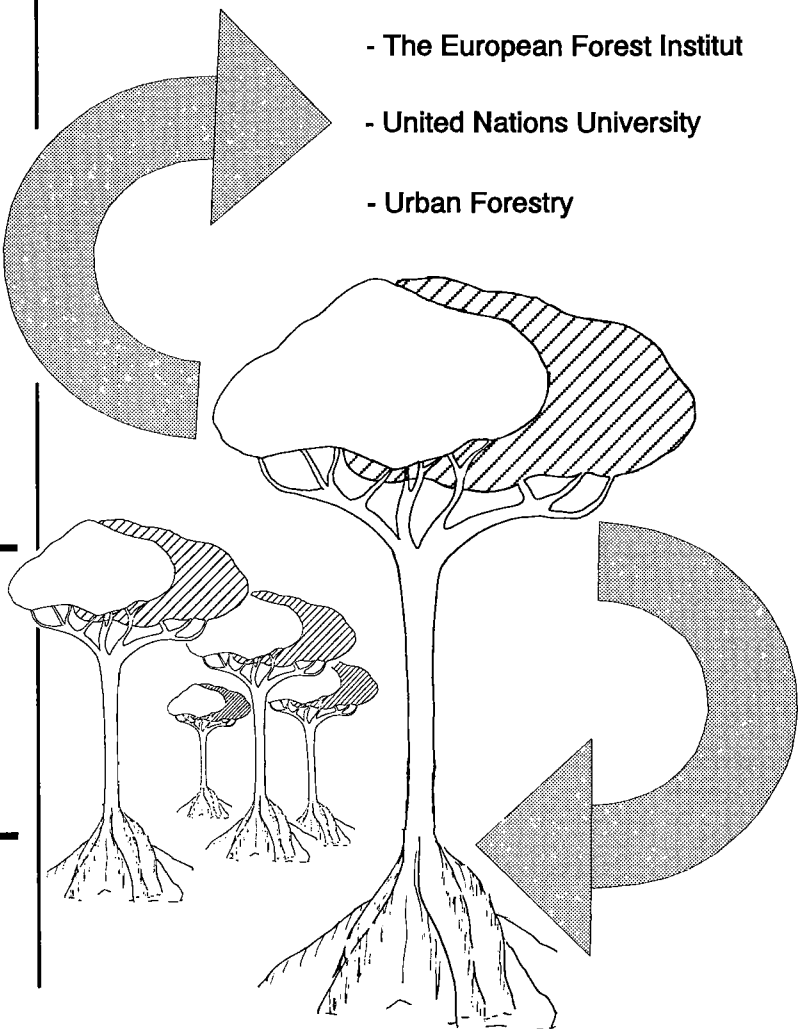


# Newsletter

Programmes - Agenda - News

- The European Forest Institut
- United Nations University
- Urban Forestry



### **The European Tropical Forest Research Network (ETFRN)**

has been established in October 1991 in order to provide information and services to support research on tropical humid and dry forests. This includes all research areas related to the tropical forest environment.

The aim of ETFRN is to increase the cooperation and concertation of research institutions, governments and industry of European and Tropical countries through well targeted information management.

ETFRN organizes and participates in workshops and seminars. It supports the users in exploiting existing funding sources and in establishing research cooperations. It will use and support the development of a Global Tropical Forestry Research Information System.

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### **Impressum**

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### Organizations-Institutions Programmes

#### *The European Forest Institute (EFI)*

Forest resources, their use for different purposes, and the health of forests are studied in most European countries. However, the information gathered on the state of forests is rarely consistent, and comparisons between countries are difficult to make. This has hampered decision-making on Europe's forests, at both national and international level.

The European Forest Institute will be formally founded by the end of 1992; it will satisfy the needs for studying forests at the European level.

The main tasks of the Institute will be to analyse forest resources, wood supply and the health of forests in Europe, as well as to forecast the future development of European forests.

Special emphasis will be put on the interaction between wood production and other forms of forest use. An ecological view will guide the research. The Institute will also develop research methods, standards and terminology in order to ensure that different studies on the state of forests are comparable.

The European Forest Institute will collaborate closely with international organizations and national research institutions, and will

function as a data bank and information centre concerning European forests. Because the institute will serve the needs of decision-making bodies, contacts with leading persons in politics, government, administration and business will be created.

The staff of the European Forest Institute will gradually grow to 20 researchers and approximately 10 persons for administrative and service functions. The majority of the researchers will be recruited from outside Finland. Half of them will be employed for 1 or 3 years, and the remainder will spend shorter periods at the institute.

Finland is the most forested country in Europe, and its national economy is to a large extent dependent on sustainable development and use of renewable forests. Since intensive management of the forests requires a strong scientific background, research on forestry has long been given a priority in Finland. Forest inventory and monitoring, in particular, are advanced in Finland.

The dynamic research environment, the high standard of living, solid political conditions, and the beautiful landscape make Finland an attractive place to spend time - for long or short periods.

The Finnish Government will initially finance the Institute and will also provide substantial support to it when the activities have reached a stable level.

Before its foundation, the initial research programme will be formulated, an interna-

## European Tropical Forest Research Network

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tional collaborative network will be created, and the first scientists including the Director will be recruited. All interested individuals and organizations are welcome to participate in the formulation of the scope of functions and the research programme of the Institute.

Further information:

### EUROPEAN FOREST INSTITUTE

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### *The International Foundation for Science (IFS)*

The International Foundation for Science, founded in 1972, is a non-governmental organization with a membership of 93 scientific academies and research councils in 79 countries, of which three-fourths are in developing countries and one-fourth in industrial countries.

The Foundation is governed by an international Board of Trustees, which is elected every three years at the General Assembly. The Secretariat is located in Stockholm, Sweden.

The Foundation supports young developing country scientists of merit. Their research must fall within the areas of aquatic re-

sources, animal production, crop science, forestry/agroforestry, food science, and natural products. Besides being from a developing country, the researcher must also carry out the research in a developing country. His or her institution is expected to provide salaries and basic research facilities.

The support provided by the IFS is of the following nature:

- \* Financial support in the form of research grants enables researchers to purchase equipment, expendable supplies, literature, etc.

The grants amount up to US\$ 12,000 and are renewable two times.

- \* The IFS Purchasing Department can arrange purchasing and delivery of equipment on behalf of grantees.

- \* The IFS organizes for its grantees regional workshops and training courses. These scientific gatherings, also attended by senior scientists, give grantees an opportunity to share ideas and acquaint themselves with up-to-date techniques.

- \* Supplementary travel grants may be awarded in order that grantees may attend scientific meetings.

Research grant applications are submitted directly to the IFS Secretariat, which relies on a worldwide network of senior scientists to evaluate the proposed research project.

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Applications must be made on the IFS application form (in English or French), which is available from the IFS Secretariat

IFS will consider applications for projects dealing with research on most aspects of its research areas. (The following descriptions give a general idea of research topics, they are by no means all-inclusive.) The projects should be relevant to developing countries, research-oriented and not a transfer of technology. All research proposals should aim at contributing to ecologically, socially, and economically sustainable development.

**Aquatic Resources:** Research dealing with the ecology and management of aquatic resources, including artisanal fisheries. Simple surveys not included. Emphasis on aquaculture research - selection of sites, selecting, breeding, rearing and nutrition of cultivable organisms and disease control. Relevant research in aquatic biology and ecology - environmental impact studies and ecology of species and ecosystems.

**Animal Production:** Research in animal production includes breeding, reproduction, and nutrition; health and diseases, the development, production, and conservation of feed, animal traction, and animal production systems.

**Crop Sciences:** Research on production of agricultural and horticultural crops, farming systems, crop management including soil, water fertilizer studies, plant-microorganism relationships, disease, pest and weed control, plant breeding, genetic engineering of crops.

**Forestry/Agroforestry:** Research in this area includes tree production, forest management and agroforestry systems, regeneration and afforestation, multipurpose, fuelwood and fruit trees, timber quality, genetics, taxonomy, physiology, ecology, disease and pest control, soil studies, tree-microorganism relationships.

**Food Science:** Research on post-harvest systems and technology, storage, food processing, food technology, food safety and quality, food composition, and nutritional value.

**Natural Products:** Identification, isolation, characterization, and preparation of organic compounds to produce medicinal, biological, and industrial products. Included in this area is research on the development of traditional medicines: ethnobotanic studies, chemical and pharmacological investigations, and environmental chemistry.

### Criteria for an IFS Grant

1. Applicants shall be:
  - native to a developing country
  - in possession of an academic degree (not less than an M.Sc. or the equivalent)
  - currently employed at a university or research institution in a developing country
  - young (normally under 40 at the time of first application for a grant) and at the beginning of their research career.

2. Research proposed by applicants shall be:

- conducted in a developing country
- relevant to the needs of a developing country
- on a specific project which falls within the IFS areas, listed above.

Regular financing comes from governmental sources or through IFS Member Organizations in thirteen countries; namely Belgium, P.R. China, Denmark, Finland, France, Germany, Japan, The Netherlands, Nigeria, Norway, Sweden, Switzerland, and the US. A number of national and international development agencies, including the World Bank, UNDP, UNESCO, ISESCO, CTA-EEC, IDRC (Canada), and the French Ministry of Cooperation contribute to the IFS granting and supporting programmes. The budget for 1992 is approximately US\$ 5.5 million.

For further information please contact:

International Foundation for Science (IFS)  
Grevturegatan 19  
S-114 38 Stockholm  
Sweden  
Tel: +46-8-7 91 29 00  
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***Landbouwwuniversiteit Wageningen  
Department of Plant Taxonomy***

The research carried out by the Department of Plant Taxonomy is focused on classification, nomenclatur, description, relationships between higher plants and their phylogeny reconstruction. Processes and patterns of variation, evolution and distribution are studied; plant groups occurring in Africa and those related to cultivated plants are the subjects.

In particular the African plant groups, most of which grow in the tropical forests, are in need of further inventory and elaboration, as flora works for many parts of Africa are yet incomplete. The results and experience form a basis for use and further study of the vegetation and are indispensable when methods are developed to protect and maintain tropical rain forests, and exploit these in a durable fashion.

The taxonomic revisions contribute to knowledge of tropical biodiversity and international flora projects for areas or countries such as Cameroon, Ethiopia, Gabon, East Africa, Flora Zambesiaca, Flore d'Afrique Centrale. Special efforts are currently underway in cooperation with Gabon but also with other African countries. In 1994 the Department of Plant Taxonomy plans to host the 14th Congress of AETFAT (Association for the taxonomic study of the flora of tropical Africa) in Wageningen from 22 - 28 August. Publication lists are available on request.

Apart from the classical morphological methods with herbarium and other conserved material, experimental work is carried out with living collections in greenhouses and experimental fields. Caryological, hybridization and palynological research and electrophoresis are carried out. Resulting large datasets are analyzed by computer. Several parts of the research are carried out as Ph.D. studies, some in collaboration with other departments or agricultural institutions.

The Herbarium Vadense of the Department of Plant Taxonomy contains about 600,000 specimens, many collected since 1955 and is therefore a depository of recent voucher specimens of many African countries and cultivated plants. The collection is available for study and can be sent on loan, on the usual conditions. Together with the live collection, library and laboratory excellent tools are available for taxonomic research.

### ***Special Programme for Developing Countries (SPDC)***

SPDC was established by IUFRO in 1983 at the request of the international donor community following a declaration of the XVII IUFRO World Congress in Kyoto, Japan in 1981. The declaration aimed to increase international support for the development of forestry research in less developed countries.

SPDC aims to promote the improvement of forestry research in less developed coun-

tries through special-purpose projects and activities in collaboration with forestry research and donor agencies of the international community.

SPDC is an active and fully participating member of the international programme for assistance in forestry research to the developing world. It has evolved into a strong component of the overall IUFRO programme, fostering and assisting the activities of IUFRO while meeting its mandate of forestry research improvement. The SPDC programme is implemented through a variety of donor-supported activities including training programmes, workshops and seminars, information services and liaison and collaboration.

SPDC achieves delivery of its programme through the world-wide IUFRO forestry research network and in collaboration with the forestry programmes of major international agencies as well as by independent initiative.

SPDC's tasks have been to identify priority forestry problems requiring concerted action; to increase the ability of forest scientists in less developed countries to conduct quality research; to facilitate information flows to forest scientists; and to assemble funds for a programme of general assistance for forestry research in the developing world.

SPDC has made a substantial contribution in attaining its objectives and has provided much needed bridging activity while the donor community formulated its plans for

an international forestry research institution.

With evolving world needs and the advent of a globally supported forestry research initiative within the Consultative Group on International Agricultural Research (CGIAR), the challenges for the SPDC have changed. However, its overall aim, of promoting the improvement of forestry research in developing countries remains unaltered.

SPDC programme for the future will focus on training, information services, and liaison and collaboration initiatives. Emphasis will continue to be placed on needs identified by our clients. Activities will be conducted in a context of strong linkages with the traditional programme of IUFRO and will take advantage of the unique global IUFRO family of forestry research institutions and organizations.

Contact:

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**UNESCO**  
**South-South Cooperation**

The Conference on "Environmentally Sound Socio-Economic Development in the Humid Tropics", held from 13 to 19 June 1992 in Manaus, Brazil, was the first follow-up to the United Nations Conference on Environ-

ment and Development (UNCED) and aimed at putting into action the recommendations of **Agenda 21** adopted in Rio de Janeiro. This Conference was jointly organized by The Association of Amazonian Universities (UNAMAZ), The Programme on Man and the Biosphere of the United Nations Educational, Scientific and Cultural Organization (UNESCO-MAB), The United Nations University (UNU), and The Third World Academy of Sciences.

The Conference was action-oriented and had several interrelated objectives. The first was to review the state-of-the-knowledge report in selected areas of research in Latin America and South-East Asia, with a view to identifying research priorities. Secondly, a first attempt was made to identify the means to strengthen institutionally the local capabilities for research and training and to recommend possible actions in this area. Thirdly, discussions were undertaken to establish a cooperative **South-South programme** to improve the exchange of information and experiences, as well as scientists. The Conference brought together about 230 participants from 28 countries, including 35 rectors and directors of the UNAMAZ network, researchers, and representatives of several international and bilateral organizations as well as Non-Governmental Organizations, the latter ensuring a grass-roots representation.

The most important output of the Conference was a clear statement of the need to establish comprehensive inventories of the research institutions working in the humid tropical areas and of the past and ongoing



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research carried out in order to avoid duplications of efforts, identify gaps, and acquire a more complete picture of the range of opportunities for mutual learning through exchange of experience, of young and senior scientists, and establishment of parallel and joint projects.

Furthermore, emphasis was laid on the need to identify sustainable and decent living conditions for the inhabitants of the humid tropics as a basic requirement for development. In this context special attention should be given to:

- a) Rehabilitation of degraded areas;
- b) Agroforestry;
- c) Forest management;
- d) Establishment of extractive and biosphere reserves; and
- e) Rational use of biodiversity for the benefit of local and indigenous populations and the countries concerned.

In order to harmonize conservation of ecosystems in the tropics with sustainable development, a network of biosphere reserves should be established strengthened by South-South cooperation. Research and monitoring in these biosphere reserves will focus on testing hypotheses in the field of biodiversity within the framework of world-wide collaborative research of the programme *Diversitas* launched jointly by UNESCO, IUBS and SCOPE. Exchange of experience in buffer zone development of biosphere reserves, training of biosphere reserve managers and participation of local and indigenous people will be organized.

There is a general consensus concerning the need to foster South-South cooperation, and the perspectives opened by UNCED provide an opportunity to move concretely along these lines. Confronting the variety of ecological and social configurations in the various parts of humid tropical areas of the world could improve our knowledge of the functioning of these complex and fragile socio-ecosystems and lead to the formulation of transition strategies towards sustainable development. Much can be gained by studying comparatively across the South the successful cases of management of resources and development processes responding to the three criteria of social equity, ecological sustainability and economic efficiency. A comparative study of failures will be equally pertinent.

Research should be future-oriented in order to strengthen the response capacity of the developing countries to the emerging and changing challenges facing humankind. For this purpose it is essential that the research and development systems of the developing countries become increasingly self-reliant and resilient to external pressures. The local capacity for carrying out research and training in the humid tropics should reach the necessary critical mass which, according to the Third World Academy of Sciences, should be of at least 1,000 scientists per 1 million population by the turn of the century.

The industrialized countries can best contribute to this effect by establishing endowment funds for research institutions in the South. At the same time, Southern

countries should find mechanisms for mobilizing local resources on a continuing and stable basis, e.g. in the form of committing a fixed share of the state budget for research funding.

A major research effort should be undertaken to explore both the frontiers of modern science and the accumulated knowledge of the local populations. The results already available and those of practices that have proven successful should also be disseminated.

Efficient dissemination and utilization of science and technology requires a better communication between all the actors in the development process. Scientists must learn to interact with policy-makers, the business community and citizens at large. They must equally learn to work within a holistic and interdisciplinary framework. Research on sustainable development requires the concerted effort of both natural and social scientists. Interdisciplinarity will not be achieved by mere juxtaposition of disciplines.

The economic dimension within the environmentally sound sustainable development has to be strengthened.

Strengthening the local capability of training high-level specialists capable to plan and implement sustainable development strategies and manage rationally natural resources is as important as strengthening the local research capacity.

The discussions of the Manaus Conference showed the need to promote training courses of different kinds and levels, a

field in which both UNESCO and UNU have considerable experience. In particular, it is necessary to provide access to environmental education to all strata of the population, and to revise the methods of extension which should be based on an interactive communication with the farmers. NGOs will have an important role to play in this respect.

The Federal University of Pará proposes to set up in cooperation with all the major research centres in the city of Belém a doctoral course on Environment and Development in the Humid Tropics, the first of its kind in Amazonia. In order to ensure the comparative dimension in the teaching and research developed within this initiative, it is desirable to establish close cooperative links between this university and other institutions in Africa and Asia.

The expansion of training activities will call for a systematic effort in producing state-of-the-knowledge reports and didactic materials, using extensively comparative case studies, a catalogue of sustainable development experiences and an inventory of training opportunities in the world.

A crucial requirement for the expansion of South-South cooperation in the field of training is the establishment of a fellowship programme. In this connection, Zaire expressed deep interest in sending students for training in the institutions of the UNAMAZ region, as well as promoting exchange of teachers and students.

Rather than building new institutions, existing capacities should be identified,

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evaluated and fully utilized. The proposed programme requires a funding of approximately US\$ 2 - 3 million per year, excluding thus any attempt at creating any specialized centre or institution. The available resources should be spent to increase the access of all the participants of the South-South network to information, to increase the mobility of researchers, to allow for the organization of workshops on specific topics, to organize a limited number of bi- or trilateral teams that would carry out jointly comparative field research, and, finally, to convene every two or three years a larger conference of the network to present and evaluate the comparative projects and to define new priorities of research.

The overall coordination of the South-South-Cooperation project will be situated at UNESCO. Moreover, each region will have a coordination unit located in the most suitable country or institution of the area. The Steering Committee for the programme with a parity representation of the three continents appointed by the convening institutions will have to identify regional coordinators and the institutions as well as the countries participating in the programme. Funding for these units will emerge from donor contributions and national participation. It is foreseen that interested countries of the tropical regions should participate with an amount of 10 to 15 % of the overall budget. These contributions may be in cash or in kind.

Participating institutions should make their publication facilities available to the project. International journals and publication

series emanating from the institutes should be disseminated for information at a regional level.

Contact:

UNESCO  
Programme on Man and the Biosphere  
(MAB)  
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### *United Nations University*

The University, headquartered in Tokyo, has research and training centres and programmes throughout the world, both in developed and developing countries. Not directly supported by the UN, its budget comes entirely from voluntary contributions from governments, foundations, and other public and private sources.

There is no faculty, central campus, nor student body in the traditional sense. Yet the United Nations University is very much alive as an educational network, promoting research and training and spreading information relating to the problems of human survival, development, and welfare.

Over the years, research at the UNU has encompassed the social sciences, economics, peace, culture and development,

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natural and applied sciences and technology policy issues, human rights, environment, and energy. Its training and fellowship programmes aim to strengthen academic institutions in developing countries, as well as provide opportunities for scholars and scientists there. The publishing arm of the University, UNU Press, prints and disseminates books and monographs on programme issues worldwide.

The University carries out research in five focal areas, one of which, the Global Life Support Systems Programme Area, examines how human action influences the environment. The programme emphasizes environmental and resource management leading to regional ecological sustainability, and promotes the study of environmental change that affects the Earth as a whole.

A number of projects deal with issues related to tropical forest areas. One example is "Population Growth, Land Transformation and Environmental Change", a new international collaborative research project studying, among other areas, the Brazilian Amazon, Southeast Asia, and the New Guinea Highlands. From 1992 through 1998, team members are researching the management and mismanagement of land resources, and examining changes in land use and cover due to socioeconomic forces and population growth. The work coordinates field research at the village level, with utilization of remote sensing and geographical information systems (GIS).

Soon to be moving to permanent headquarters in Ghana, the UNU/INRA Research and

Training Centre has the goal of strengthening African institutions and mobilizing scientists and technologies. Among UNU/INRA's initial research priorities are studies into soil and water conservation and management practices in sub-Saharan Africa. Research Projects are carried out in collaboration with investigators from various national universities and research institutions. UNU provides seed money, but in many cases the bulk of funding comes from other sources.

UNU also sponsors conferences, such as: "Towards Sustainable Environmental and Resource Management: Futures for Sub-Saharan Africa", to be hosted by the University of Ghana, 22 - 26 March, 1993.

Over the years the UNU Press has built up a substantial list of publications from the research programme. For a list of publications and further information please contact:

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Fax: +81-3-34 99 28 28

# European Tropical Forest Research Network

## International Agenda: Conferences

Date	Title	Contact
<b>Dec. 92</b>		
07. - 11.	International Workshop on Improved Utilization of Timber Resources in Southeast Asia, Kuala Lumpur/Malaysia	The Organizing Secretariat, Mr. Kamarulzaman Nordin, International Workshop on Improved Utilization of Timber Resources in Southeast Asia, c/o Forest Products Division, FRIM, Kepong, 52109 Kuala Lumpur, Malaysia; Tel: +6 03-6 34 26 33, Fax: +6 03-6 36 77 53
<b>Jan. 93</b>		
12. - 14.	Developing Large Environmental Data Bases using Geographic Information Systems and Remote Sensing Technology for Sustainable Development, Nairobi/Kenya	Dr. Ashibindu Singh, IUFRO S4.02.-05, P.O. Box 3 05 52, Nairobi, Kenya; Tel: +2 54-2-5 20 60 00
17. - 22.	International Conference on Current Progress in Medicinal and Aromatic Plant Research, Calcutta/India	Dr. Santwana Mukherjee (Ms), Secretary General, 131/A, S.P. Mukherjee Road, Calcutta 700 026, India; Tel: +91-74 00 30
<b>Feb. 93</b>		
24. - 28.	World Neem Conference, Bangalore/India	T.S. Subramaniam, Conference Secretariat, "World Neem Conference", Agricultural Research Centre, ITC Ltd.-International Business Division, 7th Floor, Amrutha Topaz, Somajiguda, Hyderabad - 500 482, (A.P.) India; Tel: +91-8 42-21 06 61/ 21 01 62/21 18 24, Fax: +91-8 42-21 09 21
<b>March 93</b>		
02. - 06.	Seminar on Forest Research Management in the Asia-Pacific, Dehra Dun/India	FAO, Regional Office for Asia and the Pacific (RAPA), Maliwan Mansion, Phra Atit Road, Bangkok 10200, Thailand; Tel: +6 62-2 81-78 44, Fax: +6 62-2 80 04 45, Telex: 82815 foodag th
09. - 12.	International Symposium on System Analysis and Management Decisions in Forestry - Forest Management and Planning in a Competitive and Environmentally Conscious World, Santiago/Chile	J. Douglas Brodie, Dept. of Forest Management, Oregon State University, Corvallis, OR 97331, USA; Fax: +1-5 03-78 37-49 52
12.	Energy, Carbon Dioxide and Forests, Edinburgh/UK	Edinburgh Centre for Tropical Forests, Darwin Building, University of Edinburgh, Mayfield Road, Edinburgh EH9 3JU, Scotland, U.K.; Tel: +44-31-6 62 07 52, Fax: +44-31-6 62 04 78
22. - 26.	Towards Sustainable Environmental and Resource Management: Futures for Sub-Saharan Africa, Ghana	The United Nations University, Headquarters, 53 - 70, Jingumae 5-chome, Shibuya-ku, Tokyo 150, Japan; Fax: +81-3-34 99 28 28

## European Tropical Forest Research Network

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### April 93

09. - 17. Joint Conference of the University Brunei Darussalam and the Royal Geographical Society on Tropical Rainforest Research: Current Issues, Brunei Darussalam  
University Brunei Darussalam, Bandar Seri Begawan 3186, Brunei Darussalam; Tel: +6 73-2-42 70 07, Fax: +6 73-2-42 70 03, Telex: bu 2725
18. - 22. International Symposium/Workshop on the Management and Rehabilitation of Degraded Lands and Secondary Forests in Amazônia, Pará/Brazil  
Dr. John A. Parrotta, International Institute of Tropical Forestry, USDA Forest Service, Call Box 25,000, Rio Piedras, PR 00928, USA; Fax: +1-8 09-7 66-63 02
19. - 22. First International Symposium on the Biology of Adventitious Root Formation, Dallas/Texas/USA  
Edith Franson, Executive Secretary, Rooting Symposium, USDA Forest Sciences Lab., Box 8 98, Rhineland-er, Wisconsin 54501, USA; Tel: +1-7 15-3 62 11 12, Fax: +1-7 15-3 62 78 16

### May 93

06. - 07. Biodiversity and Environment - Brazilian Themes for the Future, London/U.K.  
The Executive Secretary, The Linnean Society, Burlington House, Piccadilly, London W1V 0LQ, United Kingdom
15. - 19. Spatial Accuracy of Natural Resource Data Bases, Williamsburg/Virginia/USA  
James L. Smith, Dept. of Forestry, 319 Cheatham Hall, Virginia Tech, Blacksburg, VA 24061-0324, USA; Fax: +1-7 03-2 31-33 30
23. - 30. Ecophysiology and Genetics of Trees and Forests in a Changing Environment, Viterbo/Italy  
Technical Secretariat, Dept. of Forest Environment and Resources, DISAFRI, University of Tuscia, Via S. Camillo De Lellis, 01100 Viterbo, Italy; Tel: +39-7 61-25 74 03, Fax: +39-7 61-25 73 89

### June 93

07. - 10. Nutrient Uptake and Cycling in Forest Ecosystems, Halmstad/Sweden  
Dr. L.O. Nilsson, Swedish University of Agricultural Sciences, Dept. of Ecology and Environmental Research, P.O. Box 70 02, 75007 Uppsala, Sweden; Tel: +46-18-67 25 48, Fax: +46-18-67 34 30
14. - 16. Modern Methods for Estimating Tree Volume and Increment, Morgantown/W. Virginia/USA  
Dr. Harry V. Wiant Jr., Div. of Forestry, West Virginia University, Morgantown, WV 26506, USA; Tel: +1-3 04-2 93 34 11, Fax: +1-3 04-2 93 24 41
14. - 17. Conference on Growth and Yield Estimation from Successive Forest Inventories, Copenhagen/Denmark  
Jerry Vanclay, Royal Veterinary and Agricultural University, Section of Forestry, 57 Thorvaldsenvej, 1871 Frederiksberg C, Denmark; Tel: +45-35 28 22 25, Fax: +45-31 35 78 33
15. - 19. International Symposium on Genetic Conservation and Production of Tropical Forest Tree Seed, Chiang Mai/Thailand  
Symposium Secretariat, ASEAN-Canada Forest Tree Seed Project, Muak-Lek, Saraburi 18180, Thailand; Tel: +66-36-34 13 05, Fax: +66-36-34 16 91

## European Tropical Forest Research Network

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### July 93

12. - 14. Developing Large Data Bases using Remote Sensing and GIS Technology for Sustainable Management of Natural Resources, Nairobi/Kenya  
Dr. Ashbindu Singh, UNEP/GRID, P.O. Box 3 05 52, Nairobi, Kenya; Tel: +2 54-2-22 64 91
18. - 23. Wind and wind-related damage to trees, Heriot-Watt University, Edinburgh/UK  
C.P. Quine, Forestry Commission, Northern Research Station, Roslin, Midlothian EH25 9SY, Scotland, U.K.; Tel: +44-31-4 45 21 76, Fax: +44-31-4 45 51 24
19. - 23. International Symposium "Monocotyledons: Classification and Evolution", Surrey/U.K.  
Paul Rudall (Secretary), Royal Botanic Gardens, Kew, Richmond Surrey, TW9 3DS, U.K.
28. - 06. 6th International Congress of Plant Pathology, Montreal/Canada  
Congress Secretariat, 6th International Congress of Plant Pathology, Attn. Mrs. Doris Ruest, National Research Council Canada, Ottawa, Ontario K1A 0R6, Canada; Tel: +6 13-9 93-92 28, Fax: +6 13-9 57-98 28, Tlx: 053-3145

### Aug. 93

10. - 18. 8th International Conference on Root and Butt Rots, Sweden and Finland  
Martin Johansson, Dept. of Forest Mycology and Pathology, Swedish University of Agricultural Sciences, P.O. Box 70 62, 75007 Uppsala, Sweden; Fax: +46-18-30 92 45
15. - 20. Biology and Control of Reproductive Processes in Forest Trees, Victoria/British Columbia/Canada  
Dr. Stephen D. Ross, B.C. Ministry of Forests, Research Laboratory, 1320 Glyn Road, Victoria, B.C. V8W 3E7, Canada; Fax: +1-6 04-3 56 85 43
15. - 20. IUGB 21st Congress "Forests and Wildlife ... towards the 21st Century", Halifax/Canada  
Dr. Ian D. Thompson, President, IUGB, c/o Forestry Canada, Box 6028, St. John's, Nfld. A1C 5X8, Canada

### Sept. 93

12. - 16. 3rd International Symposium on Plant-Soil Interactions at Low pH, Brisbane/Australia  
Low pH Symposium, Australian Convention and Travel Services Pty Ltd., GPO Box 22 00, Canberra, ACT 2601, Australia; Tel: +61-6-2 57 32 99, Fax: +61-6-2 57 32 56
13. - 18. 14th Commonwealth Forestry Conference: "People, the Environment and Forestry - Conflict or Harmony", Kuala Lumpur/Malaysia  
The Secretary General CFC-14, Forestry Department Headquarters, Peninsular Malaysia, Jalan Sultan Salahuddin, 50660 Kuala Lumpur, Malaysia; Tel: +60-3-2 98 82 44, Fax: +60-3-2 92 56 57
20. - 24. Fifth Symposium of the Silviculture in Latinamerica: "Silviculture and Sustainable development in Tropical America", Cali/Colombia  
Gonzalo de la Salas, Coordinator S1-07-09 Working Group; Apartado Aéreo 091676; Fax: (571) 213 92 19
24. - 28. Global Forum on Environmental and Development Education, New Delhi/India  
Desh Bandhu, President, Indian Environmental Society, U-112, Vikas Marg, Delhi-110092, India

## European Tropical Forest Research Network

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### Oct. 93

19. - 22. Site Classification and Evaluation, Clermont-Ferrand/France  
Walter Kilian, Forstlich Bundesversuchsanstalt, Seckendorff-Gudent-Weg 8, 1131 Wien, Austria; Tel: +43-1-8 78 38-2 03, Fax: +43-1-8 77 59 07
25. - 29. Behaviour, Population Dynamics, and Control of Forest Insects, Koloa/Kauai/Hawaii  
Dr. Thomas L. Payne, Dept. of Entomology, Virginia Polytechnic Institute and State University, 216 Price Hall, Blackburg, VA 24061, USA; Tel: +1-7 03-2 31 63 41, Fax: +1-7 03-9 82 60 50

### Nov. 93

22. - 26. Water Issues in Forests Today, Canberra/Australia  
International Symposium on Forest Hydrology, c/o ACTS, GPO Box 22 00, Canberra ACT 2601, Australia; Tel: +61-6-2 57 32 99, Fax: +61-6-2 57 32 56
- Fifth Symposium of the Silviculture in Latin America, Campeche/Mexico  
Dr. Aurelio Fierros, contact via: G. De Las Salas, WL S1.07 - 09, CONIF, Parque la Florida, AP 09 16 76/09 51 53, Bogotá, Colombia; Fax: +57-1-2 13 92 19

### Sep. 94

18. - 21. Inventory and Management of the Boreal Forests, Anchorage/Alaska/USA  
Mr. Vernon J. LaBau, USDA Forest Service, Forestry Sciences Lab., 201 E. 9th Ave., Suite 303, Anchorage, AK 99501, USA; Tel: +1-9 07-2 71 25 85

### Oct. 94

03. - 07. Resources and Environmental Monitoring, Rio de Janeiro/Brazil  
Roberto Pereira da Cunha, INPE, P.O. Box 5 15, 12201 Sao Jose dos Campos, Brazil

### Aug. 95

07. - 12. 20th IUFRO World Congress, Tampere/Finland  
Prof. Risto Seppälä, Finnish Forest Research Institute, Unioninkatu 40 A, 00170 Helsinki, Finland; Tel: +3 58-0-85 70 51, Fax: +3 58-0-62 53 08

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## International Agenda: Workshops

### Dec. 92

07. - 11. International Workshop on Improved Utilisation of Timber Resources in Southeast Asia, Kuala Lumpur/Malaysia  
The Organising Secretariat, International Workshop on Utilisation of Timber Resources, c/o Forest Products Division, Forest Research Institute Malaysia, Kepong, 52109, Kuala Lumpur, Malaysia; Tel: +6 03-6 34-26 33, Fax: +6 03-6 36-77 53



### Research Cooperations

#### *University of Mato Grosso*

The University of Mato Grosso (UFMT) is interested in developing and conducting joint research projects with organizations subordinated to the UNESCO. In this context the EFRN Coordination Unit has received the following information.

Cuiabá, the capital of the state Mato Grosso (1100 km far from Brasilia), is situated north of the "Pantanal", i.e. the huge flood plains of the upper Paraguai river. This nature-near wetland is generally known to be one of the "last paradises" of our globe, an expression which reflects very well the floristic and faunistic richness and the ecological value of the Pantanal. The UFMT, as the only Federal University in Mato Grosso state, has to take up responsibility for doing research related to this valuable landscape in terms of basic research but also applied aspects.

The second type of biotope covering large areas of the state is the Amazonian rainforest which has become famous because it, unfortunately, is threatened. For this northern part of Mato Grosso, the UFMT has also to take up responsibility for research programmes. In spite of the long distance of approximately 100 kilometres between Cuiaba and the "true" rainforest, the UFMT sustains branches at Rondonópolis, Barra do Garça and in near future at Alta Floresta, three cities of Mato Grosso

state. So access to the rainforest regions is facilitated.

The third interesting type of biotope which covers large areas of Mato Grosso is the "Cerrado". This is a savanna vegetation formation on grass land, which in the course of a year is markedly influenced by the dry and rainy season. In the recent past, the research efforts done by the UFMT have concentrated to this landscape (in particular, socio-economic, faunistic, floristic surveys) when the highway has been constructed which links Sao Paulo, Cuiaba and Porto Velho (three capitals).

The UFMT is now looking for institutions and organizations worldwide, who are interested in scientific projects to be conducted in Mato Grosso (central Brazil) and about possibilities of financial support, such as equipment or scholarships. The projects could be larger ones involving many researchers, or smaller ones such as exchange of PhD students or individual scientists. For such programmes, the UFMT is able to offer research facilities and laboratory space at the university as well as transport facilities to the research areas.

The main topics of research interests related to the three principal biotopes (as given above) are:

Pantanal: climate, hydrology, biodiversity, medical plants, mapping of ecological units. This basic research should be contrasted against topics arising from the human impacts, such as: fisheries, mineration, erosion, sustainable development, "soft tourism".

Cerrado: agricultural use, soil fertility, crop science, seed technology, plant breeding (e.g. soya beans, rice, corn, beans, sun-flowers, cotton).

Rain Forest: biodiversity, sustainable development, wood and soil management.

For further information please contact:  
Prof. Marcio Miranda Soares  
Research Coordinator at the Federal University of Mato Grosso  
Avenida Fernando Correa s/n  
78.098 Cuiabá - MT  
Brazil

### ***Veld Products Research***

Recently the ETFRN Coordination Unit has received a letter from Mr. Frank W. Taylor, who is Coordinator of the "Veld Products Research", headquartered in Gaborone, Botswana. The institute is involved in developing cultivars from superior wild fruit trees with the ultimate objective to provide subsistence farmers with new cash crops even in drought years. Mr. Taylor would like to get into contact with ETFRN-members or other institutions/researchers who are undertaking similar work. If you are working in this field of research, and would like to cooperate with the Veld Products Research, please contact Mr. Taylor under the following address:

Veld Products Research  
P.O. Box 20 20  
Gaborone  
Botswana  
Fax: +2 67-30 55 22

## News

The problems described in the following article will surely gain more importance in future. The responsible persons in the big cities in the Tropics will be forced to develop socially and ecologically sound settlement areas.

We are reporting on the theme in this Newsletter to make the reader aware of the problems and to arouse the question if there really is a need for research in this field, and if the subject should be discussed within the framework of ETFRN.

With this article we would like to put this question up for discussion and we are looking forward to your reactions.

### ***A look at the Urban Forest***

from Dr. G. Kuchelmeister (Independent Consultant, Germany)

#### **Trees and Urban Areas**

Over the last decade or more there has been much discussion on the loss of the tropical rain forest. Until recently the loss of trees in and around the place where people live, i.e. the urban forest did not receive the attention it deserved, especially in developing countries.

According to international standards recommended by the World Health Organization (WHO) the minimum area for green

space per capita should be 9 m<sup>2</sup>. In most cities in less developed countries the amount of green space is an insignificant fraction of the total area. As around 50 % of the world population will live in cities in the not too distant future and the absolute number of people living in the urban areas of the less developed regions is greater and is growing much faster than in developed regions, the need for more urban forests will grow. The dramatic increase in urban population in developing countries with the corresponding need for food, fuel and shelter and for improving the quality of life in the cities (fresh air to breathe, clean drinking water, etc.) calls for the design of strategies in which forestry will play an important role.

### **What is the Urban Forest?**

In its simplest definition an urban forest is the trees and related vegetation in and around populated areas. Urban forests differ from rural ones, because they must fit into urban design and grow in a harsh environment. Some of the forests in close proximity to the center of the cities look and are managed more like rural forests. All land in an urban setting on which trees are grown, either private or public, is part of the urban forest. If a disease infects the trees on a street, it is likely to spread in the vegetation around home gardens and vice versa.

Urban forestry is a young fledging science, but it is growing rapidly. It may be incorrect to refer this new science as a branch of forestry, because it is the merging of many disciplines, but the conservation

component offered by the forestry connection is strong. Urban forestry places land management discussions in a central position. This requires technical skills and ecological thinking and a social perspective. Like with any new science, there are limitations on the availability of technical information from which management decisions can be made. This is particularly true for multipurpose urban forestry in developing countries.

### ***Networking Data Bases on Tree Growth Potential***

The Australian Centre for International Agricultural Research (ACIAR) has commissioned the Australian Bureau of Rural Resources to prepare a draft project design for TROPIS, the Tree Growth Potential Information System. It is planned that TROPIS will become a key element in the information systems programme of CIFOR.

TROPIS will be designed to meet the needs of researchers working on tree introduction and growth potential for plantations and agroforestry in developing countries, giving ready access to both published and unpublished information on species characteristics growth and climatic and site requirements. The potential of individual species for particular climatic zones and site types (soil and moisture regimes) may be assessed.

Several research groups have developed or are developing systems to meet their specific circumstances. These systems vary

from essentially bibliographic data bases to interrogative systems based upon field data and the matching of species to site capabilities. Some systems with potential to contribute to TROPIS include PLANTGRO, BIOLCIM, MULBUD, TROFIS, WORLD (CSIRO/ANU); TREDAT (QFS); SESAME (CIRAD); MPTSys and MTPGro (F/FRED); MIRA (CATIE); INSPIRE (OFI); AEZ (FAO); TREE-CD (CABI); PROSEA (LIPI, Wageningen AU), and MPTS-db (ICRAF).

The purpose of TROPIS is to link these various systems, enabling researchers to access various combinations of these databases to suit their own conditions. It will also encourage further development of each system as an integral component of the TROPIS network.

Following an informal meeting of Australian interest groups to assess their interest in TROPIS, a wider interest group of key international organisations (including those above), has been invited to comment on the concept and objectives of the project and to assist in its development. A workshop is planned for November.

Further information or comment to:

Mr John Fryer  
Bureau of Rural Resources  
Department of Primary Industries and Energy  
PO Box E11  
Queen Victoria Terrace  
Parkes ACT 2600  
AUSTRALIA.

(from ACIAR, Info Research, No. 4 August 1992)

### *TVE - Television Trust for the Environment*

The International Television Trust for the Environment is sponsored by the United Nations Environment Programme (UNEP), Central Television and the World Wide Fund for Nature (WWF). The Trust has seeded over 80 editorially-independent television programmes, distributes thousands of video cassettes and regularly updates information on the latest programmes.

TVE's mission is to inform and educate the viewing public worldwide on topical issues relating to the environment and development, and the links between the two, by:

- \* securing the production and distribution of audio-visual materials, together with educational back-up information;
- \* publishing information about new audio-visual programmes.

In fulfilling this mission, TVE pays special attention to the needs of low income countries.

TVE's greatest effort goes to helping NGOs, producers, policy-makers, broadcasters and educational institutions based in the South and Central and Eastern Europe. The new Distribution and Training office in Zeist, the Netherlands, is dedicated to this task.

TVE provides a wide range of services including:

- \* video cassette distribution,
- \* training courses,
- \* a who's who guide and many others.

Though TVE insists on factual accuracy and responsibly-made programmes, the content of the programmes it supports is decided by the producers and broadcast companies concerned. Selection does not necessarily indicate approval by the Trust or its funding agencies, and does not express the editorial policy of TVE.

For further information on TVE and its range of services please contact:

Head Office 1  
TVE  
46 Charlotte Street  
London W1P 1LX  
U.K.  
Tel: +44-71-6 37-46 02  
Fax: +44-71-5 80-77 80  
Telex: 291721  
E-Mail: Geo Net TVE-UK

Special information on training courses etc. can be obtained through:

Training and  
Distribution Centre 84  
Postbus 7  
3700 AA Zeist  
The Netherlands

## Publications

### *A Tree for all Reasons*

P.J. Wood, J. Burley (eds.). 1991. *A Tree for all Reasons - The Introduction and Evaluation of Multipurpose Trees for Agroforestry*. ICRAF. ISBN 92-9059-075-0

This source book was written to provide guidance to field workers on the introduction and evaluation of woody perennials for use in agroforestry. In this context, introduction means taking a species to an environment where it is not well known or established and evaluation refers to the process of determining the suitability of a particular species for use in an agroforestry system. The evaluation process seeks, first, to determine the adaptation of the species to the site, as demonstrated by its survival and early growth, and, second, to study its phenology and morphology as a guide to its suitability for a specific agroforestry system.

The authors' objectives may be summarized as follows:

- to give basic principles for multipurpose-tree evaluation that will help scientists who are designing agroforestry research programmes
- to present a logical, chronological sequence of the stages of multipurpose-tree research, including the early study of possible responses to management
- to give guidance on the preparation of simple, robust experimental designs

- to recommend simple assessment procedures.

The book is organized in four sections and four supplements. The sections cover: background to species selection for agroforestry, research planning and design, assessment and evaluation, and important areas of multipurpose-tree research. The supplements include a checklist of principle multipurpose-tree characteristics and products, a list of assessments for multipurpose-tree evaluation with sample formats, experimental designs, summary plans for 10 types of experiment, a glossary of terms, names and addresses of useful organizations, and references.

(from the cover)

### ***Integrated Forest Management Information System***

Mitsuhiro Minowa, Satoshi Tsuyuki (eds.). 1992. Proceedings of the Symposium on Integrated Forest Management Information Systems, October 13 - 18, 1991, Tsukuba, Japan. Japan Society of Forest Planning Press. ISBN 4-915870-01-4

An international symposium focused on "Integrated Forest Management Information Systems" was held in Tsukuba Japan in October 1991. The symposium, which was organized by IUFRO and the Japan Forest Planning Society, included presentations from around 50 persons from 16 different countries.

At the symposium, research findings as well as practical developments in data processing techniques, data-base management, geographic information systems, remote sensing, growth models and other computer-based techniques were discussed, and all of these categories have been included in the proceedings.

Part of the symposium's result were the following recommendations:

An integrated forest information system should bring together any information important to the management of the forest as a whole.

Any Management Information System (MIS) should provide the link between data, information and management. The MIS should give the decision makers the information they need to make their management decisions. Public and private forests need MISs for the management of sustained yield and sustained revenues. Furthermore MIS must meet the management requirements of multifunctional forests.

MIS need geographic information. Therefore GISs (Geographic Information Systems) are a part of MIS. Integration of these systems comes through integration of data. Data quality and consistency are one of the most important steps towards integration. That involves standardization. Any MIS must be developed to match the users and/or the decision makers according to their level of expertise. They may or may not be the same people or organization.

Communication among systems designers, users, and data collectors is essential to a successful system.

Good, well-defined and accurate models are needed to ensure the integrity of the information from the MIS.

To make such systems useful it is necessary to improve their efficiency by exchanging information and experiences between all management and organization levels.

### *Research on Multipurpose Tree Species in Asia*

D.A. Taylor, K. G. MacDicken (eds.). 1991. *Research on Multipurpose Tree Species in Asia - Proceedings of an international workshop held from 19 - 23 November 1990 in Los Baños, Philippines.* Winrock International-F/FRED. 259 pp. ISBN 0-933595-44-1

These proceedings contain 29 papers presented at the workshop and illustrate the diversity of topics covered under the umbrella of research on MPTS. In working groups, the participants discussed the problems and constraints of their respective fields, the requirements for solving these problems, and potential applications for their findings. Conclusions, recommendations, and priorities for future research, as they were summarized by the working groups, are included here.

### *Plantation Forestry in the Tropics*

Julian Evans (ed.). 1992. *Plantation Forestry in the Tropics, Second Edition.* Clarendon Press. 400 pp. ISBN 0-19-854682-3 (Hardback). ISBN 0-19-854257-7 (Paper covers)

Tree planting and plantation forestry in tropical countries is expanding rapidly. Social and community forestry, tree planting to control soil erosion, and use of agroforestry, as well as the many industrial afforestation projects, are all part of the response to tropical deforestations and are central to much rural development. The international Tropical Forest Action Programme (TFAP) promotes these many roles for tree planting and this book covers each one seeking to set the essential silviculture of how to grow trees in tropical conditions in the wider development context. This new edition has been completely revised to bring up-to-date (1991) silvicultural practices, rural development issues, and the wider role tree planting now plays. Treatment of agroforestry and protection forestry has been virtually re-written while throughout the book the important place of social forestry is recognised with frequent illustration and inclusion of important principles. This book provides the student with a comprehensive introduction or the practitioner or development specialist with an overview of plantation forestry and tree planting in tropical countries as part of sound land use.

## Vacancy Announcements

**UFPA/UNAMAZ/SIAMAZ**  
**Consultants for the Implementation**  
**of an Information System**

The above mentioned organizations are searching short term consultants for the implementation of the Information System for the Amazon Region - SIAMAZ. The Regional Coordinating Center is located at the Federal University of Pará, city of Belém, in Brazil.

SIAMAZ has the objective of promoting the gathering, processing and dissemination of scientific and technological information produced within and about the amazonian region, by using computerized data bases and automated services, including the CD-ROM.

Consultants are needed for the following areas and estimated dates:

1. Definition of the methods and procedures for the creation and use of the system's thesauri (3 months consultancy between October 1992 to January 1993).
2. Definition of the bibliographical and referential data bases structure using MICRO CDS/ISIS software viewing its organization in CD-ROM medium (2 months consultancy between October 1992 to January 1993).
3. Organization of a training course on the information system management for the capacitation of SIAMAZ Regional and National Coordinating Centers personnel

(1 month consultancy between October 1992 to November 1992).

4. Organization of a training course on the system operation for the capacitation of SIAMAZ Regional and National Coordinating Centers personnel (1 month consultancy between December 1992 to January 1993).
5. Marketing of the system (1 month consultancy between November/December 1992).
6. Organization of the document delivery service for the system (1 month consultancy between April/May 1993).
7. Evaluation of the first phase of the system's implementation and recommendations for the second phase planning (1 month consultancy in September 1993).

A salary of US \$ 3,000 is offered per thirty days work, plus payment for travel and room-and-board expenses.

The candidates should be fairly experienced in the area, have PhD or MS degrees and speak at least two of the following languages: English, Portuguese or Spanish. The interested candidates should send their detailed curricula as soon as possible to the address mentioned below. SIAMAZ can give detailed Terms of Reference for each consultancy, written in Spanish which can be obtained from:

**SIAMAZ**  
Universidade Federal do Pará  
Campus Universitário do Guamá  
Prédio da Bibliotheca Central 1º Andar  
66075-110 Belém - Pará, Brasil  
Tel: +55-91-2 29 29 18  
Fax: +55-91-2 29 43 39



**ICRAF**

The International Center for Research in Agroforestry is an autonomous, non-profit organization, with headquarters in Nairobi, Kenya and a member of the Consultative Group on International Agricultural Research (CGIAR). ICRAF's overall goal is to mitigate tropical deforestation, land depletion and rural poverty through improved agroforestry systems. In its new role as a CGIAR Center with global responsibilities for agroforestry, ICRAF is concentrating its activities on three major agro-ecological zones in the tropics: the humid, sub-humid and semi-arid. This new focus has led to the creation of several senior staff positions based in Latin America, Africa and Southeast Asia. All Senior International Staff positions require a PhD degree or equivalent in an appropriate discipline; at least five years experience in internationally recognized research; demonstrated ability to design, formulate and coordinate research programs with minimal supervision, and a understanding of cross-cultural multidisciplinary environments. During 1993 ICRAF wishes to fill the following vacancies.

**MPT Improvement Specialist**  
based in Maseno, Kenya

The scientist will be part of and provide leadership to a small team of researchers responsible for tree improvement research on five priority multipurpose tree species adapted to the Highlands of East and Central Africa. The scientist will also be respon-

sible for the development of seed orchards in collaboration with National Tree Seed Centers.

**MPT Improvement Specialist**  
based in Misamfu Regional Research  
Center, Kasama, Zambia

Responsible for the identification, collection, screening, improvement and evaluation of multipurpose tree species which are adapted to the Miombo woodland ecosystem and are appropriate for agroforestry technologies that can provide sustainable alternatives to the Chitemene slash-and-burn system.

**MPT Improvement Specialist**  
based in Indonesia

Responsible for the identification, collection, screening, improvement and evaluation of multipurpose tree species which are adapted to upland, acid infertile soil conditions and can be included into appropriate agroforestry systems with potential to provide sustainable alternatives to slash-and-burn agriculture and/or the reclamation of abandoned lands invested with alang-alang (*Imperata cylindrica*).

**MPT Improvement Specialist**  
based at the EMBRAPA Experiment  
Station in Manaus, Brazil

Responsible for collecting, selecting and improving multipurpose tree germplasm with emphasis on indigenous fruit tree species adaptable to acid soils and suitable for use in agroforestry alternatives to slash-and-burn agriculture.

## European Tropical Forest Research Network

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### **Soil Scientist/Agronomist**

based at EMBRAPA Experiment Station  
in Porto Velho, Rondonia, Brazil

Conduct strategic research on nutrient cycling and soil fertility improvement on promising agroforestry alternatives to slash-and-burn and recuperation of abandoned lands.

### **Soil Biologist**

based at Misamfu Regional Research  
Center, Kasama, Zambia

Responsible for initiating program of research directed towards understanding the processes governing the decomposition of above and below ground residues in potential agroforestry systems which provide sustainable alternatives to the Chitemene slash-and-burn system.

### **Soil Scientist/Agronomist**

based at M'Balmayo Research Station,  
Yaounde, Cameroun

Responsible for the development of a research program aimed towards understanding and enhancing efficient nutrient management strategies in agroforestry systems which have the potential to provide sustainable alternatives to slash-and-burn agriculture.

### **Soil Conservation Specialist**

based at Headquarters in Nairobi, Kenya

Will undertake research aimed at the development of agroforestry systems which have the potential to mitigate soil erosion on steeply sloping hillsides. The scientist

will undertake strategic research on the impact of environmental and management factors on the processes governing infiltration, run-off and soil erosion.

### **Weed Ecologist**

based at EMBRAPA Experiment Station  
in Porto Velho, Rondonia, Brasil

Responsible for developing a research program aimed at quantifying weed dynamics and their impact on nutrient cycling and weed/crop competition in both traditional slash-and-burn agricultural systems and sustainable agroforestry alternatives.

### **Agroforester**

based in the state of Para, Brasil

Responsible for the development of land-management strategies designed to enhance nutrient use efficiency, minimize weed competition and increase and diversify economic output and that represent acceptable alternatives to those that currently predominate in secondary forest regrowth and depleted/degraded pasture lands.

### **Agroforester**

based in Indonesia

Responsible for development of land-management strategies designed to enhance nutrient use efficiency, minimize alang-alang (*Imperata cylindrica*) competition and increase and diversify economic output and which provide sustainable agroforestry alternatives to slash-and-burn agriculture.

## European Tropical Forest Research Network

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### Coordinator: Agroforestry Research Network

East and Central Highlands of Africa  
based at headquarters  
in Nairobi, Kenya

Positions will remain vacant until an appropriate candidate is identified. For more detailed job descriptions, or if interested, send applications, C.V., list of referees with complete addresses and approximate date of availability to the

Head of Human Resources - ICRAF

P.O. Box 30677

Nairobi, Kenya;

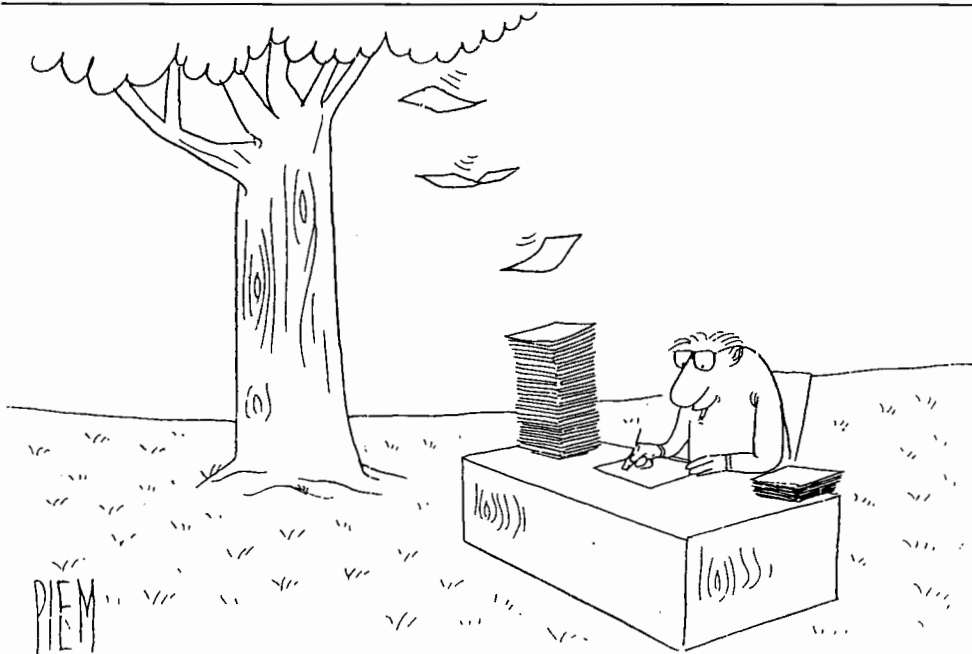
Tel: (2 54-2)52 14 50

Tlx: 22038

Fax: (2 54-2)52 10 01

E-Mail: CGI354

Responsible for the administration, coordination and technical quality of research undertaken by multi-disciplinary teams of international and national scientists based in Kenya, Uganda, Rwanda and Burundi. Preference will be given to persons with strong agroforestry background.



(with kind permission of Saint-Gaudens de la Cellulose du Rhône et d'Aquitaine, France)

# European Tropical Forest Research Network

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The following organizations act as National Nodes to the EUROPEAN TROPICAL FOREST RESEARCH NETWORK:

## Belgium:

- Université Catholique de Louvain, Unité AGRO-EFOR, Place Croix du Sud 2, B-1348 Louvain-la-Neuve. Tel: +32-10-47 36 98, Fax: +32-10-47 36 97, contact: P. Mertens
- Ministerie van de Vlaamse Gemeenschap, Adm. voor de Programmatie van het Wetenschapsbeleid, Boudewijnlaan 30, B-1210 Brussels. Tel: +32-2-5 07 60 08, Fax: +32-2-5 07 60 07, contact: V. Lories

## Denmark:

- NFNA, Danish State Forestry, Tree Improvement Station, Krogerupvej 21, DK-3050 Humleback. Tel: +45-49-19 02 14, Fax: +45-49-16 00 16, contact: L. Graudal

## France:

- CIRAD-Forêt, 45 bis, Avenue de la Belle Gabrielle, F-94736 Nogent/Seine cedex, Tel: +33-1-43 94 43 62, Fax: +33-1-43 94 43 29, contact: F. Grison

## Germany:

- ETFRN Coordination Unit: c/o ATSAF, Hans-Böckler-Str.5, D-W-5300 Bonn 3. Tel: +49-2 28-40 01-3 13, Fax: +49-2 28-40 01-3 11, contact: H. Freiberg
- Theodor-Boveri-Institut, Biozentrum der Universität, Lehrstuhl für Zoologie III, Am Hubland, W-8700 Würzburg. Fax: +49-9 31-1 78 49, contact: K. Linsenmair

## Greece:

- Ministry of Agriculture, Secretariat General on Forests, 3-5 Ippokratous St., GR-10164 Athens. Tel: +30-1-3 62 12 90, Fax: +30-1-3 64 05 69, contact: N. Efstathiadis

## Ireland:

- IDI Ltd., Head of Forestry Division, Wilton Park House, Wilton Place, IRL-Dublin 2. Tel: +3 53-1-68 75 55, Fax: +3 53-1-60 17 33, contact: R. Keogh

## Italy:

- Laboratorio di Botanica, Agraria e Forestale, Dipartimento di Biologia Vegetale, Università di Firenze, Piassale delle Cascine 28, I-50144 Firenze. Tel: +39-55-36 57 98, Fax: +39-55-36 01 37, contact: C. Lenzi-Grillini

## Netherlands:

- Tropenbos, P.O. Box 2 32, NL-6700 AE Wageningen. Tel: +31-83 70-2 62 62, Fax: +31-83 70-2 30 24, contact: E. Lammerts van Bueren

## Portugal:

- Tropical Forestry Center, Tapada da Ajuda, P-1300 Lisbon. Tel: +3 51-13 97 32 06, Fax: +3 51-13 97 31 63, contact: R.M. de A. Sardinha

## Spain:

- CICYT, Calle Rosario Pino 14-16, E-28020 Madrid. Tel: +34-1-5 77 00 98, Fax: +34-1-5 71 57 81, contact: J. A. Muñoz Delgado

## United Kingdom:

- UK Tropical Forest Forum, c/o Royal Botanic Gardens, Kew, Richmond, UK-Surrey TW9 3AE. Tel: +44-81-3 32 62 99, Fax: +44-81-3 32 62 94, contact: J. Thornback

## International Organisations:

- Commission of the European Communities, (DG XII/G-4), Rue de la Loi 200, B-1049 Brussels. Tel: +32-2-2 35 09 27, Fax: +32-2-2 36 33 08, contact: T. Wollersen
- CTA, Postbus 380, NL-6700 AJ Wageningen. Tel: +31-83 80-6 04 00, Fax: +31-83 80-3 10 52, contact: R. Delleré
- IUFRO, International Union of Forestry Research Organisations, Seckendorff-Gudent-Weg 8, A-1131 Wien. Tel: +43-1-82 01 51, Fax: +43-1-82 93 55, contact: L. F. Riley

## Other:

- University of Helsinki, Dept. of Forest Ecology, Tropical Silviculture, Viikini koetila 20, SF-00710 Helsinki. Tel: +3 58-0-7 08 56 43, Fax: +3 58-0-7 08 56 46, contact: O. Luukkanen