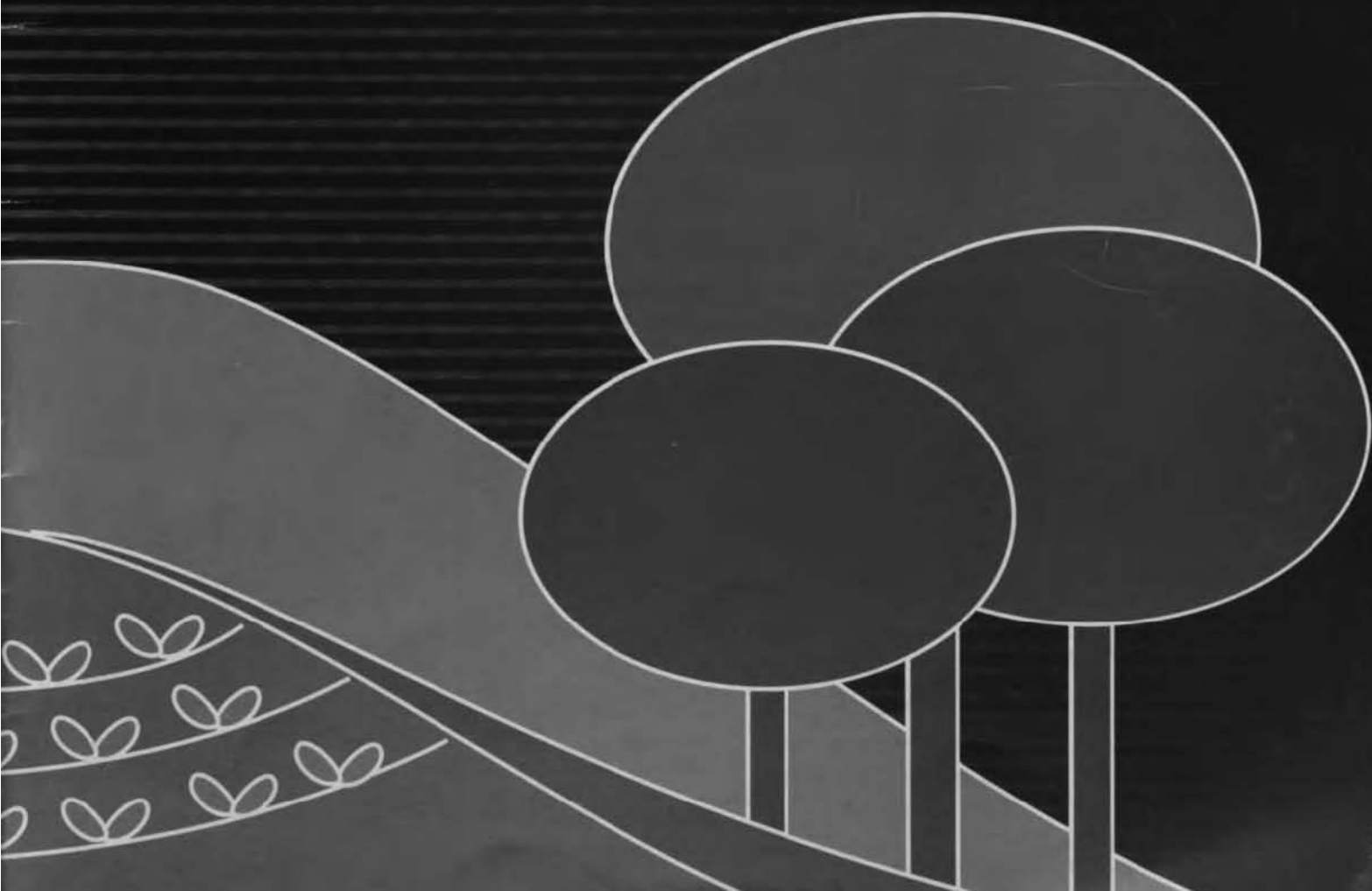


# CATIE

TROPICAL AGRICULTURAL RESEARCH AND HIGHER EDUCATION CENTER

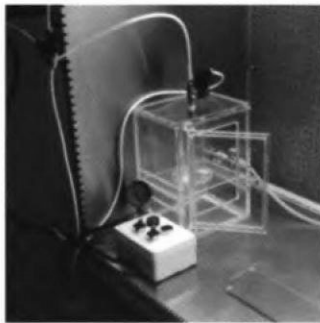
## MISSION, WORK AND BASIC VALUES





CATIE, headquartered in Turrialba, Costa Rica, is an international institution for research and graduate studies in agricultural sciences, management of natural resources and related environmental matters.

**Our mission** is to improve the well-being of humankind by applying scientific research and higher education to the development, conservation and sustainable use of natural resources.



**Our commitment** is to make a substantive, measurable impact on economic growth and social development in the American Tropics and on the conservation of its natural resources and environment.



### **Our strengths:**

- Our three basic activities, research, teaching and outreach, are strongly integrated.
- We cooperate closely with national, regional and international organizations and institutions, whether public, private, nongovernmental or academic, in our Member States and other countries throughout the world.

Our motto

**Producing while conserving,  
Conserving while producing.**

guides our work.

# RESEARCH AND GRADUATE EDUCATION

## RESEARCH

*Our research generates knowledge, methods and technologies with the ultimate aim of fighting poverty and arresting the deterioration of natural resources and the environment.*

We focus on:

- FORESTRY AND AGROFORESTRY SYSTEMS
- STRATEGIC INPUTS FOR SUSTAINABLE AGRICULTURE
- VALUATION OF NATURAL RESOURCES





Our forestry and agroforestry research generates technologies and incorporates them into the management of

agroforestry systems,  
natural forests and  
forest plantations.

Beneficiaries of this work include:

Forest communities,  
Peasant farmers,  
Commercial production enterprises and  
Urban consumers.

Our research on strategic inputs for sustainable agriculture follows two lines:



- We hold collections of plant genetic resources, including coffee, cacao, *pejibaye* (peach palm, or *Bactris* spp.) and tropical fruits. Managed with technical excellence and economic and biological effectiveness, the collections constitute an asset that constantly grows and renews itself. From the collections we distribute superior germplasm to user institutions and organizations in client countries, where it is used for the development and selection of varieties with improved performance under the many varied local conditions.

Final beneficiaries of the plant improvement cycle are peasant farmers, agricultural and forestry production enterprises, rural communities and urban consumers.

- Integrated pest management (IPM) research cuts the costs of agricultural production and reduces the risk of poisoning people and contaminating the environment. In close cooperation with farmers, IPM prudently balances:

- Breeding of pest-tolerant and resistant plant varieties;
- Biological pest control, using natural enemies of pests rather than toxic chemicals;
- Crop management practices that impede the development and spread of pests;
- Minimum use of pesticides, accepting that some pesticide use is generally unavoidable;
- Economic studies to develop the most profitable combinations of pest-control options; and
- Social research to identify pest-control methods that are acceptable to farmers, especially peasant farmers.

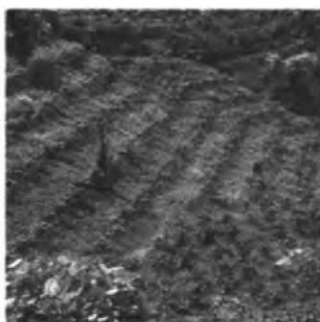


Our research on the valuation of natural resources is motivated by the lack of incentives for communities and producers to take better care of natural resources and by the absence of mechanisms for those responsible for resource damage to bear the costs. Consequently, we seek ways to

encourage conservation,  
generate wealth and  
discourage damage.

- Researching the valuation of natural resources, we investigate the value to society of:
  - Soil conservation—to maintain soil productivity and prevent environmental damage from soil erosion—
  - Recreation and ecotourism—to safeguard, *inter alia*, the welfare and mental health of an increasingly urban world—
  - Carbon fixation by forests and tree plantations—to prevent global warming—
  - Preservation of biodiversity—to protect species that, in the future, may help us ward off pests and diseases and provide us with new services—
  - Protection of the water cycle through conservation of forests and reforestation—to avoid interrupting the cycle, which would impoverish us and lead to desertification—.

Appropriate valuation of natural resources underpins further research which is aimed at developing mechanisms that governments and institutions can use to encourage conservation, reduce social and market pressures on ecosystems, charge the cost of ecological and environmental damage to those who cause them, and generate wealth and distribute it equitably.



## CUTTING-EDGE TECHNOLOGY SUPPORTS RESEARCH

Our research draws on appropriate methods from many disciplines. However, CATIE excels in two specific areas of research support technology:

Biotechnology and  
Geographic Information Systems (GIS).

Biotechnologies deployed in our laboratories include tools for characterizing our germplasm collections at the molecular level, as well as techniques for genetic transformation of high-priority species through gene splicing.

With our GIS infrastructure, we georeference not only biophysical and environmental information, but also social and economic data, as a routine input to our research. At the same time we advise and train colleagues from institutions and organizations in the region that are developing their own GIS capabilities.







## AN ARSENAL OF TECHNOLOGICAL OPTIONS

Over the years, CATIE has equipped national organizations and institutions, whether public, private, nongovernmental or academic, with a veritable arsenal of technological options. Receiving institutions deploy these tools improving production and productivity in farms and forests, and conserving natural resources and the environment.

We offer a broad range of solutions, including:

- varied approaches for managing complex systems, such as watersheds, natural forests, and natural protected areas;
- methods for conserving biodiversity in *ex situ* germplasm collections and *in situ* natural vegetation;
- improved production systems for small- and medium-scale farmers, including agroforestry and integrated pest management systems for vegetable and coffee growers, and agroforestry and livestock systems for dairy and goat producers;
- multi-purpose trees for diversifying the income base of both small-scale farmers and larger scale enterprises;
- community management of natural resources based on participatory methods; and
- participatory incorporation of women into resource use and conservation.

*For more information on CATIE research, please contact:*

*Tel. (506) 556-1754*

*Fax (506) 556-6255*

*<http://www.catie.ac.cr>*

# GRADUATE STUDIES

*Our graduate school educates professionals to become committed to sustainable development and equipped with the knowledge and skills to be effective and efficient agents of change for the productive, conservation-oriented use of natural resources and protection of the environment.*



GRADUATE EDUCATION OPERATES IN CLOSE COOPERATION WITH OUR RESEARCH WORK. WE OFFER THE FOLLOWING MASTER OF SCIENCE AND DOCTORAL DEGREES IN

- SUSTAINABLE TROPICAL AGRICULTURE
- INTEGRATED MANAGEMENT OF NATURAL RESOURCES WITH
  - PH.D. IN TROPICAL FORESTRY
  - PH.D. IN AGROFORESTRY
  - MASTER OF SCIENCE IN
    - ECOLOGICAL AGRICULTURE
    - AGROFORESTRY SYSTEMS
    - MANAGEMENT AND CONSERVATION OF TROPICAL FORESTS AND BIODIVERSITY
    - ENVIRONMENTAL ECONOMICS
    - WATERSHED MANAGEMENT

Our Masters degree has a long tradition: with over fifty years of experience, it is the oldest and longest-running program of its kind in Latin America and the Caribbean. It boasts more than 1000 alumni active in the region, with over 50 more being added every year. Our doctoral degree is offered through a cooperative program with universities in the United States, Canada and Europe; the first students were admitted in 1996.



### **ALUMNI: LEADERS AND AGENTS OF CHANGE IN THE AMERICAN TROPICS**

National alumni associations offer graduates a forum where they can keep in touch with one another and with their *alma mater*. Our graduates have excelled as innovative professionals promoting better use and conservation of resources and teaching others to organize such activities more effectively. Holding prominent positions in public, private, nongovernmental and academic institutions, they serve as leaders and agents of change, both in their home countries and in regional and international organizations. Our alumni roster features the names of cabinet ministers, university presidents and deans, directors and general managers.

*For more information on our graduate programs, contact:*

*Tel. (506) 556-1016*

*Fax (506) 556-0914*

*<http://www.catie.ac.cr>*

*email: [posgrado@catie.ac.cr](mailto:posgrado@catie.ac.cr)*

# OUTREACH

*We project ourselves in society through services, products and activities that foster economic growth, social development and conservation of natural resources and the environment throughout the region.*



Our efforts focus on three strategic functions:

- MANAGEMENT AND DISSEMINATION OF INFORMATION,
- DEVELOPMENT OF HUMAN RESOURCES THROUGH TRAINING AND
- DISSEMINATION OF LAND-USE TECHNOLOGIES AND MANAGEMENT SYSTEMS.

We closely monitor the ever-changing needs of the countries and their institutions and organizations to make sure our services, products and activities continue to be relevant.



## DISSEMINATION OF SCIENTIFIC AND TECHNICAL INFORMATION

We compile, integrate, publish and disseminate information produced by CATIE and others to support the activities and, especially, the decision-making processes of those engaged—in one way or another—in agricultural and forest production or in conservation of natural resources and the environment.

Information users include:

Farmers and foresters, especially small-scale or resource-poor producers,  
Technical experts,  
Scientists,  
Community leaders;  
Institutional leaders,  
Opinion makers,  
Legislators and policy makers.



We deploy a broad range of modern media, including:

Printed,  
Electronic and  
Optical media;  
Audiovisuals and  
Multimedia.

*For more information on our publications:*

*Tel. (506) 556-0501 or 556-6431*

*Fax (506) 556-0501*

*email: [bibliot@catie.ac.cr](mailto:bibliot@catie.ac.cr)*

The Orton Memorial Library at CATIE offers documentation services in agriculture, forestry and natural resources. Jointly owned by CATIE and the Inter-American Institute for Cooperation on Agriculture (IICA), it is the largest library of its kind in Tropical America. The Library's Catalog might be accessed through our web page <http://www.catie.ac.cr>

*For more information:*

*Tel. (506) 556-0501 or 556-6431*

*Fax (506) 556-0501*

*email: [bibliot@catie.ac.cr](mailto:bibliot@catie.ac.cr)*

## INFORMATION AND TELECONFERENCING CENTER

Agriculture is evolving from making intensive use of material inputs to become a highly information-intensive activity, while conservation and rehabilitation of natural resources will need to rely equally heavily on information input.

Information users will need an almost instantaneous response to their needs, or in the language of the information age, they need answers "in real time."

Meanwhile, the explosive pace of development in communications media and information management technologies has brought unprecedented opportunities in this post-modern era in which, perhaps, the most significant phenomenon is the compression of time and space. We can now "witness" events taking place anywhere in the world, and watch them even as they unfold.

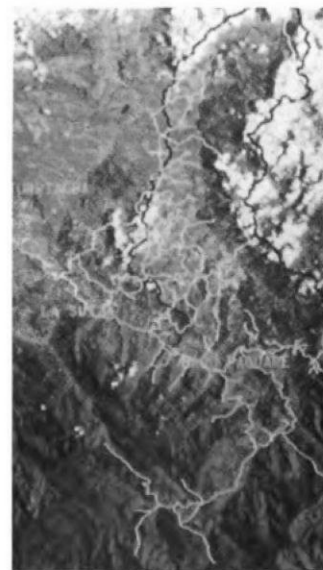
CATIE has recognized these profound changes and is rising to the challenge through a decision to become a true information center and a focal point for video-communication.

The information center is being developed by building on pre-existing components. It will offer bibliographic information services, decision support systems, and publishing services.

Currently, some of them are more advanced than others, but, to a greater or lesser extent, each one is able to obtain and process data and information, has a collection of data in electronic format, and provides on-line access for users.

The video-communication center initiated activities in 1999. It offers teleconferencing services and distance education facilities (integrated with the graduate school and the training program) providing a means to:

- Take part in conferences held anywhere in the world;
- Participate in discussions worldwide; and
- Deliver and receive lectures to and from any part of the world through an effective connection with the global telecommunications system.





# TRAINING AND CONFERENCES

*We provide training services to develop the cognitive abilities and technical skills of professionals as a means to strengthen the operating capacity of organizations and institutions for agriculture and forestry and for the conservation of natural resources and the environment.*



## **Training**

Our courses carefully balance theoretical and practical tuition. They last from a few weeks to several months. Additionally, we offer shorter events (up to one week long). Together, these training activities number some 200 events per year. In-service training opportunities are also offered by our research programs.

We address the following areas of interest:

- Management of forestry and agroforestry systems,
- Management of natural protected areas,
- Watershed management,
- Sustainable agriculture,
- Plant protection,
- Information management,
- Managing research and development,
- Environmental management and economics,
- Gender and participation,
- Project design and evaluation,
- Research methods,

These services are supported by appropriate infrastructure, including classrooms, laboratories, greenhouses, experimental fields, and dining and lodging facilities.

*For more details:*

Tel. (506) 556-6021  
Fax (506) 556-0176  
email: [capacita@catie.ac.cr](mailto:capacita@catie.ac.cr)

## **Conferences**

Conferences are an important communication tool. They provide a forum to exchange information and knowledge; build consensus; and plan, follow-up and evaluate projects and programs.

We not only hold many events of our own but also offer services and infrastructure (meeting rooms, communication facilities, dining rooms, lodging) for non-CATIE events.

*For information on these services and our schedule of events:*

Tel. (506) 556-1149  
Fax (506) 556-1533  
<http://www.catie.ac.cr>

# TECHNOLOGY DISSEMINATION

*To improve agricultural and forestry production and conserve natural resources and the environment we promote the adoption and use of*

- *knowledge, information, and technologies, as well as*
- *model management and organization systems*

*by means of various mechanisms such as*

- *technical advisory assistance,*
- *research and development projects and*
- *multilateral cooperation.*

## **Technical advisory assistance**

We offer technical advisory assistance both to research and development institutions and organizations, extension services and development projects and to planners and policy makers.

*For more information on technical advisory services:*

*Tel. (506) 556-0026*

*Fax (506) 556-8470*

*<http://www.catie.ac.cr>*

## **Research and development projects**

We implement demonstration and development projects in our fields of technical expertise, including projects for the communal management and diversified use of natural forests, reforestation, and integrated pest management.



## **RESEARCH AND DEVELOPMENT PROJECTS**

The term "research and development" (R&D) was originally coined in the industrialized world to refer to two phases of a single process: basic research and the application of research for the development of new marketable services and products.

In the rural sector of developing countries, the "D" of R&D actually has two different meanings that exist side by side and are generally indistinguishable from one another: development of new services and products, and social and economic development based on the use and application of know-how and technology.

CATIE regularly cooperates with national organizations and institutions to carry out projects funded by national, regional and international development agencies, official development aid programs in industrialized countries, and philanthropic organizations. These projects conduct foundational research, develop and test methods, technologies, services and products, and contribute directly to social and economic development for the populations involved. The balance between "R" and the two types of "D" varies among projects. Some focus more on research, others on technology development, still others stress socioeconomic development based on the adoption of technologies, organizational methods and policies.

Recent R&D projects in the Central American isthmus and Panama have addressed, and continue to deal with, natural forest management, forestation and reforestation, integrated pest management and watershed management. In addition to the projects' direct impact, there is a twofold outcome: firstly, proven models of social and economic development projects that the countries can replicate confidently; secondly, new research issues that address previously unnoticed problems as well as "second generation" problems.



## Multilateral cooperation

We are involved in many cooperation networks assuming various roles such as participants, coordinators, facilitators or leaders. In particular, we encourage networks of development projects as a way to:

- Facilitate the exchange of information among members;
- Promote the standardization of methodologies, so that results are comparable, shared information systems can be established, and technologies and management systems can be adopted more widely;
- Capture economies of scale in publishing, in the use of resources and in the development of human resources;
- Ensure the support of local organizations and decision makers through their commitment to multilateral initiatives which bind more strongly than local ones.

*To learn about other opportunities for cooperation, and to obtain more information on CATIE's projects and networks, consult:*  
<http://www.catie.ac.cr>

## REDCA REGIONAL COOPERATION NETWORK FOR EDUCATION AND RESEARCH IN AGRICULTURE AND NATURAL RESOURCES, CENTRAL AMERICA AND THE CARIBBEAN

The stated objective of REDCA is to integrate regional efforts to improve the quality of research, higher education, training and extension in areas of interest for agriculture and natural resources.

In 1986, CATIE sponsored the establishment of REDCA; today the Center serves as its Executive Secretariat, the permanent entity for coordinating Network activities.

REDCA coordinates activities with over 120 institutions in Central America, Panama and the Caribbean and with the Mexican Association of Higher Education in Agriculture (AMEAS), made up of around a hundred institutions. It also has associate members, including a dozen universities in the United States and Canada. It holds agreements linking it to the Network of Agricultural Universities of Europe, the International Conference of Directors and Deans of Institutions of Higher Education in Agricultural Sciences (in France), and the Southern African Regional Centre for Cooperation in Agricultural Research and Training.

The Network organizes meetings, workshops, training courses, academic exchanges and panel discussions on topics of interest to individual countries and to the region. Its areas of action include curriculum development and planning, and follow-up and evaluation of educational activities. It also sponsors activities to improve management of research and education.

## KEEPING SIGHT OF NATIONAL NEEDS

*We are committed to achieve a verifiable impact on economic growth, social development and conservation of natural resources and the environment in the American tropics. This means that we must respond to the priority needs of the region's countries so that our actions are consistent with them and our services and products are relevant.*



To keep abreast of the countries' needs we are attentive to a number of sources of information:

- Producer associations,
- CATIE's authorities (Council of Ministers, Board of Directors),
- Our National Advisory Councils,
- Our National Technical Offices,
- Organizations and institutions with which we cooperate,
- National, inter-governmental, regional and international fora,
- Alumni associations and
- Our own technical staff

These sources we tap through surveys, meetings and visits.

## NATIONAL TECHNICAL OFFICES

CATIE has National Technical Offices in El Salvador, Guatemala, Honduras, Nicaragua and Panama. They are the Center's permanent base of in-country operations and provide a key link to national institutions and organizations.

Under the leadership of a National Technical Coordinator, each Office: coordinates CATIE's in-country activities; identifies opportunities to provide more and better services and products and to strengthen and broaden technical cooperation; serves as a permanent liaison with national institutions and organizations, local offices of international development agencies, and the media; and distributes CATIE's products and services.



## BALANCE BETWEEN HEADQUARTERS AND DECENTRALIZED ACTIVITIES

We are very attentive to the need for a healthy balance between activities at headquarters, maintaining our presence in the countries, and distributing our services and products among clients and partners. We strive to avoid excessive concentration at headquarters by maintaining National Technical Offices, participating in networks and decentralized projects, and making use of electronic communications and teleconferences. At the same time, we endeavor to reap the benefits and capture the economies of scale associated with prudently centralized services.

# INSTITUTIONAL DEVELOPMENT AND FUNDING

*As any institution, CATIE needs to look to its own development and remain sustainable. This entails three groups of activities: strategic surveillance, external cooperation and procurement of financial resources.*

Strategic surveillance means that CATIE constantly collects, analyzes and interprets information on macro-political, economic, social and institutional trends so that it can then adjust appropriately to the ever-changing institutional context.

External cooperation seeks to build alliances with advanced organizations and institutions to strengthen and enhance our own capacities.

To procure resources, we prepare project proposals and cooperation plans and submit them to development agencies (national, regional and international). These projects expand the funding base required to discharge our duties.

*For more information on institutional alliances or to explore possibilities for new alliances:*

*Tel. (506) 556-6431*

*Fax (506) 556-1533*

*email: [cooexter@catie.ac.cr](mailto:cooexter@catie.ac.cr)*

## STRATEGIC ALLIANCES FOR RECIPROCAL STRENGTHENING

We combine efforts with the following strategic partners, to jointly pursue our mission:

ACRI	American Cocoa Research Institute.
CIAT	International Center for Tropical Agriculture.
CIFOR	International Center for Forestry Research.
CIRAD	Center for International Cooperation in Agricultural Research for Development, France.
	USA.
COLORADO STATE UNIVERSITY	Swiss Cooperation for Development.
COSUDE	General Directorate of International Cooperation, The Netherlands.
DGIS	German Agency for Technical Cooperation.
	International Centre for Research in Agro-Forestry.
GTZ	International Development Research Centre.
ICRAF	International Plant Genetic Resources Institute.
IDRC	International Service for National Agricultural Research.
IPGRI	International Union for the Conservation of Nature
ISNAR	Ministry of Foreign Affairs, France.
IUCN	Natural Resources Institute, United Kingdom.
MAE	Office of Overseas Scientific and Technical Research, France.
NRI	Denmark
	USA.
IRD	Canada.
	USA.
ROSKILDE UNIVERSITY	Finland.
TEXAS A&M UNIVERSITY	Germany.
UNIVERSITY OF ALBERTA	USA.
UNIVERSITY OF FLORIDA	Canada.
UNIVERSITY OF HELSINKI	Denmark.
UNIVERSITY OF HOHENHEIM	UK
UNIVERSITY OF IDAHO	World Wildlife Fund, USA.
UNIVERSITY OF LAVAL	
UNIVERSITY OF VETERINARY MEDICINE	
UNIVERSITY OF WALES	
WWF-US	



# SPONSORS AND DONORS

CATIE is a non-profit organization. With its various activities, it generates income to cover some of its expenses, but it could not possibly survive without the generous support of many sponsors and donors across the world, committed to our shared mission. To them we extend our gratitude!

*We encourage readers of this publication to consider CATIE as an institution worthy of your support. Please contact us for more details on how to become a CATIE sponsor:*

*Tel. (506) 556-1176 or 556-6081*

*Fax (506) 556-6166*

*email: [director@catie.ac.cr](mailto:director@catie.ac.cr)*

*Tel. (506) 556-6431*

*Fax (506) 556-8470*

*WEB: <http://www.catie.ac.cr>*

## MEMBER COUNTRIES

CATIE's member countries are: Belize, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama and Venezuela. Several other countries—Bolivia, Brazil, Peru, Paraguay and several nations of the Caribbean—have expressed interest in becoming members of CATIE.

## Sources of funding

Investments in 2000, which will top US\$19 million, will come from the following sources:

SOURCE	% OF BUDGETED INCOME
Annual quotas from member countries and the Inter-American Institute for Cooperation on Agriculture	8
Projects funded by donors and development agencies	36
Donor contributions (Denmark, Norway, Sweden, Switzerland) to CATIE's central budget	15
Funds in custody	24
Resources generated by CATIE activities	15
Fundatropicos (CATIE support foundation)	2
	100.0

## FINANCIAL SUPPORT

The following countries honor us with generous financial support, through various institutions and organizations:

CANADA	GERMANY	SWITZERLAND
DENMARK	NETHERLANDS	UNITED KINGDOM
FINLAND	NORWAY	UNITED STATES OF AMERICA
FRANCE	SWEDEN	

We also receive financial support from the European Union, the World Bank, the Inter-American Development Bank, and the American Cacao Research Institute.

To this we must add human, physical and financial resources worth approximately three million dollars, deployed yearly in the framework of technical cooperation with over 200 public, private, nongovernmental, and academic institutions and organizations in CATIE's member countries.



# IMPACT: OUR RAISON D'ÊTRE

...If the know-how, technologies and alternative practices are not available and are not put into the hands of end users...there is hardly a justification for the Center to exist...

...Clear, measurable indicators should show whether we have truly contributed to the sustainable use of ecosystems and, therefore, to breaking the cycle of rural poverty and degradation