Germany
Günter Wenk, Institut für Wald-
wachstum und Forstliche Informa-
tik, Postfach 10, 01735 Tharandt,
Germany;
## ETFRN - International Agenda

**Oct. 96**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Organizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>28. - 31.</td>
<td>4th International Wood Engineering Conference, New Orleans/USA</td>
<td>V.J. Gropu, Dept. of Civil Engineering, Louisiana State University, Baton Rouge, LA 70803, USA</td>
<td></td>
</tr>
</tbody>
</table>

**May '97**

<table>
<thead>
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<th>Date</th>
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<tbody>
<tr>
<td>12. - 17.</td>
<td>Forestry in a Changing Political Environment: Challenges for the 21st Century, Victoria Falls/ Zimbabwe</td>
<td>The Secretary General, the 15th Commonwealth Forestry Conference, Forestry Commission, PO Box HG 139, Highlands, Harare, Zimbabwe; Tel: +263-14-49 8430 Fax: +263-14-49 7066</td>
<td></td>
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</table>

## Workshops

**May 95**

<table>
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<tr>
<th>Date</th>
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<th>Location</th>
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<tbody>
<tr>
<td>3. - 5.</td>
<td>Life Cycle Analysis - A Challenge for Forestry and Forest Industry, Hamburg/Germany</td>
<td>Prof. Dr. Frühwald, Federal Research Centre for Forestry and Forest Products, Institute for Wood Physics and Wood Technology, Leuschnerstraße 91, 21031 Hamburg, Germany; Fax: +49 40 739 62 48</td>
<td></td>
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**June**

<table>
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<tr>
<th>Date</th>
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<th>Organizer</th>
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</thead>
<tbody>
<tr>
<td>12. - 30.</td>
<td>Management of Protected Area Buffer Zones, La Paz/Costa Rica</td>
<td>Sr. Felipe Matos, Programa de Recursos Naturales, Universidad para la Paz, Apdo. 138, 6100 Ciudad Colón, Costa Rica; Fax: 506-249 1929</td>
<td></td>
</tr>
<tr>
<td>14. - 17.</td>
<td>National Workshop on Combining Sustainable Development and Biodiversity Conservation in Integrated Watershed Management, Bhopal/India</td>
<td>Dr. T. Babu, Indian Institute of Forest Management, Nehru Nagar, Post Box Nol 357, MP., 462 003, India;</td>
<td></td>
</tr>
<tr>
<td>19. - 23.</td>
<td>Project Formulation Manuals Workshop (Spanish) Lima/Peru</td>
<td>ITTO, Pacifico-Yokohama, 1-1-1, Minato-Mirai, Nishi-ku, Yokohama 220, Japan; Fax: +81-45-223 1111</td>
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# ETFRN - International Agenda

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<tr>
<th>Date</th>
<th>Event Description</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. - 21.7</td>
<td>Developing markets for agricultural products, course in Colorado/USA</td>
<td>William Spencer, Interim Director, International Center of Agricultural and Resource Development, 410 University Services Center, Colorado, State University, Ft. Collins, CO 80523, USA; Fax: +1-303-491 6441</td>
</tr>
<tr>
<td>19. - 19.7</td>
<td>Monteverde Cloud Forest Reserve, Costa Rica</td>
<td>Tropical Dendrology (English) Contact: Dr. Humberto Jimenez Saa, Centro Científico Tropical Apt. 8-3870-1000 San Jose/Costa Rica</td>
</tr>
<tr>
<td>29. - 22.9</td>
<td>Tropical Forest Management, Tropical Agroforestry, Tropical Forest Modelling, Edinburgh/UK</td>
<td>Catherine Bancroft, The University of Edinburgh, Univ.Ed Technologies Limited, 16 Buccleuch Place, Edinburgh, EH8 9LN, Scotland, United Kingdom; Tel: +44 (0) 131 650 34 75 Fax: +44 (0) 131 650 34 74</td>
</tr>
</tbody>
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**July 95**

<table>
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<tr>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>2. - 16.</td>
<td>Maritime Permaculture Design Course, Kingston, Nova Scotia</td>
<td>Institute for Bioregional Studies, 449 University Ave, Suite 126, Charlottetown, PEI, Canada C1A 8K3; Tel: +(902) 892-9578</td>
</tr>
<tr>
<td>3. - 14.</td>
<td>Geographic Information Systems and Environmental Modelling Course, Canberra/Australia</td>
<td>Course Coordinator, ANUTECH Pty Ltd, Australian National University, Canberra ACT 0200, Australia; Tel: +61-6-249-5671 Fax: +61-6-249-5875</td>
</tr>
<tr>
<td>6. - 6.9.</td>
<td>Intensive Training Course on Environmental Assessment &amp; Management, Aberdeen/Scotland</td>
<td>Mrs Barbara Rae, Centre for Environmental Management and Planning, AURIS Environmental Division, 23 St machar Drive, Old Aberdeen, AB2 8RY Scotland, UK; Fax: +44-224-487658;</td>
</tr>
<tr>
<td>10. - 28.</td>
<td>Making Forest Policy Work, Oxford/UK.</td>
<td>The Course Coordinator, Oxford Forestry Institute, Department of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB, UK; Tel: +44-1865 275000 Fax: +44-1865 275074, Email:<a href="mailto:ofi@plantsciences.oxford.ac.uk">ofi@plantsciences.oxford.ac.uk</a></td>
</tr>
<tr>
<td>Date</td>
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<td>Location</td>
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<tr>
<td>12. - 28.9.</td>
<td>Research Methods in Forestry, Oxford/UK</td>
<td>Mrs. Helen Stutley, Administrator, Statistical Services Centre, Harry Pitt Building, The University of Reading, P.O. Box 240, Reading, Berkshire RG6 2FN, UK; Tel: +44 (0)1734 318025 Fax: +44 (0)1734 753169 Email: <a href="mailto:statistics@reading.ac.uk">statistics@reading.ac.uk</a></td>
</tr>
<tr>
<td>30. - 5.8.</td>
<td>Climate Change, Biodiversity &amp; Boreal Forest Ecosystems, Joensuu/Finland</td>
<td>Mr. Timo Karjalainen, University of Joensuu, Faculty of Forestry, P.O. Box 111, FIN-80101 Joensuu/Finland; Tel: +358-73-151-3630 Fax: +358-73-151-3590 Email: <a href="mailto:tkarjalainen@joyl.joensuu.fi">tkarjalainen@joyl.joensuu.fi</a>.</td>
</tr>
<tr>
<td>Sept. 95</td>
<td>International Course on Local Level Management of Trees and Forests for Sustainable Land Use, Wageningen/Netherlands</td>
<td>IAC, P.O. Box 88, 6700 AB Wageningen, Netherlands; Tel: +31-8370-90111 Fax: +31-8370-18552 Email: <a href="mailto:IAC@IAC.AGRO.NL">IAC@IAC.AGRO.NL</a></td>
</tr>
<tr>
<td>4. - 29.</td>
<td>Environmental Assessment for Development Projects, Canberra/Australia</td>
<td>Course Coordinator, ANUTECH Pty Ltd, Australian National University, Canberra ACT 0200, Australia; Tel: +61-6-249-5671 Fax: +61-6-249-5875</td>
</tr>
<tr>
<td>Oct. 95</td>
<td>Sustainable Forest Management and Commercialization of Research and Development, Kuala Lumpur, Malaysia</td>
<td>Dr. Andrew Wong, Secretary, CFFPR-95, Organizing Committee, Forest Research Institute Malaysia, Kepong, 52109 Kuala Lumpur, Malaysia; Tel: +603-6342633 Fax: +603-6367753</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
<td>Coordinator/Contact Information</td>
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<tr>
<td>16.-8.12.</td>
<td>Forestry Planning and Management Short Course, Australian National University, ANUTECH Pty Ltd</td>
<td>Course Coordinator, FP &amp; MC ANUTECH Pty Ltd, Australian National University, Canberra, ACT 0200/Australia; Tel: +616-249-5861, Fax: +616-249-5875</td>
</tr>
<tr>
<td>22.-2.11.</td>
<td>International course on environmental assessment for sustainable management, Wageningen/ Netherlands</td>
<td>Director, International Agricultural Centre (IAC), P.O. Box 88, NL-6700 AB Wageningen; Tel: +31-8370-90111, Fax: +31-8370-18552</td>
</tr>
<tr>
<td>23.-10.11.</td>
<td>Agroforestry Research for Development, Nairobi/Kenya</td>
<td>The Training Coordinator, October 1995 Training Course, ICRAF Training Programme, P.O. Box 30677, Nairobi, Kenya; Fax: (254-2) 521 001, Email: 157:CG1236</td>
</tr>
<tr>
<td>Nov. 95</td>
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<tr>
<td>6.-8.12.</td>
<td>Environmental Management - a Gender Balanced Approach, Canberra/Australia</td>
<td>Dr. Rob Crittenden, Forestry and Environment Division, ANUTECH Pty Ltd, Canberra ACT 0200, Australia; Fax: +61-6-249 5875</td>
</tr>
<tr>
<td>Jan. 96</td>
<td></td>
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</tr>
<tr>
<td>10.-1.3.</td>
<td>Logging Systems and Harvest Planning, Oregon/USA</td>
<td>Dr. Loren Kellogg, Course Director, Dept. of Forest Engineering, Oregon State University, Corvallis OR, USA; Fax: +1-503-737 4316; Email <a href="mailto:KelloggL@ccmail.orst.edu">KelloggL@ccmail.orst.edu</a></td>
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<td>June 96</td>
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<td>Catherine Bancroft, Univ.Ed Technologies Limited, 16 Buccleuch Place, Edinburgh, EH8 9LN, Scotland, United Kingdom; Tel: +44 (0) 131 650 34 75, Fax: +44 (0) 131 650 34 74</td>
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<tr>
<td>July 96</td>
<td></td>
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</tr>
<tr>
<td>8.-12.</td>
<td>Participatory Rural Appraisal Techniques, Edinburgh/UK</td>
<td>Catherine Bancroft, Univ.Ed Technologies Limited, 16 Buccleuch Place, Edinburgh, EH8 9LN, Scotland, United Kingdom; Tel: +44 (0) 131 650 34 75, Fax: +44 (0) 131 650 34 74</td>
</tr>
</tbody>
</table>
The KFRI sub-centres at Nilambur and Velupadam provide facilities for establishing nurseries and plantations and to carry out field trials. A Teak Museum is nearing completion at Nilambur. The KFRI Library holds one of the best forestry collections in the country and is used extensively by researchers in the region. A Bamboo Information Centre (BIC), established with the help of the International Development Research Centre (IDRC), Canada, maintains a database of bamboo literature, a directory of bamboo scientists, and brings out the BIC - India Bulletin. The KFRI newsletter 'Evergreen' is issued twice a year.

Funding resources
The establishment fund of the Institute is contributed by the Government of Kerala. Research funds are provided by various user agencies. Over the past 10 years, two-thirds of the total funds were given by the Government of Kerala and the rest by national and international organisations.

Thrust Areas of Current Research
Research pursued in the different Divisions of KFRI relates to all aspects of forestry and includes plantation forestry, natural forest management, forest ecology, forest economics, wildlife biology, wood science, and disease and pest management.

The Institute looks forward to collaborative research in the following fields:

1. **Agroforestry**: Agroforestry models - structure and function of the home garden agroforestry system in Kerala.
2. **Botany**: Taxonomic studies on forest plants - floristic studies of rosewood, canes, bamboos, etc. - survey of medicinal plants and ferns.
3. **Ecology**: Composition of various associations found in forest formations studies on plant diversity, phenological patterns, regeneration - vegetation mapping using remote sensing techniques.
4. **Economics**: Application of economic principles to forestry problems - multiple use forest management studies - socioeconomic analysis of forestry activities.
5. **Entomology**: Integrated pest management research - pests of natural forests, plantations and timber - Insect biodiversity - biocontrol.
6. **Genetics**: Genetic improvement of plantation forestry trees - *in vitro* propagation of commercially important species.
7. **Non-Wood Forest Produce**: Survey and use of NWFP in different forest types.
8. **Plant Pathology**: Diseases in forest nurseries plantations and natural stands - litter decomposition - nitrogen fixing trees - macrofungal flora.
9. **Plant Physiology**: Ecophysiology of natural and plantation forestry species - tree physiology - vegetative propagation of trees - seed physiology.
10. **Silviculture**: Techniques of afforestation - management of plantations - nursery techniques - establishment of germplasm - green belt plantations to control pollution.
11. **Soil Science**: Soil properties in natural and plantation forests - oil erosion - nutrient partitioning - fertilizer applications in plantations.
12. **Statistics**: Design of experiments - sample surveys - statistical analysis of data - forest mensuration.


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**University of Freiburg:**
Graduate Programme "Socio-Economy of Forest Use in the Tropics and Subtropics"

(from Prof. Dr. G. Oesten, University of Freiburg)

The German Research Society (DFG) has approved the new graduate programme "Social and Economic Implications of Forest Resource Use in Tropical and Subtropical Regions". It will be based at the Albert-Ludwigs-University in Freiburg and carried out in cooperation with the Technical University of Dresden, the University of Hohenheim, and the Arnold-Bergstraesser-Institute in Freiburg. The programme begins October 1, 1995, and provides 12 Ph.D. fellowships and 1 post doctorate fellowship.

**General Objectives**

DFG graduate programs are long-term projects with a limited duration of up to nine years. They can be affiliated with one or several universities and/or research facilities. The main objective is to enhance the opportunities of young scientists by improving the standard of their Ph.D. studies. The provision of an interdisciplinary framework and the possibility to place a research project in a larger context should be a point of inspiration for the participants.

**Research Program**

The research results of the graduate program are expected to provide a major contribution to the knowledge of the dynamics of forest loss and destruction in tropical and subtropical regions. They should also contribute to the derivation of appropriate measures for preserving and sustainably utilizing these forests.
The programme will be concerned with the analysis of political, economic, social, and ethnic interrelations which, in connexion with ecological studies, have become increasingly important, since the problems are caused by and have their victims among humans.

Scientifically substantiated information regarding the motives for dealing with ecosystems and implementing land use patterns will be necessary to obtain strategies for protection and sustainable utilization of tropical forests from local to international levels. The prerequisite for deriving such a knowledge is a broad and interactive scientific approach with a problem-oriented and interdisciplinary approach as provided by this program.

The research objectives are only feasible by focusing on few crucial regions. The first stage of the programme (1995-1998) will therefore be restricted to Thailand and Venezuela. During the programme, the participants will spend a period of twelve months working in a team in one of the above countries. Travel costs related to this stay are covered by the DFG.

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Biodiversity Forest Monitoring
Plots: The Reality Check

(from Dr. Francisco Dallmeier, SI/MAB)

The symposium "Measuring and Monitoring Biodiversity in Tropical and Temperate Forests" which took place from 28 August to 3 September 1994 in Chang Mai, Thailand, brought together scientists and researchers from around the world to present their findings and discuss approaches on the topic. The overriding concern was the implementation of consistent protocols for data gathering, analysis, and interpretation. Consistent protocols result in comparable local and regional data, allowing researchers to detect local and regional patterns of change and develop site-specific biodiversity inventories for ecosystem management. Participants emphasized that such methodologies are necessary so that information from various sites can be used more effectively by the international scientific community to conserve biodiversity.

Consistent protocols are also a primary concern of the Smithsonian Institution/Man and the Biosphere Biodiversity Program (SI/MAB). It is believed that by yielding needed baseline information, consistent protocols provide one of the few "reality checks" scientists have for measuring biodiversity trends and establishing appropriate management.
Since the onset of SI/MAB more than eight years ago, work has been concentrated on putting in place systems for measuring and monitoring forest biodiversity within a network of permanent, long-term research plots in protected areas and conservation units around the world. Currently a focus is laid on the coordination of research at both disturbed and undisturbed plots on 16 sites in 12 countries and it is anticipated expanding the network to 300 plots by the year 2000.

Furthermore, the work addresses the challenge of conserving forest biodiversity through a combination of research and professional training courses in cooperation with host-country agencies, institutions, and individuals. In measuring and monitoring biodiversity methods baseline data are collected and will be used to detect changes in forest ecosystems over time. Interdisciplinary teams are trained in measuring and monitoring methods. The training courses combine classroom lectures and discussions with field activities, where participants apply the methods learned in the classroom to on-the-ground situations.

To further understanding of the importance of proper forest monitoring techniques, an international symposium titled "Measuring and Monitoring Forest Biological Diversity; The International Network of Biodiversity Plots", to be held from 23. - 25. May 1995 will be sponsored by SI/MAB. The symposium will focus on baseline data from active forest biodiversity monitoring plots.

Scientific papers presented at the symposium will discuss the floristic composition, structure, diversity, and dynamics of forest plots and complementary research on other taxa.

Long-term Research
One might ask, why are measuring and monitoring necessary? These activities allow scientists to gather and study information about forest species and communities in managed and unmanaged ecosystems. Then, scientists can better predict changes induced by human-caused disturbances. The results of measuring and monitoring at the SI/MAB plots provide snapshots of the larger forest landscape and can be used to formulate management strategies for sustainable use of the forest as a whole.

As examples, SI/MAB has established monitoring plots in temperate forest at the Smithsonian Institution’s Conservation and Research Center in Front Royal, Virginia, USA. The forest is located in a highly developed area of farmland and small towns close to large metropolitan centers. SI/MAB also maintains plots in the tropical forest of Manu Biosphere Reserve. Manu is a basically untouched area in the Peruvian Amazon. As the center of some of the highest biodiversity recorded anywhere on earth, Manu is a magnificent place to study naturally functioning tropical forest ecosystems. If processes and changes that are occurring across such different landscapes as Front Royal and Manu can be understood, officials can improve their chances of developing management techniques that will help maintain ecosystem stability.
It is important to do so because a rapidly growing body of evidence indicates that loss of forest diversity leads to the destruction of ecosystem equilibrium. When the balance of an ecosystem is upset, breakdowns in associated economic and social structures often occur.

Achieving the goal of ecosystem stability requires scientific methods and research such as consistent protocols for long-term data gathering, analysis, and reporting. The SI/MAB program is designed to do this. Its research incorporates three levels of measuring and monitoring. First, periodic surveys and inventories are conducted. At the research sites, field teams carefully lay out the monitoring plots and conduct the first (baseline) survey, taking all relevant measurements, identifying species, and collecting herbarium specimens. Data are entered on portable computers in the field. The results are tabulated and then printed out so that the team can verify them at the site. This helps ensure the accuracy of the data, a critical aspect of measuring and monitoring.

The second level focuses on data about forest dynamics and the regeneration and population dynamics of indicator species. Some needed data are growth, mortality, reproduction rates, and age structure. Where this information is not available in the literature, on-site monitoring is required. Even when other research sources yield data, it is necessary to continue monitoring to document changes.

The third level is aimed at describing ecosystem diversity. SI/MAB incorporates geographic information systems, satellite images, color and infrared aerial photographs and on-the-ground verification to gather details of ecosystem diversity in specific areas. Because this process also reveals damage on the ground, it is especially helpful in selecting sites for long-term monitoring or for special management.

Data Management
Measuring and monitoring have little value unless the results are verified and then made available for continuing research. SI/MAB has developed a computerized data management system - called BioMon - to get accurate data into the hands of researchers, monitoring teams, and decision-makers in a timely manner.

BioMon consists of two modules, one for use in the field and one for use in the office. These menu-driven, interactive modules allow for the entry, verification, and transfer of data with minimal pre-training in the system. A series of data checks are built in, helping ensure accuracy in data entry and improving the quality of the data sets. The office module is the more complex component. It stores data collected in the field from all SI/MAB research sites, assists in data interpretation, and makes it possible to compile reports and other publications in relatively little time.

SI/MAB publications are varied. The results of the analysis form the basis of user and field guides for each long-term research site. The user guides contain up-to-date, detailed biological information about plots at the sites.
To date, studies have yielded sufficient data to produce several user guides and to begin in-depth analyses of forest diversity, dynamics, and regeneration. The field guides, condensed versions of the user guides, accommodate researchers at the sites. SI/MAB also publishes a newsletter, and writes numerous articles and book chapters about the program and its results.

Training
The success of SI/MAB's measuring and monitoring projects depends on cadres of trained professionals in host countries and on adequate infrastructures to support their efforts. SI/MAB has neither the resources nor the mandate to manage all of its existing and proposed long-term monitoring and research efforts from Washington, D.C. The program is designed and carried out with the cooperation of host-country agencies, institutions, and individuals. However, the number of people needing training often overwhelms the capacity of a host country's well-prepared professionals. Many countries need assistance in building up their expertise and support systems for biodiversity research.

SI/MAB training courses attempt to do this. About 30 biodiversity monitoring workshops and courses in the United States, Canada, the Caribbean, Latin America, and China have been conducted. More than 500 participants have been trained in developing a complete monitoring program, including the details of long-term monitoring and data verification, interpretation, and publication. Each workshop features expert instructors and lecturers in a variety of biological and ecological disciplines and in land management.

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Testing Criteria and Indicators for Sustainable Management of Forests - Phase II of the CIFOR-coordinated project completed

The second phase of the CIFOR-coordinated international project "Testing Criteria and Indicators for Sustainable Management of Forests" (see Newsletter 11/94 pp 24) was closed by the workshop held in Samarinda, East Kalimantan (30 March - 2 April 1995).

Based on the results of test phase I in Lower Saxony, Germany, in November 1994, the sets of Standards of Initiative Tropenwald, Smart Wood, Woodmark, Lembaga Ecolabel, and a Dutch Standard were tested in phase II regarding feasibility in the tropical forests of East Kalimantan, Indonesia.

This test focused on the adaptation and implementation of the test procedures to the specific conditions of Indonesian tropical forest management.
In the field trails, carried out in the concession P.T. Kiani Lestari in Batu Ampar (14 - 26 March 1995) the main emphasis was put on the evaluation of the ecological, biophysical and social criteria and indicators as well as on the identification of gaps and necessary modifications. It was recognised that many indicators require additional verifiers which should be quantifiable and lead to repeatable results.

The field test was carried out by an interdisciplinary and international team, including local expertise.

During the field trials the Institute for World Forestry (Hamburg, Germany), as member of the project's Scientific Support Group (SSG), implemented and tested a verification procedure for the biophysical module as a basis for further development.

In the workshop nearly 70 invited participants discussed the results in working groups. By end of April the report of test phase II will be presented by CIFOR.

The analysis of the results and experiences of test phase II will form the basis for the next test, carried out in Côte d'Ivoire, West Africa, in June 1995.

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A meeting of the IUFRO working group S4.02.03 took place in Stellenbosch from 7 - 9 November 1994. This working group addresses the topic of forest inventory on successive occasions, and the theme of the meeting was minimum data requirements for sustainable forest management. The scope of the meeting covered plantations, small-scale forestry and native forests, and economic, sociological and mensurational aspects of forest management were addressed.

The conference was attended by 65 scientists: 38 from South Africa, 15 from the rest of Africa, 6 from Europe and 6 from the Americas and Australia.

The papers presented at this conference approached the topic of "minimum data requirements" from several different viewpoints. Some approached the topic from a research viewpoint, examining the number of replications needed to quantify a given stand property to a specified precision. Others considered a number of key indicators and their utility for forest management. A few papers surveyed variables that could be measured on permanent sample plots to help assess sustainability, but no single paper offered a complete checklist of items to measure.
This does not reflect a shortcoming in forest management or in monitoring techniques, but rather reflects the fact that sustainability criteria are context-dependent.

The definition of "sustainability" was not debated, but it was accepted that it implies the ability of a production system to provide for the present without impairing future productivity and without limiting future options.

Guidelines for assessments
In this opening address to this conference, Professor Jerry Vanclay (chairman of IUFRO S4.02-03) posed some questions to help focus discussions but it was clear that there are no simple answers to the guidelines for assessments. Suitable procedures depend very much on circumstances. However, it is important to recognise that the system of data handling may be more important than the individual items of data. The set of criteria needed to monitor sustainability, with suitable indicators to assess these criteria, should be determined, and appropriate procedures should be instituted. Commence with what can be effectively assessed now, but plan for the future by setting up a framework for what should come later. Do not sacrifice quantity of data.

All monitoring systems should require that plot locations are accurately determined, that all details are carefully recorded, and that standards are maintained. This requires training and supervision, commitment and continuity. It also requires technology that is appropriate, robust and affordable.

Since it is impossible to measure everything everywhere, off-site ecological impacts may best be assessed through selected indicators that integrate many factors.

Economic and social aspects of sustainability may be less amendable to plot-based monitoring, but should not be omitted from assessments of sustainability. Sustainability is a multi-faceted concept, so increased participation by many disciplines should offer a stronger basis for both better management of forests and better monitoring of sustainability. Progress requires that both the own experience and the findings of others presented in the literature will be considered.

A list of points which may be useful as the beginnings of a checklist for sustainability was produced, and it was stressed not to wait for "perfect" data before instituting management reforms, but to act now to reform management. Although present knowledge may be imperfect, one knows enough to manage most forests in a "near-to-sustainable" way.

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The State of Food and Agriculture is FAO’s annual report on recent developments affecting world agriculture. In addition to presenting facts and figures on the global agricultural situation and a review of the economic environment surrounding agriculture, the 1994 issue analyses the economic and agricultural implications of the AIDS epidemic for developing countries; examines the linkages between global warming and agriculture, forestry and fisheries; and assesses the agricultural market and policy effects of the Uruguay Round Agreement as well as the North American Free Trade Agreement.

The regional review analyses trends and issues of importance to agriculture in the different regions, highlighting Brazil, China, Ghana and Turkey in the developing country regions; Estonia, Latvia, Lithuania and Ukraine in Central and Eastern Europe; and Canada and the effects of an enlarged EU in the OECD countries.

The special chapter, forest development and policy dilemmas, examines how society’s shifting and sometimes conflicting expectations create difficult policy challenges concerning the forest sector and national development.


Forestry in irrigation farming within a broader context of resource availability and economic structure was studied in Bura Irrigation Settlement Project (BISP) in eastern Kenya. This project forms part of the research project "Forest Management and Sustainable Development in Dry and Degraded Tropical Lands" at the Dept. of Forest Ecology, University of Helsinki. The emphasis of the present study was on forestry in nomadic pastoralism, flood recession agriculture and irrigation farming. The empirical research dealt with productivity and resilience of the Acacia Commiphora bushland, the productivity, changes and conservation of the Tana riverine forests, and species selection, yield and water use efficiency, and stand density of irrigated plantations. The author concludes that the success of forestry in irrigation schemes depends on the level of integration with agricultural activities at planning and by the performance of the irrigation scheme at implementation.
According to the author, future irrigation planning, including forestry and environmental aspects, must focus on a realistic perception of people and their needs, and the strong interaction of different modes of land use and development intervention.


The 22nd issue of Forest Genetic Resources reports on activities at national, regional and international levels in the forest genetic resources field. Such an activity provides some of the basic elements needed to strengthen environmentally, technically, socially and economically sound forestry programmes, aimed at enhancing the contribution of the forestry sector within national development programmes for human subsistence, better standards of living and the maintenance of a sound, balanced and dynamically changing biosphere.

This study aims at making a constructive contribution to the current debate on the opportunities and risks of the management of tropical moist forests for timber production through a comprehensive analysis of selected forestry enterprises as case studies. Only demonstrably documented experiences with systems of sustainable forest management in species-rich tropical rainforests and management systems with timber production as their primary objective were selected. No primary data was to be collected.

Four case studies were selected for analysis of their sustainability during the second phase:

a) Tropical Shelterwood System (Nigeria)
b) North Queensland (Australia)
c) PT. ITCI, East Kalimantan (Indonesia)
d) CELOS (Surinam)
In order to reach a verdict on sustainability, the analysis was based on ecological, social, and economical test criteria formulated in this paper.

Proceeding from the analysis of the four case studies, the ecological, social and economic risks for the realization of a sustainable forest management were identified, and recommendations for risk-management were made. Additionally, opportunities for the realization of sustainable management of moist tropical forests were also discussed.

The analysis of the case studies brought to light numerous information deficits of current knowledge on the management of tropical moist forests and its effects on ecosystem, society and economy. In order to be able to address these deficits, they have been formulated as proposals for further research activities in the final chapter.

The Challenge of Sustainable Forest Management. These FAO reports analyse the state of forest resources and the role of forests in sustainable development, and provide background information for FAO’s report to the Secretariat of the Commission on Sustainable Development. This statement on the state of the world’s forests presents a synthesis of this background information. It also includes two regional reviews - Europe, and Latin America and the Caribbean- which were prepared in the context of recent FAO regional forestry meetings.

The Role of Alternative Conflict Management in Community Forestry

Christine Pendzich, Garry Thomas, Tim Wohlgenant. 1994. The Role of Alternative Conflict Management in Community Forestry: Resolve. 152 p. The Senior Community Forestry Officer, Forestry Policy and Planning Division, Forestry Department, Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome 00100, Italy, Fax: (+39-6) 522-55514

In October 1992, the Forest, Trees and People Programme (FTPP) of the FAO formally launched a pilot programme on Conflict Management and Community Forestry, asking RESOLVE, a Washington-based environmental dispute resolution centre with considerable Latin America experience, to commission a number of case studies and help to organize a Latin American regional...
workshop in Costa Rica, in September 1993. The present working paper summarizes the results of the case studies, also taking into consideration the ideas and experiences of the workshop participants.

The paper focuses upon disputes that arise over the use and management of forests and forest resources. It examines alternative conflict management as a possible ‘tool’ to address these kinds of disputes, which often confront and confound community forestry efforts. It also looks at the relevance of alternative conflict management in the context of Latin American forest-based communities.


This volume deals with the bamboos of South-East Asia. For centuries bamboos have been of great importance in rural communities in tropical Asia, being used intensively as a sustainable resource for numerous purposes.

Bamboos are often classified as minor or non-timber forest products and their value or potential value has been largely underestimated. In recent years the commercialization of bamboo exploitation for commodities, such as bamboo shoots, bamboo boards, chopsticks, pulp for paper manufacture, and bamboo handicrafts, has caused an increase in the demand for the raw material. This necessitates sustainable management of natural stands and the establishment of bamboo plantations. Reliable and up-to-date information, however, is scarce. In this volume, 45 major bamboo species are highlighted extensively and illustrated, and the characteristics of another 30 minor species are given in brief. The introduction deals with general aspects of bamboo and a glossary explains the terms used.


The French ETFRN National Node has just recently published the first edition of a Directory of French tropical forest researchers. Reference is given to more than 240 individual French scientists. Information is provided in two sections, a) on the researchers themselves and (b) on different indices, allowing the identification of researchers by using specific keywords or the name of the organisation.
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The European Tropical Forest Research Network, an initiative of the Directorate General XII of the European Commission, was established in October 1991.

Its overall aim is to contribute to the international efforts to further a wise and sustainable management and protection of tropical forests and woodlands.

For this purpose, ETFRN offers a forum for information exchange and discussions, and stimulates joint research activities with a clear focus on multi-disciplinary research between European institutions or individuals and in cooperation with scientists from developing countries, working in the field of tropical forestry.

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