



**ICRAF**

INTERNATIONAL COUNCIL  
FOR RESEARCH IN AGROFORESTRY  
Annual Report 1988



The International Council for Research in Agroforestry (ICRAF) was established in 1978 with headquarters in Nairobi, Kenya. ICRAF is an autonomous, non-profit international research council governed by a Board of Trustees with equal representation from developed and developing countries. The mandate is to initiate, stimulate and support research leading to more sustainable and productive land use in developing countries through the integration of better management of trees in land-use systems.

The Council derives its operational funds from voluntary contributions by several bilateral, multilateral and private organizations. In 1988, these included the Canadian International Development Agency (CIDA), the World Bank (International Bank for Reconstruction and Development), the Ministry of Development Cooperation of the Netherlands, Swiss Development Cooperation, the Royal Norwegian Ministry of Development Cooperation, the Swedish Agency for Research Cooperation with Developing Countries (SAREC), The Ford Foundation, The Federal Republic of Germany (BMZ/GTZ), The United States Agency for International Development (USAID), the Swedish International Development Authority (SIDA), the Government of France, The International Development Research Centre (IDRC), Finnish International Development Agency Forestry Training Programme (FINNIDA/FTP) and the Near East Foundation.

ICRAF's programme of work is carried out through four divisions: the Research Development Division (RDD), the Collaborative Programmes Division (COLLPRO), the Information and Communications Division (INFOCOMM) and the Finance and Administration Division (FINAD).

© International Council for Research in Agroforestry 1989  
P.O. Box 30677, Nairobi, Kenya

ICRAF, Nairobi CA

International Council for Research in Agroforestry :  
Annual Report 1988. Nairobi, Kenya, ICRAF, 1989. 52p.: ill.

ICRAF; agroforestry; finance; administration; research;  
development; information services; information flow;  
collaborative programmes

UDC: 634.0.26.001

ISBN: 92 9059 060 2

*Cover photo: Cowpeas intercropped with grass, Leucaena leucocephala  
and Gliricidia sepium.*

---

INTERNATIONAL COUNCIL  
FOR RESEARCH IN AGROFORESTRY  
Annual Report 1988

---

# Contents

---

Director-General's Statement	3
What is ICRAF?	5
Research Development Division	7
Collaborative Programmes Division	11
Information and Communications Division	19
ICRAF Publications 1988	22
Seminars/Lectures Courses and Consultancies by ICRAF Staff	23
Staff Participation in Meetings	25
Visitors	30
Changes in the Professional Staff	31
Staff List	32
Financial Statement for 1988	37
List of Acronyms	48
ICRAF's Organizational Structure	50
Board of Trustees	51
Addresses	52

## □ Director-General's Statement

The first thought that strikes me, looking for a single phrase to sum up 1988, is that this was probably ICRAF's last normal year, as we've become used to it over the past half-decade. Of course, the year saw its share of scientific progress, growth (particularly staff expansion and internal administrative restructuring), successes and of course some frustrations. Growth and progress have been normal conditions at ICRAF for some time.

But 1988 saw no organization-wide changes comparable to the new programme of work and restructuring of 1986, the tenth anniversary and move to the newly built ICRAF House headquarters in 1987, or indeed to what lies ahead for us in 1989 and 1990. It was a year not of revolutions but of steadily measured advance.

On January 1, we were 50 professional staff—all categories—and at the end of the year we were 62. While our total budget in 1987 (core and projects) was US\$4.6 million, it rose to US\$5.9 million in 1988. The continued expansion and development of the AFRENA programmes associated with the COLLPRO Division account for much of this growth. At the end of the year, 10 ICRAF scientists were based at national research institutions in seven African countries.

In recognition of the collaborative field programmes' growing importance, the Programme Committee of ICRAF's Board of Trustees held its first meeting outside Nairobi to review implementation of the Southern Africa AFRENA programme. Several Board members met in Lusaka, Zambia, with the chairmen of the Regional and National Agroforestry Steering Committees and Zambian and ICRAF scientists. Participants toured research sites at Chalimbana, outside Lusaka, and Chipata, in the Eastern Province, where AFRENA projects are in progress.

The INFOCOMM and RDD Divisions have also undergone considerable change. INFOCOMM added several new professional staff and specialized technicians during the year. As a result, the quality and quantity of information and publications output have significantly increased. In RDD, a restructuring of the



*ICRAF's Director-General, Dr. Bjorn Lundgren, right, discusses multipurpose tree uses with the Kenya Minister for Environment and Natural Resources, Hon. J.J.M. Nyagah, left, at the Field Station.*

division into three programmes has increased the responsiveness of ICRAF's research efforts to the needs of COLLPRO as well as to the general agroforestry research community.

The developments of greatest potential importance to ICRAF's medium- and long-term future, however, were external ones. At a midterm meeting in Berlin in May, members of the CGIAR decided to review several so-called non-associated centres, including ICRAF, in 1989-90 in view of possible CGIAR membership. ICRAF's donor support group, board chairman and the chairmen of the CGIAR and TAC agreed in subsequent discussions that ICRAF's regular quinquennial review, scheduled for mid-1989, would serve as the basis for a TAC/CGIAR assessment of ICRAF's candidacy. This was in my mind as I contemplated the possibility that 1988 could be our last normal year.

Another exciting external development is the growing communication, collaboration and sense of unity of purpose between seven of the non-associated international centres working on such farming-system,

resource-management issues as soil management and fertility (IBSRAM and IFDC), water and water-based resources (IIMI and ICLARM), insects (ICIPE), and trees and shrubs (ICRAF and IUFRO). Senior management and board members from all seven institutes, as well as from the Hubert Humphrey Institute of Public Affairs of the University of Minnesota, USA, met four times during the year.

One cloud appeared on the horizon in 1988—the increasing operational problems created by a serious limitation of unrestricted core funds. Ironically, this was an outgrowth of two fundamentally positive developments: our success in launching collaborative research programmes in Africa and a burgeoning interest in agroforestry in both developed and developing countries.

With the Southern and Eastern Africa AFRENAs in full swing, the Cameroon national programme already two years old, an AFRENA programme in the Sudano-Sahelian zone plus national projects in Ethiopia and Ghana planned for 1989, ICRAF's capacity to provide efficient scientific, administrative and communications backup to the AFRENA programmes was stretched to its limit. Though all of these projects and programmes are specifically donor funded, these funds do not cover the total costs of support from headquarters. Few donors are prepared to include a realistic overhead level in their projects and thus scarce core-funding resources must increasingly be allocated to service special projects.

The rapidly growing general interest in agroforestry, meanwhile, has had a marked impact in the form of increased demands for information, advice, training and other forms of collaboration. This rising pressure can easily be quantified. Between 1986 and 1988, written requests to ICRAF for information increased more than 100 per cent annually. Where 350 visitors toured our Machakos field station

in 1986, 1,416 visited in 1988. Similarly, the number of applicants for our regular, three-week course, Agroforestry Research for Development, increased from 108 in 1986 to 306 in 1988. A much longer list of indications of mounting demand for ICRAF's services could easily be compiled, all reflecting the same trend. In fact, there is no better reflection of the global interest in agroforestry than the list of demands made on ICRAF.

Most of these demands have to be met from ICRAF's core scientific and information resources in such forms as professional staff time and information, documentation and publishing costs. Overall, core resources rose by 35 per cent in absolute dollars from 1986 to 1988, but pressure on these resources roughly tripled in the same period. Expressed another way, demand at ICRAF has grown 10 times faster than resources. Ambitious plans, for example to develop the Information and Communications Division, are intended to respond more efficiently to requests from development, extension, training, education and scientific institutions. However, if the core funding situation does not improve significantly in 1989, these plans will have to be postponed.

Thus, because of highly successful collaborative programmes and a rapid increase in demand for information and advisory services, we are in the paradoxical situation of having to slow down the very programmes that support these activities. It is my hope that the problem of limited core funds can be overcome in 1989, to allow us to meet the challenges of the 1990s in the same dynamic and creative way that has characterized ICRAF in the past.

Dr Bjorn O. Lundgren  
Director-General

## What is ICRAF?

The International Council for Research in Agroforestry (ICRAF) is an autonomous, non-profit organization, established in 1977 to initiate and support research leading to more sustainable and productive land use in developing countries through the integration of trees in land-use systems. With headquarters in Nairobi, Kenya, since 1978, ICRAF is supported by voluntary contributions from bilateral, multilateral and private donors and is governed by an international board of trustees with equal representation from developed and developing countries.

ICRAF's research goals are supported by a threefold strategy: 1) to develop the scientific discipline of agroforestry; 2) to cooperate with national institutions to build their capability to design and implement agroforestry research programmes and to work alongside these institutions to generate relevant and promising technologies; 3) to promote the use of appropriate agroforestry systems and technologies as tools for national development.

The programme of work is carried out by four divisions: the Research Development Division (RDD), the Collaborative Programmes Division (COLLPRO), the Information and Communications Division (INFOCOMM) and the Finance and Administration Division (FINAD).

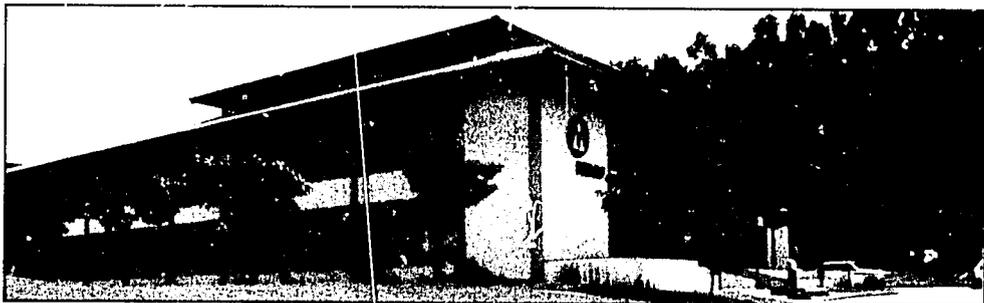
RDD contributes to the development of agroforestry research chiefly through the collection and collation of information and the development of research methodologies. The division provides advice and support for other ICRAF activities and engages in field demonstrations and research projects at ICRAF's field station in Machakos, Kenya, and collaboratively at other sites.

COLLPRO's objective is to collaborate with and help national institutions in

technology-generating research projects and training programmes in order to disseminate and validate ICRAF's concepts, methods and technologies. In Africa, the division works through the Agroforestry Research Networks for Africa (AFRENA). Other collaborative activities are also in progress or being planned in Southeast Asia, India and Latin America.

INFOCOMM's goal is to promote the adoption of appropriate agroforestry systems and practices through the dissemination of information to a wide variety of target audiences, including national institutions, researchers, donors, policy-makers, extension groups, non-governmental organizations, development agencies, educators and the general public. This work is carried out through an Information and Documentation Unit and a Communications Unit.

Since its establishment, ICRAF has made many major contributions: building a strong, multidisciplinary organization; laying a solid scientific foundation for the discipline of agroforestry; conducting detailed studies of the tree-crop interface and elucidating problems encountered in combining woody and non-woody plants; evaluating agroforestry land-use systems in use around the world and compiling information on them in extensive databases; publishing numerous books, papers, journal articles and bibliographies; and holding a large number of workshops, conferences, seminars, training courses and field trips. In addition, ICRAF has provided research fellowships and opportunities for advanced, specialized study and has acted in a consultant capacity to numerous donor-supported research and development projects in Africa, Asia and Latin America.





Due to substantial progress in several areas, RDD has been able to consolidate its activities into a new structure, responsive to both the increasingly experimental focus of the external agroforestry environment and to the evolving needs of COLLPRO. The new structure consists of three interlinked and mutually supportive programmes, described later, each planned to have two joint programme coordinators appointed from the scientific staff.

### ROLE AND POTENTIAL OF AGROFORESTRY AND MULTIPURPOSE TREES

ICRAF's work on the role and potential of agroforestry and multipurpose trees is aimed at synthesizing knowledge of agroforestry systems and technologies, in part through formation of an easily accessible Agroforestry Technology Register. Work in 1988 included publication of numerous case studies, reviews and summaries (see Staff Publications, page 22), as well as the organization of seminars, projects and workshops, expansion of specialized databases and other activities.

Among the major publication efforts were projects dealing with the potential of agroforestry for soil conservation, agroforestry for dryland Africa, agroforestry systems in the tropics and the role of *Leucaena leucocephala* in rural development.

The Second Kenya National Seminar on Agroforestry, jointly organized by ICRAF and the Kenya National Council for Science and Technology in November, attracted 100 senior technical and policy-level participants from a broad spectrum of organizations, including eight donor agencies. The seminar featured nine plenary sessions of invited papers, two poster sessions, field tours and five working groups.

The Multipurpose Tree and Shrub database was improved by the addition of information gathered from the field by students in Kenya and Costa Rica, as well

as by literature searches and taxonomic contributions from the Royal Botanical Gardens at Kew, UK. At the same time, the database was made more accessible and flexible by restructuring the programme into MDBS III software, which allows more direct user access. Work also moved forward on the development of integrated information systems designed to consolidate past experience with agroforestry systems and technologies, including specifications for MPTs, into a logical and structured memory aid built around individual technologies. Using this system, a user can find information on a technology such as fodder banks under several cue headings, each dealing with a different aspect of the same subject. The SCUAF model for DOS-based microcomputers was also expanded to include nitrogen cycling.

Staff members gathered considerable information on agroforestry alternatives to shifting cultivation from literature searches and extended missions in Thailand, Laos and Vietnam. ICRAF also joined with CAB International to hold a two-day mini-workshop on pest management in agroforestry.

### FIELD EXPERIMENTATION

Field experimentation activities are designed to help scientists engaged in experimental field research, providing support and advice on efficient experimental design, evaluation and development of assessment methodologies, and data analysis. This work involves the compilation of background material for research and also trials and demonstrations of research methodologies.

As part of the effort to gather and compile background material, RDD staff completed texts for sourcebooks on MPT introduction and testing and on research methods for hedgerow intercropping. Scientists working at the ICRAF field station at Machakos, Kenya, completed a soil-sampling programme, covering all soil changes on the station since 1984, and redesigned the Field Station Report to include three parts—a general account, notes on MPTs grown on-station and fact

---

*Left: Faidherbia aloida (Acacia albida) intercropped with cowpeas.*

sheets on individual demonstrations and trials.

Work continued on the Datachain project, a microcomputer software programme that helps researchers collect and manage data from field experiments using any one of a spectrum of possible designs. A major improvement introduced in 1988 enables the programme to cope with separate experimental strata, such as the tree and crop components found in many agroforestry experiments. Planned for use with the Genstat statistical package, the Datachain programme takes advantage of powerful existing software. A pre-release prototype version was distributed in 1988 for testing and review. This prototype version proved useful in helping to analyze four years of data collected by RDD researchers working on the tree/crop interface.

Work continued in 1988 on 23 demonstrations and small trials at the Machakos station, including the tree/crop interface project. Three of these reached completion or entered their final stage during the year, including a four-year, Y-shaped tree/crop interface study involving *Cassia siamea*, a subsurface irrigation trial and an introduction trial of Central American germplasm. In addition, work was reactivated on the methodology for studying single trees, a research area vital for understanding what happens in farmers' fields. Scientists added 12 new species to the MPT collection and initiated two *Sesbania* intercropping and rotational trials. Ongoing soil-conservation technology demonstrations were converted into an interlinked set of eight trials and demonstrations, including a comparison of plot size and methods of instrumentation. Staff members also completed an analysis of observations on the best methods for collecting phenological data on MPTs.

ICRAF specialists and invited visitors conducted a mini-workshop on experimental designs for agroforestry field experimentation in June. Three field days were also held at the Machakos field station—two for local farmers and one for staff at the Kenya National Dryland Farming Research Station at Katumani. Of the 1,416 people who visited the station in 1988, approximately 33% were extension workers, 21% were farmers,

29% were students or teachers, 9% were scientists and 6% were policy makers or donors.

ICRAF launched a new project on MPT germplasm evaluation and development for the Eastern Africa AFRENA, with funding from the Ministry of Economic Cooperation (BMZ) through the Agency for Technical Cooperation (GTZ) of the Federal Republic of Germany.

## ON-FARM RESEARCH AND EXTENSION

Initiated in 1988, the on-farm research and extension programme recognizes that the process of agroforestry technology development involves a dynamic interplay between researchers, extensionists and farmers. The programme emphasizes four major activities.

**Technology Design and Testing** research concentrated on the detailed design of agroforestry technologies for specific sites, including MPT species selection, spacing and management. In line with this goal, an inter-divisional working group produced a set of materials and guidelines to help others design agroforestry technologies and test their performance.

ICRAF expanded collaborative activities in this area with CARE International in the Kenya Agroforestry Extension Project in western Kenya. Collaborative activities focused on developing methodologies for evaluating the technologies adopted by farmers in the field. This work included an informal adoption survey, agroforestry extension staff workshops and a formal survey of farmer-developed designs for hedgerow intercropping and tree-border planting in crop fields. This second survey covered 126 farmers in three ecological zones of Siaya District. Results were used to identify key areas for improving extension recommendations and strategies, as well as to provide researchers with more focused objectives and parameters for experimental design. The project also included the formulation and preliminary testing of methods for tree- and crop-yield

assessment in farmer-established hedgerow-intercropping plots on farm sites.

**On-Farm MPT Experimentation and Evaluation** activities focused on evaluation of farmers' existing practices, on-station experimentation and on-farm testing and evaluation of new practices.

Work on plots at the Machakos field station included tests of repellents designed to protect early-growth *Balanites aegyptiaca* from goat browsing. Farmer visits to the station increased substantially during the year. Farmers near the station also received seedlings, and their planting patterns and early management methods were monitored along with seedling survival rates.

ICRAF scientists developed new approaches for on-farm agroforestry experimentation, which will incorporate ecological concepts and methods as well as single-tree investigations. Initial trials were established at the field station to test these approaches.

**Project Monitoring and Evaluation** concentrated on methods which can be used in development projects to monitor and evaluate agroforestry technologies being tried and adopted by farmers.

In 1988, collaboration with CARE International, FAO and the Ford Foundation through workshops and field studies generated substantial material on methodologies for monitoring agroforestry technologies and evaluating extension projects. ICRAF staff compiled an annotated bibliography of methods for monitoring and evaluating agroforestry projects from sources around the world. The bibliography covers project design and planning, technology performance evaluation and assessment of the impact of technology adoption.

Scientists reviewed two case studies on the organization and coordination of data gathered at ICRAF's Kathama research site in Machakos and the CARE project in western Kenya and assessed user-friendly computer software suitable for information management systems. ICRAF also organized a training workshop in cooperation with CARE International in Ken; a on improving technology recommendations through extension research.

**Extension and Development** work began with an examination of agroforestry extension materials and training needs. ICRAF staff also conducted a study of legislative issues affecting agroforestry development in Kenya.

## OTHER ACTIVITIES

RDD scientists contributed regularly to AFRENA planning meetings, visited AFRENA research sites, organized a major training course in the USSR with UNEP, contributed to other ICRAF training courses and supplied technical and scientific support where requested. RDD staff also devoted approximately 7% of their time to the support of outside organizations, for example by refereeing journals, attending national or international seminars, workshops and committee meetings and advisory activities. The division answered 1,170 technical and scientific enquiries through the post and handled 992 queries from visitors to headquarters.

Contributions to the scientific literature (page 22) were also substantial. Most work in this area completed in 1988 will be published in 1989.



*Left: Staff at SADCC/ICRAF Agroforestry Project at Chalimbana, Zambia, weigh *Leucaena leucocephala* biomass produced in trials.*

*Bottom: Farmers in Uganda attend a baraza (meeting) to discuss common problems as part of a diagnosis and design (D & D) exercise.*



The goal of ICRAF's COLLPRO Division is to improve the productivity and profitability of small farms by developing viable, sustainable land-use systems. To this end, staff members collaborate with scientific teams from national institutions to develop agroforestry technologies. At the same time, they work to strengthen the ability of these institutions to: 1) analyze constraints limiting the productivity of existing land-use systems; 2) assess the applicability of agroforestry components; 3) design and evaluate research programmes for generating and testing appropriate technologies; and 4) conduct degree and non-degree training programmes to promote and implement technology development and adoption by farmers. The strategy of the division is to work with national scientific teams within their own institutions, sharing primary responsibility with them for achievements.

Work in 1988 focused primarily on sub-Saharan Africa where priorities included: establishment of an operational structure to support field activities; collaboration with national research, extension and educational systems; initiation of experimental programmes; and formation of interdisciplinary groups to put strategies into practice.

These activities were enhanced by a structural reorganization of the division, launched with the arrival of director Bruce Scott in January. Eight field programmes have been defined, supported by headquarters planning and administrative services as well as by two technical programmes—Human Resource and Institutional Development (HRID) and Technical Support and Analysis (TSA).

COLLPRO cooperates with and receives support from other ICRAF divisions in the planning and implementation of research activities. Staff members responsible for the HRID and TSA programmes plan and conduct work in cooperation with other ICRAF scientists, leading to the application and testing of research outputs. Such inter-divisional collaboration includes joint participation in research and training activities, cooperative efforts to solve specific problems and issues, participation in joint working groups—on topics such as system studies and on-station/on-farm

research—and COLLPRO participation in programmes conducted by other divisions.

The existence of predominant, homogeneous ecological zones cutting across national boundaries provides the basis for four of the division's field programmes, which are part of AFRENA. A network approach is employed to link several countries in each programme. Scientists from these countries set priorities and formulate projects jointly, permitting the sharing of scarce resources. National steering committees make suggestions regarding research projects and policies and appoint task forces to implement work. A zonal steering committee reviews the programme of work, research budget, training and other activities.

### PARTNERSHIP WITH NATIONAL INSTITUTIONS

Due to constraints such as the absence of national institutions with an agroforestry mandate, a paucity of scientists with multidisciplinary training and a lack of tested research methodologies, field programmes must employ a variety of approaches in working with national institutional systems. These will be described briefly in relation to the one national and seven regional programmes currently in progress.

### Unimodal upland plateau of Southern Africa

The Southern Africa AFRENA programme began in 1986 with funding from CIDA and IDRC of Canada and is coordinated by ICRAF and SACCAR. Institution building and technology development are the key objectives of this AFRENA.

In 1988, ICRAF signed memoranda of understanding with Malawi, Zambia and Tanzania, allowing ICRAF scientists to relocate to these countries to work on

zonal projects with their national counterparts. An ICRAF scientist was also posted to Chipata, Zambia, under an agreement between SAREC and ICRAF to work with Zambia's national agroforestry programme.

### Bimodal highlands of East and Central Africa

With objectives similar to the programme in southern Africa, the East and Central Africa AFRENA is funded by USAID. Zonal research activities were initiated in four participating countries—Burundi, Kenya, Rwanda and Uganda. ICRAF signed memoranda of understanding with Burundi, Kenya and Uganda and assigned scientists to work on the programme in Burundi and Kenya. The zonal steering committee has agreed to expand the programme to include Ethiopia and Zaire and a national agroforestry seminar was held in Ethiopia to set the stage for organizing initial activities there.

### Kenya national programme

The commitment to agroforestry of Kenya's numerous governmental and non-governmental organizations makes this ICRAF host country a solid base from which to work. In addition to East and Central Africa AFRENA activities, ICRAF is involved in collaborative projects in Kenya that are funded and managed independently from the USAID-funded AFRENA programme. COLLPRO staff work with KEFRI and KARI to design, analyze and monitor work on the Dryland Agroforestry Research Project in Machakos, begun in 1983 with IDRC support. COLLPRO also initiated the Kenya Agroforestry Development Project, financed by SIDA, whose objective is to assess all major agroforestry work in Kenya over the past decade.

In addition, the division was a major participant in the Second Kenya National Agroforestry Seminar in November 1988,

particularly in the presentation of background papers and formulation of seminar recommendations.

### Humid lowlands of West Africa

ICRAF collaborates with the Institut de recherches agronomiques of Cameroon's Ministère de l'enseignement supérieure et de la recherche scientifique on a project financed by the French government and the Near East Foundation. The objective is to improve the productivity and profitability of smallholder farms in the humid lowland ecozone.

ICRAF also participates, along with IITA and ILCA, in the Alley Farming Network for Africa. In support of this network, ICRAF signed agreements in 1988 with Oregon State University (USA) and IITA to implement a USAID-funded project on multipurpose tree germplasm screening and evaluation for the humid tropics of West Africa.

### Semi-arid lowlands of West Africa

ICRAF submitted a three-year proposal to IFAD to support an AFRENA programme for the semi-arid lowlands of West Africa. Funding for this programme was approved at the end of 1988. The objective is to provide scientific support, training and a documentation service for national institutions in Burkina Faso, Mali, Niger and Senegal and to collaborate with regional institutions conducting agroforestry research. These include ICRISAT's Sahelian Centre, SAFGRAD and the Institut du Sahel.

### South Asia

An ongoing project in India funded by the Ford Foundation aims to strengthen collaboration with the Indian Council for Agricultural Research for its All-India Coordinated Research Project in

Agroforestry. The Bangladesh Agricultural Research Council and ICRAF will increase collaboration in research planning and implementation, as well as training and information exchange.

## Southeast Asia

A proposal—not yet funded—has been prepared for collaborating with national institutions in Southeast Asia in technology-generating research. This will include a review of existing research and technologies.

## Latin America

CIAT and ICRAF are exploring possible areas of collaboration in the Amazon basin. This work will be designed to provide on-site support for national institutions in the ecozone.

## Issues and lessons learned

Experience in 1988 showed that coordination of research implementation under the AFRENAs requires a high degree of flexibility, as well as strong commitment from national managers and leaders. Though zonal programmes offer definite advantages for national teams, ICRAF also plays a much-needed role in helping national institutions to obtain donor support for their own programmes of work, for instance in Cameroon, Zambia and Uganda. ICRAF is thus helping to ensure that agroforestry research in each country is institutionalized and self-supporting.

## RESEARCH FOR TECHNOLOGY DEVELOPMENT

The major objective of COLLPRO's research programme is to develop

agroforestry technologies that help solve the land-use problems of farmers in different ecozones. This approach requires a dynamic process with interdisciplinary perspectives at all stages.

COLLPRO researchers are working primarily in five areas.

**Diagnosis and Design (D&D)**—The delineation and analysis of the predominant land-use systems in a given ecozone, referred to as macro D&D, identifies production constraints as they relate to agroforestry potentials. Results are used to design research programmes relevant for the zone as a whole. These are followed by detailed analysis of each individual land-use system, referred to as micro D&D. This work leads to guidelines for national research projects.

**General Screening of Multipurpose Trees**—Experiments with numerous MPT species and provenances seek to determine survival rates, optimal seasons for establishment, growth rates, phenology patterns (including leafing, flowering, fruiting and seeding) and susceptibility to diseases and pests. These factors, taken together, define the potential suitability of an MPT species or provenance for different sites and agroforestry technologies.

**MPT Technology Screening**—A small number of promising MPT species are assessed in selected management regimes, such as coppicing. Specific performance indicators are assessed in association with a particular technology.

**MPT Management**—The effects of specific management practices, such as spacing, fertilization levels or harvest frequency, are determined for an MPT species within a given agroforestry technology.

**Technology Testing**—Research teams design and test technology options for defined target groups to determine their acceptability under farmers' actual environmental and management conditions. They also develop guidelines for extension-oriented research, aimed at

Table 1. COLLPRO agroforestry research according to programme and country, 1988.

TYPE OF RESEARCH	Unimodal Upland Plateau of Southern Africa				Bimodal Highlands of East and Central Africa				National Projects	
	Malawi	Tanzania	Zambia Chalimbana	Chipata	Burundi	Kenya	Rwanda	Uganda	Cameroon	Kenya Kakuyuni
Macro diagnosis and design	X	X	X		X	X	X	X	X	
Micro diagnosis and design	X	X		X	X	X	X	X	X	X
RESEARCH STATIONS	Makoka	Tumbi	Chalimbana	Msekera	Karuzi, Gitega	Maseno	Rwerere	Kampala, Kabale	Yaoundé, Sangmelina	Machakos
MPT GENERAL SCREENING										
Nursery work	X	X	X	X	X	X	X	X	X	X
MPT establishment (number of species)	40	9	16	19	31	40	35	35	13	14
MPT TECHNOLOGY SCREENING										
Acacia auriculiformis										
Azadirachta indica	HI*	HI							HI	
Calliandra calothyrsus					HI	HI, CB	HI, CB		HI	
Cassia siamea				HI, MI	HI	HI			HI	
Cassia spectabilis					HI				HI	
Erythrina caffra						HI				
Flemingia congesta			HI	HI						
Giliricidia sepium						HI				
Leucaena diversifolia					HI				HI	
Leucaena hybrid							HI			
Leucaena leucocephala							HI			
Sesbania bispinosa, S. macarantia	HI	HI	HI	HI, MI	HI	HI, CB	HI		HI	
Sesbania grandiflora				MI		HI				
Sesbania sesban	HI	HI	HI	MI	HI	HI, CB	HI, CB		HI	
Various species**								UB		
MPT MANAGEMENT										
Cajanus cajan										
Calliandra calothyrsus					CB				IF	
Cassia siamea										
Casuarina equisetifolia										HI
Crotalaria anagyriodes								UB		
Flemingia congesta								IF		
Giliricidia sepium				IF						
Leucaena leucocephala		HI/IF		HI	CB	HI	HI		HI	HI
Sesbania sesban			HI	IF, HI			HI		HI	FB, HI
TOTAL NUMBER OF EXPERIMENTS	4	6	3	8	5	8	3	2	7	6

\*Agroforestry technologies: FB = fodder bank, CB = contour bund, HI = hedgerow intercropping, IF = improved fallow, MI = mixed intercropping, UB = up-storey boundary.

\*\* Alnus acuminata, Casuarina equisetifolia, Cordia abyssinica, Cupressus lusitanica, Maesopsis eminii, Markhamia luisa, Melia azedarach.

fostering the use of appropriate agroforestry technologies.

A summary of AFRENA research progress is presented in Table 1. Most experiments in Southern Africa were initiated during the 1987-88 growing season, while all experiments in East and Central Africa began in 1988 and those in Cameroon in 1987. The Cameroon programme expanded significantly in 1988, and the team at the Dryland Agroforestry Research Project in Kenya made a major effort to move to on-farm testing.

The number of agroforestry technologies likely to be addressed during the general screening of MPTs is much larger than those addressed in the applied/adaptive stages of research. Although current experiments focus on only a few technologies—such as hedgerow intercropping—which are common to several AFRENAs, site-specific conditions (rainfall, temperature, whether the crop is used for food, fuelwood or cash) can result in wide variations in objectives and designs.

The Kenya Agroforestry Development Project has concentrated on designing technology recommendations for extension based on data assembled from research sources. Draft descriptions have been prepared of technologies using *Grevillea robusta*, *Cassiarina* sp., *Faidherbia albida* (*Acacia albida*) and *Leucaena leucocephala*. These will be revised for use with an annotated bibliography as extension and training material.

## HUMAN RESOURCE DEVELOPMENT

Human resource development is a cornerstone of the partnership between ICRAF and national institutions. The goal of strengthening institutional capabilities through the AFRENAs is based on the recognition that national programmes have the ultimate responsibility to generate and adapt agroforestry technologies to meet their own farmers' needs and priorities. ICRAF's philosophy

is that work conducted in collaboration with national programmes will have longer-lasting beneficial effects than research conceived by ICRAF alone.

ICRAF training activities are aimed at scientists from national research and educational institutions, as well as development planners in agriculture, forestry and livestock development. Teaching is geared to enhance the ability of these specialists to identify land-use problems and design appropriate agroforestry systems and technologies. All training activities at ICRAF emphasize a multidisciplinary approach.

Many of these activities are planned in support of the AFRENA programmes. These include workshops, field trips, internships, courses and fellowships organized in response to needs identified by the AFRENA steering committees. Other activities, such as the organization of specialized international courses and the development of training materials, are a permanent feature of ICRAF's efforts to disseminate information on agroforestry. In 1988, SIDA approved funding for a new initiative to develop agroforestry curricula for graduate and undergraduate education.

Major training activities in 1988 are summarized in Table 2. Multidisciplinary task forces from the Eastern and Southern Africa AFRENAs met with ICRAF scientists at workshops—two in Kenya, one in Zambia and two in Rwanda—to review and evaluate planning of zonal and national research projects. Two workshops, in Zambia and Kenya, were complemented with field study trips, which allowed participants to assess agroforestry developments *in situ*. The Zambia group visited zonal research project sites in Chalimbana and the national research project at Chipata, where nursery work and MPT experiments for hedgerow intercropping are in progress. In Kenya, participants visited ICRAF's Machakos field station, the KEFRI/KARI/ICRAF research station at Maseno and the Kenya renewable energy research station at Bukura.

Internships at field sites or at ICRAF headquarters give young scientists, students and technicians an opportunity for hands-on agroforestry work and study

Table 2. Human-resources development activities and achievements, 1988.\*

ACTIVITY	NUMBER	MAIN TOPIC AND OUTPUT	DURATION AND VENUE	PARTICIPANTS
WORKSHOPS	5			
AFRENA SA, CIDA		planning and evaluation: zonal project	3 days: Zambia	30: NTF, IRC, ICRAF
AFRENA EA, USAID		planning and evaluation: country project	3 days: Rwanda	30: NTF, IRC, ICRAF
AFRENA EA, USAID		planning and evaluation: zonal project	4 days: Kenya	30: NTF, IRC, ICRAF
CTA, ICRAF		planning and evaluation: country project	3 days: Kenya	30: NTF, IRC, ICRAF
TRAINING COURSES	2		7 days: Rwanda	30: Africa
ICRAF, DSO		D&D methodology	3 weeks: Kenya	40: worldwide
ICRAF, UNEP		agroforestry	3 weeks: USSR	20: Africa
FELLOWSHIPS AT ICRAF		proposals for GTZ, SIDA and ICAR		
FIELD TRIPS	7			
AFRENA SA		agroforestry experiments and trials	10 days: Zambia, Malawi	10: NTF Africa
AFRENA EA		agroforestry experiments and trials	10 days: Kenya	10: NTF Africa
Others (on request)		agroforestry practices in Kenya	2-10 days: Kenya	20: Africa
TRAINING MATERIALS		assessment of in-house production		
		contacts with national and international		
		research organizations		
		proposal submitted to DSO		
POST-GRADUATE EDUCATION				
AFRENA SA, CIDA fellowships	3	started M.Sc. studies	2.5 years: USA, Canada	1 each: Malawi Tanzania and Zambia
SIDA visiting scientist	1	proposal submitted and approved	1 year: Kenya, field sites	1: Ghana
AFRENA EA fellowships		proposal for fellowship (M.Sc. programme)		
M.Sc. programme in region		proposal submitted to DSO		

\*NTF = national task force, IRC = international research centre, CTA = Centre technique de coopération agricole et rurale, ICAR = Indian Council of Agricultural Research.

under the guidance of scientific staff. In 1988 for example, three final-year research scholars from the University Centre of Dschang, Cameroon, conducted special projects at the IRA/ICRAF research site at Nkolbisson.

ICRAF staff also conducted two international, three-week agroforestry training courses. One, held in Kenya, was organized by ICRAF and sponsored by the DSO programme of the Government of The Netherlands and other donors. The second, organized by ICRAF and UNEP staff, took place in the USSR. Altogether, 60 participants from national research and development institutions took part in courses organized by ICRAF.

A postgraduate fellowship programme was launched in 1988, following a study of existing M.Sc. degree programmes in agroforestry. Three scientists from the Southern Africa AFRENA were awarded fellowships sponsored by ICRAF and CIDA. These included a soil scientist from Malawi enrolled at the University of Florida, USA, a livestock specialist from Zambia attending Canada's McGill University and a forester from Tanzania studying at Michigan State University, USA. In addition, a student from Cameroon began M.Sc. studies in agroforestry at the University of Ibadan, Nigeria, with support from ICRAF. After completing their course work, all these fellows will return to their home countries to conduct their thesis research.

A GTZ-funded consultant joined ICRAF for four months in 1988 to assess the council's short- and long-term capacity to produce training materials. A project proposal was prepared to enlist donor support for work in this area.

## BUILDING COLLPRO'S SCIENTIFIC CAPABILITY

In December 1987, the division's staff included 14 scientists—13 stationed at headquarters and 1 in Cameroon. A year later, there were 23 scientists, with 9 posted to field programmes. New staff members included specialists in forestry, agronomy and soil science, livestock, ecology, horticulture and social science. The widening scope and expertise created by this expansion are reflected in the number of papers produced and conferences and meetings attended by COLLPRO staff in 1988, as listed in this annual report. One of COLLPRO's major contributions during the year was the production of a series of AFRENA reports on land-use problems and agroforestry potentials in different countries and regions of Africa. By the end of the year, 17 of these reports had been completed.



*COLLPRO Division's headquarters and field staffs gather at ICRAF House in September 1988.*



ICRAF's primary objective in the area of information and communications is to identify and bring together useful information on agroforestry and make it available to a wide audience. In pursuit of this goal, the INFOCOMM was substantially expanded and restructured in 1988. It now consists of two sections: the Information and Documentation Unit and the newly created Communications Unit. Permanent staff of these units doubled in the course of the year, most of the growth occurring in the last six months.

In collaboration with COLLPRO and RDD, the two units of INFOCOMM work to increase awareness of the potential of agroforestry to meet development needs and to promote the incorporation of agroforestry research programmes into institutional agendas and national development plans. This work is based on continuous expansion and improvement of ICRAF's store of agroforestry information and the capacity to make it available to a wide range of users. The target audiences identified by INFOCOMM include researchers, donors, policy-makers, extension groups, non-governmental organizations, development agencies, rural development projects, educators and the general public.

In keeping with these objectives, the division formed close links during the year with two groups within the network of international agricultural research centres supported by the CGIAR. The head of the Information and Documentation Unit became a member of the CGIAR Committee on Information and Documentation, while the director of INFOCOMM was invited to join the CGIAR's Public Awareness Committee.

## INFORMATION AND DOCUMENTATION UNIT

At the end of the year, the ICRAF Library collection included 4,750 books, 8,704 reprints and subscriptions to more than 120 periodicals, in addition to more than 100 periodicals received gratis or on an exchange basis. Information on new accessions is published on a regular basis

*Left: Women in Kathama, Kenya plant Flemingia congesta seedlings among maize.*

in a *Bimonthly Accessions List*, with entries indexed by author, title, subject, plant species and geographic area.

ICRAF documentalists have compiled information from the library collection into two specialized bibliographies—*Agroforestry literature: a selected bibliography* and *Agroforestry literature: a bibliography with abstracts on subsaharan Africa*—with funding from IDRC. The first of these has been published and the second is now in press.

The computerized library database is expanding on a continuous basis. At the end of 1988, it contained more than 12,000 entries, identified according to author(s), subject(s), key words in the English title, plant species, publisher, year and language of publication. On request, ICRAF staff search the database and provide a printout of references free of charge. Institutions and individuals outside ICRAF requested 518 database searches in 1988, almost doubling the number of requests received the previous year. To speed up responses, the library database is being integrated and transferred to Micro CD/ISIS software, developed for this purpose by UNESCO.

French-language requests for database searches increased during the year to four times the 1987 level, reflecting expanded agroforestry activities in francophone Africa linked with COLLPRO's increasing involvement in the region. To facilitate assistance to francophone clients, a French-language documentalist, an information specialist seconded by the French government, and a bilingual secretary joined the unit's staff in 1988.

The continued growth of COLLPRO's outreach programme—primarily through AFRENA—has stimulated a corresponding growth in information and documentation services for COLLPRO projects, outposted staff and their host institutions. In 1988, 15 librarians and documentalists came to ICRAF for a two-week course on Information Management Methods for Agroforestry. They included participants from the agricultural libraries of eight national research institutions in Eastern and Southern Africa that collaborate with AFRENA programmes in the region. The course was designed to acquaint library

staff with the concept of agroforestry as a land-use system, the nature of agroforestry information and literature, and ICRAF's organization and programme of work.

Course participants also gained hands-on experience with ICRAF's library database, using the Micro CD/ISIS software.

A major achievement of ICRAF's Information and Documentation Unit in 1988 was the inauguration of *Agroforestry Abstracts*, a quarterly journal published by ICRAF in collaboration with the CAB International. Two regular issues and one double issue were published in 1988, containing a total of more than 1,000 abstracts. Unit staff helped establish the scope of the publication, design its table of contents and select the terminology used for literature retrieval and indexing. They also coordinated the preparation of overview articles for selected issues. The first of these appeared in the September 1988 issue. ICRAF provides subscriptions to this useful periodical to 500 selected libraries and research institutions.

Subject to international copyright law, the Information and Documentation Unit provides photocopies of most documents in the library, except books, free of charge to users in developing countries. Other users receive copies on a cost-recovery basis. In 1988, 872 documents were photocopied on request from researchers and field workers in developing countries.

Photocopies of relevant documents are also provided regularly through a current awareness service, directed primarily to researchers collaborating with ICRAF field projects through AFRENA and to former participants in ICRAF's training programme. As of year's end, this service was providing literature to scientists and field workers in 145 locations.

Finally, ICRAF's Information and Documentation Unit provides information throughout the year to visiting agroforestry specialists. In 1988, the library received 104 visitors.

## COMMUNICATIONS UNIT

ICRAF's former Publications Unit was replaced in 1988 with an expanded Communications Unit. New staff members

joining the unit during the year included a unit head, consultant editor, translator, graphic artist, audiovisual coordinator and bilingual secretary. The arrival of an English-to-French translator in the second half of the year meant that it will be possible to produce ICRAF's new quarterly magazine—*Agroforestry Today*—and other documents in French closer to the publication dates of the English-language editions.

ICRAF's *Annual report 1987* appeared in the middle of the year with substantial changes in format and design. Other publications produced during the year included *The potential of agroforestry*, containing texts of the keynote addresses presented at ICRAF's 10th anniversary conference; one ICRAF Working Paper, 14 AFRENA Reports, two fact sheets, a publications booklet and two brochures for visitors. Editorial work was also completed on two monographs in ICRAF's Science and Practice of Agroforestry Series—*Agroforestry for dryland Africa* and *Agroforestry for soil conservation*—as well as on an executive summary and a full proceedings publication from the Second Kenya National Seminar on Agroforestry, held at ICRAF in November. The unit also distributed reprints of 11 articles published by ICRAF scientists in international journals and inaugurated an external peer review process for major manuscripts.

A slide/tape presentation, *The promise of agroforestry*, was completed in 1988 and used extensively to brief workshop and course participants as well as visitors to ICRAF. This production will be revised in 1989 and other audiovisual presentations prepared with the help of an audiovisual producer working at ICRAF on a 12-month fellowship supported by SIDA.

## PUBLIC AFFAIRS

The division's public affairs activities in 1988 aimed at increasing media attention to agroforestry. The BBC interviewed ICRAF scientists on several occasions and paid two visits to the Machakos field station. Radio features on agroforestry

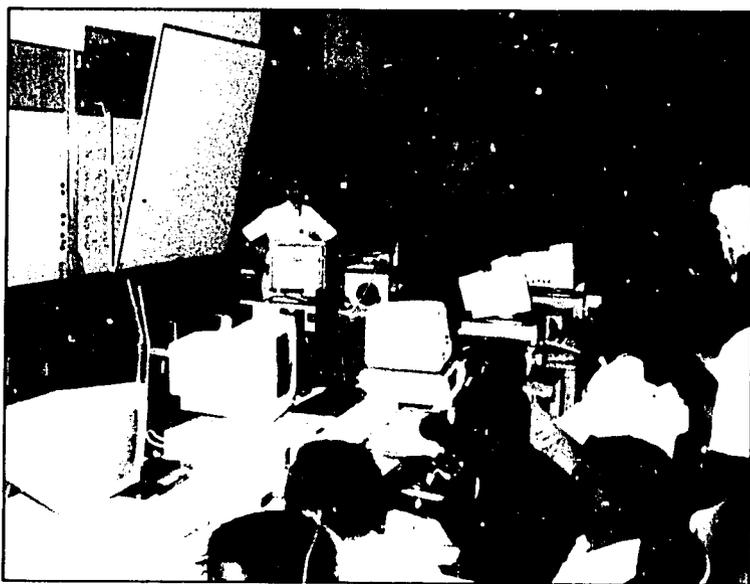
and on ICRAF were aired in the BBC's *Science in Action* and *Farming World* series. ICRAF staff were also interviewed on Kenya television and radio and a six-page article, 'Agroforestry, a new name for an old practice', was placed in the July/August issue of *Ceres*, published by FAO. In Zambia and Tanzania, print and broadcast media featured agroforestry and ICRAF in articles and radio and television productions to coincide with a visit by members of the Board of Trustees to COLLPRO projects in Zambia and the signing of a

memorandum of understanding with Tanzania.

The Division also wrote and published three issues of the *ICRAF Newsletter*, each successive issue expanded and redesigned in terms of content and format. This process marked the gradual transformation of the newsletter into a new, general-audience magazine—*AgroforestryToday*. One issue of the newsletter appeared in French in 1988 and translations of the other two issues were in progress.



*Left: Communications staff interview a farmer during a field trip in Kenya.*



*Right: InfoDoc staff teaching at the Information Management Methods for Agroforestry (IMMA) 1988 training course.*

- Depommier, D., ed. *Potentiel agroforestier des systèmes d'utilisation des sols des hautes terres d'Afrique de l'est à régime pluviométrique bimodal: Burundi*. AFRENA Report No. 2. Nairobi, ICRAF, 103 pp.
- Depommier, D., ed. *Potentiel agroforestier et propositions de recherche pour le système de la Crete Zaire-Nil à élevage: Burundi*. AFRENA Report No. 14. Nairobi: ICRAF, 74 pp.
- Djimde, M., ed. *Potentiel agroforestier dans les systèmes d'utilisation des sols des hautes terres d'Afrique de l'est à régime pluviométrique bimodal: Rwanda*. AFRENA Report No. 1. Nairobi, ICRAF, 141 pp.
- Djimde, M. and Gahamanyi, A. *Propositions de recherche agroforestière pour le système de plateaux et collines au Rwanda*. AFRENA Report No. 13. Nairobi: ICRAF, 64 pp.
- Djimde, M. and Hoekstra, D., eds. *Agroforestry potentials for the land-use systems in the bimodal highlands of Eastern Africa: Uganda*. AFRENA Report No. 4. Nairobi: ICRAF, 115 pp.
- Djimde, M. and Raintree, J.B., eds. *Agroforestry potential in the humid lowlands of Cameroon*. AFRENA Report No. 12. Nairobi: ICRAF, 114 pp.
- Hoekstra, D. *Summary of zonal agroforestry potentials and research across land-use systems in the highlands of Eastern and Central Africa*. AFRENA Report No. 15. Nairobi: ICRAF, 45 pp.
- Huxley, P.A. *Fruit crops in agroforestry*. *Chronica Horticulturae*, 28: 37-38.
- Huxley, P.A. and Mead, R. *An ecological approach to on-farm experimentation*. Working Paper 52. Nairobi: ICRAF, 39 pp.
- ICRAF. *Agroforestry literature: a selected bibliography*. Nairobi: ICRAF, 172 pp.
- ICRAF. *Bulletin ICRAF*. April 1988. 12 pp.
- ICRAF. *Bulletin et Revue d'Agroforesterie*. July 1988. 12 pp.
- ICRAF. *Bulletin et Revue d'Agroforesterie*. October 1988. 20 pp.
- ICRAF. *Fact sheet: November 1988*. Nairobi: ICRAF, 2 pp.
- ICRAF. *Fiche de renseignements: Novembre 1988*. Nairobi: ICRAF, 2 pp.
- ICRAF. *ICRAF Newsletter*. April 1988. 12 pp.
- ICRAF. *ICRAF Newsletter and Agroforestry Review*. July 1988. 12 pp.
- ICRAF. *ICRAF Newsletter and Agroforestry Review*. October 1988. 20pp.
- ICRAF. *International Council for Research in Agroforestry: annual report 1987*. Nairobi: ICRAF, 48 pp.
- ICRAF. *The potential of agroforestry: keynote addresses delivered during the 10th anniversary conference of ICRAF*. Nairobi: ICRAF, 103 pp.
- ICRAF. *Welcome to ICRAF: guidebook for international staff members*. Nairobi: ICRAF, 8 pp.
- ICRAF. *Welcome to ICRAF: visitors' guide*. Nairobi: ICRAF, 6 pp.
- Kamau, I.N. and Odra, J. *A blueprint for agroforestry research in the unimodal upland plateau of Tanzania*. AFRENA Report No. 6. Nairobi: ICRAF 88 pp.
- Kwesiga, F. and Sabas, E. eds. *Agroforestry research project for the Sukuma agropastoral system in the unimodal upland plateau (Mwanza/Shinyanga Region) of Tanzania*. AFRENA Report No. 9. Nairobi: ICRAF, 65 pp.
- Macklin, W., Bashir Jama, Kedir Reshid and Amare Getahun. *Results of alley cropping experiments with *Leucaena leucocephala* and *Zea mays* at the Kenya Coast*. *Leucaena Research Reports*. 9: 61-64.

- Maghembe, J.A. and Msanga, H.P. Effect of physical scarification and gibberellic acid treatments in germination of *Trichilia emetica* seed. *The International Tree Crops Journal*. 5: 163-77.
- Minae, S., ed. *Agroforestry research project proposal for the coffee-based system in the bimodal highlands, Central and Eastern Provinces, Kenya*. AFRENA Report No. 16. Nairobi: ICRAF, 65 pp.
- Minae, S. and Akyeampoon, E., eds. *Agroforestry potentials for the land-use systems in the bimodal highlands of Eastern Africa: Kenya*. AFRENA Report No. 3. Nairobi: ICRAF, 161 pp.
- Ngugi, D.N., ed. *Agroforestry research project proposal for the maize-livestock system in the unimodal upland plateau (Chipata and Katete) in Eastern Province of Zambia*. AFRENA Report No. 10. Nairobi: ICRAF. 87 pp.
- Ngugi, D.N. and Saka, A., eds. *Agroforestry project proposal for the Lilongwe land-use system*. AFRENA Report No. 8. Nairobi: ICRAF, 74 pp.
- Oduol, P.A. and Akunda, E. Vegetative propagation of *Sesbania sesban* by cuttings. *Agroforestry Systems*. 6: 283-88.
- Oduol, P.A., Muraya, P., Fernandes, E.C.M. and Nair, P.K.R. The agroforestry systems database at ICRAF. *Agroforestry Systems*. 6: 253-70.
- Okorio, J. and Hoekstra, D., eds. *Agroforestry research project proposal for the Kigezi annual montane food crop system in the highlands of Uganda*. AFRENA Report No. 11. Nairobi: ICRAF, 69 pp.
- Torquebiau, E. *Agroforestry research for development: ICRAF/USAID training course*. AFRENA Report No. 18. Nairobi: ICRAF, 21 pp.
- Torquebiau, E. *Study tour and workshop proceedings. Planning and evaluation of zonal and land-use specific projects: AFRENA East and Central Africa*. AFRENA Report No. 19. Nairobi: ICRAF, 183 pp.
- Wood, P.J. Agroforestry and decision-making in rural development. *Forest Ecology and Management*. 24: 191-201.
- Young, A. Agroforestry and its potential to contribute to land development in the tropics. *Journal of Biogeography*. 15: 19-30.
- Young, A. Agroforestry in the control of soil erosion by water. *Agroforestry Abstracts*. 1: 39-48.

---

## Seminars, Lectures, and Consultancies by ICRAF Staff

- D. Ngugi, F. Owino and A. Young: lectures on agroforestry at the University of Nairobi (3 March)
  - T. Darnhofer: on investigation of the influence of mulching and agroforestry systems on the microclimate conditions affecting soil moisture for maize/beans intercrop, Laikipia, Kenya (13 July)
  - A. Young: study visit on agroforestry for soil conservation, Philippines (4-14 September)
  - T. Darnhofer: on the development of Lake Chad Basin, consultancy for UNEP (29 September, 1 October, 24 October, 4 November)
  - G. Wolf: on programming an MPT database at Turrialba, Costa Rica (15 October-15 November)
  - F. Owino: lectures at the Department of Forestry, University of Helsinki, Finland (21-24 November)
-



## Staff Participation in Meetings

Meeting	Place/Date	Staff Member(s)
TAC Workshop on Sustainable Production Systems	Rome, Italy 9-15 January	P.A. Huxley
Fifth International Soil Conservation Conference	Bangkok, Thailand 18-29 January	A. Young
Third Annual Conference of African Association of Science Editors	Addis Ababa, Ethiopia 31 January-5 February	R. Huggan
Workshop on Setting National Priorities on Forestry Research in Kenya	Nairobi, Kenya 6-10 February	Amare Getahun
Workshop on Livestock Research and Extension for Communal Areas	Harare, Zimbabwe 13-19 February	M. Avila*
International Congress on Plant Physiology	Delhi, India 15-20 February	E. Akunda*
FAO Workshop on Planning Forestry Extension Programmes	Bangkok, Thailand 7-12 March	J.B. Raintree
Training in Problem Diagnosis and Project Design for Agroforestry	Gweru, Zimbabwe 12 March-1 April	A. Pinney
F/FRED Network Trials Planning Meeting	Kathmandu, Nepal 21-25 March	P.A. Huxley
IIMI/IBSRAM/ICRAF/ICLARM/ICIPE Meeting of Non-Associated Centres	Minneapolis, MN, USA 28-30 March	B. Lundgren
KENGO/JKCAT Agroforestry Programme Review and Planning Meeting	Nairobi, Kenya 7-8 April	Amare Getahun
Bicentenary Forestry Conference	Albany, Australia 20 April-14 May	P.J. Wood*
All India Coordinated Research Project on Agroforestry Workshop	Karnal, India 23-30 April	B. Lundgren, B. Scott G. B. Singh
Workshop on the Development of a Master Plan for National Agricultural and Livestock Research Systems	Arusha, Tanzania 24-30 April	M. Avila

*Left: Leucaena leucocephala intercropped with maize in a Rwandan farm field.*

\*Presented paper.

## Staff Participation in Meetings

Meeting	Place/Date	Staff Member(s)
Workshop on Research for Socio-Economic Database on Farm and Village Forestry in Asia	Kathmandu, Nepal 25-28 April	D. Hoekstra
CGIAR Retirement Plans Monitoring Sub-Committee	London, UK 9-10 May	D. Sickelmore
AF Monitoring and Evaluation Methodology Project Regional Workshop	Kisumu, Kenya 15-20 May	J.B. Raintree S. Scherr
CGIAR Mid-Term Meeting	Berlin, FR Germany 15-21 May	B. Lundgren, B. Scott
IGADD/CIMMYT Workshop on On-Farm Research in Arid and Semi-Arid Regions of IGADD Member Countries	Djibouti 23-26 May	M. Djimde*
Tropical Soil Biology and Fertility Programme: Fourth Planning Meeting	Harare, Zimbabwe 30 May-10 June	A. Young, P. Kiepe A. Pinney
USAID/USDA Animal Agriculture: Priorities for the Year 2000	Washington, DC, USA 31 May-3 June	M. Avila*
IDRC meeting on Networks for Eastern and Southern Africa	Nairobi, Kenya 11-19 June	B. Scott, D. Ngugi*
CTA/ICRAF Seminar on Constraints to Farmers Using Woody Perennials	Kigali, Rwanda 11-19 June	M. Baumer Amare Getahun*
International Workshop on Database Management Application in Forestry Research	Turrialba, Costa Rica 17-25 June	P. von Carlowitz
CGIAR Public Awareness Meeting	Mexico City, Mexico 18-25 June	R. Huggan
International Conference on Networking of African Agricultural Research Organizations	Nairobi, Kenya 20-24 June	S. Kanani
CIMMYT Technical Workshop on Crop-Livestock Interactions	Harare, Zimbabwe 27-30 June	M. Avila
ISNAR/Rutgers Agricultural Technology Management Workshop	Rutgers, NJ, USA 5-8 July	S. Scherr

\*Presented paper.

Staff Participation in Meetings

Meeting	Place/Date	Staff Member(s)
The Application of Chemistry in Solving Africa's Food Problem	Nairobi, Kenya 8-12 July	F. Owino
International Seminar on Pest Management	Wallingford, UK 28-29 July	P.A. Huxley J.B. Raintree
First National Agroforestry Workshop	Dacca, Bangladesh 13-20 August	D. Hoekstra
International Conference on Dryland Farming	Amarillo, TX, USA 13-22 August	D. Ngugi
IIMI/ICRAF/IBSRAM/ICLARM/ICIPE/IUFRO Meeting on Possible Areas of Collaboration	London, UK 22-23 August	B. Lundgren
Workshop on Land Qualities in Space and Time	Wageningen, Netherlands 22-26 August	P. Kiepe
National Social Forestry Seminar (KEFRI)	Nairobi, Kenya 31 August	Amare Getahun* B. Lundgren
Soil Fertility Workshop	Addis Ababa, Ethiopia 5-9 September	G.B. Singh*
International Institute of Communications Annual Conference	Washington, DC, USA 11-16 September	R. Huggan*
First International Workshop on Soil Management and Smallholder Development in Pacific Islands	Honiara, Solomon Islands 15-26 September	A. Young
Steering Committee Meeting for AFNETA	Ibadan, Nigeria 22-24 September	Amare Getahun
CIP/Rockefeller Foundation Workshop on Farmers and Food Systems	Lima and Cusco, Peru 26-30 September	S. Scherr
IBPGR/UNEP Germplasm Conservation Workshop	Nairobi, Kenya 26-30 September	F. Owino
IFAD International Consultation on Environment, Sustainable Development and the Role of Small Farmers	Rome, Italy 11-13 October	B. Lundgren
International Agricultural Research Centres Meeting on Training	Lima, Peru 11-19 October	E. Zulberti*

\*Presented paper.

Meeting	Place/Date	Staff Member(s)
IUFRO Conference on Agroforestry in Africa	Lilongwe, Malawi 19-21 October	D. Ngugi, F. Kwesiga
SACCAR Workshop on Man-power Planning in Agriculture	Maseru, Lesotho 22-28 October	D. Ngugi
West African Farming Systems Research Network Workshop	Ouagadougou, Burkina Faso 24-26 October	M. Djimde*
International Centres Week	Washington, DC, USA 28 October-5 November	B. Lundgren, R. Huggan B. Scott
Third International Rangeland Congress	Delhi, India 1-13 November	P. von Carlowitz
Conference of African Association for Biological Nitrogen Fixation	Dakar, Senegal 7-12 November	P. Oduol
First Ethiopian Agroforestry Planning Workshop	Awassa, Ethiopia 14-18 November	R.B. Scott*; D. Hoekstra* Amare Getahun* A. Heineman*, E. Zulberti*
First KEFRI Social Forestry Refresher Course	Nairobi, Kenya 21-25 November	Amare Getahun
Regional Seminar on Rainfed Agriculture	Manila, Philippines 21-25 November	D. Hoekstra
INSAH Technical and Scientific Committee Meeting	Bamako, Mali 16-17 November	M. Djimde*
IUFRO Meeting on Strategies for Genetic Improvement of Tropical Trees	Pattaya, Thailand 27 November-3 December	F. Owino
Appropriate Agricultural Technologies for Farm Women	New Delhi, India 27 November-9 December	S. Minae*
Meeting of International Agricultural Research Centres on Translation Issues	Addis Ababa, Ethiopia 3-6 December	A. Leymarie
First African Soil Science Society Meeting	Kampala, Uganda 5-11 December	C. Kamara*
International Workshop on Professional Education and Training in Agroforestry	Gainesville, FL, USA 5-8 December	E. Zulberti*, M. Avila

*Right: The green of intercropped Leucaena leucocephala and cowpeas contrasts with the normal semi-arid landscape around an ICRAF field station.*

\*Presented paper.



## Visitors

During 1988, several hundred agroforestry specialists, scientists working in related disciplines, policy-makers and development-planners visited ICRAF. Among them were:

- Mr S. Arasa  
Permanent Secretary, Ministry of  
Research, Science and Technology,  
Nairobi, Kenya
- Professor D.G. Belshaw  
Professor of Development Studies,  
University of East Anglia, Norwich, UK
- Dr B. Bengtsson  
Director General, SAREC, Stockholm,  
Sweden
- Dr W. Carmichael  
Vice-President, Ford Foundation, New  
York, USA
- Dr R. Chambers  
IDS, University of Sussex, Brighton, UK
- Professor G. Conway  
Imperial College, London, UK
- Mr J. Copland  
Senior Country Programme Director,  
CIDA, Hull, Canada
- Dr V. Donlon  
Directeur general de la recherche  
scientifique et technique, Brazzaville,  
Congo
- Mr B.C.Y. Freezaila  
Executive Director, International  
Tropical Timber Organization, Tokyo,  
Japan
- Mr I. Head  
President, IDRC, Ottawa, Canada
- Dr R.W. Herdt  
Director of Agriculture, Rockefeller  
Foundation, New York, NY, USA
- Dr M. Hoskins  
FAO, Rome, Italy
- Dr R.W. Hussain  
Director, Forestry Research Division,  
Islamabad, Pakistan
- H.E. E. Igwe  
High Commissioner of Nigeria, Nairobi,  
Kenya
- Professor S.O. Keya  
Vice-Chancellor, Moi University,  
Eldoret, Kenya
- Professor R. Lal  
Professor of Soil Science, Ohio State  
University, Columbus, OH, USA
- Mr D.R. Manda  
Director of Agricultural Research,  
Lilongwe, Malawi
- Dr W. Mashler  
Chairman, Board of Trustees,  
ICRISAT, Hyderabad, India
- Dr J. McWilliam  
Director, ACIAR, Canberra, Australia
- H.E. F. von Mentzingen  
Ambassador of the FR Germany,  
Nairobi, Kenya
- Dr J. Menyonga  
OAU/SAFGRAD, Ougadougou,  
Burkina Faso
- Dr H. Patel  
Assistant Director of Agriculture,  
Lusaka, Zambia
- Dr D. Pickering  
World Bank, Washington, DC, USA
- Mr M. Rahman  
Managing Director, Forest  
Development Corporation, Peshawar,  
Pakistan
- Dr M. Shelton  
University of Queensland, Brisbane,  
Australia
- H.E. F.R. Staehelin  
Director, Swiss Development  
Cooperation, Bern, Switzerland
- Ms M.B. Stone  
Director, Information Sciences  
Division, IDRC, Ottawa, Canada
- Dr F. Torres  
Deputy Director General, CIAT, Cali,  
Colombia
- Dr W.L. Weerakoon  
Director of Conservation Farming  
Project, Agricultural Research Station,  
Maha Illuppallama, Sri Lanka

## Changes In the Professional Staff

During 1988, Mr Bruce Scott (Canada), Dr Amare Getahun (Ethiopia), Dr Chermor Kamara (Sierra Leone), Dr Moses Karachi (Kenya), Dr James Roger (UK), Dr Rannamohana Rao (India), Ms Sidney Westley (USA), Ms Annie Leymarie (France), Mr Stephen Mburu (Kenya) and Mrs Damary Odanga (Kenya) joined ICRAF.

Mr Scott was appointed Director of COLLPRO. Dr Amare joined COLLPRO as Principal Scientist/Project Leader, and Dr Kamara and Dr Karachi joined AFRENA as Project Scientists, in Zambia and Tanzania respectively. Dr Rao joined RDD as Senior Research Scientist and Dr Roger joined the same division as Senior Statistician/Biometrician. Ms Westley came to ICRAF as Head of the Communications Unit in INFOCOMM. Ms Leymarie joined INFOCOMM as Translator/Reviser, Mr Mburu came to the same division as Computer Programmer and Mrs Odanga joined INFOCOMM as Graphic Artist.

Four professional staff members left ICRAF in the course of the year. These were: Mr Denis Depommier (France),

Scientist seconded from the CTFT; Mr Richard Nturu (Uganda), Publications Officer; Mr Peter Wood (UK), Senior Scientist; and Mr Mark Sandiford (UK), Research Associate supported by the British Government's ODA.

Four Research Associates joined ICRAF during the year: Mr Hendrik Prins (Netherlands), Mr Henricus Thijssen (Netherlands), Mr Gilles de Chatelperron (France) and Mr Jacques Pégourié (France). Dr Luther Lulandala (Tanzania) worked at ICRAF for six months as a Senior Visiting Scientist.

Two consultants were hired during the year. Ms Eva Muller (FRG) joined ICRAF for six months to work on the Information Management for Agroforestry Project, and Mr Jan Beniést (Belgium) was hired for four months to develop training materials for ICRAF's training unit.

Two divisional administrators were recruited during the year: Mrs Geeta Patel (Kenya) for the Collaborative Programmes Division and Mrs Milcah Mbindyo (Kenya) for the Information and Communications Division.

# Staff List

Name	Position/Discipline (Nationality)	Date joined (Date left)	Duty Station
<b>Office of the Director-General</b>			
Dr B. Lundgren	Director-General (Sweden)	01.09.1981	Nairobi
Mr S. Kanani	Technical Coordinator (Kenya)	13.06.1983	Nairobi
Mr K. Thuo	Protocol Officer (Kenya)	16.09.1985	Nairobi
Mrs F. Mboya	Director-General's Executive Secretary (Kenya)	22.09.1978	Nairobi
<b>Finance and Administration Division</b>			
Mr D.M. Sickelmore	Director, Finance and Administration (UK)	01.01.1986	Nairobi
Mr P. Waiguru	Computer Specialist I (Kenya)	03.07.1984	Nairobi
Mr J. Akhatika	Cleaner (Kenya)	01.11.1985	Nairobi
Mrs F. Chege	Tea Lady/Cleaner—IUFRO (Kenya)	01.07.1987	Nairobi
Mrs M.M. de Souza	Secretary (Kenya)	01.10.1987	Nairobi
Mr L. Gakombe	Cleaner (Kenya)	15.07.1987	Nairobi
Mr E. Gatoru	Junior Accountant (Kenya)	01.09.1988	Nairobi
Mr J. Gitau	Senior Messenger (Kenya)	01.03.1984	Nairobi
Mr B.B. Hware	Messenger (Kenya)	15.07.1987	Nairobi
Mr T. Ivati	Senior Driver (Kenya)	18.07.1981	Nairobi
Mr J. Kagiri	Messenger (Kenya)	01.10.1985	Nairobi
Mrs D. Kamaan	Receptionist/Copy Typist (Kenya)	29.08.1987	Nairobi
Mr T. Kamundi	Assistant Computer Operator (Kenya)	01.08.1988	Nairobi
Mr P. Kang'ethe	Driver (Kenya)	10.06.1987	Nairobi
Miss C. Kanyeki	Building Superintendent (Kenya)	17.01.1980	Nairobi
Mr J. Kariuki	Driver (Kenya)	15.07.1987	Nairobi
Mrs B. Kedeng'e	Executive Secretary (Kenya)	17.03.1986	Nairobi
Mr K. King'aru	Transport Superintendent (Kenya)	01.09.1987	Nairobi
Mr M. Kuria	Accounts Clerk (Kenya)	19.09.1983	Nairobi
Mr H. Luvizu	Cleaner (Kenya)	01.08.1988	Nairobi
Mr A. Makindu	Accounts Clerk (Kenya)	01.01.1988	Nairobi
Mr J. Mbugua	Messenger (Kenya)	01.11.1985	Nairobi
Mr D. Michino	Junior Accountant (Kenya)	01.08.1988	Nairobi
Miss J. Moraa	Cleaner/Messenger (Kenya)	01.07.1987	Nairobi
Mr J.M. Muli	Carpenter (Kenya)	01.10.1987	Nairobi
Mr D.M. Musili	Cleaner (Kenya)	05.10.1987	Nairobi
Miss M. Mutua	Computer Operator (Kenya)	01.07.1986	Nairobi
Mrs T.K. Ng'ang'a	Secretary (Kenya)	18.08.1986	Nairobi
Miss F. Ngari	Tea Lady/Cleaner (Kenya)	21.06.1983	Nairobi
Mrs G. Ngugi	Receptionist (Kenya)	29.08.1987	Nairobi
Mr C.D. Nyaga	Messenger (Kenya)	01.12.1987	Nairobi
Mr B. Nyachienga	Driver (Kenya)	01.05.1988	Nairobi
Mrs C. Ochieng	Assistant Accountant (Kenya)	19.03.1986	Nairobi
Mr A.N. Okello	Electrician (Kenya)	01.11.1987	Nairobi

Name	Position/Discipline (Nationality)	Date joined (Date left)	Duty Station
Mrs M. Oluoch	Assistant Accountant (Kenya)	19.09.1983	Nairobi
Mr J.O. Opande	Driver (Kenya)	01.10.1987	Nairobi
Mrs L. Wambua	Procurement Assistant (Kenya)	28.04.1983	Nairobi
Miss L. Wanjau	Receptionist (Kenya)	05.06.1987	Nairobi
Mr H. Wanjohi	Cleaner (Kenya)	01.11.1988	Nairobi
Mr F. Wanyoike	Messenger (Kenya)	01.2.1985	Nairobi
Mr P. Waweru	Driver (Kenya)	01.01.1979	Nairobi
<b>Research Development Division</b>			
Dr P. Huxley	Divisional Director (UK)	04.01.1979	Nairobi
Mr E. Akunda	Principal Research Assistant/ Agronomy (Kenya)	01.01.1986	Nairobi
Dr M. Baumer	Senior Scientist/Range Management (France)	01.09.1983	Nairobi
Mr G. Boklin	Research Associate/SIDA (Sweden)	03.11.1987	Nairobi
Dr T. Darnhofer	Senior Scientist/Agrometeorologist (Austria)	15.07.1982	Nairobi
Mr D. Gatama	Research Assistant (Kenya)	08.07.1985	Nairobi
Mr Bashir Jama	Research Assistant I (Kenya)	01.09.1986	Nairobi
Mr P. Kiepe	Research Associate (Netherlands)	08.12.1987	Nairobi
Mr M. Lundberg	Research Associate/SIDA (Sweden)	10.08.1987	Nairobi
Mr P. Muraya	Computer Specialist I (Kenya)	01.05.1985	Nairobi
Mr P. Oduol	Research Assistant I (Kenya)	01.10.1985	Nairobi
Dr F. Owino	Senior Scientist (Kenya)	10.08.1987	Nairobi
Mr A. Pinney	Research Associate/ODA (UK)	09.05.1987	Nairobi
Dr J. Raintree	Principal Social Scientist (USA)	18.12.1980	Nairobi
Dr M.R. Rao	Senior Research Scientist (India)	01.05.1988	Nairobi
Dr J.H. Roger	Senior Statistician/Biometrician (UK)	01.04.1988	Nairobi
Mr M. Sandiford	Research Associate/ODA (UK)	16.03.1987 (17.05.1988)	Nairobi
Dr S. Scherr	Scientist/Macroeconomics (USA)	01.12.1985	Nairobi
Mr H. Thijssen	Research Associate (Netherlands)	22.07.1988	Nairobi
Mr P. von Carlowitz	Senior Research Scientist/GTZ (FR Germany)	26.06.1982	Nairobi
Mr D. Wambuguh	Research Assistant I (Kenya)	01.12.1982	Nairobi
Mr G.V. Wolf	Scientist/GTZ (FR Germany)	04.11.1986	Nairobi
Mr P.J. Wood	Senior Scientist/Forester (UK)	02.09.1983	Nairobi
Professor A. Young	Principal Scientist/Land Use (UK)	04.01.1983	Nairobi
Mr K. Gilani	Secretary (Kenya)	15.06.1984	Nairobi
Miss H. Gitere	Tea Lady/Cleaner (Kenya)	08.08.1987	Nairobi
Mrs B. Kibe	Executive Secretary (Kenya)	01.06.1981	Nairobi
Mrs T. Lohay	Administrative Assistant (Kenya)	01.06.1985	Nairobi
Mr A. Mageto	Messenger (Kenya)	15.07.1987	Nairobi
Miss P. Magu	Secretary (Kenya)	01.04.1983 (30.05.1988)	Nairobi
Miss S. Muasya	Secretary (Kenya)	26.04.1983	Nairobi
Miss A. Musa	Secretary (Kenya)	01.04.1983 (30.06.1988)	Nairobi
Mrs F. Musau	Senior Secretary (Kenya)	01.09.1987	Nairobi
Miss M. Mwangi	Secretary (Kenya)	01.10.1986	Nairobi

Name	Position/Discipline (Nationality)	Date joined (Date left)	Duty Station
Miss M. Ondeng'	Secretary (Kenya)	23.03.1987	Nairobi
Miss R. Thuo	Secretary (Kenya)	24.08.1987	Nairobi
Mrs J. Waweru	Secretary (Kenya)	01.03.1980	Nairobi
<b>Field Station—Machakos</b>			
Mr P.M. Kurira	Farm Manager (Kenya)	01.08.1981	Machakos
Mr P. Ambani	Senior Field Assistant (Kenya)	01.09.1988	Machakos
Mr K. Chondo	Labourer (Kenya)	01.01.1988	Machakos
Mr B. Kamba	Labourer (Kenya)	08.01.1988	Machakos
Mr G. Kiilu	Labourer (Kenya)	15.01.1988	Machakos
Mr M. Kilonzo	Gardener (Kenya)	01.01.1982	Machakos
Mr M. Koko	Labourer (Kenya)	01.01.1988	Machakos
Mr G. Kolonzo	Gardener (Kenya)	01.09.1988	Machakos
Mr W. Kyule	Labourer (Kenya)	08.01.1988	Machakos
Mr E. Letaulo	Labourer (Kenya)	01.01.1988	Machakos
Mr J. Malonzah	Labourer (Kenya)	01.07.1988	Machakos
Mr P. Mbiti	Field Assistant (Kenya)	08.09.1986	Machakos
Mr Z. Musembi	Labourer (Kenya)	01.07.1988	Machakos
Mr M. Muthoka	Labourer (Kenya)	01.01.1988	Machakos
Mr E. Mutinda	Labourer (Kenya)	08.01.1988	Machakos
Mr P. Mutua	Labourer (Kenya)	20.01.1988	Machakos
Mr L. Mutunga	Labourer (Kenya)	22.01.1988	Machakos
Mr G. Mwasambu	Field Assistant (Kenya)	01.12.1982	Machakos
Mr P. Nzioka	Labourer (Kenya)	01.01.1988	Machakos
Mr T.O. Ondieki	Labourer (Kenya)	17.01.1988	Machakos
<b>Collaborative Programmes Division</b>			
Mr R.B. Scott	Divisional Director (Canada)	01.01.1988	Nairobi
Dr E. Akycampong	Scientist/Agronomist (Ghana)	01.01.1987	Burundi
Dr M. Avila	Senior Scientist (Belize)	13.07.1987	Nairobi
Mr D. Depommier	Scientist (France)	17.01.1984	Nairobi
Dr M. Djimde	Scientist (Mali)	01.05.1985	Nairobi
Dr Bahiru Duguma	Scientist (Ethiopia)	01.02.1987	Cameroon
Dr Amare Getahun	Principal Scientist/Project Leader (Ethiopia)	01.09.1988	Nairobi
Mr A. Heineman	Research Associate (Netherlands)	07.11.1987	Maseno
Ir D. Hoekstra	Senior Scientist (Netherlands)	01.03.1982	Nairobi
Dr C. Kamara	Scientist (Sierra Leone)	01.09.1988	Zambia
Miss I. Kamau	Principal Research Assistant (Kenya)	01.09.1984	Nairobi
Dr M. Karachi	Scientist (Kenya)	01.08.1988	Tanzania
Dr F. Kwesiga	Scientist (Uganda)	01.04.1985	Zambia
Dr J. Maghembe	Senior Scientist/Forestry (Tanzania)	01.06.1987	Malawi
Dr S. Minae	Scientist (Kenya)	01.08.1985	Nairobi
Professor D. Ngugi	Senior Scientist/Zonal Coordinator (Kenya)	01.11.1985	Malawi
Mrs G. Patel	Divisional Administrator (Kenya)	26.01.1988	Nairobi
Mr J. Pégorié	Research Associate/CTFT (France)	14.12.1988	Nairobi
Mr H. Prins	Research Associate (Netherlands)	01.03.1988	Malawi

*Right: ICRAF scientists observe traditional agroforestry land-use systems in the Kenya highlands.*



Name	Position/Discipline (Nationality)	Date joined (Date left)	Duty Station
Dr E. Torquebiau	Training Officer/Scientist (France)	09.10.1987	Nairobi
Mr J. Wahome	Principal Training Assistant (Kenya)	01.08.1984	Nairobi
Dr E. Zulberti	Principal Training Officer (Argentina)	26.04.1982	Nairobi
Mrs A. Aduol	Secretary (Kenya)	01.09.1986	Nairobi
Miss S. Hirani	Bilingual Secretary (Kenya)	14.07.1985	Nairobi
Mrs J. Kimotho	Secretary (Kenya)	18.09.1986	Nairobi
Mr A. Kirima	Messenger (Kenya)	01.07.1987	Nairobi
Miss T. Knudsen	Executive Secretary (Kenya)	19.01.1983	Nairobi
Mrs J. Muga	Secretary (Kenya)	01.01.1988	Nairobi
Miss E. Muhenge	Secretary (Kenya)	01.09.1986	Nairobi
Mrs L. Munge	Cleaner/Tea Lady (Kenya)	01.06.1988	Nairobi
Miss L. Mwandawiro	Bilingual Secretary (Kenya)	01.02.1988	Nairobi
Miss C. Muniafu	Bilingual Secretary (Kenya)	01.03.1988	Nairobi
Mrs E. Mwavua	Senior Secretary (Kenya)	01.09.1987	Nairobi
Mr C. Ngari	Messenger (Kenya)	01.12.1987	Nairobi
Mrs S. Okoth	Secretary (Kenya)	01.08.1987	Nairobi
<b>Information and Communications Division</b>			
Mr R.D. Huggan	Divisional Director/Communications Specialist (Canada)	01.08.1987	Nairobi
Mr B. Bondole	Documentalist/Francophone (Zaire)	07.03.1988	Nairobi
Mr G. de Chatelperron	Associate Expert/MFA (France)	01.07.1988	Nairobi
Miss K. Kealey	Editorial Consultant (Canada)	01.04.1988	Nairobi
Miss K. Kebaara	Editorial Assistant (Kenya)	03.12.1984	Nairobi
Mr R. Labelle	Head Information and Documentation Unit (Canada)	01.07.1981	Nairobi
Miss A. Leymarie	Senior Translator/Revisor (France)	01.09.1988	Nairobi
Mrs L. Majisu	Documentalist (Kenya)	01.03.1979	Nairobi
Mrs M. Mbindyo	Divisional Administrator (Kenya)	19.09.1988	Nairobi
Mrs H. Munyua	Documentalist (Kenya)	01.05.1986	Nairobi
Mr A. Njenga	Audio Visual Coordinator (Kenya)	01.02.1988	Nairobi
Mr R.C. Nturu	Publications Officer (Uganda)	01.11.1982 (31.3.1988)	Nairobi
Mrs D. Odanga	Graphic Artist (Kenya)	05.10.1988	Nairobi
Mr S. Okemo	Library Coordinator (Kenya)	25.01.1982	Nairobi
Ms S. Westley	Head Communications Unit (USA)	01.08.1988	Nairobi
Mrs H. Abdalla	Senior Secretary (Kenya)	01.07.1988	Nairobi
Mrs L. Chege	Secretary (Kenya)	01.01.1985	Nairobi
Mrs E. Gimode	Executive Secretary (Kenya)	09.11.1987	Nairobi
Mrs M. Kimenye	Secretary (Kenya)	01.08.1986	Nairobi
Mr S. Maina	Messenger (Kenya)	01.11.1985	Nairobi
Miss M. Mwangi	Bilingual Secretary (Kenya)	01.11.1988	Nairobi
Miss L. Ular	Bilingual Secretary (Kenya)	12.10.1987	Nairobi
Mrs P. Wandhala	Tea Lady/Cleaner (Kenya)	16.11.1985	Nairobi

Rattansi Educational Trust Building Telephone 21244  
Kainange Street Telex 22140 CHUNGA  
PO Box 41968 Cables PRICEWATER  
Nairobi Kenya Fax 335937

*Price Waterhouse*



REPORT OF THE AUDITORS TO THE BOARD OF TRUSTEES OF  
INTERNATIONAL COUNCIL FOR RESEARCH IN AGROFORESTRY

We have audited the accounts set out on pages 37 to 46 and have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.

As stated in Note 2(d), in accordance with generally accepted accounting practice for research centres, no depreciation has been provided on fixed assets.

In our opinion the accounts give a true and fair view of the state of the Council's financial affairs at 31 December 1988 and of its deficit of income over expenditure on the core fund for the year then ended.

Certified Public Accountants

*2<sup>nd</sup> May 1989*

## CORE FUND - INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 DECEMBER 1988

	Notes	1988 \$	1987 \$
<b>INCOME</b>			
Grants received	3	2,476,601	2,244,379
Administration fees received		49,303	85,719
Grants for the 10th Anniversary Celebrations	3	-	89,776
Interest		12,987	29,629
Publications		16,211	17,004
Proceeds on sale of fixed assets		29,772	866
Sundry		58,741	68,832
Gain on exchange		9,213	1,369
		<u>2,652,828</u>	<u>2,537,574</u>
<b>EXPENDITURE</b>			
Personnel costs		1,934,197	1,353,018
Supplies		259,698	131,445
Services		442,606	374,908
Travel		202,019	106,756
Purchase of fixed assets		367,473	422,319
Expenditure on the 10th Anniversary Celebrations		-	226,130
		<u>3,205,993</u>	<u>2,614,576</u>
(DEFICIT) OF INCOME OVER EXPENDITURE FOR THE YEAR		(553,165)	(77,002)
BALANCE AT 1 JANUARY		(565,847)	(488,845)
BALANCE AT 31 DECEMBER		<u>(1,119,012)</u>	<u>(565,847)</u>

**BALANCE SHEET AT 31 DECEMBER 1988**

	Notes	1988 \$	1987 \$
CAPITAL FUND		3,648,558	3,042,791
CORE FUND		(1,119,012)	(565,847)
RESTRICTED PROJECTS FUND	5	1,493,142	1,000,911
HEADQUARTERS FUND	7	(430,600)	(430,600)
LONG TERM LOAN	8	220,176	258,306
		<u>3,812,264</u>	<u>3,305,561</u>
<b>REPRESENTED BY</b>			
FIXED ASSETS	9	<u>3,648,558</u>	<u>3,042,791</u>
<b>CURRENT ASSETS</b>			
Debtors and prepaid expenses	10	1,220,967	869,661
Bank balances and cash		174,334	567,185
		<u>1,395,301</u>	<u>1,436,846</u>
<b>CURRENT LIABILITIES</b>			
Bank overdraft		-	35,147
Donation received in advance		150,000	-
Creditors and accrued charges	11	1,081,595	1,138,929
		<u>1,231,595</u>	<u>1,174,076</u>
NET CURRENT ASSETS		<u>163,706</u>	<u>262,770</u>
		<u>3,812,264</u>	<u>3,305,561</u>

CHAIRMAN OF BOARD OF TRUSTEES

*David A. C...*

DIRECTOR - GENERAL

*[Signature]*

## NOTES TO THE ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 1988

### 1. LEGAL STATUS AND OBJECTIVES

The Council is an autonomous, not-for-profit, international organization established by charter. The objectives of the Council are to increase the social, economic and nutritional well-being of peoples of developing countries through the promotion of agroforestry systems.

### 2. SIGNIFICANT ACCOUNTING POLICIES

#### (a) Accounting convention

The accounts are prepared under the historical cost convention.

#### (b) Revenue recognition

Grants are received by the Council for specific (restricted) projects and for general administration costs (core support). Income for core support and incomplete phases of restricted projects is recognized when received. Accruals are made for grants pledged in respect of completed phases of restricted projects. Other income is recognized as earned. Donations in kind are not recognized in these accounts.

#### (c) Expenditure recognition

Expenditure is recognised in the year in which it is incurred.

#### (d) Fixed assets

Fixed assets purchased prior to 1 January 1985 are stated at the Council's valuation and subsequent additions are stated at cost.

Fixed assets are charged either to core fund or to restricted projects fund and are also capitalised by debiting the fixed assets account and crediting the capital fund with the cost of additional asset.

Proceeds on disposals are credited to the core fund or to the restricted projects fund and the original cost of the assets sold is eliminated from fixed assets and the capital fund.

In accordance with generally accepted accounting practice for research centres, no depreciation is provided on fixed assets.

**NOTES TO THE ACCOUNTS (CONTINUED)  
FOR THE YEAR ENDED 31 DECEMBER 1988**

**2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**(e) Foreign currency transactions**

The accounts are presented in United States Dollars (\$).

Transactions undertaken in currencies other than U.S. dollars are converted into U.S. dollars at rates approximating to the actual rates of exchange ruling at the transaction dates. Current assets and liabilities at the balance sheet date denominated in currencies other than U.S. dollars are translated at rates ruling at that date. The resulting differences from conversion and translation are dealt with in the core fund in the year in which they arise.

**(f) Staff termination and repatriation costs**

Full provision for the contractual liability in respect of all amounts payable at the end of each contract of employment is made in the accounts on the commencement of the contract.

<b>3. CORE SUPPORT GRANTS</b>	<b>1988</b>	<b>1987</b>
	<b>\$</b>	<b>\$</b>
<b>General</b>		
Coopération au développement et aide humanitaire, Switzerland	285,704	266,667
Ford Foundation	150,000	150,000
Royal Norwegian Ministry of Development Co-operation	271,611	248,115
Ministry of Development Co-operation, Netherlands	368,945	365,530
Canadian International Development Agency	726,695	598,674
World Bank	460,000	430,000
Sweden	213,646	185,393
	<u>2,476,601</u>	<u>2,244,379</u>
<b>10th Anniversary Celebrations</b>		
International Development Research Centre	-	19,383
Canadian International Development Agency	-	35,044
Ministry of Development Co-operation, Netherlands	-	35,349
	<u>-</u>	<u>89,776</u>

**4. TAX**

The Government of Kenya has undertaken to exempt the Council from income tax and from customs duty and sales tax on goods imported by the Council.

**NOTES TO THE ACCOUNTS (CONTINUED)  
FOR THE YEAR ENDED 31 DECEMBER 1988**

	1988 \$	1987 \$
<b>5. RESTRICTED PROJECTS FUND</b>		
Fund balance at 1 January	1,000,911	786,968
Grants received and accrued (Note 6)	3,143,663	2,320,044
Consultancy income	130,523	40,275
Expenditure:		
Project operating costs	(2,468,078)	(1,890,874)
Purchase of fixed assets	(313,877)	(255,502)
	<hr/>	<hr/>
Fund balance at 31 December	<u>1,493,142</u>	<u>1,000,911</u>
<b>6. RESTRICTED PROJECT GRANTS RECEIVED AND ACCRUED</b>		
International Development Research Centre	64,718	97,908
Ford Foundation	-	108,800
Swedish International Development Authority	635,194	448,313
German Agency for Technical Co-operation	341,949	116,269
United States Agency for International Development	1,014,182	765,739
Near East Foundation	100,000	100,000
Canadian International Development Agency	328,373	390,210
French Ministry of External Relations	55,496	40,865
SAREC	297,897	108,146
ICRAF/SIR	-	112,327
ICRAF/DSO	213,205	2,756
UNDP	-	28,711
Switzerland	2,804	-
KINNIDA	12,932	-
2nd National Agroforestry Seminar	76,913	-
	<hr/>	<hr/>
	<u>3,143,663</u>	<u>2,320,044</u>
<b>7. HEADQUARTERS FUND</b>		
Fund balance at 1 January	(430,600)	837,111
	<hr/>	<hr/>
Grants received during the year	-	-
	<hr/>	<hr/>
Expenditure during the year:		
Architects, surveyors and legal fees	-	51,387
Construction costs	-	917,986
Purchase of furniture and fittings and equipment	-	298,338
	<hr/>	<hr/>
	-	1,267,711
	<hr/>	<hr/>
Fund balance at 31 December	<u>(430,600)</u>	<u>(430,600)</u>



*Above: An AFRENA project tree nursery in Chipata, Zambia*

*Right: Tree seedlings (Pinus spp) at a nursery at Arusha, Tanzania.*



## NOTES TO THE ACCOUNTS (CONTINUED) FOR THE YEAR ENDED 31 DECEMBER 1988

### 7. HEADQUARTERS FUND (CONTINUED)

The deficit on the Headquarters Fund represents the excess of expenditure on construction of the Council's headquarters building in Nairobi over grants received for this.

8. LONG-TERM LOAN	1988 \$	1987 \$
Ford Foundation	258,306	294,221
Less: Repayable within 12 months	38,130	35,915
	<u>220,176</u>	<u>258,306</u>

This loan was received to assist in financing the cost of the new Headquarters building in Nairobi. It is repayable in equal monthly instalments over seven years from October 1987. Interest is charged at 6% per annum.

### 9. FIXED ASSETS

	Buildings \$	Motor vehicles \$	Computer equipment \$	Furniture fittings & equipment \$	Total \$
At 1 January 1988	1,567,694	565,440	325,089	584,568	3,042,791
Additions in year:					
Restricted projects fund	89,485	115,799	66,378	42,215	313,877
Core fund	55,082	49,565	121,193	141,633	367,473
Disposals		(65,994)	(6,850)	(2,739)	(75,583)
At 31 Dec. 1988	<u>1,712,261</u>	<u>664,810</u>	<u>505,810</u>	<u>765,677</u>	<u>3,648,558</u>
Comprising:					
Cost	1,712,261	542,051	476,045	765,677	3,496,034
Valuation 1985	-	122,759	29,765	-	152,524

### 10. DEBTORS AND PREPAID EXPENSES

	1988 \$	1987 \$
Grants receivable from donors	539,498	584,726
Staff accounts and travel advances	270,357	118,962
Other debtors and prepaid expenses	411,112	165,973
	<u>1,220,967</u>	<u>869,661</u>

**NOTES TO THE ACCOUNTS (CONTINUED)  
FOR THE YEAR ENDED 31 DECEMBER 1988**

**11. CREDITORS AND ACCRUED CHARGES**

	1988 \$	1987 \$
Provision for staff benefits	736,957	565,547
Staff accounts	-	1,613
Other creditors and accrued charges	306,508	535,854
Current portion of loan (see Note 8)	38,130	35,915
	<u>1,081,595</u>	<u>1,138,929</u>

**12. OTHERSUPPORT**

The Federal Republic of Germany (BMZ/GTZ), France (CTFT), Sweden (SIDA), the Netherlands and U.K. (ODA) seconded technical personnel to the Council during the year. The cost of these personnel was borne by the donor organisations.

**CORE FUND  
RECEIPTS AND EXPENDITURE  
FOR THE YEAR ENDED 31 DECEMBER 1988  
(ANALYZED BY DIVISION)**

	1988 \$	1987 \$
REVENUE RECEIVED FROM DONORS	<u>2,652,828</u>	<u>2,334,155</u>
EXPENDITURE		
Research Development Division	834,019	464,856
Collaborative Programmes Division	255,191	66,611
Information and Communications Division	783,441	465,188
Finance and Administration	1,070,501	940,638
Office of the Director	198,288	214,531
Board of Trustees	64,553	33,203
Tenth Anniversary		226,130
	<u>3,205,993</u>	<u>2,411,157</u>
TOTAL EXPENDITURE		
DEFICIT FOR THE YEAR	<u>(553,165)</u>	<u>(77,002)</u>

## ANALYSIS OF RESTRICTED FUNDS FOR THE YEAR ENDED 31 DECEMBER 1988

	Computer code	Balance at 1 January 1988 \$	Income received and accrue \$	Personnel cost \$	Supplies and service \$	Travel \$	Fixed assets purchase \$	Total Expenditure \$	Balance \$
Ford Foundation									
JMRDP-SUDAN	RDJ	10,063	-	-	-	-	-	-	10,063
855-0716	CTR	87,967	-	13,450	-	5,066	-	18,516	69,451
870-0408	RDI	68,098	-	25,323	467	19,747	-	45,557	22,541
Canadian International Development Agency:									
050/13352	CSC	7,492	-	-	-	-	-	-	7,492
050/13386	CAA	339,504	328,374	307,988	89,668	74,773	103,750	576,179	91,699
GTZ									
Tree Crop Mixture -1-432-60005613	RDM	80,474	-	28,288	2,646	762	12,735	4,431	36,043
Review and Publication -1-432-60005613	RDM	-	115,431	21,300	-	-	-	21,300	94,131
MPT Germplasm -1-432-60051039	RPT	-	212,879	15,215	6,833	545	92,578	115,171	97,708
ICRAF/WMO workshop	RZD	-	13,639	11,250	2,369	-	-	13,639	-
SIDA									
AF/s C Manuals-1.52	RRR	20,048	-	10,252	715	2,194	-	15,161	6,887
Field station	RRF	111,713	361,582	231,211	50,102	6,907	24,100	312,320	160,975
AF Shifting cult	RFE	60,684	106,732	28,358	19,812	28,038	1,229	77,437	89,979
AF for development in Kenya	CKD	-	166,880	39,356	7,139	1,035	4,539	52,069	114,811
IRA/ICRAF W. Africa	CWA	57,393	155,495	95,725	26,175	27,965	26,616	176,481	36,407
USAID									
DMR5547-A-00-6041-00	CBA	115,000	934,182	372,123	189,011	120,940	26,085	708,157	341,023
DHR-5547-G-SS-8046-00	CSU	-	80,000	-	-	-	-	-	80,000
SAREC	CSA	41,735	297,897	82,981	25,601	20,784	15,822	145,188	194,444
Ethiopian National Seminar	CES	-	12,942	-	2,775	1,947	-	4,722	8,210
2nd National Agroforestry Seminar	RFC	-	76,913	52,362	15,520	9,031	-	76,913	-
ICRAF/DSO Training Course 1988	CPR	-	190,349	82,535	14,163	93,651	-	190,349	-
ICRAF/DSO Training Course 1989	CPC	-	22,856	22,580	276	-	-	22,856	-
IDRC 3P-85-0120	III	-	64,718	26,389	491	31,415	6,423	64,718	-
Consultant - Beniest	CPT	-	61,533	39,063	5,356	17,114	-	61,533	-
- De Chatelperron	IIF	-	68,990	33,143	4,569	-	-	37,712	31,278
Rwanda-Swiss	RDC	740	2,804	3,256	288	-	-	3,544	-
		1,000,911	3,274,186	1,542,148	463,996	461,934	313,877	2,781,955	1,493,142



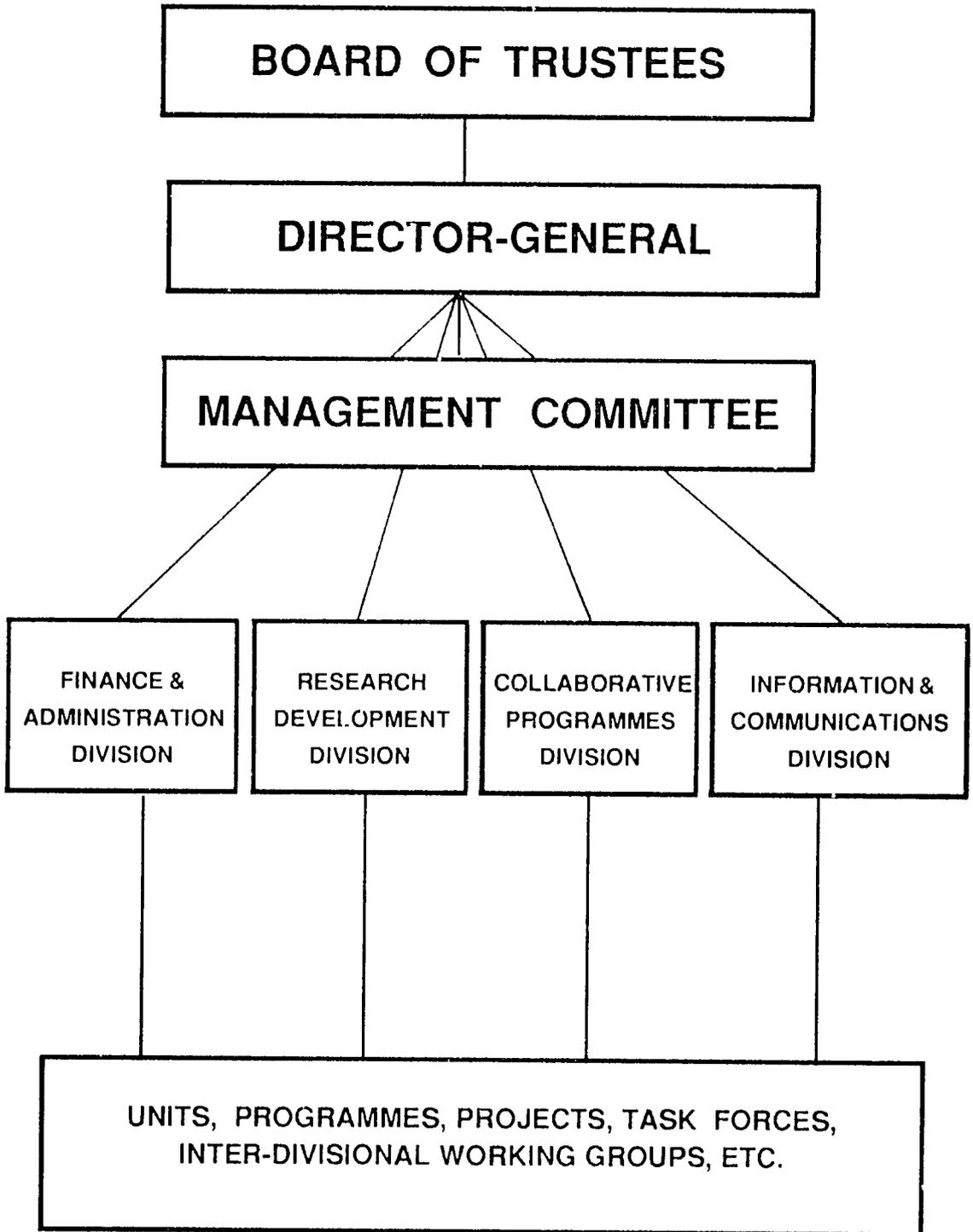
## List of Acronyms

- ACIAR:** Australian Centre for International Agricultural Research (Canberra, Australia)  
**AFNETA:** Alley Farming Network for Africa (Secretariat based at IITA)  
**AFRENA:** Agroforestry Research Networks for Africa (coordinated from ICRAF)  
**BARC:** Bangladesh Agricultural Research Council (Dacca, Bangladesh)  
**BBC:** British Broadcasting Corporation (London, UK)  
**BMZ:** Bundesministerium für wirtschaftliche Zusammenarbeit (Bonn, FRG) Federal German Ministry of Economic Cooperation  
**CGIAR:** Consultative Group on International Agricultural Research (Washington, DC, USA)  
**CIAT:** Centro Internacional de Agricultura Tropical (Cali, Colombia)  
**CIDA:** Canadian International Development Agency (Hull, Quebec, Canada)  
**CIMMYT:** Centro Internacional de Mejoramiento de Maiz y Trigo (Mexico, DF, Mexico)  
**CIP:** International Potato Centre (Lima, Peru)  
**COLLPRO:** Collaborative Programmes Division (ICRAF)  
**CTA:** Technical Centre for Agricultural and Rural Cooperation (Brussels, Belgium)  
**CTFT:** Centre technique forestier tropical (Nogent-sur-Mame, France)  
**DOS:** Disk Operating System  
**DSO:** Direct Support to Training Institutes in Developing Countries (The Hague, Netherlands)  
**FAO:** Food and Agriculture Organization of the United Nations (Rome, Italy)  
**F/FRED:** Forestry/Fuelwood Research and Development (USAID Science and Technology Bureau) (Washington, DC, USA)  
**FINAD:** Finance and Administration Division (ICRAF)  
**FINNIDA/FTP:** Finnish International Development Agency/Forestry Training Programme  
**FRG:** Federal Republic of Germany  
**GTZ:** Gesellschaft für technische Zusammenarbeit/German Agency for Technical Cooperation (Eschborn, FRG)  
**HRID:** Human Resource and Institutional Development (COLLPRO, ICRAF)  
**IBPGR:** International Board for Plant Genetic Resources (Rome, Italy)  
**IBSRAM:** International Board for Soil Research and Management (Bangkhen, Bangkok, Thailand)  
**ICAR:** Indian Council of Agricultural Research (New Delhi, India)  
**ICIPE:** International Centre of Insect Physiology and Ecology (Nairobi, Kenya)  
**ICLARM:** International Centre for Living Aquatic Resources Management (Metro Manila, Philippines)  
**ICRAF:** International Council for Research in Agroforestry (Nairobi, Kenya)  
**ICRISAT:** International Crops Research Institute for the Semi-Arid Tropics (Patancheru, India)  
**IDRC:** International Development Research Centre (Ottawa, Canada)  
**IFAD:** International Fund for Agricultural Development (Rome Italy)  
**IFDC:** International Fertilizer Development Centre (Muscle Shoals, Alabama, USA)  
**IGADD:** Inter-Governmental Agency for Drought and Development  
**IIMI:** International Irrigation Management Institute (Digana Village, Sri Lanka)  
**IITA:** International Institute of Tropical Agriculture (Ibadan, Nigeria)  
**ILCA:** International Livestock Centre for Africa (Addis Ababa, Ethiopia)  
**INFOCOMM:** Information and Communications Division (ICRAF)  
**INSAH:** Institut du Sahel (Bamako, Mali)  
**IRA:** Institut de la recherche agronomique (Yaoundé, Cameroon)  
**ISABU:** Institut des sciences agronomiques du Burundi (Bujumbura, Burundi)  
**ISNAR:** International Service for National Agricultural Research (The Hague, Netherlands)  
**IUFRO:** International Union of Forestry Research Organizations (Vienna, Austria)  
**JKCAT:** Jomo Kenyatta College of Agriculture and Technology (Nairobi, Kenya)  
**KARI:** Kenya Agricultural Research Institute (Nairobi, Kenya)  
**KEFRI:** Kenya Forestry Research Institute (Muguga, Kenya)



- KENGO:** Kenya Energy and Environment Organizations (Nairobi, Kenya)  
**MFA:** Ministry of Foreign Affairs (France)  
**MPT:** Multipurpose Tree  
**ODA:** Overseas Development Administration (London, UK)  
**RDD:** Research Development Division (ICRAF)  
**SACCAR:** Southern Africa Centre for Cooperation in Agricultural Research (Gaborone, Botswana)  
**SADCC:** Southern Africa Development Coordination Committee  
**SAFGRAD:** Consultative Advisory Committee on Semi-Arid Food Grains Research and Development (Lagos, Nigeria)  
**SAREC:** Swedish Agency for Research Cooperation with Developing Countries (Stockholm, Sweden)  
**SCUAF:** Soil Changes Under Agroforestry  
**SIDA:** Swedish International Development Authority (Stockholm, Sweden)  
**TAC:** Technical Advisory Committee (CGIAR) (Rome, Italy)  
**TARO:** Tanzania Agricultural Research Organization (Dar-es-Salaam, Tanzania)  
**TSA:** Technical Support and Analysis (COLLPRO, ICRAF)  
**UK:** United Kingdom  
**UNEP:** United Nations Environment Programme (Nairobi, Kenya)  
**UNESCO:** United Nations Educational, Scientific and Cultural Organization (Paris, France)  
**USA:** United States of America  
**USAID:** United States Agency for International Development (Washington, DC, USA)  
**USDA:** United States Department of Agriculture (Beltsville, Maryland, USA)  
**USSR:** Union of Soviet Socialist Republics  
**WAFSRN:** West African Farming Systems Research Network (Ouagadougou, Burkina Faso)

ICRAF's Organizational Structure



## Board of Trustees

---

Chairman	Professor H.A. Stepler (Canada)
Vice-Chairman	Mr S.N. Muturi (Kenya)
	Dr. S. Atmosoedaryo (Indonesia), until April 1988
	Dr. G.T. Castillo (Philippines)
	Professor R. Cummings (USA)
	Dr G. Nores (Argentina) (April-November)
	Professor F.J. Schmithüsen (FR Germany)
	Dr. M. Singh (India)
	Dr. M. Touré (Senegal)
Director-General	Professor M. Wessel (Netherlands)
	Dr. B.O. Lundgren (Sweden) ex-officio

### Meetings during 1988

- 16th Programme Committee meeting, 18 April
- 19th Finance and Executive Committee meeting, 18 April
- 15th Board of Trustees meeting, 18-22 April
- 17th Programme Committee meeting (held in Zambia and Nairobi), 29 November-1 December
- 10th Finance and Executive Committee meeting, 2-3 December

### Board Decisions in 1988

- Dr Gustavo Nores (Argentina) was appointed to the Board of Trustees as of April 1988, but unfortunately had to resign in December because he is a member of TAC and TAC will be reviewing ICRAF in 1989. Dr Soekiman Atmosoedaryo (Indonesia) retired as a Trustee after completing two three-year terms. Dr F.J. Schmithüsen (FR Germany) and Dr. R. Cummings (USA) were re-elected to second three-year terms.
- The Programme Committee recommended to the Board that ICRAF should develop a long-term strategy in 1989 for the period up to the year 2000.
- The Board discussed and approved ICRAF's Programme of Work for 1988 with projections for 1989-90.
- The Board approved the appointment of an external consultant to review ICRAF's professional staff policies and report during the next full Board meeting.
- The Board authorized the Chairman and the Director-General to continue discussions with the CGIAR and TAC concerning the possibility of ICRAF joining the CGIAR.
- The Board, in collaboration with the ICRAF Donor Support Group, agreed that an External Review would be conducted in 1989.
- Three new Trustees accepted the Board's invitation and were appointed to join the Board in April 1989. They are Dr J. McWilliam (Australia), Dr G. Holmes (UK) and Dr R. Mupawose (Zimbabwe).

## Addresses

### Bankers

Citibank N.A.  
International Private Banking Division  
399 Park Avenue  
New York, NY 10043, USA

Commercial Bank of Africa Ltd.  
Wabera Street  
P.O. Box 30437  
Nairobi, Kenya

### Auditors

Price Waterhouse  
Certified Public Accountants  
P.O. Box 41968  
Nairobi, Kenya

### Headquarters

ICRAF House  
Gigiri (off Limuru Road)  
P.O. Box 30677  
Nairobi, Kenya  
Telephone: 521450  
Telex: 22048 ICRAF  
Telefax: 521001  
Cable: ICRAF

### Field Station

P.O. Box 953  
Machakos, Kenya  
Telephone: 21343 Machakos

### Outposted Staff

Dr Bahiru Duguma, Project Leader  
ICRAF/IRA Collaborative Project  
P.O. Box 2123  
Yaoundé, Cameroon  
Telephone: 000 (237) 232644  
Telex: 1140 KN

Dr Ekow Akyeampong  
Project ICRAF/ISABU  
B.P. 173  
Gitega, Burundi  
Telephone: (040) 2314  
Telex: 3000 BDI

Professor David Ngugi, Dr Jumanne  
Maghembe, Mr H. Prins  
c/o SADCC/ICRAF Agroforestry  
Project  
Makoka Agricultural Research Station  
P.O. Box 134  
Zomba, Malawi  
Telephone: 000 (265) 522 053  
Telex: 44441  
Telefax: Zomba 523-058

Dr. C. S. Kamara  
SADCC/ICRAF Agroforestry Project  
Department of Agriculture  
Mlungushi House, 3rd Floor  
P.O. Box 50291  
Lusaka, Zambia  
Telephone: 000 (260) 251854 or 253008  
Telex: 43950 AGRIM ZA7

Dr. Moses Karachi  
c/o TARO, Tumbi.  
P.O. Box 306  
Tabora, Tanzania  
Telex: 47071

Mr Arne Hcineman  
KEFRI/KARI/ICRAF Agroforestry  
Research Project  
P.O. Box 1866  
Kisumu, Kenya  
Telephone: Maseno 349

Dr. Freddie Kwesiga  
Zambia/ICRAF/AFRENA  
Agroforestry Project  
c/o Provincial Agriculture Office  
(Eastern Province)  
Provident House  
P.O. Box 510046  
Chipata, Zambia  
Telephone: 000 (260) 21433 or 21264  
Telex: ZA 63020.