CATIE SI PM-3



## INSTITUTIONAL DEVELOPMENT PLAN

1995 - 2002

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TROPICAL AGRICULTURAL RESEARCH AND HIGHER EDUCATION CENTER







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TURRIALBA, COSTA RICA 1996



CATIE is a international, non-profit, regional, scientific and educational institution. Its main purpose is research and education in the fields of agricultural science and natural resources and related subjects in the American tropics, with emphasis on Central America and the Caribbean.



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"The impact of this Plan will be at the field level. Only here can it be judged to have achieved its goals and fulfilled its mission. If the knowledge, technologies and alternative practices are not available and in use by the end of the 1990s, it would be difficult to justify the Center's existence in the terms of this Strategic Plan. There must be clear and measurable indications that it has contributed to sustainable use of ecosystems and, thus, has broken the vicious circle of rural poverty and land degradation." (CATIE's Strategic Plan, 1994)



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This is the fourth and final document related to CATIE's Strategic Plan: Agenda for a Critical Decade, 1993-2002 (CATIE 1994). This and the three Action Plans for the Programs (CATIE 1994a; 1994b; 1995) constitute the framework for CATIE's Institutional Development. Its purpose is to identify the strategies and activities that will bring about changes that improve implementation and attainment of the Institution's goals. It is assumed that by strengthening the Center, CATIE will be better able to accomplish its Strategic Plan and to attract and implement new projects.

### I: CATIE'S DEVELOPMENT PLAN

Over the last half century CATIE has continuously assimilated new areas of action that are now key aspects of the development of agriculture and management of natural resources in the American tropics. These include research on cocoa and coffee, forest plantations and forest management, agroforestry and farming systems. During each phase the Center underwent related institutional changes.

For this new era of increased awareness of the importance of the environmental sciences, biodiversity and integrated natural resources management, CATIE must insure that its institutional development reflects the changes and new dimensions that are required. Examples of the latter are gender issues and other socioeconomic concerns that must form part of the orientation of the new professionals trained at the Center for the 21st century.

According to CATIE's Strategic Plan, the Center's mission for this decade is to:

"Stimulate and promote research and education in agricultural and related sciences for the development, conservation and sustainable use of natural resources in the American tropics to improve the well-being of mankind".

This regional mission is reflected in CATIE's logical framework shown in Table 1. This and the Action Plans of CATIE's current Programs and Areas are the starting point for the Center's institutional development.



# TABLE 1. LOGICAL FRAMEWORK ACCORDING TO CATIE'S STRATEGIC PLAN FOR 1993-2002

INSTITUTION MISSION	MISSION	Gen. OBJECTIVE	Sp. OBJECTIVES	STRATEGIES	ACTIVITIES
-CATIE, and	-Stimulate and	-Establish and	-To generate and	-To determine new	-Research, and
its strategic	promote research	generate research,	validate technological	technologies and	validation
allies	and education for	education and	practices for	practices that	
	development,	technical cooperation	agricultural	harmonize	
	conservation and	programs which	production and	production, and	
	sustainable use of	contribute to the	natural resources	conservation	
	natural resources in	solution of			
	the American	socioeconomic and		-To specialize	
	tropics for the well	agroecological	-Prepare	professionals in	
	being of humankind	problems in the	professionals at	sustainable	<ul> <li>Higher education</li> </ul>
	1	American tropics	postgraduate level	development	and training
				-To strengthen	
			-Promote proficiency	national and local	
			in technological	organizations	,
			practices		-Training and
				-To divulgate and	outreach;
				promote sustainable	networking
			-Disseminate the	technological	
			information and	practices at the level	
			stimulate the adoption	of final users	-Transfer, technical
			of new technological		coopera-
			practices		tion, and
					communica-tion of
					information



The Institutional Development Plan contained in this documement is designed to achieve the following:

- 1.- Strengthen CATIE's ability to stimulate improvement in its member countries' capabilities in sustainable agriculture and integrated management of renewable natural resources.
- 2.- Strengthen formal links for cooperation and complementarity with national and international institutions from the public and private sectors, especially universities, technical schools, research institutes, development and conservation NGOs, and farmers' organizations. This will improve communication with end users, technology transfer and the dissemination of the knowledge developed or validated at CATIE.
- 3.- Establish, as the foundation for all CATIE's actions, the promotion and fostering of practices for sustainable, ecologically-sensitive agriculture and for the management of natural resources that are socially, culturally, economically, and environmentally acceptable. The widest participation of the population will be sought, and gender and social issues will be embraced by all CATIE's programs.
- 4.- Establish clear indicators to allow the evaluation and monitoring of impacts of CATIE's activities in the region.
- 5.- Implement a human resources development strategy that pays special attention to gender and social issues, and enhances the career stability and development of CATIE's employees.
- 6.- Develop a strategy to achieve financial sustainability and thereby assure the implementation of the Strategic Plan.

Although sometimes not explicitly mentioned, the majority of the measures proposed for bringing about the changes described in this plan require additional funding before they can be put into practice. It is an underlying assumption that a combination of international donor support and the measures CATIE itself can take to strengthen core budget will be sufficient for implementing the main proposals.



### II: OUTREACH

Without outreach, the Center's presence and impact in its member countries will be minimal. Outreach to national program partners is an integral part of CATIE's overall activities, and formal implementation, analytical and follow-up structures are needed.

In order to develop the Center's outreach expertise, CATIE will build on the experience it has gained through current and past projects. The Technical Areas of the Programs will be strengthened with the appropriate resources to achieve a more efficient outreach capability.

### 1. The outreach strategy

- 1.1 Institutional development objective
- \* To disseminate research results, improve access to CATIE's educational opportunities, and to strengthen institutional capabilities locally and nationally.

The immediate objectives are:

- i) To strengthen the system for dissemination of research results to institutions in the member countries.
- ii) To put in place the mechanisms and programs that will strengthen the research and education capabilities of counterparts in the member countries so that they can participate more effectively in problem solving research, and in diffusion and implementation of results.
- iii) To increase community participation in problem solving research.

### 1.2 Actions

Four actions will be the core of CATIE's outreach efforts. They are:

- \* The strengthening of CATIE's institutional links.
- \* The refocusing of traditional research activities.
- \* The implementation of a professional educational system (teaching and training) that is technology oriented.
- \* The improvement of existing outreach mechanisms and the clear definition of the institutional clientele.



### 1.2.1 - Institutional links

CATIE seeks to establish problem solving research, sound validation practices, applied training and cooperative activities in conjunction with national and international institutions and organizations, both in the private and public sectors.

The Center promotes an integrated and holistic approach to agricultural and natural resources research, training and technology transfer activities in order to achieve sustainability in its member countries. It stresses (i) technical collaboration with measurable impacts at the field level; (ii) activities relating to production, education, training and conservation with institutions, both worldwide and as a liaison and diffusion center for tropical America; and (iii) the institutional strengthening of local and national institutions.

In addition to outreach targetting local and national institutions (dealt with in the following section) CATIE cooperates in various ways with a broad range of regional and international partners:

- \* Complementarity with IICA. CATIE has working relations with IICA in areas such as technical assistance, joint execution of projects, development of human resources, transfer of research results, documentation and information systems, and the strengthening of national institutions. CATIE and IICA cooperate in the search for joint funding opportunities.
- \* Strategic alliances and regional links with WWF, IUCN, IPGRI-INIBAP, CIFOR, ICRAF, ISNAR and similar institutions for carrying out joint research, training and regional development projects. This avoids unwanted duplication and exploits the mutual strengths of each organization.
- \* Institutional cooperation with CIRAD, CIAT, NRI and others. Joint action in specific areas of mutual regional interest with institutions that have scientific projects, in a complementary and synergistic effort.
- \* Development of scientific, educational and regional networks such as REDCA, PROMECAFE, PROCITROPICOS and REMERFI.
- \* Joint teaching and training programs, and academic exchanges with overseas universities such as the Agricultural University of Wageningen, Netherlands; Wisconsin, Colorado State and Cornell Universities, USA; Göteborg University, Sweden; Oxford University, UK; Helsinki University, Finland; and the Université Laval, Canada, as well as national universities in CATIE's member countries.



\* Cooperation with private organizations in areas of mutual interest. Organizations with which CATIE currently has joint actions include research and/or commercial projects of Alimentos Congelados de Guatemala, S.A. (Alcosa), Gremial de Exportadores de Productos no Tradicionales, CORBANA, Standard Fruit Co. (Dole), Nestlé, grass roots organizations, and others. The activities are complementary and synergistic in nature.

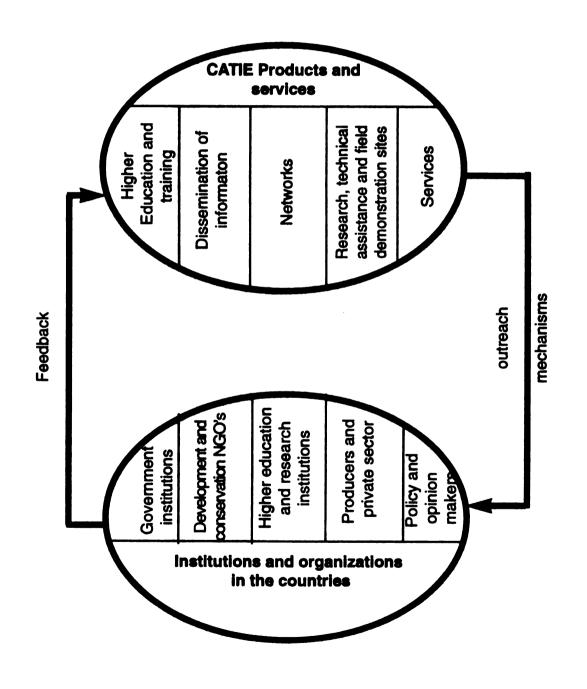
### 1.2.2 Outreach mechanisms and clientele

CATIE's outreach will occur through higher education and training, dissemination of information, networks, participative research and validation, technical assistance, field demonstrations, and other technical services. These mechanisms are aimed at reaching CATIE's main clientele: government institutions, development and conservation NGOs, higher education and research centers, producers of goods and services with emphasis on low income farmers and the private sector, and decision and opinion makers (Figure 1).

Outreach activities will receive increased input from the Education Program. Already, the demand for a new professional profile has led CATIE to begin a process of curricular development aimed at producing graduates and trainees with a more suitable exit profile. The vocational programs will produce graduates and trainees better fitted to the needs of the private sector, while the more scientifically oriented programs traditionally offered at a Master's degree level will continue to fill the requirements of universities and research institutes.



Figure 1 Outreach oriented to institutional strengthening





In each member country the Center will develop permanent partners for specific domains of activity. CATIE will work with its partners on a long term, mutually beneficial basis, with the partners serving as liaison and focal points for CATIE's national-level extension efforts, and the Center automatically channelling relevant technologies and practices to them. Permanent partners will participate in project planning from the early stages, and will benefit from special access to CATIE's higher education and training programs. An ongoing consultation process will provide continuing feedback from these principal partners that will be of paramount importance to the Center in adjusting its approach to national needs. By this means the impact of CATIE, a regional institution, will be felt continuously at the national level.

Partner links will be strengthened or initiated with:

### \* Governmental institutions

The governmental institutions of member countries, including the national agricultural research systems (NARs), share common goals with CATIE. Coordination with them is essential for receiving requests, feedback, the design, implementation, monitoring and evaluation of projects, networking, the functioning of information systems, targeting technical assistance, field demonstration sites, and programming effective education and training activities.

Such institutions include ministries with responsibilities for agriculture, the environment, natural resources, education and planning, the semi-autonomous and autonomous organizations, scientific and technological institutions, national-level research centers, forestry and water supply units, and rural development agencies.

### \* Development and conservation NGOs

Links will be strengthened with development and conservation NGOs in the areas of technology transfer and training, particularly where the NGOs have a comparative advantage. Such links will aim to improve efficiency, minimize duplication of efforts, empower local people through knowledge and participation, and enhance the capability of both partners to deliver improved technologies and conservation practices.

Partner NGOs will include development groups, producer organizations, local, national and international organizations.

### \* Higher education and research institutions

A major channel through which CATIE aims to ensure sustainability in the generation, validation and adoption



of improved technologies is cooperation with national higher education and research establishments. By training staff with higher education degrees and implementing joint research programs, CATIE intends to encourage a change of attitudes towards sustainable development, empower human resources through the provision of technical knowledge, and to ensure that the national system's capacity is permanently enhanced.

### \* Policy and opinion makers

CATIE will interact with institutions dealing with policy issues and contribute to policy analysis studies. Permanent links will be maintained with policy and opinion makers at the highest levels in government, society, and the media in order to facilitate the shaping of informed opinion and policies, and to assist them in the diffusion of information.

These will include: planning departments in the relevant ministries and autonomous bodies, national and local mass media, and national systems such as university departments of policy studies.

### \* Producers and the private sector

In the past CATIE has been mainly involved with the public rather than the private sector. To correct this traditional bias, the Center will strengthen institutional contacts with producer and other private sector organizations.

The sector includes farmer groups, local and national extension agencies, companies, intermediaries and consumer, environmental, women's, youth and indigenous groups. Special attention will be given to their involvement in networks and information systems. Feedback mechanisms will be developed in order to identify and address the problems and/or constraints of new technologies. The involvement of socioeconomic analysis establishments will be encouraged in this process.

Extension activities will concentrate on work with local extension services, producers, producer organizations and other natural resources users. This will increase community involvement in the sustainable management and use of productive agricultural and forestry resources.

### 1.3 Inputs

In order to achieve its aim of systematically strengthening outreach, CATIE will need to invest in improving and integrating its out-



reach activities into all phases of a development model with planning, research and technology transfer stages (Figure 2). Specifically, investment of time and financial resources will be needed in:

- \* Supporting outreach with the necessary scientific and technical basis, with due consideration to socioeconomic and gender issues.
- \* Designing of an improved, more relevant, professional higher education and training program.
- \* Developing CATIE's researchers, professors and trainers through improved human resources management, further training, sabbatical leaves, etc.
- \* Developing a program for strengthening links with public and private sector entities.
- \* Developing region-wide dissemination systems for information generated by CATIE and its partners, with emphasis on mechanisms that aid interpretation and understanding.

### 1.4 Outputs and goals

The outputs expected from this investment are:

- i) The strengthening of CATIE's principal permanent partners through links with the educational programs and technology transfer processes.
- ii) An efficient, regional knowledge and information dissemination system with a high profile in the member countries.
- iii) A Center with a research agenda that is geared more to problem solving and the participation of women and minorities.
- iv) An improved educational program with a more professional orientation.



Figure 2 CATIE's outreach evolution

Phase 1 (Planning)	-Identification of local problems with global implications in a highly participative approach.
Phase 2 (research)	CATIE's research with or without a "farmer's firt approach", and in collaboration or not with national or international research institutions
Phase 3 (outreach)	-Focusing on farmer's priorities and building technical knowledge and making it available to help them through (empowerment though knowledge):training, data bases, communication and extension services
Phase 4 (outreach)	-Building in-country networks and links of collaboration with community and farmer levels and with CATIE
Phase 5	-Establishing country-to-country links which bypass CATIE and supporting the entire regional network with research, training and development opportunities
Phase 6	-Building international links with the system



As implied in the previous section, the permanent partner organizations are expected to play an essential and increasing role in the process of generating these outputs. Goals for establishing these permanent links and involving these organizations are summarized in Figure 3 and explained as follows:

### Government institutions

A minimum of one government institution in each member country as a permanent partner by 1996, two by 1998.

\* Development and conservation NGOs

Two national level NGOs in each member country as permanent partners by 1996, three by 1998.

\* Higher education and research institutions

A minimum of two higher education and research centers in each member country as permanent partners by 1996, three by 1998, and four by the beginning of 2002 (the final number may vary depending on how many such institutions exist in a specific country).

\* Policy and opinion makers

Links with a minimum of one partner organization in each member country by 1996, two by 1998.

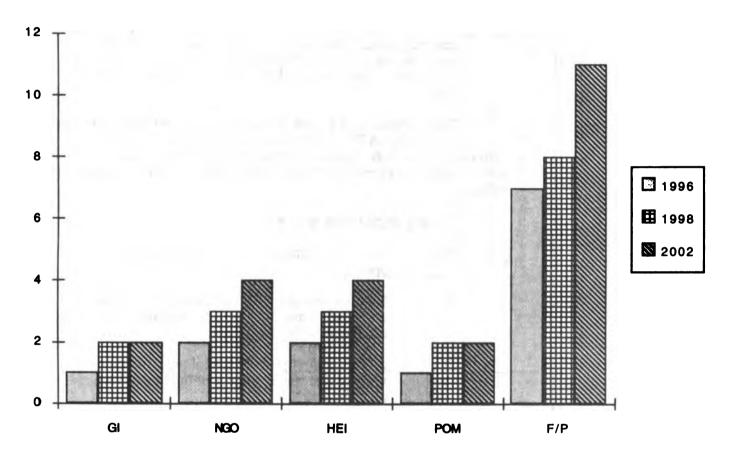
\* Producers and private sector

A minimum of one major private sector organization, two farmer groups, one national extension agency, one private natural resources user group, and two environmental, women's, youth or indigenous groups in each member country as permanent partners by 1996. By 1998 and 2002 there will be further increases.



Figure 3. Number of national partner organizations permanently involved in CATIE's outreach, per member country.

### No. of partners per member country



GI: Governmental institutions

NGO: Development and conservation NGO's

Higher education and research institutions HEI:

POM: Policy and opinion makers

Producers and private sector F/P:

### 2. Impact measurement and assumptions

### 2.1 Impact indicators

CATIE impacts end users in two main ways:

- \* Direct impact on natural resources managers and producers, consumers and human welfare in general, through demonstration areas, short courses, participative research, information, etc.
- \* Indirect impact, through national and regional research, education, transfer and development institutions, and by extending the size and quality of the stock of scientific knowledge relevant to the member countries.

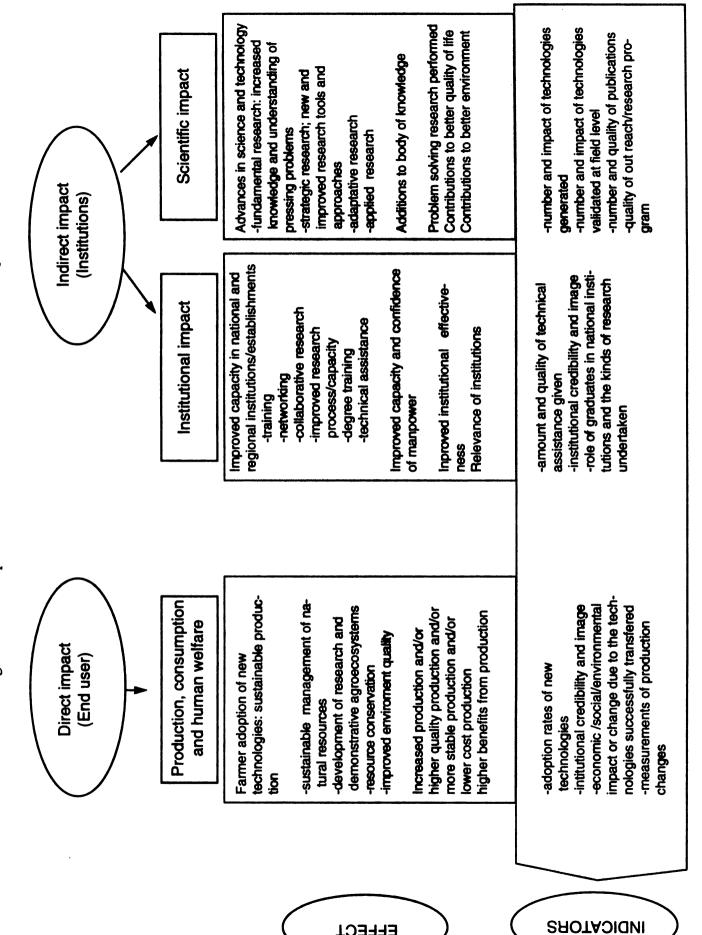
The framework in Figure 4 illustrates the diversity of products and services that CATIE delivers, and the complexity of the chain of effects resulting from farmers' adoption of new technologies. Some of the indicators listed merely record implementation; others quantify its effects.

The key impact indicators are:

- \* Relevant partners identified and links developed.
- \* Number and quality of technologies generated. Number and quality of technologies validated at field level.
- \* Adoption of improved technologies and practices by end users; number of direct and indirect beneficiaries.
- \* Economic, social and environmental variables (classified by gender and minority groups when applicable) of the technologies and management practices successfully transferred.
- \* Institutional (governmental and NGO) capacity to carry out research, training, education and outreach effectively in the field of sustainable development.
- \* Entrance and exit profiles of graduates and trainees.



Figure 4. A conceptual framework for CATIE's assessment of impact on end users.



**EFFECT** 

- \* Number of applicants to and graduates of the Education Program, and their role in national institutions and research centers.
- \* Improved institutional image as indicated by.
  - -Number and type of technical assistance requests received and attended efficiently.
  - -Number and type of publications and other outreach activities of the research and education Programs.
  - -Number of requests received for teaching and training, and willingness to pay.

### 2.2 Assumption and risk

The main underlying assumption of the institutional outreach plan is that:

\* CATIE receives significant and frequent requests for its skills, products and services from member countries, in such a way that outreach will be demand driven and not dominated by supply.

The risk is that the natural resources management demands of the member countries might lag behind CATIE's capacity and also the donor community's interests. Lack of demand is part of the global problem of stimulating sustainable development and is addressed by the proposed outreach program through the continuous feedback mechanisms established with national counterparts (particularly with permanent partners). By gradually improving CATIE's research, education, training, technical assistance and diffusion activities at the national level, the quality and quantity of the demand for what CATIE can supply, and the ability of national demand to define it, is expected to increase progressively. These same mechanisms will enable CATIE to play an important role in harmonizing the sometimes contradictory perceptions of its member countries and the donor community.



### III: INSTITUTIONAL BUILDING

### 1. Socioeconomic and gender issues

### 1.1 Development objective

\* Increased proficiency in social and economic sciences, including gender issues, as they relate to education and research on sustainable agricultural production and natural resources management and conservation.

### The immediate objectives are:

- i) To improve CATIE's ability to adequately deal with socioeconomic and gender issues, and to increase and promote activities relating to socioeconomic issues.
- ii) To assist partners in the member countries to fully consider such issues in the development and implementation of their education, research and extension activities.

### 1.2 Actions

Actions that will contribute to the strengthening of CATIE's capacity in socioeconomic and gender issues are:

- \* Development of a Production and Conservation Economics Area as part of the Center's area structure.
- \* Implementation of a policy of considering the socioeconomic and gender implications of CATIE's outreach mechanisms (technical assistance, networking, dissemination of information, higher education, training and field demonstration).
- \* Implementation of a training program and Masters degree option in Environmental Economics and Sociology.
- \* Sensitization and training of CATIE's staff in socioeconomic, gender and ethnic issues.
- \* Implementation of a policy of emphasizing socioeconomic and gender awareness in CATIE's training and formal education activities at field and national levels.
- \* Increasing the proportion of women and minorities in CATIE's professional staff.



### 1.3 Inputs

In order to improve CATIE's performance in the field of social and gender awareness, investment will be needed in improving and integrating certain key activities into all aspects of its operations. In particular, time and financial resources will be need to be invested in:

- \* Adequate staffing of the Production and Conservation Economics Area for both teaching and project support and evaluation functions.
- \* An affirmative action employment policy that promotes the hiring of women and minorities.
- \* A continuous monitoring system for the Center's outreach activities to insure that adequate consideration of gender and ethnic concerns is being made.

### 1.4 Outputs and goals

The outputs that can be expected from this investment include:

- i) The consolidation of a Production and Conservation Economics Area at CATIE.
- ii) The improvement of CATIE's ability to deal with people and processes by
- Increasing the awareness of the Center's professional staff of the socioeconomic and institutional components of sustainable development.
- Developing an awareness and understanding of gender and ethnic problems in and outside CATIE.
- Highlighting and promoting social participation in planning, implementation and evaluation of sustainable development projects and programs.
- iii) Increased contribution of women, indigenous people and minorities in CATIE's and partner organizations' programs.

The four main goals of this component are:

\* A two-fold increase over 1994 levels in the proportion of women and minority professionals in CATIE's staff by the end of the year 2002.



- \* The progressive incorporation of appropriate social and economic analysis into all of the Center's natural resources management and agricultural technology development activities, beginning during the second semester of 1995. By the first semester of 1997 all such activities should include full consideration and analysis of the socioeconomic implications, including gender and minority issues.
- \* To monitor and evaluate the implementation and suitability of the social and economic analysis methods being applied to these activities, beginning the first semester of 1996.
- \* To hold two workshops per year for CATIE's staff on gender and minority issues, the first one taking place during the fourth quarter of 1995.
- \* Create awareness of the need for inclusion of women and indigenous people in the consultation process when testing, promoting or monitoring technological innovations, beginning in 1995.

### 1.5 Indicators of impact.

Table 2 presents the key impact indicators relating to the development of socioeconomic and gender issue awareness at CATIE.

### 1.6 Assumption

Enough women and minority candidates apply for and have adequate qualifications for filling posts in the Center and partner institutions to allow affirmative action to make an impact on staffing ratios.

### 2- Human resources

CATIE's past, present and future relevance in the Region depends on the quality of its human resources. It is CATIE's professional staff that have been and will continue to be the main agents of the Center's impact in the Region.



TABLE 2. SOCIOECONOMIC AND GENDER ISSUES: LOGICAL FRAMEWORK FOR CATIE'S APPOACH

OBJECTIVES	STRATEGIES	ACTIONS	INDICATORS
Analyze and describe the secieosomic, management and gender related factor that influence sustainability in agricultural development and the management of ratural resources in the American tropics.	Consolidate and organize CATH's activities related to socieconomic, management and gender issues.	Train CATE's staff from the technical areas and projects, and its collaborators in the various countries, in socieconomic. management and gender aspects.	Training events, directed at CATIE's collaborators; workalops, short courses, seminars.
		Put into operation a Mester's degree emphasis and a training program in Environmental Economic and Sociology.	The number of Master's student taking the emphasis in Environmental Economics and Sociology.
			Training courses on a diversity of themes related to socioeconomics, management, gender and participation.
		Document CATE's past activities and the national politics of its countries and denore, related to socioeconomics, management and gender issues.	A report on the activities of CATE's programs and projects related to accidencement, management, grader; including an outline and analysis of the national politics of its member countries and donors, related to these aspects.
			More women and minorities in CATIE employees; students.
Promote an lategrated approach to mutainable agricultural development and the management of matural resources, in such a way than CATEN technological insurvations do not refer to contradiction with factor related to management and	Promote the inclusion of accievonomic, management and gender aspects in all spheres of action of CATIE's technical areas.	Strengthen and coordinate socieonomic, management, gender and participatory aspects of research programs of CATIEs technical areas.	Recommendations and exchairal support to programs and projects of CATE's technical area, in issues related to socieconomics, management, gender and participation.
gender.			Exchange of experiences between CATIE's programs and projects, in issues related to socieconomics, management, grader and participation.
			A report that summarizes, analyzes and systematizes the strategies of CATEs present programs and projects.
		Analyze the transpace of CATIE's present projects, and on this basis define and help implement a policy paper of CATIE's on socioeconomic, management, gender and participatory aspects.	A 'Definition of Policies and Strategies at CATE' on issues related to socioconomics, management, gender and participation.
	Encourage a wider participation of civil society (and local society is periodale) in critical spheres of action of CATE's technical areas	Stimulate the participation of mayor sectors of civil society in the effection of CATE's policies and strategies, in such a way that CATE's activities correspond to the needs felt to be priorities in society.	Community worthhops in which diverse society of civil society (incheding community based groups), captes their social in relation to CATES research, training and education programs, in particular on socioeconomic, management, gender and participancy issues.
			The cheer and consistent integration of the potest of view of civil society and the community of denoral is the mentioned policy paper. "Definition of Publicies and Stranguca at CATE".
			Establishmen of agreenents and the John excousion of projects with governmental organizations, NOOs, and community based groups, forming on sociecomounts, assangement, gender and participatory leaves.
	Establish strategic alliances and initiate specific projects.	Identify, put into practice and institutionalize mechanisms for relating CATE and the private sector of society.	

### 2.1 Institutional development objective

\* To increase the quality and effectiveness of CATIE's human resources.

The Center's immediate objectives are:

- i) To attract scientists and professors with a wide range of experience and high academic qualifications.
- ii) Create a quality professional environment to enhance retention of the best scientists, technicians and professionals.

### 2.2 Actions

To achieve its objectives in this area it will be necessary to:

- \* Design and implement a well defined strategy for recruitment of human resources.
- \* Design and implement a career development system for the Center's personnel.

### 2.3 Inputs

In order to improve CATIE's performance in recruitment and retention of personnel, investment of time and financial resources will be required in the following key areas:

- \* Improving the opportunities for building a career with the Center by providing stability, a good salary, special rewards for excellence, career advancement based upon merit, and other means.
- \* Introducing and refining an efficient goal-oriented personnel evaluation system. Promotion to take account of performance, years of service and particular merits.
- \* Improving social benefits of the professional staff, with high priority placed on very attractive retirement benefits.

### 2.4 Output and goals

Investment in human resources will produce a hiring policy and a career system that attracts and retains highly qualified scientists and professors. Table 3 summarizes the Center's main policies for the different categories of personnel.



TABLE 3. HUMAN RESOURCES POLICIES AT CATIE

STRATEGIES	ddd	PPA	PA	FIELD WORKERS
PROFESSIONAL	-Sabbatical leave	-Study license	-Study license	-Short courses
ADVANCEMENT		-Payment for registration	-Short courses	-Payment for registration in
		-Short courses	-Payment for registration	education
COMPETITIVENESS	-Remuneration for administrative	-Payment for exclusiveness	-Payment for extra time	-Payment for extra time
AND KNOWLEDGE	responsibility	-Payment for extra duties	-Payment for extra duties	-Dental services
AND SKILLS	-Payment for extra duties	-Remuneration for administrative	-Dental services	-Half-yearly scale increment
UPDATE	-Annual scale increment	responsibility	-Half-yearly scale increment	-Subsidy for school
	-Professional career	-Professional Career	-Subsidy for school	
	-Subsidized housing	-Dental service		
		-Half-yearly scale increment		
		-Subsidy for school -Subsidized housing		
MOTTVATION	-Acknowledgement for effort made	-Creation of a good working	-Creation of a good working	-Creation of a good working
	-Option for tenure depending on	environment which permits the	environment which permits	environment which permits
	performance level (after 5 years)	development of self esteem,	the development of self	the development of self
	-Improvement working	communication, etc.	esteem, communication,	esteem, communication,
	environment which permits the	-Allows for the development of	abilities, etc.	abilities, etc.
	development of self esteem,	professional ideas in research and	-Allows for the development of	-Allows for the development
	professional fulfillment	teaching	professional ideas in research	of professional ideas in
	-Allows for the development of	-Permits the development of	and teaching	research and teaching
	professional ideas in research and	sociocultural activities to	-Permits the development of	-Permits the development of
	teaching	identify themselves with the	sociocultural activities to	sociocultural activities to
	-Permits the development of	institution	identify themselves with the	identify themselves with the
	sociocultural activities and an	-Proposals of job group meetings	institution	institution
	institutional team spirit	with the office of Director	-Acknowlegment of good work	<ul> <li>Acknowledgement of good</li> </ul>
	-Excellent health, dental and life	General, in order to communicate	using remuneration, badges,	work using remuneration,
	insure benefits	ideas and feelings.	and other benefits	badges, social encounters,
	-High adjustment for education,	-Acknowledgement of good work	-Strengthen ASECATIE,	and other benefits
	houses, and quality of life benefits	using remuneration, badges,	APROCATIE	-Strengthen CPT
	-More social events aimed at	social events, and other benefits	-Sports competion with	
	contribuiting to institutional	-Promote sports competition	students	
	bonding	with students		
	-Establish a gym and physical			
	health program			
EVALUATION	-Annual Evaluation	-Annual Evaluation	-Annual Evaluation	-Annual Evaluation

PPP: Professional Staff. PPA: Professional Assistant Staff. PA: Support Staff



### The main goals are:

- \* To implement an employment structure incorporating incremental increases in job security. Over a ten year period, professional staff will progress from an initial two-year trial period to a three year renewal, to a five year pre-tenure appointment and, finally, to permanent tenured appointment, subject to recommendation by an evaluation committee of peers;
- \* To halve the 1994 turnover rate of every four to five years for professional staff by the year 2002.

### 2.5 Impact Indicators

The key impact indicators for measuring success in improving CATIE's human resources are:

- \* The implementation of hiring policies that pay particular attention to gender and indigenous representation;
- \* Increased staff quality and qualifications.
- \* Increased staff motivation and esprit de corps in relation to CATIE's effectiveness, institutional philosophy, policy and vision.
- \* The average turnover rate of personnel.

### 2.6 Assumptions

Three main assumptions underlie the effectiveness of this component:

\* That enough candidates of the highest qualifications apply to CATIE's positions.



- \* That CATIE's human resource policies will be properly backed up by sustainable financial resources.
- \* That regional and national living conditions remain attractive for international staff.

### 3- Infrastructural Improvement

Institutional development in CATIE also implies the renewal, maintenance and modernization of its existing infrastructure. Depending on needs and resources, new infrastructure may be contemplated, especially when this leads to additional environmental benefits.

The following are the main infrastructural areas, in order of priority, although improvements in all areas will be made simultaneously subject to the resources needed:

- \* Library: the Orton Commemorative Library's bibliographic materials and equipment will be updated, its processes computerized and new outreach methods will be developed starting in the first semester of 1996. Yearly maintenance of the building and equipment will be guaranteed.
- \* Communication facilities and the Computer Center: the information management systems and equipment will be updated or renewed as needed, and upgraded for training and demonstration purposes. Telephone equipment and other communication services will be upgraded starting in 1996.
- \* Laboratories: all laboratories (soil, nutrition, physiology, plant protection, computing, greenhouses, geographical information systems, biotechnology, seeds and others) will be gradually renewed and/or updated, properly equipped and maintained every year.
- \* Educational buildings: yearly maintenance and the acquisition of new audiovisual equipment.
- \* Experimental areas, field facilities and commercial farm: these will be given adequate maintenance. Reforestation of the steeper slopes on CATIE's farmland will start during the second semester of 1996. Protocols and systems for the use, management and disposal of agrochemicals will be introduced.



- \* Staff and student housing facilities: adequate maintenance will be guaranteed.
- \* Office buildings: maintenance will be guaranteed and appropriate equipment purchased.
- \* Campus: maintenance will be guaranteed, a recycling program for garbage and paper products will be started, and a smoke -free environment will be gradually introduced beginning in 1996.
- \* Furniture, vehicles and office equipment will receive preventive maintenance and will be upgraded when necessary. Programs to save water and energy, and to reduce the consumption of other goods, such as paper and paper products, will be implemented by the year 1996.

### 4- Management and administration

4.1 Institutional development objective

CATIE's management and administration will achieve:

\* The transparent management of funds, completely open to donor scrutiny, and an allocation and use of resources that is indisputably efficient.

### 4.2 Actions

The goal of completely transparent and efficient use of funds will require CATIE's higher level management and administration to further develop current policies aimed at:

- \* The decentralization and sharing of decision making power and administrative management responsibilities with the different organizational layers of CATIE. New management procedures should be in place by the first semester of 1997 and will be revised every two years.
- \* The updating of all relevant manuals and regulations for institutional procedures.
- \* The establishment of efficient and secure financial and human resources management and allocation systems, open to donor scrutiny.
- \* The promotion and support of inter-program, and inter-institutional cooperation.



- \* Encouraging external evaluations and auditing by donors in addition to the current practice of external and internal audits managed by the Center;
- \* The modernization of administrative and service areas such as internal security, general services, transportation, janitorial services, maintenance, housing, and telecommunications, to achieve higher efficiency and quality of service.

### 4.3 Indicators

The key impact indicators for this component of CATIE's Development Plan are:

- \* Degree of decentralization of decision making and management.
- \* Appropriate management and allocation of core budget in relation to the Center's priorities.
- \* An improved image of CATIE management and administrative ability in partner organizations, opinion forming groups and international donor agencies.



### IV: FINANCIAL AND OPERATIONAL SUSTAINABILITY

### 1. Financial sustainability strategy

- 1.1 Institutional development objective
- \* To achieve a high degree of financial stability and independence for the Center.

The corresponding immediate objectives are:

- i) To improve CATIE's image and the sense of ownership in the member countries. This is expected to result in increases in the number and the amount of member countries' yearly contributions to CATIE.
- ii) To increase CATIE's income-generating scientific and commercial activities, and services.
- iii) To increase the degree of institutional independence from outside funding sources.

In 1994, 70% of CATIE's resources came from projects and only 30% from it's own core budget. The Center will continue the start made in achieving a better balance between these two funding sources, ideally in the order of 50/50 by the year 2002 (Figure 5).

### 1.2 Actions

CATIE has designed a plan for its financial sustainability (Table 4). The most important actions needed to implement this plan are:

- \* To secure the current member countries' annual contributions to CATIE.
- \* To increase the number of regular and adherent members until all the countries of the American tropics are regular members and the Center's main partners in sustainable development are adherent members.
- \* To continuously attract new projects and contracts for research, training and development activities, and services.
- \* To perfect a project monitoring scheme to detect and correct under-performance.



Figure 5. Comparison of core budget and projects contribution to CATIE, 1994 - 1995

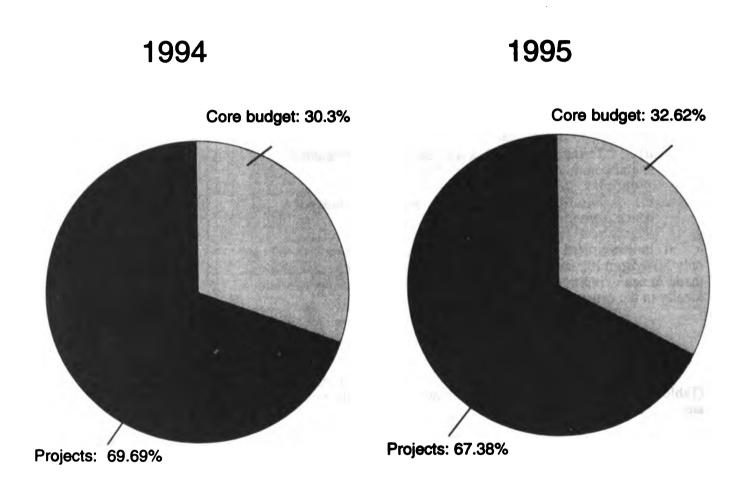


TABLE 4. CATIE'S FINANCIAL SUSTAINABILITY PROJECTIONS (US\$ MILLIONS/YEAR)

YEAR STRATEGY	1994 (BENCHMARK)	1995-1998	1999-2002	TOTAL YEAR 2003
Projec overhead	0.86	1.0	1.2	1.2
Income from the endowment fund	0.5	0.7	1.4	1.4
Member fees	1.75	1.9	3.0	3.0
Services	1.2	1.4	1.6	1.6
Professorships created at Greduate School	0	0.5	1.0	1.0
Farm net income from commercial production	0.3	0.5	0.6	0.6
Sale of information	0 .	0.1	0.5	0.5
Donor suppot to care budget	0	2.0	3.0	3.0
Total core budget*	4.11	8.15	12.5	12.5

<sup>\*</sup>Constant US\$ (1994)



- \* To increase the capital content of the CATIE endowment fund managed by the Center's Foundation.
- \* To create chairs or professorships financed by international institutions, organizations or agencies, the private sector, and foundations.
- \* To increase income from commercial productive activities, including the farm, using the most advanced sustainable techniques and practices.
- \* To sell technical and scientific information on agriculture and integrated natural resources management.

#### 1.3 Inputs

Investment of time and financial resources will be needed in order to achieve these improvements. High priority for investment are:

- \* To design and implement measures aimed at increasing the operational, technical and administrative efficiency of an increasing number of projects.
- \* To increase efforts aimed at strengthening relationships with member countries, donors and collaborators, and improving public relations and communication programs.
- \* To streamline and provide administrative and managerial support for project preparation, to enable the submission of better, well targetted and more attractive proposals.
- \* Implementing measures aimed at improving entrepreneurial capability in activities with current or potential commercial possibilities, for handling marketing of products and services, and if appropriate, the patenting of innovations.

#### 1.4. Output and goals

The main outputs produced by this investment will be:

Strengthened core budget.



- \* Increased long-term support of priority CATIE activities by donors or partners.
- \* Strengthened endowment fund.

To this end, some of the goals are:

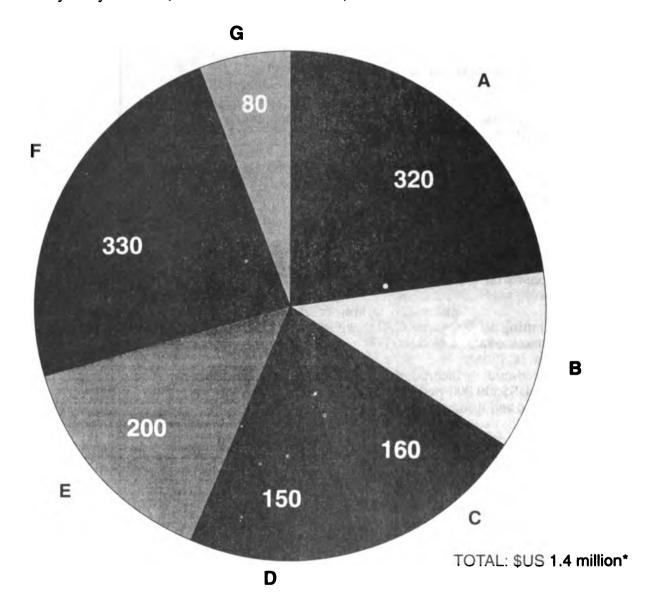
- \* A revised fee structure for regular member countries based on the size of their economy, by the year 1997.
- \* Management of an endowment fund of US\$10m by 1998, and of US\$20m by 2002. The earnings will partially or completely finance various endeavors of the Center (Figure 6).
- \* The creation of two internationally funded chairs or professorships by the year 1998 and two more by the year 2002, at a cost of US\$250,000 each.
- \* Enhanced commercial earnings contributing to financing CATIE's Graduate School, at a minimum rate of US\$500,000 per year, starting in 1995.
- \* Income of US\$100,000 per year by 1997 and US\$500,000 per year by 2002 from the sale of scientific and information services.
- \* 20% and 25% of CATIE income, during the years 1995-1998 and 1999-2002, respectively, will come from member countries' contributions, project overhead, sale of services and the commercial farm.

# 1.5 Impact

The main impact of CATIE's financial independence and operational strengthening will be on the continuity and improvement of the programs and technical services that the Center provides in the American tropics, particularly to member countries.



Figure 6. Proposed distribution of expenses from CATIE's endowment fund, by the year 2002 (amounts in thousands US\$)



A - \$320: 4 international professionals (\$80,000/each)

**B** - \$160: 6 national professionals (\$26,660/each)

**C** - \$160: 10 graduate scholarships (\$16,000/each)

**D** - \$150: 3 strategic training courses (\$50,000/each)

**E** - \$200: Research and outreach

**F** - \$330: Maintenance of facilities

**G** - \$80: Institutional modernization (new equipment)

<sup>\*</sup> Assumes US\$ 20 m invested and earning a 10% return per year, and the use of 70% of that return for a total usable income of: \$1.4 m/year.

### 1.6 Impact Indicators

- \* The proportion of the costs of CATIE's research, education, training, and outreach activities that are funded from core budget will rise to 50% and 70% during the years 1995-1998 and 1999-2002, respectively.
- \* Increased demand for CATIE services from member countries.
- \* The proportion of CATIE's professionals paid by core budget will rise.

#### 1.7 Assumptions

- \* CATIE's Board of Directors and Council of Ministers approves a new fee structure for regular member countries:
- \* The member countries and the international community of donor agencies will place a growing value on CATIE's services.

# 2. Cooperation with member countries

# 2.1 Institutional development objective

The fundamental reason for CATIE's existence is the service it provides to member countries and the tropical American region through research, teaching and outreach. The quality and quantity of CATIE's cooperative activities with its member countries and the level of presence CATIE can maintain there, are critical parameters of the Center's success. The perception in some quarters of weakness in these areas must be addressed as part of a general objective to:

\* Improve CATIE's image and effectiveness in the member countries and internationally.

The immediate objectives are:

- i) To strengthen CATIE's presence and effective cooperation with national organizations, public or private, in the member countries.
- ii) To increase the number and quality of research, educational and outreach activities, and joint ventures with national and international institutions in the member countries.



iii) To ensure that CATIE's successes in research, education and outreach receive prominence in national and international fora, and the media.

#### 2.2 Actions

To achieve these objectives, it will be necessary to change or refocus aspects of CATIE's traditional *modus operandi*:

- \* Increased operational decentralization of CATIE's activities at headquarters, in favor of the member countries.
- \* The hiring of additional personnel to be based in the member countries, initially with responsibility for groups of member countries. The presence this creates will lead to better coordination of country-level activities and create an improved mechanism for identifying new projects and opportunities for collaboration.
- \* Two or three person task forces drawn from experienced CATIE personnel to carry out a two-week analysis of CATIE cooperation in each member country. Key areas for strengthening technical and educational links both within the country and between country-based activities and headquarters identified by the task force.
- \* Strengthen the Office of External Cooperation in charge of institutional planning and monitoring, public relations, marketing of CATIE, and development of a corporate image within the member countries and elsewhere:
- \* Visits by CATIE upper management to key institutions and permanent partners in member countries on a regular basis.
- \* Increase the presence of CATIE professional staff in national, regional and international congresses and meetings; adapt representation to needs and opportunities of specific meetings.
- \* Measures taken to increase CATIE profile in the scientific, educational and development oriented mass media.
- \* Encourage the development of internationally recognized excellence in key fields of CATIE endeavors.



# 2.3 Inputs

All except the last of these objectives necessarily require some measure of additional funding in order to be achieved. Particularly, investment will be needed in:

- \* Travel budget and increased managerial support to enable more frequent oversight of CATIE's relations with member countries and permanent partners.
- \* Travel budget and managerial support to enable task force country studies.
- \* Communications technology and running costs, and information systems development to enable decentralized functions to retain good integration with overall regional activities and management.
- \* Personnel, support staff and operating costs for new member country-based activities.
- \* Performance incentives for encouraging high rates of publication and participation in professional fora: travel budget to enable attendance in more regional and international meetings.
- \* Training of professional personnel in media communication skills and scientific journalism in English and Spanish.

# 2.4. Outputs and goals

The main outputs of this investment will be a better match between member countries' demand and current CATIE supply of services, an increase in CATIE's responsiveness to national needs and opportunities, improved quality of CATIE's offer of services, and wider recognition, improved credibility and image both within and outside the region.

The corresponding institutional goals are:

- \* At least 20% of CATIE's international personnel's duties will involve responsibilities in research and validation in collaboration with national institutions in the member countries by the year 1998, and 25% by the year 2002.
- \* By March 1996 member country task force reports will be completed. Implementation of main recommendations to be initiated by July 1996.



- \* By July 1996 at least three staff members will be stationed in three different member countries. Depending on the results of the task force reports, more may be added at a later date or alternative country cooperation mechanisms implemented.
- \* Three publication quality reports on key CATIE activities ready for submission to international scientific, educational or development oriented popular journals by March 1996.

# 2.5 Impact indicators

Three key indicators are proposed:

- \* Improved institutional relevance and credibility in the member countries, according to national authorities, beneficiaries and permanent partners;
- \* An increase in the number and qualifications of CATIE's professionals stationed in the member countries; a corresponding increase in the quantity and effectiveness of technical assistance, technology transfer and other services that they render as measured by agreed quality criteria;
- \* An increase in the number and type of requests received and dealt with, either at a national level or at headquarters in Turrialba.

# 2.6 Assumptions

It is assumed that:

- \* A program of investment aimed at increasing CATIE's presence in the member countries can bring about improvements in effectiveness and create a favorable perception of the Center.
- \* CATIE's key activities are of interest to the international scientific, educational and development media.



# 3. Strategy for the transformation of key functions of strategic projects into permanent action lines in CATIE's Technical Areas

# 3.1 Institutional development objective

CATIE's impact and credibility in the member countries would be strengthened if the continuity of strategic projects could be guaranteed. Currently, CATIE mainly operates through externally-funded, fixed-term projects and, when projects finish, the personnel are lost, field and community activities are terminated, and many of the cooperative relationships that have been established are abandoned. Financial stability is a prerequisite of operational stability and, at present, CATIE is not financially able to continue most of the actions initiated by projects. A vicious circle operates: lack of operational stability has a negative effect on CATIE's image and long-term credibility, and lack of credibility and poor image negatively affects CATIE's ability to attract funding and hence achieve operational security.

It is clearly in CATIE's interests to break this circle and therefore to embrace as an overall objective:

\* To convert or merge key functions of current strategic projects into ongoing action lines and assign them funding so that they have increased financial and operational stability.

The immediate objectives are:

- \* To incorporate key personnel, unfinished or long-term research, training and technical assistance activities of current strategic projects as ongoing action lines of the Center's Technical Areas.
- \* To guarantee the long-term funding of ongoing action lines through CATIE's core budget.

#### 3.2 Actions

CATIE proposes to bring about the transition of strategic projects into ongoing action lines through the following process (Fig. 7).

# \* Phase 1: Planning

The Center will identify those projects or project components considered to be of strategic importance to the Center, the Region and donors. Priority will be given to those that fulfill at least two of the following criteria:

- a. Have been directly requested by member countries.
- b. Have been identified as high priority areas in international accords to which member countries are signatories.



- c. Are in accordance with CATIE's priorities.
- d. Have clear national or regional relevance for sustainable development.
- e. Are backed by donor commitment to long-term funding.
- \* Phase 2. Creating an institutional niche

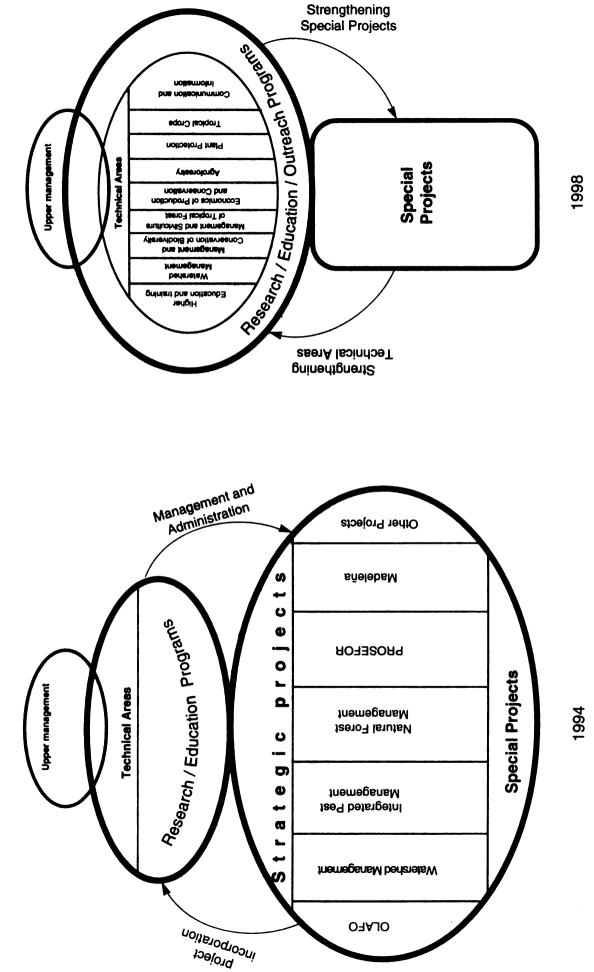
The Technical Areas will create an institutional niche for strategic projects that are to be incorporated as ongoing action lines. CATIE core budget resources will be used to put in place the human resources and infrastructure needed to guarantee their continuity.

\* Phase 3. Earmarked funding for specific strategic projects

In addition to direct CATIE core budget funding of ongoing action lines, donors may earmark funds contributed to core budget (or arising from donations to the institutional endowment fund) for long-term support of specific areas of work. These "restricted" core budget funds could for example be destined for areas the donor wishes be continued when project funding comes to an end. The emphasis would however be on strengthening CATIE's Technical Areas rather than continuing projects by another name.



Figure 7 Strengthening of CATIE's technical Areas by transforming strategic projects into ongoing lines of action.



# Phase 4. Phasing action lines into the Technical Areas.

When funding has been allocated to a line of action, it can be phased out of a fixed-term project's work plan and phased into the relevant technical Area. Lines of work that have no funding allocation in the technical Area will be phased out when project funding ends.

#### \* Phase 5. Personnel transfer

The number of personnel that transfer from project to core budget funding will be in proportion to the funding allocation, regardless of its source. CATIE's priority objective in transferring personnel is to strengthen its Technical Areas, not the continuation of projects at any cost.

# \* Phase 6. Further strengthening of the Technical Areas

The personnel transferring to the Technical Areas will assume responsibility for selected ongoing action lines and give continuity to at least some of the expertise acquired during the life of a former project. In addition, they will be responsible for developing the action lines as part of the Area's priority system, thus leading to new opportunities being identified and funded.

#### 3.3 Inputs

The extent to which it will be possible to absorb strategic project activities as action lines in the Technical Areas will be in direct proportion to the funds that are available. CATIE's policy and the actions it can take to strengthen the core budget situation have been presented elsewhere in this report. Additional improvements in the core budget situation and income from the endowment fund are mostly dependent on commitments by donors. Inputs for this process are therefore heavily biased towards financial aspects.

- \* A system to identify priority action lines (Tables 5 and 6) and optimal staffing levels that is periodically updated to reflect changing demands and realities.
- \* Core budget funding for key functions of the Technical Areas.
- \* Adequate investment in infrastructural and outreach development;
- \* Financial support of core budget or endowment fund by donors.



# 3.4 Outputs and goals

Outputs from progressive investment in assimilating key action lines into the Technical Areas will be:

- \* Improved credibility and cooperation with member countries and funding agencies.
- \* More balanced and relevant programs in research, education, outreach.
- \* A greatly strengthened higher education program as a result of a stable academic staff and a long-term commitment to courses.
- \* An enhanced institutional approach to sustainability challenges based on the experience generated by CATIE's strategic projects.
- \* Lower unit administrative costs and better quality management because of more uniform and stable administrative procedures.

The goals of the process are:

- \* The progressive incorporation of priority action lines into CATIE's Technical Areas and the concomitant dedication of core budget resources to supporting them. The goals in terms of timing and distribution by Technical Area follow the timetable for deployment of human resources summarized in Tables 5 and 6.
- \* The assimilation of the key functions of three priority projects into CATIE's Technical Areas by 1998 and three more by 2002.



ACTION LINES OF CATIE'S TECHNICAL AREAS AND HUMAN RESOURCES REQUIREMENTS. NATURAL RESOURCES INTEGRATED MANAGEMENT PROGRAM, 1995-2002\* TABLE 5.

TECHNICAL AREA	THEMATIC LINES	CLINES	NIMBER OF PRINCIPAL STAFF AREA OF	HIMA	HI IMAN RESOLIRCES	FS
			SPECIALIZATION, YEAR 2002 (CORE BUDGET	CORE	(CORE BUDGET)	}
			PROONNEL)	1994 1	1995- 19 2002	1999.
Watershed Management	7	Watershed rehabilitation planning	2 water and soil specialist			
	ۅۘ	Methods for proper land use	1 hydrologist			
	บ	Hydrology modulation	2 SIG's specialist			
	ô	Soil and water conservation practices	1 technological transfer specialist/outreach			
	ũ	Socioeconomic analysis and outreach methods	1 natural resource economist		4	7
	<b>c</b>	Demonstrative watershed ecosystem in the region				
	20	Satellite images classification				
	£	National institutional building				
Management and Conservation of Biodiversity	9	Wetlands	2 biologist			
	۵	Non-timber products	1 community organization/outreach			
	υ	Biodiversity inventories	1 economist			
	ô	Socioeconomic studies	2 protected areas/wildland specialist			
	ē	Community mobilization	1 ecologists	7	9	6
	۵	National institutional building	1 wetlands			
	<b>2</b> 0	Planification of protected areas	1 medicine plant specialist			
	Ê	Technics of protected areas management				
Management and Silviculture of Tropical Forest	ন	Ecological bases of forest	2 MPT silviculturalist			
	â	Silviculture species	2 natural forest manager			
	บ	Reforestation	1 economist			
	€	Plantation areas for measurement	1 forest policy			
	ũ	Highland forests	1 geneticist			
	¢	Lowland forests	1 modelling/MIS	7	•	71
	<b>30</b>	Forestry outreach	1 forest ecologists			
	Ê	Validation of species in agroforestry systems	1 technology transfer/communication/outreach			
	:=	Genetic resources conservation	1 sociologist/anthropologist			
			1 MIS specialist			
Economics of Production and Conservation	7	Ecological/economic sustainability for life support in tropical systems	2 economist			
	۵	Social organizations and their impact on environmental sustainability	1 sociologisVanthropologist			
	๋	Project identification, design and management, related to the environmental	1 gender issue specialist			
		and natural resource integrated management	1 environmental accountant	-	7	S
	ô	Cultural and organizational basis for behavioral changes				
	T	Role of gender				
	e -	Total valuation of the environmental processes and the macro and micro levels				

\*Does not include Director General, Deputy Director General, Program Director, Head of External Cooperation and Strategic Planning, Executives in Education for Development and Conservation.

ACTION LINES OF CATIE'S TECHNICAL AREAS AND HUMAN RESOURCES REQUIREMENTS. SUSTAINABLE AGRICULTURE PROGRAM, 1995-2002\* TABLE 6.

TECHNICAL AREA	THEMATIC LINES	IC LINES	NUMBER PRINCIPAL STAFF AREA OF SPECIALIZATION; YEAR 2002 (CORE BUDGET PERSONNEL)	HUMAN RES	HUMAN RESOURCES (CORE BUDGET)	IDGET)
				1661	1995-1998 1999-2002	
Agroforestry	ล	Nirogen fixing ures	I soil specialist			
	â	Silvopastoral system	l agricultural economist			
	ο O	Validation practices with small farmers	l silvopastoralist specialist			
	Ð	Alley cropping	2 agroforesters			
	ĵ.	Forage trees	1 economist	4	٠	7
	<u>-</u>	Soil and nutrient loss	1 sociologist			
	<u>a</u>	Interactions (soil, light, crops, trees) in ecosystems				
	P	Home gardens				
Plant Protection	a	IPM practices for principal pests	l plant pathologist			
	<u> </u>	Promissory IPM technologies/tactics	1 weed science	_	٠	7
	<b>ં</b>	Model crops for IPM implementations	1 estomologist			
	<del>Q</del>	Economics and environmental impacts of plant protection practices	1 nematologist			
	<del>-</del>	Main crops	I pesticides management			
			1 economist			
			1 agronomist			
Tropical Crops	â	Genetic improvement	2 plant breeders			
	â	Biotechnology applications	1 geneticist	2	\$	s
	ច	Phytogenetic resources	2 agronomist			
	ê	Germplasm evaluation				
Communication and			l journalist			
			2 communications specialists	7	e	8
			2 MIS specialist			
TOTALS.				17	86	22

\*Does not include Director General. Deputy Director General, Head of External Cooperation and Strategic Planning, Program Director, Executives in Education for Development and Conservation Program (except Communications Unit).

Table 7 includes additional managerial personnel. CATIE aims to achieve a ratio of support staff to international level professional personnel of 2 to 1.

# 3.5 Impact indicators

- \* Degree of consolidation of the Technical Areas, and the incorporation of project functions into permanent action lines;
- \* Improved credibility and national impact of CATIE in each member country;
- \* A more balanced group of programs as regards to higher education, research and outreach;
- Decreased unit administrative costs.

# 3.6 Assumptions

The strategy assumes:

- \* High quality technical staff can be attracted and retained for key positions
- \* System for prioritizing action lines is responsive to member countries' needs and donors' priorities;





TABLE 7. CURRENT (1994) AND PROPOSED NUMBER OF PROFESSIONAL STAFF (NATIONAL AND INTERNATIONAL) PAID THROUGH CATIE'S CORE BUDGET

PROGRAM	1994	1995-1998	1999-2002
Sustainable Tropical Agriculture '	10	17	19
Integrated Natural Resources Management '	5	20	33
Communications	2	3	5
Education (management)	4	4	4
Upper Management <sup>2</sup>	8	9	9
TOTAL '	29	53	70

- 1. Includes professors and researchers in the Postgraduate School, and covers staff of current projects which will be assimilated by CATIE's core budget.
- 2. Includes Director General, Deputy Director General, Head of External Cooperation and Strategic Planning, three Program Directors, Administrator, Internal Auditor and Comptroller.
- 3. Total: in accordance with CATIE's Strategic Planning staff numbers (1994).



#### V: ACCOUNTABILITY

# 1. Monitoring and Evaluation

- 1.1 Institutional development objective
- \* To establish monitoring and evaluation as a continuous process to serve the Center's decision makers, donors and member countries.

The immediate objectives are:

- \* To measure the progress of Technical Areas and action lines toward achievement of goals and impacts, and to identify the necessary corrective actions in the event of deficiencies.
- \* To build accountability into CATIE's ongoing program of action by providing open access to relevant data on performance.

The monitoring and evaluation process will measure and record progress towards achievement of the Center's objectives, and contribute data towards formulating new or modified objectives should it be necessary. Information will be collected and managed in such a way that it is an aid to decision making and contributes to determining the implications for CATIE's mission, its goals and the effectiveness of the Center's actions.

Monitoring and evaluation will normally be a collaboration between external evaluators and CATIE staff. They will collaborate in identifying the data that is required, in arriving at a reasonable interpretation of it, and in drawing conclusions concerning future actions. Every effort will be made to keep the time that technical and teaching staff spend in data collection and reporting to the minimum compatible with clearly defined objectives. Contract evaluators will be used when specialized expertise is required, or when dealing with sensitive institutional or teamwork issues. The emphasis will be on innovative thinking and repeating successes that make the Center and its Programs work better.

#### 1.2 Actions

The monitoring and evaluation program will be phased in over the next two years, and will consist of

- \* Identification of the key indicators for progress and impact within each Program, Technical Area and ongoing action line.
- \* Preparation and review of yearly work plans and twice-yearly progress reports.



- \* Provision of periodic short-term technical assistance in support of the design or redesign of projects and the integration of action lines.
- \* Periodic impact assessment studies of selected action lines, and of joint activities between Technical Areas.
- \* Annual external financial audits.

Workshops and seminars will be held to define monitoring requirements (who needs what information, for what purpose, and how data should be collected), followed by data collection and summary analysis. The conclusions will be used to formulate follow-up plans, and reports summarizing the results of each exercise will be made available to interested parties

# 1.3 Outputs

- \* Impact Indicators: Impact indicators for key aspects of the Center's performance have been outlined in the relevant sections of this plan. A study to determine impact indicators for Technical Areas and action lines funded by core budget will be completed by March 1996. All impact indicators will be kept under review to insure their continued applicability.
- \* Annual workplans and progress reports: Each workplan will include a number of operational targets and activities related to a limited number of key performance indicators to be monitored at the technical level.
- \* Annual reports of progress toward component and overall goals: These progress reports will highlight accomplishments, identify major problems or delays (and actions proposed to resolve them), report lessons learned and recommend future project directions.
- \* Periodic special studies: To assess the impact of specific project actions at the request of the Director General. These studies will measure the impact of actions, specific to particular Programs, Units or Projects, that may be at an important turning point, assess the relative efficacy of alternative actions, and decide on future actions to improve them.
- \* Establishment of a Monitoring and Evaluation Unit in the Strategic Planning and External Cooperation Office.



- \* Major evaluations: These will be conducted by a team of external evaluators, in close collaboration with CATIE's personnel during Strategic Plan years 3, 6 and 10. The evaluations will report successes, lessons learned, discarded ideas, and focus on the implementation of the Plan.
- \* Annual audits: Annual audits should take place to monitor the financial management and sustainability of the Center in light of its Strategic Plan.

#### 2. Contacts with the donor community

- 2.1 Institutional development objective
- \* To create a transparent system of policy, management and decision making that is open to scrutiny and access by international donors.

The immediate objectives are:

- \* To improve cooperation with international donors.
- \* To increase the reliability of the Center's management and administration.
- \* To establish a permanent feedback system between CATIE's governing bodies and international donors.

#### 2.2 Actions

- \* To secure these management and administration objectives.
- \* Implementation of a consultative mechanism with international donors to improve donor input to the policy making process.



Starting in 1996, CATIE will implement a regular twice yearly consultation round to coincide with the regular meetings of its higher bodies of government. Meetings that will occur during the round include:

- (a) those between CATIE and member countries for consultations, feedback, drafting and monitoring of operation plans, reports, etc.
- (b) between CATIE's upper management and the Board of Directors and Council of Ministers for institutional decision making (first and second semester of each year).
- (c) between CATIE and international donor agencies for information and consultation.

# 2.3 Inputs

\* The strengthening of the Office of External Cooperation with additional staff.

#### 2.4 Outputs

- \* A fluid and open feedback system for information and exchange of opinions between the donor community and the Center.
- \* The improvement of CATIE's image and relations with international donors.

# 2.5 Impact indicators

- \* CATIE's corporate image with international donors.
- \* Reliability of institutional planning, monitoring and evaluation.
- \* Flow of communication and degree of efficiency of the consultation round.
- \* The marketing and acceptance of the Center's projects and institutional activities with international donors.



# 2.6 Assumption

One main assumption underlies this component:

\* The international community of donors is interested in establishing a consultation round with CATIE, its Board of Directors and the Council of Ministers.



#### VI. SUMMING-UP

Five processes have been identified that, working together, will contribute to transforming CATIE from a Center that is financially unstable, with serious constraints on its ability to set its own research, education and outreach agendas, into a Center that is able to efficiently use and build on its experience in these areas to contribute to sustainable development in its member countries and the rest of tropical America.

- 1. Strengthen the Technical Areas with human and financial resources in order to:
  - -Develop effective outreach mechanisms.
  - -Assimilate key functions from strategically important projects into ongoing action lines.
  - -Increase cooperation with member countries.
- 2. Refocus the Center's research and education programs to place greater emphasis on outreach and problem solving, in order to:
  - -Enhance the impact of the Center's actions in the member countries.
  - -Enhance the Center's image.
- 3. Place socioeconomic concerns, and gender, indigenous and minority issues prominently on the agenda of the Center's research, education, management and outreach programs.
- 4. Establish a constructive relationship with the international donor community.
- 5. Institute a program of measures aimed at strengthening the Center's core budget in order to insure financial and operational stability.

It is to be expected that there will be considerable synergistic effect between these processes. For example, greater emphasis on gender and indigenous issues in the research and technology transfer process is likely to result in enhanced impact of the technology in question. Therefore, it can be predicted that additional benefits will accumulate as a result of simultaneous progress in all of the priority processes.



Indeed, it must be doubted whether significant advances in one process can occur *unless* they are accompanied by progress in the others: greater emphasis on outreach is of questionable value if the Technical Areas are starved of the investment needed to transform them into stable entities with consistent policies and adequately resourced action lines.

CATIE considers that success will most likely result from the evolution (albeit, accelerated evolution) of the Center along the lines described above, with the gradual and ongoing implementation of the policies described in the preceding chapters. As was mentioned at the outset, much of what needs to be done requires additional funding being allocated. In its absence, some of the actions being considered might be able to proceed but most would run up against constraints caused by lack of funds or lack of time. Attempts to forge ahead without an adequate level of support might actually be detrimental to the operations of the Center by creating a need to divert scarce resources from ongoing work.

A program for implementation based on an assumption of adequate resources has still to be worked out in detail. However, given the evolutionary nature of the desired changes, it is predicted that there will be a similarly gradual increase in the resource levels required, with maximum demand occurring in 1997-1998. If the basic premises of this general plan are accepted and meet with practical support from donors, CATIE's management will prepare detailed calendars for the logical steps involved and projections of the demand for financing.

The challenges faced by CATIE and its partners for change are substantial. Every year that goes by sees more forest lost, more soil eroded, more biodiversity lost, higher population, more rural poor, and less *per capita* food production. Somehow, a way must be found to enable CATIE to change without neglecting the commitments it has already acquired.



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