In response to requests from several donors, the Chairman of the CGIAR offered at the Group's Mid-Year Meeting in Berlin in May 1988 to provide profiles of two non-associated international agricultural research centers: the Tropical Agricultural Research and Training Center (CATIE, in Costa Rica), and the International Trypanotolerance Center (ITC, in The Gambia). These profiles are attached. They are provided in the same format as that used for the IARC’s which were described in the paper ("Relationships Between Non-Associated Centers and the CGIAR") offered as part of Agenda Item 9 at the 1988 Mid-Year meeting of the Group.
I. GENERAL INFORMATION

1. Mandate and Objectives

CATIE's mandate is to increase agricultural, livestock, and forestry production and productivity through research and training oriented towards small-scale farmers in the Central American Isthmus. Specifically, CATIE aims to: develop research technologies and methodologies suited to conditions in tropical America; strengthen national research institutions, with a focus on training; conserve, produce, distribute, and evaluate high-yield and resistant genetic materials suited to tropical America; and improve the quality of agricultural education and research.

2. Legal Personality

CATIE is a civil, non-profit association operating as an autonomous associated entity of the Inter-American Institute for Cooperation on Agriculture (IICA) of the Organization of American States.

3. Corporate and International Status

The Center was established in 1973 by joint agreement between the Government of Costa Rica and the Inter-American Institute for Cooperation on Agriculture. CATIE's member states are: Costa Rica, Panama, Nicaragua, Honduras, Guatemala, El Salvador, and the Dominican Republic.

4. Governance

CATIE's highest authority is the Inter-American Board of Agriculture (IABA). [The IABA is IICA's superior governing body; it controls IICA's annual contribution to CATIE and has final say as to the dissolution of CATIE should the case arise]. A Board of Directors sets policy and is responsible for the supervision and control of the Center. The Directorate General manages the daily affairs of the Center, within the guidelines set by the Board of Directors; this is done principally by a Director General (Dr. Rodrigo Tarte Ponce), one Deputy Director General, and two Associate Deputy Directors, along with three Program Directors.

Three Advisory Committees provide advice to the Board: the Executive Committee, which carries out assigned functions and does the preparatory work for Board meetings; the Technical Committee, which assures that policies and strategies set by the Board with respect to research and technology are carried out; and the Academic Committee, which advises the Board on matters relating to educational policies and strategies. In addition there is the Administrative Committee, which serves the Directorate General as an internal advisory and support body in technical, administrative, and financial matters.
5. Physical Facilities and Regional Offices

CATIE is located in Turrialba, Costa Rica, 70 km southeast of San Jose, 625 m above sea level. The Center has research and training facilities on 1,000 ha of land, and an agriculture library of 80,000 monographs and books and 11,000 periodicals. CATIE maintains field offices in each of its six member countries.

6. Staff

In 1988 CATIE has a total of 831 employees: 100 principal research professionals, 50 supporting professionals, and the rest support personnel and field workers.

II. RESEARCH

1. Research Strategy and Programs

In the past, research activities have been carried out in three Departments: Department of Animal Production, Department of Plant Production, and the Department of Renewable Natural Resources. In October 1987 CATIE launched a 10 Year Strategic Development Plan (1988-1997) which identified three research priorities incorporated into three new interactive research and development programs: the Tropical Crops Improvement Program; the Sustainable Agricultural Production and Development Program; and the Integrated Natural Resources Management Program.

Within these program areas, research will focus on a variety of both new and continuing interests of CATIE. The Tropical Crops Improvement Program will concentrate on coffee, cocoa, and plantains, as well as other promising tropical crops (e.g. roots and tubers, fruit trees, and spices and dyes). The Sustainable Agricultural Production and Development Program has four primary areas of interest: annual food crops (rice, beans, maize, and sorghum); tropical livestock (milk and beef cattle); forestry and agroforestry; and production systems development. The Integrated Natural Resources Management Program comprises two main areas: watershed management and wildlands management.

The Center also maintains an experimental area for studies on basic plant production in moist tropical lowlands, an extensive plant germplasm collection, and a cocoa farm for technological and hybridization studies.

2. Staff Breakdown by Research Programs

According to a 1988 CATIE report, the principal professional staff breakdown by program area is as follows: perennial crops - nine; annual crops - 14; promising tropical crops - two; animal production ten; forestry and agroforestry - 23; production systems development - seven; watershed management - eleven; and wildlife areas - five.
3. Impact and Achievements

CATIE has oriented its work towards the small farmer in Central America, successfully developing suitable methodologies for farming systems research. CATIE has had a strong impact on the capacity of national research institutions to manage these methodologies, and they have been adopted by the Ministries of Agriculture in Panama, Honduras, Guatemala, and El Salvador. The Center's research results in agroforestry, particularly in "mixed systems", are also being used by the national systems in the region.

Much useful work has been done in the selection and development of high-yield, disease-resistant varieties of coffee and cocoa. CATIE's results from research in integrated pest management and milk production systems have been widely distributed, and considerable efforts have been directed towards protecting the wildlife areas of Central America. The Center's Plant Genetic Resources Unit mass produces disease-free materials and distributes them to national researchers.

In the field of education CATIE has graduated around 900 students with master's degrees and maintains a library which is perhaps the most complete collection of books on tropical agriculture in Latin America. Since 1974 over 4,500 participants have received training in short courses and seminars offered by CATIE. The Center is also part of a network of 60 collaborating institutions of higher education, research institutes, and universities in Central America and the Dominican Republic.

4. External Reviews

Not Available

5. Relationships with CGIAR Centers


IBPGR CATIE collects, evaluates, preserves, and distributes germplasm of different species handled by or through this institution and according to their specifications.

According to CATIE documents, the Center has had collaborative relationships at various times with CIMMYT, ICRISAT, IRRI, and IITA. CATIE also participates, along with the Latin American CG centers, in the Regional Agricultural Research and Education System.

III. BOARD OF DIRECTORS

1. Composition

The Board is composed of representatives appointed by the seven member states (serving three year terms), two representatives from
IICA, one representative from the IABA, and three specialized agricultural scientists of recognized prestige.

2. Responsibility/Authority/Restrictions

The Board has permanent responsibility for the supervision and control of CATIE and formulates the policies which the Directorate General implements.

3. Donor Support Group

A Donor Support Group was formed in 1987 and includes: USA, Germany, France, Canada, UK, Italy, Switzerland, IDB, IDRC, IFAD, IICA, and the EEC. The World Bank is an observer at Support Group meetings but does not contribute funds to the Center.

IV. FUNDING AND EXPENDITURES

In 1987, CATIE's total budget was $14.26 million. Core funds come from three sources: contributions from IICA (approximately $1 million/year); contributions from CATIE's member countries ($50,000/year per country); and overhead charges on special projects. In 1987 special project funding amounted to $12.2 million; the non-core portion thus represented approximately 78% of the total budget. While special project funds have increased rapidly (almost doubling between 1985 and 1987), their relatively large share of the Center's budget raises concern.
I. GENERAL INFORMATION

1. Mandate and Objectives

ITC's mandate is to exploit trypanotolerance for agricultural, commercial, and food production purposes and to conduct research. The Centre seeks to understand and utilize the natural resilience which certain West African livestock breeds exhibit to infection with trypanosomes of various types.

2. Legal Personality

ITC is an autonomous, non-profit organization.

3. Corporate and International Status

The Centre was created by an Act of the Gambian Parliament in 1982 which states: "the Centre shall be a body corporate and shall have perpetual succession and a common seal and may sue and be sued in its corporate name."

4. Governance

ITC is governed by a 15 member Council, with seven ex-officio members and eight individual members (mostly scientists). The Governing Council meets annually, while an Executive Committee and a Program Committee meet twice a year. A Director General manages the daily affairs of the Centre.

5. Physical Facilities and Regional Offices

ITC has three principal centers in The Gambia, at Kerr Seringe, Keneba, and Bansang; total land area at these sites is 360 hectares. In March 1987 the Centre opened newly constructed buildings at each of the centers, including 11 laboratories, 31 houses, administrative offices, service yards, and training hostels.

6. Staff

In 1988 ITC had a total staff of 418: 14 international scientists, 19 senior Gambian scientists, and 385 others.

II. RESEARCH

1. Research Strategy and Programs

The ITC research strategy is designed to study and enhance a milk and beef production system in The Gambia. This system is well integrated with crop protection and agro-forestry, and is based on the trypanotolerant N'Dama cattle. Research presently concentrates on ascertaining the limits of trypanotolerance under village conditions and in ITC-owned and fed cattle. Response to feeding supplementary
crop residues is being measured in growth rates, milk production, ovarian cycling, conception, anaemia status, and mortality.

Production, nutrition, livestock disease, and the genetics of trypanotolerance are the four main programmes of research at ITC. All center around the main objective of increasing animal production. There are also significant programmes in training and tsetse research.

New programmes are being started to establish a pedigreed herd of dual purpose cattle selected for a combination of beef and milk performance. This will be done in the context of international collaboration from research institutes in five countries enlisted to map the bovine genome with relevance to trypanotolerance; the ultimate objective is to transfer trypanotolerance to other breeds.

A major effort is also underway to develop and improve the content and management of grazing, including the establishment of new pasture from indigenous grasses such as Andropogon gayanus and appropriate agro-forestry using Acacia albida, Leucaena and Glyricidia sepis.

2. Staff Breakdown by Research Programs

ITC professional level staff (international and Gambian) are distributed as follows: Livestock Development Program/Administration of the Centre - 14; trypanosomiasis epidemiology and productivity studies in village cattle - six; tsetse studies - six; helminthiasis in N'Dama cattle - seven.

3. Impact and Achievements

ITC lists a number of notable achievements over the past several years: 1) significant results obtained in N'Dama cattle by supplementary feeding of crop residues, including tripled growth rate for suckling calves, increased calving index, decreased mortality from birth to weaning, and disappearance of chronic anaemia; 2) modest improvement in animal health care provision; 3) pasture and agro-forestry programmes established; 4) accumulation/analysis of data on production and disease indices in village herds to measure the impact of varying densities of tsetse population; 4) establishment of a large breeding herd of N'Dama to provide a basis for selection of the best dual purpose animals for beef and milk; 5) collaborative program with eight institutes in five countries established to map the bovine genome relative to the trypanotolerance factor and cattle DNA sent to participating centers.

4. External Reviews

Various reviews have been conducted by donors to ITC, including: African Development Bank (annually, with comprehensive evaluation scheduled for 1989); United Kingdom (1986 and 1987); EEC (April 1988)

5. Relationships with CGIAR Centers

The Director Generals of ILCA and ILRAD are ex-officio members of the ITC Council, and they or their representatives have played a major role at Council meetings; ITC's original funding from the EEC was also handled through ILCA/ILRAD. Technical advice has been sought from CIAT and IITA; the former has provided a variety of legume seeds
suitable for combining with the indigenous perennial grass *Andropogon gayanus*, while the latter has offered advice with regard to *leucaena* and *cassava*.

III. **BOARD OF DIRECTORS**

1. **Composition**

   The Council is composed of 15 members, with the Chairman elected from the eight non ex-officio members. Members serve three year terms, with re-election possible. Chairmen of the Council, Executive Committee, and Program Committee are elected annually.

2. **Responsibility/Authority/Restrictions**

   The Council has responsibility for ITC policy, broad program direction, fund raising, and appointment and dismissal of the Director.

3. **Donor Support Group**


IV. **FUNDING AND EXPENDITURES**

   ITC's annual budget has expanded considerably over the past four years, from $318,000 in 1984 to $2.7 million in 1988. The number of donors during this period increased from two to eight. It appears that the great majority of ITC's funds are restricted to a specific purpose, with a large portion accounted for by a concessionary loan from the African Development Bank to the Gambian Government. The Belgian contribution ($300,000 over 3 years) is the only one listed as an unrestricted grant.

   Projected funding requirements for 1989-1993 are $19.9 million in operating costs and $1.8 million in capital expenditures, totalling $21.7 million for the five year period. On average ITC projects that they will need $4.3 million per year through 1993 to carry out their research operations, capital improvement, and training programs. Total senior man years required to meet these needs averages 23, with a five year projected total of 113.