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REPORT ON THE WORK

of the

Training and Communications Support Program

and the

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Institutional Relations and Development Support Division

led by

GERARDO E. HÄBICH

1987 - 1995



CIAT

Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture

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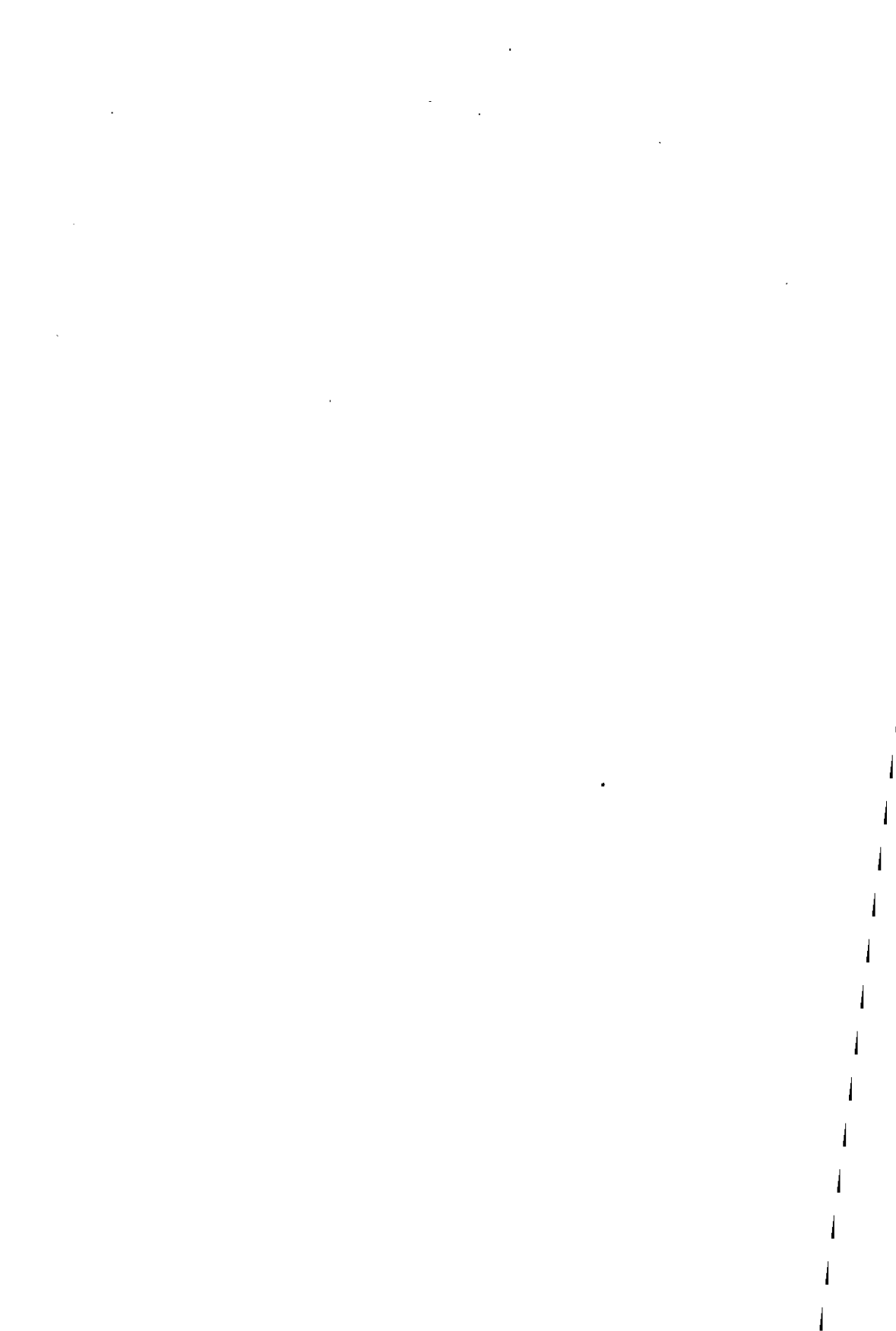
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EXECUTIVE SUMMARY

Introduction

This is an account of the work of Gerardo E. Hálich (GH) at CIAT during the period January 1987 - December 1995. It intends to contribute to CIAT's institutional memory and to serve as a case study on the management of the areas under GH's responsibility.

These responsibilities evolved from *Coordinator, Training and Conferences*, through *Leader of the Training and Communications Support Program (TCSP)*, to *Associate Director, Institutional Relations (AD-IR)* responsible for the *Institutional Relations and Development Support (IRDS) Division*.

The report deals with GH's line responsibilities, his institutional relations work, *ad hoc* assignments, work shared with other CIAT directors, and IRDS reviews.

Expansion of CIAT'S mandate and shrinking resources

In 1990 CIAT expanded its mission from alleviating hunger and poverty to include the alleviation of natural resources and environmental degradation.

It was assumed that additional financial resources would be forthcoming to meet CIAT's extra needs, but this proved to be wrong. From 1992 onwards, official development assistance (ODA) was reduced increasingly by most donors; the destination of ODA moved away from agricultural research and development; and there was little shift of ODA funds towards resource management research. Financial resources of the CGIAR eroded and CIAT had to face its increased needs with less rather than more resources. To add insult to injury, the purchasing power of CIAT's diminished US\$-based financial resources was increasingly reduced by a sustained revaluation of Colombia's currency against the dollar.

The IRDS Division was seriously affected by these critical events: it had to do significantly more with substantially less resources. It is advisable to keep these facts in mind while reading this report.

Work Related to *Line* Responsibilities

Training of researchers

Training of researchers moved from reactive to impact-oriented identification and selection of trainees; from introductory to specialized research training; and from supply-driven to demand-led training. Training in research on sustainable agricultural land use in the tropics was initiated.

Output

A total of 1,468 professionals from NARS were trained at CIAT over the period 1987-1995: 68 in introductory courses; 251 in introductory courses followed by individualized training; 606 in individualized programs; 462 in specialized courses; and 81 in M.Sc. or Ph.D. related research programs. Another 2,515 NARS trainees participated in regional and in-country courses held in the period 1987-1991.

Throughout 1987-1995, training was also offered to researchers from industrialized countries and to undergraduate Colombian students who worked for their first degree theses. There were 136 trainees from industrialized countries—85 in non-degree related individualized programs and 51 in M.Sc. or Ph.D. related research programs—and 288 Colombian undergraduates.

Training of trainers for technology transfer

A strategy for developing national and subregional training capacities for the transfer of technology was established to «devolve» the training of technology intermediaries to the countries.

The strategy was guided by the following principles:

- * There should be institutionalized bodies with a national or subregional training responsibility;
- * Trainers belonging to these bodies should have a tight command of adult education principles;
- * Trainers would preferably produce their own training materials under competent guidance;
- * Medium-term continuity of the training bodies should be ensured through fully funded projects;
- * The teams of trainers should focus on high-priority high-impact themes; and they should be strongly output-oriented;
- * Trainers would perform as such as part of their duties; they would equally continue performing research or extension duties.

Output

Nine teams of trainers were established across 19 countries in Latin America and the Caribbean. Subjects covered crop production (beans, cassava, rice, forages), research management, and management of municipal farmers advisory services. The total number of trainers trained exceeds 160.

Approximately 1,200 copies of 39 different learning units for trainers and 2,700 copies of recently developed complementary training materials, targeted at participants in training events performed by the new trainers, have been distributed.

Seed Unit

The Seed Unit moved from supporting the development of the seed sector in general to developing seed systems (i.e. organizational arrangements *and* appropriate technology rather than only seed technology). The shift was to serve small or atomized and unstable seed markets, such as those of beans or open-pollinated maize, that are typical of peasant farming, and are not attractive for large seed enterprises (either public or private).

Output

Small-scale seed systems were established and or monitored in Guatemala, Panama, Haiti, Peru, Bolivia, and in several sites in Colombia, serving as models for development agencies.

Information-Documentation Unit

The Unit moved from manual library services to a state-of-the-art electronic Information and Documentation Unit; served additional users, with new needs (in resource management research), despite shrinking resources; and through intensive networking, moved onto a path towards integration into a global library.

Output

Bibliographic searches. In 1987-1988 there were about 300 searches performed per year, almost exclusively in CIAT's internal, then non-computerized, databases. With the incorporation of CD-ROM databases the figure of yearly searches doubled annually between 1988 and 1991. Then, it stabilized at about 3,000 until 1994. In 1995, with the implementation of access to library databases directly from CIAT's researchers' offices, searches multiplied almost five-fold to over 14,000. Close to half of them were in CIAT's own, now fully computerized, databases.

Photocopying, loan, and reference services. Approximate yearly averages over the period 1987-1995 were 22,000 documents photocopied (about half of them for CIAT staff and trainees, and half for external users), 5,000 publications loaned, and 3,000 reference questions answered.

Production and distribution of publications. The following are approximate yearly averages, over varying periods, of distribution of publications from the Unit:

- * Abstract journals (1987-1992) 1,600
- * Pages of Contents (1987-1995) 500
- * Bibliographic Bulletin of non-serial publications (1987-1995) 400

- * Quick Bibliographies (1990-1995) 500
- * Bibliographic Bulletins on beans, cassava, tropical forages, and tropical acid soils (1995) 1,340

As a large proportion of the subscriptions to these publications have been institutional, especially by libraries, a substantial multiplier effect of their impact is likely to have occurred.

Communications Unit

Strategic changes were to put the house in order after a period of mismanagement; adding an aggressive public awareness endeavor to scientific publishing; and modernizing production processes so that output was maintained with half the original human resources.

Output

More than five million pages are printed at CIAT per year. From 1987 until 1995 the Communications Unit produced 167 scientific publications of which more than 90,000 copies were distributed. More than a quarter of a million copies of periodicals were distributed in the last five years. And more than 70,000 copies of 60 press releases were distributed in 1992-1994.

Project Development

The Project Development Office (PDO) was established to submit the right project proposals to the right donors at the right time. It introduced standard project design methodology; established a common project format adaptable to individual donor specifications; developed a donors database; and advised management and staff on project funding opportunities in donor agencies.

Output

Established in 1992, the PDO prepared 22 full proposals until the end of 1993, with an approval rate of about 70%. In 1994 the number of proposals increased to 23. Sixteen, with a total value of approximately US\$ 7 million, were

approved, three were not approved, and on four final decision was still pending at the end of 1995.

Conferences and Visitors services

From 1987 through 1995 the Conferences Office assisted 117 international conferences held by CIAT with almost 5,000 participants.

Conference facilities also serve external customers. Overall use of conference rooms over the quinquennium 1991-1995 was approximately 5,000 hours yearly. Of this, about two thirds were for CIAT's own use and the remaining one third for external users.

The throughput of visitors attended by the Visitors Office is about 3,000 persons per year.

Institutional Relations Work

Monitoring NARDS

The office of the AD-IR monitored NARDS to identify R&D needs and opportunities; assess CIAT's image; survey the quality of CIAT-NARDS relations; and ascertain trends in the institutional and policy environment.

Sources of information were mandatory trip reports of all CIAT staff; AD-IR visits to NARS and related fora; outposted CIAT staff; CIAT in-country representatives; and visitors and trainees from NARS.

Improving CIAT-NARS relations

By early 1994 CIAT's links with NARS had been weakened seriously.

1. CIAT had given up a large number of linkage activities which, by their very nature, had used to give the Center high visibility and acceptance among NARS.

2. Because of a drawn-out strategic planning process followed by a severe budget crunch and the corresponding downsizing of the Center, CIAT had become inward looking and self-centered rather than NARS-oriented.
3. An excessive zeal in attempting to position CIAT in its new capacity of Resource Management Research Center had strained relations with several institutions, particularly with PROCITROPICOS and in Central America.

An emergency action program to counteract such an undesirable state of affairs was set in motion in April 1994 .

Visits were paid to re-build relations and re-establishing confidence, especially with CATIE and IICA. Bridges with PROCITROPICOS were repaired.

Closer links were forged with PROCISUR. Relations with Peru, which became very weak after CIAT had moved out of Peru for security reasons in 1991, were strengthened by resuming activities in Pucallpa, by interacting with main national institutional leaders, and by designating a prestigious Peruvian scientist as CIAT's representative in Peru.

Relations with the Latin American plant genetic resources community were cultivated, *inter alia*, by broadly consulting on the development of CIAT's intellectual property rights policy.

Development of interinstitutional mechanisms

The AD-IR, in collaboration with directors and leaders, intervenes in the establishment of new interinstitutional arrangements such as agreements, consortia, and projects. Thus GH participated in the development of CIAT's ecoregional mechanism, consortia such as the savannas consortium and the initial Central American hillsides consortium, and the Latin American Fund for Research on Irrigated Rice (FLAR).

FLAR is a novel approach to funding international research. Membership in the fund is on a country basis, but within countries diverse institutions, from the private and public sector, can and do participate. Countries contribute a membership fee proportional to the size of their rice industry; however, they can increase their participation by acquiring additional shares. Members set the fund's research agenda and priorities, and CIAT is but one such member.

Development of IRDS management tools

Information System

An information system on CIAT's institutional linkages was developed. It can be envisaged as having at its heart databases of persons and institutions which are linked to other databases which inform on the linkages of these persons and institutions with CIAT.

The system informs on persons trained by CIAT; participants in CIAT conferences; visitors; subscribers to publications; institutions connected to CIAT (public, private, NGOs, AROs, RAROs, Universities...); interinstitutional agreements; projects; and staff's trip reports.

Standard Cooperation Agreements

Interinstitutional agreements were standardized for increased efficiency. First, a general agreement records the parties' intention to cooperate. Then, specific actions are formalized in projects, memoranda of understanding, and the like, which clearly lay out the partners' responsibilities, timeframe, budget, activities, outputs, and proprietary rights on outputs.

Ad Hoc and Shared Work

Intellectual property rights policy

GH chaired a working group that, in iterative consultations with NARS scientists and decision-makers, CIAT's own

scientists, and members of the BOT, prepared a draft CIAT policy on intellectual property rights.

Approved by the BOT in April 1993, the policy states CIAT's preference for maintaining its research output as a public good; and it sanctions the unquestionable inappropriability of germplasm collections that are in CIAT's custody. The policy also supported that the collections be put under the auspices of FAO, which eventually was enacted.

Moving CIAT towards administration by projects

In May 1993 CIAT initiated a process to put all research activities into a project format. The AD-IR and the Project Development Officer supported the process by preparing instructional materials and holding workshops with Directors, Program Leaders and scientists to help them becoming familiarized with standard project design methods, particularly with logical framework analysis and the arrangement of project activities and outputs in a work-breakdown structure.

Definition of CIAT's core research competencies

To have a sound basis for decision-making on downsizing, in 1993 the BOT requested management to define CIAT's core competencies, i.e., those minimum research capacities that would have to be maintained to remain a viable organization.

The two Deputy Directors General for Research and the AD-IR identified five competence areas: agrobiodiversity; germplasm development; management of pests and diseases; soils and production systems; and land management.

It was felt that it would be possible to downsize and still maintain a competence in these five areas. Thus CIAT would remain a competitive organization which (1) could continue addressing its actual mandate, albeit at a reduced level; (2) would be well positioned to reduce, expand or change its mandate; and (3) would be ready to re-expand when resources became available.

Fourth External Program and Management Review (EPMR)

GH was CIAT's liaison person with the EPMR Panel, and responsible for logistically supporting their activities. This included providing documentary information on CIAT, office space and equipment, and secretarial support; making travel arrangements and organizing in-country visits and interviews with CIAT staff; and coordinating the Panel's interaction with CIAT's Directors Committee during the preparation of the Panel's Report and the practically simultaneous elaboration of a CIAT draft response to the Report.

Interviewing process of final candidates for the position of Director General (DG) at CIAT

There were five final candidates for the position of DG at CIAT. Over a period of two days (16-17 February 1995) each of them gave a seminar to CIAT's principal staff, and was interviewed by a group of Program Leaders and directing staff and by CIAT's Board of Trustees.

GH coordinated the process; proposed criteria and instruments for the appraisal of candidates by the seminars' audience and by the principal staff interviewing group; chaired the principal staff interviewing group; and summarized the results of applying the appraisal instruments for BOT consideration.

Selection of Deputy Director General - Research

In May 1995 CIAT's Interim Director General appointed a Search Committee of six senior scientists chaired by GH. The Search Committee prepared the job description and a preferred candidate's profile in terms of professional qualifications and personality traits. The vacancy was announced in appropriate mass media and close to 800 letters were sent worldwide requesting nominations. Special care was exerted to tap the global pool of highly qualified women.

In August 1995, the newly appointed DG converted the pre-existing Search Committee into a Selection Advisory Committee (SAC) under GH's continued chairmanship. In an iterative process, the SAC assessed applicants against a set of selection criteria until 15 top candidates were identified. From these the DG selected three finalists who were invited to be interviewed.

An exhaustive interviewing process was completed in three days in November 1995. During the first two days each candidate gave a seminar and was interviewed by the DG, six groups of staff and two groups of staff spouses. On the third day the interviewing groups reported to the DG.

GH led the preparation of guidelines and instruments for candidates' appraisal for the various interviewing groups, and the briefing on how those guidelines and instruments should be applied. He also scheduled the interviews, seminars, and debriefing.

The whole recruitment process was completed successfully in little more than six months.

Policy against harassment and discrimination, and framework for action on gender staffing

As chairman of an *ad hoc* working group, GH led the drafting of CIAT's policy against harassment and discrimination which was promulgated by the Interim Director General on 1 September 1995.

As CIAT representative (together with Mrs. Elizabeth Goldberg) to an Inter-Center Consultation on Gender Staffing convened by the CGIAR's Gender Program (Washington DC, August 1995), GH prepared and presented a project outline to capture the full benefits of people diversity at CIAT.

Contract with the Secretariat to the Convention on Biodiversity

The Secretariat to the Convention on Biological Diversity, SCBD, contracted CIAT to prepare a draft paper on *Ways and means to promote and facilitate access to, and transfer and development of technologies as envisaged in Articles 16 and 18 of the Convention*, which the SCBD would use as input to the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), who in turn would advise the Conference of the Parties to the Convention on Biological Diversity on this matter.

GH in collaboration with Drs. Daniel Debouck and William Roca prepared a proposal titled *Technology Development and Exchange in Relation to the Convention on Biological Diversity* which was fully accepted by the SCBD but, subsequent to the change of its Executive Secretary, was not forwarded to the SBSTTA.

Fund-raising

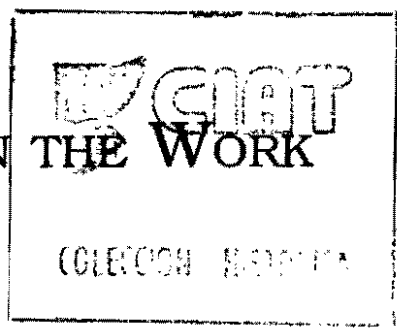
The development of an integrated fund-raising strategy, to counteract CIAT's financial erosion, was led by the DDG-Finance and Administration and supported by the DDG-Research, the AD-IR and the Project Development Officer (PDO). A two-pronged approach aimed at consolidating the support of «traditional» donors and mobilizing resources from new donors.

Key traditional donors were assertively informed on CIAT's strategic changes and adaptation to a rarefied funding environment. The services of professional fund-raisers were contracted. And the Project Development Officer systematically collected information on new «windows» of traditional donors—especially with relation to research on sustainability issues—and on «non-traditional» donors, particularly with an environmental concern.

It was found that (1) there was little scope for tapping financial resources from new donors except for relatively small grants, and (2) there appeared to be a large potential for mobilizing funds from new «windows» in traditional donor

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REPORT ON THE WORK



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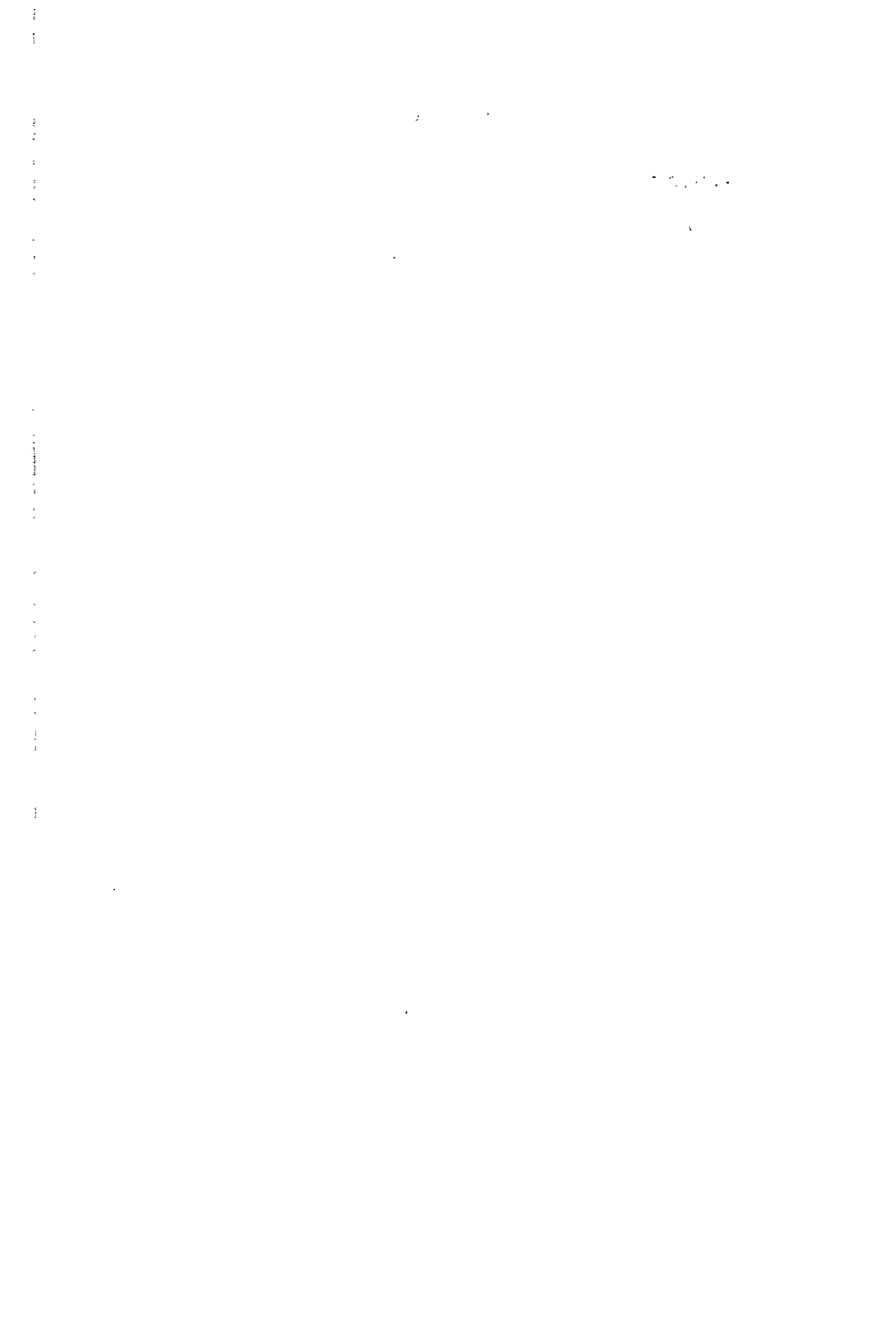
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agencies, especially in relation to bilateral country-donor projects. To tap these, however, CIAT would have to change substantially its way of developing projects.

As part of the mobilizing resources from new donors, negotiations with the Colombian Government led to Colombia becoming a full member of the CGIAR and making a substantial contribution to CIAT's core funds.

Project development and marketing procedures were put in place including (1) a database on donors (more than 150 agencies and offices) which contains information on their policies, priorities and preferences, decision-making cycle, and contact persons; (2) a standard procedure for submission and prioritization of project proposals in CIAT; and (3) a mechanism for following up on proposals until prospective donors make decisions on them.

Reviews of IRDS

The TCSP and then the IRDS Division were routinely submitted to review under CIAT's Annual Program Reviews with a consistently favorable outcome.

In 1992, the IRDS was also submitted to an internal in-depth review led by an external consultant to the Program Committee of CIAT's BOT; and in 1995 it was further evaluated as part of CIAT's Fourth External Program and Management Review. Both reviews were complimentary of the IRDS' work, management and achievements.

I. INTRODUCTION

The following is an account of the work of Gerardo E. Häbich (GH) at CIAT during the period January 1987 - December 1995. It intends to contribute to CIAT's institutional memory and to serve as a case study on the management of the areas under GH's responsibility.

1. Evolving Responsibilities

GH joined CIAT in August 1986 as *Coordinator, Training and Conferences*. In early 1987 CIAT's Communications and Information Support Unit was merged with Training and Conferences into a single *Training and Communications Support Program (TCSP)* under GH's leadership, and his position was titled *Program Leader*.

In 1990 CIAT's Seed Unit became part of the TCSP and in 1992 a newly created Project Development Office was also added to the Program which, for a brief period, changed its name to *Institutional Development Support Program (IDSP)* until CIAT's Board of Trustees (BOT) decided that the word Program should be used exclusively for Research Programs and consequently its use be abandoned in reference to Institutional Development Support.

As of July 1992 the Program Leader Position was changed to *Associate Director, Institutional Relations (AD-IR)*. Although not formally sanctioned, reference to Institutional Development Support was expanded to *Institutional Relations and Development Support (IRDS)*. No noun was provided for the structural unit IRDS. To overcome communications difficulties caused by this lack, the word *Division* will be used for the purpose of this report whenever convenient.

As Coordinator and Program Leader GH reported to one of CIAT's two Deputy Directors General for Research. As AD-IR he reported to the Director General.

No definite terms of reference were established for either the Training and Conferences Coordinator, the TCSP or the IDSP

Program Leader positions. Rather, ample room was left for shaping the positions under the DDG's and DG's oversight. How this was done will transpire from the present report.

For the AD-IR position the following terms of reference were approved by the BOT:

The Associate Director, Institutional Relations, has responsibility in the area of inter-institutional relations, as well as for a cluster of services and support activities, including communications/public awareness, library/information services, professional development, conferences, and project design. The position reports to the Director General and closely liaises with the Deputy Director General - Research.

Specific responsibilities include:

In the institutional relations domain:

- *Under the guidance of the Director General and the DDG-R, to support the development and maintenance of channels of communication and of inter-institutional arrangements between CIAT and national and regional institutions.*
- *Maintain a database of CIAT's inter-institutional cooperation and relations, including files on inter-institutional agreements and letters of understanding.*
- *Monitor the compliance with the above agreements with national and regional institutions, and advise CIAT's management (including program leaders) as to their required inputs and actions.*
- *Represent CIAT in international activities and events, particularly those sponsored by collaborating institutions, that are in CIAT's interest but are not the responsibilities of specific CIAT programs.*
- *Advise the Director General and the DDG-R on opportunities for new or modified inter-institutional arrangements with relevant organizations, and assist in the formulation and establishment of the corresponding linkages.*

Line responsibilities within the area of Institutional Development Support:

- *In coordination with the directors and program leaders, prioritize the support services and activities assigned to his/her guidance, to effectively support CIAT's Programs in accordance with CIAT's objectives and strategies.*
- *Assess needs; define objectives, methods, activities, and expected outcomes. Formulate working plans and submit them to CIAT's Management Committee for Center-wide compatibilization.*
- *Give management leadership for the effective and efficient accomplishment of goals and objectives by the services and activities of his/her office.*
- *Oversee the allocation of resources by operational units and projects, and see to the accountability of the use of these resources.*
- *Oversee the recruitment of support staff, and participate in the selection of senior staff in his/her area of responsibility.*
- *Promote staff commitment to CIAT's values and mission; and the expression of this commitment in a highly visible client orientation, a permanent pursuit of excellence in job performance, and maximum productivity.*

These terms of reference also left room for shaping the position; how this was done will, again, come out in this report.

2. Components of the Report

The first part of the report focuses on GH's *line responsibilities* throughout the years. There is a section for each line responsibility. The sections provide background information, describe strategic changes, discuss the management of change when appropriate, summarize output, give credit to IRDS team members for operational leadership, and address additional items when pertinent.

The second part of the account reports on *institutional relations* work while the third part informs on *ad hoc* and shared work by the AD-IR.

The report closes with a reference to the results of two reviews of IRDS, one in-depth internal review and CIAT's fourth external program and management review.

3. Two Critical Events

Two major events decisively affected CIAT from 1990 onwards. First, a new Strategic Plan profoundly changed the Center, and secondly, a financial and management crisis evolved over the period July 1992-July 1994. As both were critical for IRDS, they are summarized before starting the body of the report.

3.1. CIAT's strategic plan for the 1990s and beyond

Under the new Strategic Plan, CIAT expanded its mission from alleviating hunger and poverty to include also the alleviation of resource and environmental degradation.

Research expanded from being commodity-based to include resource management research. Corollaries to this were a systems approach to research and a much more interinstitutional implementation of the research agenda. Operationally the Center added programs on land management, savannas, forest margins, and hillsides to its commodity-based programs on beans, cassava, rice, and tropical forages.

For the IRDS Division this implied broadening the scope of all its activities.

3.2. Financial and management crisis

When CIAT decided to expand its mandate it assumed that additional financial resources would be forthcoming to meet the Center's extra needs. This proved to be wrong.

From 1992 onwards official development assistance (ODA) was reduced increasingly by most donors; the destination of ODA moved away from agricultural research and development; and there was little shift of ODA funds towards resource management research. Financial resources of the CGIAR eroded and CIAT had to face its increased needs with less rather than more resources. To add insult to injury, the purchasing power of CIAT's diminished US\$-based financial resources was increasingly reduced by a sustained revaluation of Colombia's currency against the dollar.

These critical events seriously affected the IRDS Division: it had to do significantly more with substantially less resources.

The financial shortfalls were compounded by a management crisis. The following is a chronological narrative of what happened.

Second semester 1992, initial financial shortfall

CIAT faces a financial shortfall which is interpreted as being conjunctural. An in-depth study of CIAT's operations leads to the implementation of stringent cost-saving measures. Cuts in activities and personnel are applied mainly to IRDS, on the rationale of protecting CIAT's fundamental research capacities.

March 1993, financial shortfall worsens: task force on downsizing

In March 1993 it becomes overridingly clear that CIAT is facing a serious financial shortfall of a structural more than transient nature.

It is decided to establish a *task force*—integrated by Deputy Directors General and by some Program Leaders—to develop alternatives for downsizing CIAT for consideration of the BOT at its annual meeting in April 1993. Task force members are relieved of all other responsibilities for the 8

weeks of their assignment while the AD-IR is mandated to support the DG during this period.

April 1993. BOT meeting

The BOT

- * does not approve any of three alternatives developed by the task force;
- * endorses CIAT's moving towards project-based operations and encourages swift implementation; and
- * requests management to define (by November 1993) CIAT's core research competencies which should be preserved in the event of downsizing.

November 1993. BOT meeting

The BOT approves an Action Plan to implement CIAT's Strategic Plan despite reduced resources, and introduces organizational changes. The more outstanding ones are

- * Personnel cuts throughout the Center (which eventually amounted to about 30% of CIAT's resources);
- * Establishing a «soft» matrix structure with Programs on one axis, Scientific Resources Groups on the other, and Projects as the operational units across the matrix;
- * Discontinuing the investment of core financial resources in research on irrigated rice research (except some strategic activities);
- * Maintaining only one position of Deputy Director General for Research, converting the other one into an Associate Director for Resource Management Research (reporting to the DDG-R).

March 1994. DG's leave of absence

- * At a time of increasing financial shortfalls and declining staff morale, the DG suffers a serious ailment which leads to his taking first temporary and eventually terminal leave. The two Deputy Directors (Research and Finance and Administration) and the AD-IR take care of emergency responsibilities.

April 1994. DDGs and AD-IR mandated to advance Action Plan

- * The BOT mandates the two DDGs and the AD-IR to vigorously move ahead with the implementation of the Action Plan as approved in November 1994.

July 1994. Interim DG takes office

In July 1994, the BOT appoints one of its distinguished members, Mr. Robert D. Havener, as Interim Director General.

Due to the management problems the AD-IR had to take on unexpected tasks. This will become apparent in the second and third part of the report.

II. ACCOUNT OF WORK RELATED TO LINE RESPONSIBILITIES

1. Training of Researchers

1.1. BACKGROUND

CIAT is a research **and a training** Center. Through the early 1970s until 1986 training was firmly established under the leadership of Dr. Fernando Fernández, former Coordinator of Training and Conferences, to the extent that training responsibilities became part of the duties of **all CIAT scientists**, as part of CIAT's corporate culture. On these strong foundations GH continued building from 1986 onwards. To facilitate the understanding of changes introduced thereafter, the starting situation will be described in some detail.

TRAINING AT CIAT

Clients

Training was offered at CIAT to professionals, i.e. university graduates, from research programs of developing countries (national programs for short) involved in work on the commodities in CIAT's mandate, that is, beans, cassava, rice, and tropical forages.

Types of training

The types of training were intensive introductory commodity-specific research and production courses; individualized on-the-job training programs; specialized courses; and research programs leading to a formal higher degree such as M.Sc. or Ph.D.

Introductory research and production courses (ic)

These were regular events aimed at providing an introduction to commodity-specific research and deployment of production technology. They combined theory and practice, and were strongly problem-solving oriented.

Instructors were CIAT's senior scientists with the assistance of their research associates and assistants. Course coordination and logistics were attended by training associates specialized by commodities.

Very intensive, the courses covered research in all disciplines represented in CIAT's research programs. Their duration commonly varied between one and two months. The number of participants varied around 20 per course.

Introductory research and production courses followed by individualized training (ic+it)

Participants of the introductory research and production courses had the opportunity, after the course, to stay on for an individualized on-the-job training program in a specific research discipline or field.

In these programs they would work under the supervision of one or more of CIAT's senior scientists to learn methods and R&D approaches by actually performing research. Such programs would last from a few weeks to several months.

Individualized training (it)

Individualized on-the-job training programs alone—that is, not preceded by an introductory course—were customized to overcome shortcomings in knowledge and skills that would prevent individual scientists from fully discharging their job responsibilities.

Such programs would last from a few weeks, for instance to learn a specific technique, to several months for more profound training in a research discipline or field. Similarly to the «it»-component of the «ic+it» package, each trainee in on-the-job training had one or more CIAT senior scientists as program advisors and supervisors.

Specialized courses (sc)

Group training in specialized topics was offered in CIAT's various research programs and support units in response to specific needs in national programs.

Some examples were courses on pastures evaluation under grazing; on the organization and management of integrated

cassava production, processing and marketing projects; on breeding and genetics for experienced bean breeders; and on various specialized aspects of seed multiplication and distribution.

The duration of such events varied around one month. Like all CIAT training, they were problem-solving oriented; and a sound balance between theory and praxis was always sought. Senior scientists and their associates were the instructors, while training associates managed the logistics. Participants would be around 20 per course.

Training for higher degrees (M.Sc. and Ph.D.)

Opportunities for scientists to carry out research programs leading towards obtaining a formal postgraduate degree were available permanently in CIAT's research programs.

Trainees would fulfill their academic requisites with any recognized university in industrialized or developing countries, and perform their research activities at CIAT under the supervision of a senior scientist.

REGIONAL AND IN-COUNTRY TRAINING

Clients

In the region and in countries, training was offered to researchers and especially to technology intermediaries, mostly but not exclusively university graduates.

Types of training

The types of training were short courses, and sequences of short courses, implemented in collaboration with local institutions.

Regional courses

Short training courses for participants from several countries were offered in various locations. Except for their international audience they were similar to the in-country courses described next.

In-country courses

Beginning in the early 1980s CIAT increasingly organized, or participated in, short in-country training courses (one to two weeks duration). Initially these events focused on the production of the commodities in CIAT's mandate. However, they soon diversified along program-specific lines.

Events staged by the Cassava Program became oriented preferentially towards cassava processing and utilization, on the one hand, and towards integrated pest management, on the other.

Courses led by the Bean Program concentrated on on-farm-research, and on artisanal seed production. They mostly comprised sequences of two or three short events (or phases). Trainees would return to consecutive events after interim periods (inter-phases) in which they implemented action plans, and applied learnings, from the preceding event.

Rice Program-related courses focused on cost-reducing rice production technologies. And Pastures Program-related events fostered the development of forage seed supply mechanisms.

All in-country courses were organized in collaboration with one or more national institutions. They had a local coordinator, and a CIAT training associate in charge of coordinating the Center's participation.

CIAT's contribution varied from training associates giving logistics support and contributing subject-matter expertise, to major involvement of senior scientists, their research associates, and training associates. The latter, however, that is, substantive participation of senior scientists in in-country training events declined over time.

Training materials from CIAT (manuals and audiotutorials) were an important input to all these events.

1.2. STRATEGIC CHANGES

From reactive to impact-oriented identification and selection of trainees; and to a strict focus on research training

On examining the statistics on professionals trained at CIAT up to 1986, it became apparent that more professionals from national programs had been trained than there were researchers specialized in work on CIAT's commodities! This clashed with the notion that CIAT's training was aimed at researchers, and there were two explanations for this shortcoming.

First, many of the trainees were extensionists, or other kind of technology intermediaries, rather than researchers. Second, not all researchers selected to be trained were actually engaged in ongoing work on CIAT's commodities. The two problems could be attributed to CIAT having had to accept training requests from national programs without much say in the selection of candidates.

Fortunately the situation had changed and, at the time of the analysis, CIAT was in a good position to actively participate in the identification of candidates in close collaboration with national program leaders and CIAT staff. Consequently, an **impact-oriented strategy for the identification and selection of research trainees** was put in place.

The essence of this strategy was to

- * strongly involve both national programs, i.e. the demand side, and CIAT staff—the supply side—in the selection of training candidates; and to
- * choose candidates on the basis of their potential impact on research output on two accounts: (1) their personal contribution to their team's output, and (2) the team's output and impact potential.

In other words, candidates had to come from national research teams with a great probability of success, and the candidates' training had to significantly strengthen their teams.

On the other problem, i.e. the training of extensionists, it was considered that, on the one hand, the size of the demand (thousands of extensionists as compared to

hundreds of researchers in need of training) greatly exceeded CIAT's possibilities of meeting it, and on the other hand, that the training of extensionists is a national responsibility, mainly because of the site-specific nature of their work. It was recognized, however, that national capacities for training extensionists were often weak or even not-existent and that CIAT had something to offer to improve the situation. Therefore, a **strategy for developing national and subregional training capacities for the transfer of technology** was established (see TRAINING OF TRAINERS FOR TECHNOLOGY TRANSFER).

From introductory to specialized research training

In late 1986 it was recognized that, as a result of the growing maturity of national programs, the training demand was shifting from introductory research and production training to more specialized training.

In a first adjustment to the changing demand, from 1987 onwards the «ic+it» training «package» increasingly substituted for the introductory research and production courses, i.e., only exceptionally would trainees be accepted to participate in only such a course. By 1990 the norm had become that trainees participate in the combination of ic+it.

Much deeper cutting changes were introduced in 1992-1993. The commodity-specific introductory research and production courses were eliminated altogether, leaving only individualized post-graduate training, both degree and non-degree related.

In-country courses were also eliminated and «devolved» to the countries by developing national and subregional training capacities.

The changes of 1992-1993 had been planned to be implemented over a five years period, but because of CIAT's financial shortfall it became necessary to condense them into less than two years.

From supply-driven to demand-led training

Introductory research and production courses were essentially supply-driven: CIAT's research programs would establish quite unilaterally what would be taught in them. Some but not all of the specialized courses, by contrast, were more in response to expressed national program needs. And much of the individualized training was increasingly demand driven.

Initiation of training in research on sustainable agricultural land use in the tropics

In late 1993, in a joint meeting of the three South American Horizontal Cooperation Programs in Agricultural Research—PROCISUR, PROCIANDINO, and PROCITROPICOS—CIAT assessed the demand for training on sustainable agricultural land use in the American Tropics and explored the interest of the Interamerican Development Bank in funding a pilot training program. The demand was found to be strong and the Bank to be interested.

A proposal was developed, submitted to the Bank and approved in 1994; program implementation began in 1995.

Briefly, the novel pilot program aims at establishing a regional cadre of 50 professionals familiarized with (1) the issues of sustainable agricultural land use, (2) the complexity and multidimensional nature of sustainability problems and constraints, (3) the need of a systemic approach to facing the challenges, and (4) the need of interinstitutional cooperation to address such a holistic research agenda.

The program is implemented by CIAT, CATIE and IICA under a consortium arrangement led by CIAT.

The operational structure is based on CIAT's experience with the introductory course plus individualized training «package» (see ic+it under Background, Training of Researchers) that had been applied successfully to commodity-specific training for about twenty years.

The intensive six-weeks introductory course (ic) in this case offers modules on systems theory, ecology, sustainability, land use in the American Tropics, economics, social dimensions, technology development and sustainability, systems analysis and development of prototype agricultural systems, watersheds as study and planning units, institutional technology generation and transfer aspects, and case studies of existing systems. The venue of «ic» is CATIE, in Turrialba, Costa Rica.

The individualized phase (it), in which each trainee follows an in-service training period in a team that researches problems related to sustainable land use, lasts another six weeks. About half of the individualized programs are carried out at CIAT and half at CATIE.

The first «ic+it package» with 25 trainees, ably led and coordinated by Dr. Raúl Moreno of CIAT, and supported with great competence and dedication by his CATIE counterpart Mr. José Arze, was successfully completed in the second semester of 1995. The second one will begin in March 1996.

1.3. MANAGING CHANGE

Brief reference will be made here to the management of each of the strategic shifts.

From reactive to impact-oriented identification and selection of trainees; and to a strict focus on research training. From supply-driven to demand-led training

The implementation of these strategic changes centered on a better identification and selection of trainees, and on a better knowledge of national training needs. Both implied a need for thoroughly knowing national programs and to be able to gather reliable information on candidates for training. The two needs were met through several sources of information.

CIAT's research program leaders had a good knowledge of national institutions: research scientists and training associates knew individual national scientists and training candidates; outposted staff were particularly valuable in providing information on both institutions and individuals; and GH established close links with the leaders of national institutions by visiting them in their countries and by meeting them in international fora and at CIAT.

Each training request from national programs and each training proposal from CIAT staff, be they for individualized or group training, were carefully scrutinized, and decisions on priorities of individual candidates and of new group training events were made in closest interaction with CIAT's research program leaders.

From introductory to specialized research training

The first change, from introductory courses only to introductory courses plus individualized training, was implemented gradually over several years. Increasing preference was given to candidates who would stay for individualized training after participation in courses, until by the end of 1991 the transition had been practically completed without trauma. By then, candidates would be accepted only exceptionally for introductory courses only.

The second change, towards individualized training only, initially was also made gradually by reducing the frequency of introductory courses to less than annual, while increasing the number of trainees on individualized programs. However, in 1992 the transition had to be completed abruptly, as part of the adjustments to the financial shortfall, eliminating the introductory courses completely.

The sudden and anticipated end of the transition—which could not be avoided—had negative effects on CIAT's relations with national programs, which felt deprived of a highly valued service and perceived CIAT as abandoning them. More importantly, the demand for the introductory courses has not disappeared completely nor have the countries developed full substitutes for this service, despite their own development and despite CIAT's effort to develop

national and subregional training capacities. The effects are more serious in smaller and weaker national programs. This issue will need addressing by relevant decision makers, hopefully sooner than later, lest national institutional capacity remain weak and agricultural development suffer as a consequence.

Initiation of training in research on sustainable agricultural land use in the tropics

The beginning of training in research on sustainable land use was the establishment of a new service, in response to a strategic change at CIAT, rather than a change in established activities. Nevertheless, it also met with some challenges in terms of management of change.

First, it was part of the general change from supply-driven to demand-led training. In this regard the new initiative can be seen as well balanced. It started at CIAT, but the need for this type of training was confirmed by national research leaders throughout Latin America.

Second, the course curriculum was developed in close interaction with members of the training consortium, a clear change with regard to past practice. More strikingly still, it is being implemented in partnership by the consortium members. And especially noticeable, it is being executed mainly at CATIE, rather than at CIAT, despite having been originally a CIAT initiative.

A remaining challenge is the relatively weak support of CIAT's resource management researchers to this initiative. The difficulty has two interrelated causes. On the one hand, as resource management research, which was initiated shortly before the eclosion of CIAT's financial shortfall, has been underfunded, scientists have been concerned about not being «distracted» by other responsibilities such as training. On the other hand, newly hired scientists were not introduced to the duties and culture of training which had been a tradition at CIAT; therefore they don't feel much commitment to training.

If CIAT is to continue being a research **and training** center, then management will have to address the development of a «training culture» among its new scientists.

1.4. COST-SHARING WITH CLIENTS

Until 1986 training at CIAT was funded from ample core resources and from several large «special projects» which, in those times, were easily enough supported by the donor community.

During the quinquennium 1987-1991, cost-sharing with training clients was introduced increasingly as a third funding mechanism. This not only expanded the funding base and therefore the number of trainees that could be served, it also was an important component of the impact-oriented strategy. Clients who were prepared to invest in the training of their researchers usually were also committed to supporting the work that these trainees were to pursue post-training; thus they would establish a necessary condition for impact.

The cost-sharing approach was labor intensive. Some level of negotiation with their institutions was done for more than one third of all trainees. Travel costs and living expenses of trainees were negotiated, whereas research costs were always covered by CIAT's research programs. The outcome of negotiations would vary from a minor contribution of the trainee's institution to travel costs or living expenses, to fully covering both.

The cost-sharing negotiations were effectively carried out by the Training Registrar, Mr. Alfredo Caldas, who not only proved to be an able negotiator, but also skillfully made use of his close relations with national research leaders developed over the years (many of the leaders had themselves been trainees at one time or another).

After 1992, the use of core financial resources for covering trainees' travel and living expenses had to be cut almost completely, except for the new training program for research

on sustainable agricultural land use in the tropics, which is a fully funded human resources development project. Nevertheless, significant levels of training were maintained with customers support.

1.5. OUTPUT

A total of 1,468 professionals from NARS were trained at CIAT over the period 1987-1995: 68 in introductory courses; 251 in introductory courses followed by individualized training; 606 in individualized programs; 462 in specialized courses; and 81 in M.Sc. or Ph.D. related research programs. Another 2,515 NARS trainees participated in regional and in-country courses held in the period 1987-1991.

Throughout 1987-1995, training was also offered to researchers from industrialized countries and to undergraduate Colombian students who worked for their first degree theses. There were 136 trainees from industrialized countries—85 in non-degree related individualized programs and 51 in M.Sc. or Ph.D. related research programs—and 288 Colombian undergraduates.

1.6. OPERATIONAL LEADERSHIP

Operational leadership was the direct responsibility of GH, supported by Alfredo Caldas, M.Sc., who ably managed the changing logistics of training at CIAT, and skillfully negotiated the cost-sharing of training at CIAT with customer institutions.

2. Training of Trainers for Technology Transfer

2.1. BACKGROUND

At the beginning of 1988 it was decided to strictly focus CIAT's training on the development of national research capacities, and to «devolve» the training of technology intermediaries to the countries (see TRAINING OF

RESEARCHERS, STRATEGIC CHANGES, From reactive to impact-oriented identification and selection of trainees; and to a strict focus on research training).

However, recognizing that national capacities for training extensionists were often weak or even non-existent and that CIAT had something to offer to improve the situation, a strategy for developing national and subregional training capacities for the transfer of technology was established.

2.2. A NOVEL STRATEGY

Basic principles

Some basic principles of a novel strategy for the development of national and subregional training capacities for the transfer of technology were established at the outset. Others emerged over the period between April 1989 and June 1991 as the strategy was being tested experimentally. Eventually they consolidated into the following:

- * **There should be institutionalized bodies with a national or subregional training responsibility.** Too often agricultural practitioners had been submitted to training-of-trainers efforts on the assumption that thereafter the newly trained would train others. However, more often than not the assumption didn't hold and they returned to their original activities rather than act as trainers.
- * **Trainers belonging to these bodies should have a tight command of adult education principles.** Frequently trainers work on pedagogic (child education) rather than on andragogic (adult education) principles or on no educational principles at all. This leads to inefficiencies and even ineffectiveness.
- * **Trainers would preferably produce their own training materials under competent guidance.** This would contribute to the trainers' commitment, to their taking ownership. The process would facilitate the transfer of adult education principles. And it would also allow quality control to be applied to the training materials being produced.

- * **Medium-term continuity of the training bodies should be ensured through fully funded projects.** As part of their training, the teams of trainers under development would design a full-blown project and submit it to a pertinent funding agency. Thus, the new trainers would be sensitized to the need of ensuring institutional sustainability; and they would become acquainted with proven project design methods.
- * **The teams of trainers should focus on high-priority high-impact themes; and they should be strongly output-oriented.** This was a set of values that guided CIAT throughout those years and which were part of the role-model played by CIAT in all its training efforts.
- * **Trainers would perform as such as part of their duties; they would equally continue performing research or extension duties.** This was inspired in one of the strengths of CIAT's training: that trainers are active scientists who teach on the basis of their own experience, in striking contrast with one of the most serious weaknesses of Latin American agricultural higher education, where teaching is not experience-supported.

Main operational aspects

A practically-minded and output-oriented education specialist was selected to lead the development of the strategy.

The model under development drew heavily on the experience accumulated in CIAT's in-country training courses in phases (see TRAINING OF RESEARCHERS, BACKGROUND, In-country courses).

Eventually a procedure with the following steps emerged:

1. **A theme is selected** for which a team of trainers should be developed. These themes initially were the production of commodities in CIAT's mandate, i.e., beans, cassava, rice, and tropical pastures. Later other themes were incorporated in collaborative projects with a sister center, ISNAR, or with

national customers, such as Colombia's Ministry of Agriculture.

2. **Institutional commitment is secured** through contacts with top managers of prospective partner institutions.

3. **Potential trainers in prospective partner institutions are identified** (according to specific criteria) and requested to assemble information on priority training needs of technology intermediaries, in their institution or country, in relation to the theme chosen according to step 1.

4. **Potential trainers gather in a first training event (Phase 1)** in their country or subregion. During one to two weeks, participants first reach a consensus on common training needs of their constituencies, and second, agree on a set of high priority subjects; third, for each subject, a subgroup of participants begins to develop a *learning unit* with the help and guidance of CIAT's instructors. Learning units are the materials that the new trainers eventually will use in the performance of their new duties.

The label *learning units* reflects the adult education approach of *helping others to meet their learning needs in a participatory way* rather than teaching them what the instructors think fit. Usually the units are made up of a learning sequence or a set of sequences, plus evaluations, and visual aids.

The whole procedure of setting priorities, establishing subgroups (each of which elects a group leader responsible for following up after Phase 1 concludes), and the development of learning units is the frame in which adult education principles are transmitted to, and internalized by, the new trainers.

At the end of Phase 1, the trainees return to their home bases and resume their usual work, but with the commitment to continue developing their learning units, and to present the results in Phase 2.

5. Trainees gather again in their country or region in Phase 2 (two weeks long). They perform a dummy-run course utilizing their draft learning units. While doing so they are filmed and then given feed-back information on their communications skills, the andragogic quality of their units, and on subject matter content.

Immediately thereafter, trainees participate as co-instructors in a real life training event where they receive additional feed-back on their skills. Then they return once again to their daily duties and to continue developing their learning units.

6. The third, and for the time being last Phase (two to three weeks) takes place at CIAT. Here the trainers-to-be finalize the elaboration of their learning units with the help of specialists in CIAT's Training Materials Production Section. They also have the opportunity to interact with subject matter specialists (from CIAT or specially brought in from other institutions) to improve the technical content of their units. And finally, they develop a formal project proposal, to be submitted to a funding agency, to give continuity to their team for three to five years.

An evolving process

The strategy for developing national and subregional training capacities is an evolving process. As new insights are gained during its implementation, new opportunities and needs emerge, and adjustments are introduced accordingly.

One recent development has been the production of training materials that complement the learning units. One type of material is targeted at the participants in training events performed by the new trainers; another at the farmers who are served by the trainers' trainees.

Another development has been the production of monitoring and evaluation instruments that facilitate the appraisal of trainers performance.

2.3. MANAGING CHANGE

The first challenge was to bring an education specialist into an agricultural research community which was likely to receive such an innovation with suspicion if not hostility. The specialist was introduced initially on a part-time assignment, which facilitated his becoming known gradually and being accepted eventually for a full-time appointment.

A second challenge was to transform a stagnant audiotutorials production section—which was detached from CIAT's training activities and had become an end in itself—into a highly committed and productive section for the production of *learning units* in full integration with the training-of-trainers initiative. This entailed a gradual change of the section's personnel, the acquisition of desk-top publishing hardware and software, and the training of the new team in the use of the new facilities. Later, video-production facilities were also added and staff trained in its use.

A third challenge came from a very different angle: the financial crisis. As the training of trainers initiative was complementary to CIAT's main training responsibility (the training of researchers), when the financial crunch hit it was decided to discontinue the use of core financial resources for training trainers.

The education specialist and the training materials section faced, first, the challenge to become self-financed through selling their services, and second, an additional constraint, that services offered would have to be fully compatible with CIAT's mandate. And they succeeded! They survived outside the sheltered environment provided by semi-public funds, and demonstrated that very different ways of doing business were possible.

A fourth challenge was to overcome the tendency of new groups of trainers to revert to undesirable training habits of old, when left to their own; especially so when certain decision makers attempted to make economies at the expense of training quality. Skillful follow-up became

necessary with both trainees and decision makers to avoid reversion to training models which had taken so much effort to improve.

2.4. OUTPUT

Nine teams of trainers were established across 19 countries, from Mexico and Central America, through the Caribbean, to the Southern Cone. Subjects covered crop production (beans, cassava, rice, forages), research management, and management of municipal farmers advisory services. The total number of trainers trained exceeds 160.

Approximately 1,200 copies of 39 different learning units have been distributed (this does not include distribution by ISNAR of 8 learning units). And 2,700 copies of recently developed complementary training materials, targeted at participants in training events performed by the new trainers, also have already been distributed.

2.5. OPERATIONAL LEADERSHIP

Credit for creatively implementing the operational strategy, mobilizing financial resources, and developing a productive team despite great job insecurity of all involved, goes to education specialist Dr. Vicente Zapata.

3. SEED UNIT

3.1. BACKGROUND

In 1980 CIAT established a Seed Unit to strengthen regional seed production capacity. The strategy followed until 1987 was to massively train human resources for the commercial and public sector large-scale seed industry, mainly in seed technology.

After an external review in 1987 the Unit shifted its focus towards developing small-scale seed technology to serve small-scale resource-poor farmers.

A NEW STRATEGY

Principles

In 1990-1991 conceptualization of the strategic shift was completed, recognizing that there are market-specific seed systems. On the one hand, large homogeneous, and stable grain markets—such as those for hybrid maize, sorghum, or sunflower—are matched by large enterprises which process seeds with large-scale equipment and infrastructure. On the other hand, small or atomized and unstable markets, such as those of beans or open-pollinated maize, are not attractive for large enterprises. CIAT's Seed Unit was to address the development of alternative seed systems for this market, represented mainly by small-scale resource-poor farmers. The emphasis was to be on **seed systems**, i.e. **organizational arrangements and appropriate technology** rather than only on small-scale technology as initially envisaged in 1987.

Implementation

Implementation was through five activities:

- * Promotion of small-scale seed systems among decision makers (in public and private organizations, NGOs, and farmer communities);
- * Training and counselling of personnel in seed systems;
- * Partnership in interinstitutional seed systems development projects;
- * Monitoring and analyzing existing and emerging systems; and
- * Developing appropriate technology.

3.2. MANAGING CHANGE

The main element of change that needed managing was the shift from a technocratic supply-driven seed technology approach to a participatory holistic entrepreneurial approach to seed systems, in an environment of opening

economies and privatization of the seed business. Close interaction with Seed Unit staff (at CIAT and in the field) and ongoing reinforcement of attitudinal changes through appropriate messages were applied to bring about the paradigmatic change.

3.3. OUTPUT

Small-scale seed systems were established and or monitored in Guatemala, Panama, Haiti, Peru, Bolivia, and in several sites in Colombia, serving as models for development agencies.

3.4. TRANSFERRING RESPONSIBILITIES

During 1990-1991, GH and the interim head of the Seed Unit, Dr. Adriel Garay, catalyzed and supported the development of an international post-graduate seed program at the Colombian National University on its Palmira campus close to CIAT. The Seed Unit was to collaborate closely with the initiative, and CIAT would attempt to mobilize financial resources from the international donor community.

The emerging funding crisis not only expressed itself in the lack of donor support for the post-graduate program. Pressed by the financial crisis, and on account that the mission had been largely accomplished, CIAT decided to close down the Seed Unit!

Despite such ominous events, the University courageously went ahead alone and successfully launched its M.Sc. program. Moreover, the program became the heir to CIAT's Seed Unit. The seed quality laboratory, all small-scale seed processing equipment, and the Seed Unit's library were transferred to the University. Most importantly, the University's Seed Program became unique: on the one hand, it is the only one located in the American tropics; and on the other hand, following the Seed Unit's approach, and at variance with other post-graduate programs, it addresses seed systems rather than only seed technology.

The first generation of masters has by now graduated (four of them sponsored by CIAT) and the second generation has completed half of its program.

3.5. OPERATIONAL LEADERSHIP

Operational leadership for the Seed Unit's change from seed technology to seed systems was provided by GH, while research, development, and training on seed technology was ably led by Dr. Adriel Garay.

4. INFORMATION-DOCUMENTATION UNIT

4.1. BACKGROUND

In the 1970s a visionary professional, the late Dr. Fernando Monje, established first class library services at CIAT, including specialized information centers for beans, cassava and tropical forages.

However, by 1987, seven years after Dr. Monje's departure, the services were in a process of technical obsolescence, while personnel management had slipped, allowing internal conflicts to interfere with efficiency.

4.2. STRATEGIC CHANGES

From manual library services to an electronic Information and Documentation Unit

In 1987 there was one single personal computer in the library and not a single fully computerized database.

By 1995 the Unit had

- * Computerized
 - ** Former card catalogs
 - ** Indexing-abstracting-cataloging processes

- ** Downloading from CD-ROM databases, scanning of author abstracts, and generation of value-added products from databases
 - ** Translation of abstracts (with EngSpan, see Communications Unit, Going Electronic)
- * Improved user access to information sources by means of
- ** End-user workstations for direct access to internal and external databases
 - ** Bibliographic databases on CD-ROM acquired from external sources
 - ** On-line searching of external databases
 - ** An information server in CIAT's local area network linking each researcher's personal computer to CIAT's internal bibliographic databases, external CD-ROM databases, and research support applications such as Current Contents
 - ** Electronic mail and access to worldwide telecommunications networks (such as CGNET, Bitnet and Internet) for exchange of publications and electronic files, and access to databases
 - ** Electronic transmission of scanned documents via Internet
 - ** Software applications in Micro CDS/ISIS developed in-house to facilitate searching of CIAT bibliographic databases
- * Published
- ** a full-text collection of CIAT publications and CIAT bibliographic databases (including its long established specialized databases on beans, cassava, and tropical forages) on compact discs.

Serving additional users, with new needs, despite shrinking resources

CIAT's strategic move, from being a commodity-focused Center to becoming a commodity *and* resource management research Center, implied that the Information and Documentation Unit would have to continue serving its traditional clients *plus* a new clientele of resource

management research scientists. That is, the Unit would have to expand its services to meet a broad new range of information needs.

Normally such a change would have meant a good deal of effort but not a really special challenge, provided that appropriate resources would match the growing needs. Unfortunately this was not the case; quite the contrary. Because of the evolving financial crisis, the Unit's operating budget shrank by 4% per year (in constant dollars) from 1989 to 1995, and personnel numbers had to be slashed by half between 1992 and 1993! The cost of scientific journals, on the other hand, kept increasing at an annual rate of 18%. A daunting situation.

On the up-side, however, emerging technology provided important opportunities for cost saving and for alternative access to, and delivery of, information. All internal processes were streamlined thus allowing not only maintenance but improvement of services to users.

However, not everything could be kept. A major cost saving measure was to discontinue the labor-intensive specialized abstracting services on beans, cassava, and tropical forages, and the publication of the corresponding quarterly abstract reviews.

This was a hard decision. The service had been one of CIAT's flagship outputs for national programs during twenty years. The abstracts were highly appreciated by users because, on the one hand, for many of them they were a fundamental source of information, and on the other hand, users knew that every abstracted document was available in full at CIAT and could be accessed directly or through the Unit's photocopying services.

A series of alternative, more cost-effective, services and products were developed gradually to compensate (not necessarily fully) for this loss. The alternatives also provided for more timely information provision.

* The full abstract databases of the specialized information centers on beans, cassava, and tropical forages were made available on CD-ROM.

* «Quick Bibliographies», on high priority subjects identified by CIAT's outposted scientists, became a new means of distributing more focused information than the earlier abstract reviews.

* The new literature searching capacities provided by CIAT's own automated databases, by databases on CD-ROMS, and by on-line access to external databases, together with electronic and other improved document transfer services, secured access to conventional literature.

* Access to grey literature—one of the Unit's special strengths—was maintained by new quarterly Bibliographic Bulletins on beans, cassava, and tropical forages and by the series of Quick Bibliographies.

With regard to serving the new clientele, i.e. resource management researchers, their needs were addressed by

* A quarterly Bibliographic Bulletin on Tropical Acid Soils;

* A three year project, funded by the W.K. Kellogg Foundation, to recover grey literature on managing acid soils in Latin American savannas, hillsides, and forest margin ecosystems. This is a collaborative endeavor with partner institutions in Bolivia, Brazil, Colombia, Costa Rica, Honduras, Nicaragua, and Venezuela, and international partners such as IICA, CATIE, FAO, and IFPRI;

* Quick Bibliographies;

* Pages of Contents on Plant Protection and on Natural Resources and the Environment (which were added to the longstanding Pages of Contents on General Agriculture; Agricultural Economics and Rural Development; Plant Physiology, Genetics and Biotechnology; Pastures, and Animal Production and Nutrition)

Networking, the path towards integration into a global library

Libraries have a long tradition of networking among themselves. This increases effectiveness and efficiency through sharing resources in mutual complementarity. CIAT's Information and Documentation Unit has not only been part of this tradition but a leading member of national and international networks for the exchange of bibliographic information.

The following are some examples of these activities:

- * Input to agricultural bibliographic databases
 - ** 600 database records per year to *AGRIS*, the FAO-sponsored database;
 - ** 3,500 database records to the *Union Catalog of Journals of the International Agricultural Research Centers*, a database distributed to NARS on diskette;
 - ** 2,500 bibliographic records to *SESAME*, a CD-ROM produced by CIRAD (Centre de Coopération Internationale en Recherche Agronomique pour le Développement);
 - ** 60,000 bibliographic records, comprising the complete databases of the CIAT Library, to the *Agricultural Databases of Latin America and the Caribbean CD-ROM* sponsored by IICA;
 - ** 8,000 bibliographic records for Colombian agricultural literature to the national CD-ROM project *Bibliografía Agrícola Colombiana*;
 - ** 2,600 bibliographic records to ICRAF to integrate a database in support of the ecoregional *African Highlands Initiative*;
 - ** 25,000 bibliographic references compiled from CIAT, IITA, and commercial databases which will be published by the Cassava Biotechnology Network and the UNDP-supported CIAT-IITA project on integrated pest management;
 - ** Collaboration with the National Agricultural Library (USA) to include CGIAR center journal holdings on the *World List of Agricultural Serials (WLAS)* CD-ROM project.

- * Information exchange arrangements
 - ** Member of AGLINET, the FAO-sponsored document delivery network;
 - ** Publications gift and exchange agreements with 500 libraries and documentation centers in developing countries;
 - ** Development of *Nexus*, a user-friendly software application that facilitates searches in Micro CDS-ISIS databases, which are standard throughout developing countries. The application, available in English, Spanish, French, and Italian, has been shared with libraries and information centers in more than 175 institutions in 32 countries;
 - ** Distribution of Pages of Contents for over 900 core journals in CIAT's collection to researchers in NARS in Latin America;
 - ** Development with 28 Colombian institutions of a *Directory of Directories on Natural Resource Management Database* with 521 references on reference sources on institutions, research projects, contacts, training programs, networks, databases and information centers on natural resources management and the environment in Latin America.

The recent expansion of electronic communications worldwide, together with a growing potency of text scanning equipment, have added power to bibliographic networking capacities at an unprecedented scale. Almost instantaneous transfer of documents and information from databases worldwide has become a reality; the amount of information that can be transferred per unit time is growing exponentially; and the costs are decreasing almost in parallel. Thus, to access information and documents, their location throughout the world can be expected to become irrelevant: ***a single integrated global agricultural library is on the horizon.*** The Information and Documentation Unit is fully prepared for such an evolution and actively contributing for it to become true in the not-too-distant future.

4.3. MANAGING CHANGE

Four aspects had to be managed carefully to implement the aforementioned changes: selection of staff, staff morale, staff training, and choice of equipment.

Selection of staff

The changes in the Unit were closely linked to personnel reductions. Consequently, selection of those who were to remain was crucial.

As has been mentioned under Background, by 1987 personnel management had slipped, allowing internal conflicts to interfere with efficiency. The downsizing provided the opportunity to drastically weed out underperformers, beyond levels that would have been possible under normal circumstances. This opportunity was vigorously seized and only able and motivated personnel were retained.

Staff morale

Downsizing unfortunately was gradual, proceeding as the financial crisis followed its unpredictable pattern. This led to a period of uncertainty and job insecurity; a threatening environment which, naturally, affected staff morale. However, the negative impact was minimized by (1) supervisory staff staying close to the rank and file in a participatory attitude, (2) motivating them with the introduction of exciting new technology, (3) demonstrating that progress was possible despite the difficulties, and (4) confirming by evidence that competent and committed staff members were kept preferentially during the downsizing. The final result was a much strengthened team with a firm *esprit de corps*.

Training

Training of staff to take on changed responsibilities in a streamlined Unit, and to manage new technologies as they were being incorporated, was a formidable task which, in addition to enabling staff, served to motivate them.

especially at a time of downsizing as pointed out in the previous section.

Choice of equipment

It goes without saying that at a time of revolutionary technological changes, choice of the most appropriate equipment, both in terms of performance and cost-effectiveness, has been a demanding and time consuming job.

4.4. OUTPUT

Size indicators

Before presenting outputs it is convenient to give a few indicators of the Unit's size.

There is a constant flow of books. The yearly average of book acquisitions over 1987-1995 has been about 1,700. But books also are eliminated as they become obsolete. Thus, the total holding of books has been fluctuating around 25,000 in recent years.

The yearly average number of journal subscriptions has been about 2,200.

The number of references in the Unit's internal databases is over 65,000; for each of them the full document is directly accessible.

CD-ROM databases hold about 20 million references.

Bibliographic searches

The most dramatic change in output among the Unit's services was in literature searches in databases.

In 1987-1988 there were about 300 searches performed per year, almost exclusively in CIAT's internal, then non-computerized, databases.

With the incorporation of CD-ROM databases the figure of yearly searches doubled annually between 1988 and 1991. Then it stabilized at about 3,000 yearly searches until 1994.

In 1995, with the installation of a CD-ROM server, which permits desktop «self-service» access to 11 library databases directly from CIAT offices through CIAT's center-wide local area network, searches multiplied almost five-fold to over 14,000. Close to half of them were in CIAT's own, now fully computerized, databases, showing their complementarity with the collection of CD-ROMs produced by others, and the enormous progress made in their quality and accessibility.

Photocopying, loan, and reference services

Approximate yearly averages over the period 1987-1995 were 22,000 documents photocopied (about half of them for CIAT staff and trainees, and half for external users), 5,000 publications loaned, and 3,000 reference questions answered.

Production and distribution of publications

The following are approximate yearly averages, over varying periods, of distribution of publications from the Unit:

- * Abstract journals (1987-1992) 1,600
- * Pages of Contents (1987-1995) 500
- * Bibliographic Bulletin of non-serial publications (1987-1995) 400
- * Quick Bibliographies (1990-1995) 500
- * Bibliographic Bulletins on beans, cassava, tropical forages, and tropical acid soils (1995) 1,340

As a large proportion of the subscriptions to these publications have been institutional, especially by libraries, a substantial multiplier effect of their impact is likely to have occurred.

4.5. OPERATIONAL LEADERSHIP

Credit for converting the Unit into such a highly efficient and effective enterprise goes to Mrs. Elizabeth Goldberg, able head of the Unit since 1989 (see also p.96 for commendatory comment by EPMR-Panel).

5. COMMUNICATIONS UNIT

5.1. BACKGROUND

By 1987 CIAT's Communications Area had three functions: scientific publications, communications media support to research networks, and public information.

The high quality of CIAT's scientific publications was widely recognized. However, there were increasing complaints from CIAT's scientists about difficult relations with the Unit and, especially, about serious delays in major publication jobs. Costs of publication were high; and stocks of publications, in disproportionate excess of distribution, were deteriorating in overloaded storage facilities.

In support of CIAT's research networks there were commodity-specific newsletters issued at irregular intervals (two to three times a year).

On public information, the Center's policy was one of reporting mainly to donors, with a limited number of high quality products: an annual report and a newsletter issued twice a year.

Feedback from the target audiences indicated a good response to the serial publications. But within the Unit there was growing conflict about the allocation of resources between the production of scientific, networking, and public information publications.

5.2. STRATEGIC CHANGES

Putting the house in order

Prerequisite to any other strategic change was to put the house in order.

Delays in production and conflicts over resource allocation to the various types of publications were found to be due to an over-commitment to large publishing jobs vis-à-vis available resources, and also to faulty management in accepting publishing jobs. Acceptance of publishing jobs was rationalized, and a work plan to gradually eliminate the publications backlog was designed and implemented.

Excessive stocks were largely due to unrealistically high press runs. Consequently, more reasonable press runs, based on knowledge of the target audiences, were established for new publications. And to reduce accumulated stocks, distribution of publications was promoted aggressively.

New publications were produced in less costly formats to make them more accessible to a clientele with a generally low purchasing power.

Going public at a time of shrinking resources

With the beginning of the 1990s the donors community and their constituencies became increasingly concerned about the accountability of International Centers; and information on Centers' activities and impact was demanded at an ever increasing rate. Consequently, CIAT diametrically changed its policy on public information from minimum to maximum exposure.

In 1992 the Communications Unit was put under the operational leadership of Dr. Thomas Hargrove, a highly experienced and prestigious communicator. Public information was immediately raised to high visibility with a massive output of press releases channeled to selected mass media. This effort was complemented with other information products such as videos, brochures, bulletins, collections of

press clippings, posters, post cards, almanacs, and the like. In short, CIAT was made visible to donors and their constituencies through a massive broadcast effort.

At the same time as the Communications Unit had to increase its public information activities substantially (e.g. production of 26 press releases and distribution of 30,000 copies in 1992) it had to take a 30% cut in its resources because of the financial crisis. Something had to give: the production of scientific publications fell by 25%. This, however, was not only due to less resources in Communications but also to reduced output from CIAT's researchers who were equally badly hit by the crisis.

In any event, the impact of the budget crunch was effectively counteracted by mobilizing alternative lower-cost human resources, such as free-lance professionals and students of communications. This is witnessed by the fact that, after a 20-30% drop in 1993-1994, total output of printed materials has returned to pre-crisis levels in 1995.

Going electronic

To improve production efficiency, full use was made of emerging electronic technologies.

Writing and editing were completely computerized from 1987 to 1991. And in 1992 printing moved from photocomposition to desktop publishing systems with the net result of maintaining the levels of output with half the personnel originally involved, and without loss of quality.

Translations from English to Spanish were computerized in 1988 by means of EngSpan, a software developed by the Panamerican Health Organization. CIAT developed the application's dictionary for an agricultural environment introducing new terms and revising existing ones through several thousand operations in the first three years of use. Since then, a single person produced some 14,000 pages of post-edited translations.

In 1994 SpanAm, also developed by PAHO, was incorporated for Spanish-English translations. Output in 1995 was about 700 post-edited pages, twice the earlier yearly amount translated with the same personnel.

5.3. OPERATIONAL LEADERSHIP AND MANAGEMENT OF CHANGE

Credit for strong operational leadership goes to Drs. Thomas Hargrove, Head of the Communications Unit since 1992, Nathan Russell, Senior Writer and Editor, and Walter Correa, Head of Graphic Arts.

Changes that required managerial attention were (1) the substitution of technology for labor, (2) the training of writers for public information, and (3) the work with freelance writers and video producers.

A fourth change of a very different nature, or rather a crisis, was to manage the Communications Unit while its head was held kidnapped for almost a year.

The first change, which implied decisions on what personnel would have to leave, and on choosing hardware and software, was handled as a team effort among GH and Drs. Hargrove, Russell, and Correa.

The second change was most ably performed by Tom Hargrove who submitted his collaborators to learning-by-doing under his direct tutorship: 60 press releases in three years among many other duties.

The change from relying almost entirely on CIAT personnel towards having major communications jobs done by freelance writers and video producers was managed initially by Tom Hargrove and later, during his forced absence, by Nathan Russell. Usually, the free-lancers spent at least part of their assignment working with staff from the Communications Unit. Without exception they fully integrated with their CIAT colleagues in a tightly knit team.

Keeping staff morale and productivity high during T. Hargrove's kidnapping was a daunting managerial task well performed by Nathan Russell, senior writer and editor who stepped in as acting Unit Head, in close consultation with GH. Staff morale was maintained and output was sustained (except press releases which dropped substantially)—a magnificent team response and a tribute to its absent head.

5.4. OUTPUT

More than five million pages are printed at CIAT per year. From 1987 until 1995 the Communications Unit produced 167 scientific publications of which more than 90,000 copies were distributed. More than a quarter of a million copies of periodicals have been distributed in the last five years. And more than 70,000 copies of 60 press releases were distributed in 1992-1994.

6. Project Development

6.1. BACKGROUND

By 1990 donor support to IARCs was beginning to slacken. At the same time donor pressure for greater Center accountability in the use of resources and for greater visibility of donor investments was mounting. Faced with these issues, CIAT's management thought that properly designed project proposals would provide a means for addressing all three. That is, such proposals would capture additional donor funds, provide clear accountability for what those funds would produce, and allow donors to relate to specific projects rather than to CIAT in general, as had been the case in the past (with so-called unrestricted funding).

Therefore, a Project Development Office (PDO) was established.

6.2. THE RIGHT PROJECT PROPOSALS FOR THE RIGHT DONORS AT THE RIGHT TIME

The aim of the Office was to submit the right project proposals to the right donors at the right time.

Right project proposals had two meanings. On the one hand, it referred to projects that, content-wise, would meet the interests of specific donors. On the other hand, it referred to project proposals prepared in an attractive, easily readable manner, with a clear account of development rationale, overall goal, purpose, outputs, inputs, timeframe, responsibilities, and assumptions.

Right donors and *at the right time* implied the need for a thorough knowledge of donors, their priorities, preferences, specific interests, and decision-making cycles.

A small support team

A small team, integrated by a project development specialist, an associate, and a secretary was put in place. The team provided the essential support to scientists to prepare project proposals for submission to donors:

- * A standard project design methodology;
- * A common project format adaptable to individual donor specifications;
- * A donors database and advice on project funding opportunities in donor agencies.

Standard project design methodology

The *logical framework analysis* (LFA) and the complementary *work breakdown structure approach* (WBS) were adopted as the backbone of CIAT's standard project design.

The LFA clearly relates project inputs to outputs, to project purpose, and to a higher order overall goal. Further it establishes precise indicators of success and means of verification of these indicators for delivery of outputs, and for purpose and goal attainment. Finally it requires that

critical assumptions on inputs, outputs, purpose and overall goal be made explicit.

The WBS goes into additional detail on the relation between project activities and outputs, summarizing them in an easily appraisable visual form.

Common project format adaptable to individual donor specifications

All CIAT project proposals were to have common elements that would conform to a *CIAT style*. On the one hand they would follow a common outline; on the other hand, they would have common communications features which would make for ease of reading.

With regard to structure, all project proposals would provide

- * a development rationale, i.e. why the project is thought necessary to achieve certain development objectives;
- * a project description based on LFA and WBS;
- * an implementation schedule, that is, a clear time frame in which the project has to deliver its outputs;
- * an organizational structure, specifying roles and responsibilities for each institutional partner, the executing agency and for the project officer position; showing an organizational chart with reporting and liaison lines; and the composition, roles and responsibilities of advisory/steering committee;
- * a budget;
- * reporting and project control mechanisms;
- * an evaluation plan; and
- * supporting appendices.

With regard to communications features, project proposals would be prepared with desk-top publishing facilities, with an attractive lay-out, including color illustrations produced with low-cost photocopying technology.

Donors database and advice on donor project funding opportunities

A comprehensive donors database (over 150 agencies and offices) was developed containing

- * Relevant addresses;
- * Annual reports, proposal guidelines and sector policy papers;
- * Contact persons; and
- * Priorities and funding opportunities.

Advice was given to directors, program leaders, unit heads, and scientists on funding opportunities and on targeting proposals to specific donors to maximize probabilities of approval.

6.3. MANAGING CHANGE

By 1990, CIAT's prevailing strong corporate culture was one of effectiveness and excellence, but not necessarily of efficient use of resources. Scientists had ample resources funded through the Center's unrestricted core budget (i.e. funds provided by donors to finance CIAT's overall research agenda rather than specific research projects or outputs). Consequently, strictly designed projects, managed to a tight budget and time schedule, were not part of the established corporate culture.

The PDO contributed to the Center-wide change towards research management by projects by

- * Holding training workshops for CIAT's Program Leaders, Unit Heads, and Senior Scientists;
- * Producing a Project Design Manual that features
 - ** Why Projects;
 - ** How to Design Projects;
 - ** How to Prepare Project Profiles, Concept Notes and Proposals;
 - ** How to Prepare Contracts, Progress and Evaluation Reports for Donors; and

** CIAT's Internal Policies on Project Submission; and
by

* Training scientists through learning-by-doing during the preparation of their own projects.

Project management is still not fully accepted by part of the scientists; but the use of LFA and WBS in research planning has become part of CIAT's daily life.

6.4. OUTPUT

Established in 1992, the PDO prepared 22 full proposals until the end of 1993, with an approval rate of about 70%. In 1994 the number of proposals increased to 23. Sixteen, with a total value of approximately US\$ 7 million, were approved, three were not approved, and on four final decision was still pending at the end of 1995.

6.5. OPERATIONAL LEADERSHIP

Credit for operational leadership goes to Dr. Robin Ruggles who combines three key competencies: analytical capacity and communications skills, with which he puts together highly readable proposals, even on the most abstruse subjects; outstanding ability to collect information on donor agencies and to understand the intricacies of their operations; and organizing skills with which he swiftly established and ran a highly productive office.

7. CONFERENCES

7.1. FACILITIES

CIAT runs a Conference Center with seven conference rooms with capacity for 180, 80, 40 (x2), 30, 20 and 12 persons. Rooms have facilities for projecting visual aids—including computer-based projection systems—and all but the two smallest rooms are fully equipped for simultaneous interpretation. The two largest rooms have state-of-the-art computerized conference management systems.

The Conference Center works in close collaboration with CIAT's Guest House which offers first class hotel and restaurant services.

7.2. SERVICES

A small team, made up of a conference officer, a secretary, and two auxiliary technicians, provide the following services:

- * Pre-conference
 - ** Conference planning: interpretation; linkage with editorial and public awareness services, and with food and housing; social activities;
 - ** Announcements and invitations; distribution of pre-conference information;
 - ** In collaboration with an in-house travel agency: travel tickets and stop-over lodging reservations;
 - ** Visas;
 - ** Housing reservations at CIAT or elsewhere;
 - ** Assembly of materials to be distributed at the conference.

- * Conference implementation
 - ** Reception of participants at airports and transport to and from CIAT;
 - ** Registration of participants; distribution of materials; consolidation of list of participants;
 - ** Reimbursement of travel expenses;
 - ** Coordination of secretarial support for transcription, reproduction, and distribution of documents;
 - ** Use of projection, audio, and conference management equipment;
 - ** Attention to participants' individual needs: arrangement of appointments; telecommunications; banking; travel; health care;
 - ** Social events for participants and accompanying persons: coordination; transport.

7.3. OUTPUT

From 1987 through 1995 the Conferences Office assisted 117 international conferences held by CIAT with almost 5,000 participants. The meetings dealt with strategic and operational research planning, networking, exchange of scientific information, discussion of research issues, linkage with farmers, and others.

In addition to formal conferences, the facilities are also used for shorter meetings of CIAT's research and administrative staff, and for training events.

The facilities are also put at the disposal of external users for a charge. Revenues cover part of staff salaries and are invested in conferences infrastructure development.

Overall use of conference rooms over the quinquennium 1991-1995 has amounted to approximately 5,000 hours yearly. Of this, about two thirds were for CIAT's own use and the remaining one third for external users.

7.4. OPERATIONAL MERIT

CIAT conferences and conference facilities are widely recognized for their sustained high quality. Credit for this recognition goes to Mrs. Maria Eugenia Cobo, the Conference Officer—who has invariably been on top of all events in the Conference Center—and to her small team of efficient collaborators.

8. VISITORS

8.1. VISITORS OFFICE

CIAT receives about 3,000 visitors every year. They are attended by the visitors office—an office head, a secretary, and a driver—which

- * Programs meetings with Center staff;
- * Guides visitors to their appointments and keeps their schedule;
- * Provides guided tours of CIAT;
- * Provides general information on the Center;
- * Arranges transport and excursions;
- * Provides linkage with services such as housing, banking and travel.

Visitors are received in groups or individually.

8.2. OUTPUT

The following is a breakdown of the yearly number of visitors into three categories: members of CIAT's donor community and their constituency, members of CIAT's partner community and their constituency, and general public. The figures are yearly averages for the period 1990-1995.

	Group visits			Individual visits
	Groups	Persons	Persons per group	Persons
Donors	6	20	3	16
Partners				
Not-Colombian	17	80	5	51
Colombian	16	195	12	15
General Public	179	2,858	16	119

8.3. OPERATIONAL MERIT

Mrs. Myriam Borrero de Cobo, Head of the Visitors Office, and her small team deserve recognition for efficiently attending these numerous visitors and unwaveringly projecting a positive CIAT image to the outside world.

III. ACCOUNT OF INSTITUTIONAL RELATIONS WORK

1. Monitoring Nards

As expressed by GH to the Panel of CIAT's EPMP in February 1995

The ADIR, in close collaboration with directors, leaders and other staff, monitors NARDS to

- * *Identify R&D needs and opportunities;*
- * *Assess CIAT's image;*
- * *Survey the quality of CIAT-NARDS relations; and*
- * *Ascertain trends in the institutional and policy environment;*

with a view to identifying needs and opportunities for cooperation (technical advice, germplasm exchange, training, information-documentation, etc.), project development, public awareness, corporate image improvement, conflict avoidance and resolution, and for CIAT's institutional adaptation and promotion in general.

Information for this task was gathered from several sources:

- * Trip reports
- * Personal trips
- * Outposted staff
- * CIAT representative
- * NARS visitors
- * NARS trainees

Trip reports

CIAT staff file formal reports on every international trip they make. Copy of these reports goes to the institutional relations office where they become part of the Institutional Relations Information System. They constitute a precious

source of information on CIAT's relations with its institutional environment.

Personal trips

Visits with CIAT's stakeholders are irreplaceable for managing, monitoring, fostering and evaluating institutional relations because there is nothing more informative than interacting face to face with these people in their own environment.

But trips are time-consuming and stakeholders are geographically dispersed, creating the risk of overstressing the travel schedule to the level of inefficiency and even ineffectiveness. A strategy to counteract such a risk is to meet stakeholders when several of them come together in groups for diverse purposes; in other words, to interact with larger «captive» audiences of stakeholders. The benefit of meeting people in their own environment is lost under this approach, but this is a trade-off; therefore, GH aimed at striking a balance between meeting stakeholders in their own environment and interacting with them in larger gatherings.

From August 1992 until November 1995 (43 months) GH made 37 trips, almost one per month. Although most of the trips had more than one purpose, the following classification gives a flavor of the kind and variety of business performed. Nine trips were to participate in Consultations on R&D Priorities and Planning Meetings; eight were to participate in meetings of the Board of Directors of the various PROCIs (made up of the heads of NARIs) and in meetings of decision makers of IICA; five were to participate in Technical Fora and Meetings; five to visit NARS (usually more than one NARS per trip—another mechanism for increasing travel efficiency); six were related to plant genetic resources and associated intellectual property rights issues; two were to promote CIAT-donor relations; and two were on other issues.

Outposted staff

Analyzing NARS and country situations and CIAT-NARS and CIAT-country relations with outposted staff, both in-country

and at CIAT, was another permanent and extremely valuable channel for monitoring NARS.

CIAT representative

In an in-depth analysis of CIAT-NARS relations (see p.70) GH proposed *inter alia* the establishment of CIAT representatives in countries where the Center lacked outposted staff. The proposal was implemented on a trial basis designating Dr. José M. Toledo, former Leader of CIAT's former Tropical Pastures Program, who is a well known and highly respected Peruvian Scientist, as CIAT's representative in Peru. Contracted on a retainer basis, and reporting to the AD-IR, his duties include keeping stakeholders in Peru informed on CIAT; identifying NARS needs and opportunities for CIAT interventions; and carrying out *ad hoc* assignments as required.

NARS visitors and trainees

The large number of visitors and trainees from NARS who come through CIAT clearly are another valuable information source which was tapped in interviews with them.

2. IMPROVING CIAT-NARS RELATIONS

By early 1994 it was clear that CIAT's links with NARS had been weakened seriously in the previous three years or so.

1. CIAT had given up a large number of linkage activities which, by their very nature, had used to give the Center high visibility and acceptance among the NARS.

Training at CIAT had been drastically reduced, and fellowships for NARS members had been slashed even more. In-country courses had been partially devolved and completely discontinued for strategic reasons.

CIAT Commodity Abstract Reviews, a widely distributed and much appreciated service to NARS (often their main source of information), had been discontinued.

Conferences at CIAT had become fewer, and invitations to NARS members to participate in them had been reduced in number.

CIAT's Seed Unit, another highly visible enterprise (through numerous and large conferences; an abundance of publications generously distributed; and massive courses) had been discontinued.

Bean on-farm research, with a massive training effort throughout Latin America, had come to an end. So had cassava on-farm research (agronomy) which had been highly active in Colombia and the Southern Cone.

The probably most visible germplasm development network—Beans in Central America—had been devolved, leaving less-visible CIAT technical support as the Center's on-going contribution.

Rice germplasm development and dissemination which used to be closely integrated with INGER-LAC had suffered from the discontinuation of the IRRI-funded position of INGER-LAC coordinator. Also, CIAT's Caribbean Rice Improvement Network (CRIN) Project for the hispanophone and francophone Caribbean had come to an end.

Support to Cassava Integrated Projects had been drastically reduced.

2. Because of a drawn-out strategic planning process followed by a severe budget crunch and the corresponding downsizing of the Center, CIAT had become inward looking and self-centered rather than NARS-oriented.

The ensuing reduction of interactions between CIAT decision makers and NARS, and the loss of aggressiveness in proposing and pursuing collaboration, had been perceived by NARS as having been abandoned by CIAT.

3. An excessive zeal in attempting to position CIAT in its new capacity of Resource Management Research Center had strained relations with several institutions, particularly with PROCITROPICOS and in Central America.

By the end of January 1994, when CIAT's management crisis was gathering momentum, GH presented to his fellow directors a document titled *Reshaping CIAT-NARS Relations*;

A Basis for Discussion and an emergency action program coordinated among directors was set in motion in April 1994.

The DDG-Research and GH travelled to Central America to begin re-building relations and re-establishing confidence, especially with CATIE and IICA. And GH and the Leader of the Lowlands Program, Dr. Raúl Vera, started repairing bridges with PROCITROPICOS. From there on, relations with CATIE, IICA and PROCITROPICOS continued being tightened by the AD-IR and substantially by the Lowlands Program and its Leader, Dr. Raúl Vera.

An element that contributed greatly to bringing CIAT closer again to CATIE and IICA was the joint implementation at CATIE of the First Course on Research and Development for the Sustainable Agricultural Land Use in the American Tropics (see p.29). CIAT initially developed the proposal of this event and obtained funding from IDB. But the detailed curriculum was developed in close partnership with CATIE and implementation was under a true consortium arrangement among the parties with especially strong involvement of CATIE. Special credit goes to the course's coordinator, Dr. Raúl Moreno, who most skillfully cemented interinstitutional relations.

Closer links were also forged with PROCISUR through the Biotechnology Unit, especially Drs. William Roca and Joe Tohme, and by GH in interaction with PROCISUR's Executive Secretary and the Leaders of the NARIs which compose PROCISUR.

Relations with Peru, which had become very weak after CIAT moved out of Peru for security reasons in 1991, were strengthened by resuming activities in Pucallpa (Tropical Lowlands and Forages Programs), by GH interacting with national institutional leaders, and by designating Dr. José M. Toledo to represent CIAT in Peru as mentioned earlier on.

Relations with the Latin American plant genetic resources community were cultivated by (1) participating in a series of meetings for broadly consulting on the development of

CIAT's intellectual property rights policy, and (2) by supporting and participating in a IPGRI-sponsored Regional Workshop on Cooperation between Spain and Latin America on Research and Training in Plant Genetic Resources, held at CATIE in Turrialba, Costa Rica. CIAT's participants (Daniel Debouck, Vicente Zapata, and GH) performed as facilitators in the three working groups in which the workshop discussed research and human resources development (D.Debouck), production of training materials (V.Zapata), and institutional mechanisms (GH).

After the first set of actions for improving CIAT-NARS relations, in November 1994 GH proposed a comprehensive longer term plan in *A Strategy for Institutional Relations with NARS and Related Entities: A Discussion Paper*. The paper was endorsed by the Directors Committee. Systematic center-wide action, however, was postponed until the arrival of the new Director General.

3. DEVELOPMENT OF INTERINSTITUTIONAL MECHANISMS

The AD-IR, in collaboration with directors and leaders, intervenes in the establishment of interinstitutional arrangements such as agreements, consortia, and certain projects. Thus GH participated *inter alia* in the development of CIAT's ecoregional mechanism, consortia such as the savannas consortium and the initial Central American hillsides consortium, and the Latin American Fund for Research on Irrigated Rice which, because of its novelty and the swiftness of its development, will be presented in more detail.

Latin American Fund for Research on Irrigated Rice

Background

In November 1993 CIAT's Board of Trustees decided, as part of the adjustments to the CGIAR's financial crisis, to discontinue—as of the end of 1994—the investment of core

financial resources in research on irrigated rice, except for some highly strategic projects that would serve both upland and irrigated rice (e.g. durable resistance against rice blast and resistance to «hoja blanca» virus).

The rationale for the decision was that

1. As research on irrigated rice had been extremely successful and had created a huge flow of benefits for rice producers and consumers, the regional rice sector should be in a position to reinvest part of the benefits in rice research; and
2. National rice research programs in Latin America and the Caribbean were strong enough to take over from CIAT all but extremely strategic research on irrigated rice.

However, CIAT's partners, especially in Colombia, strongly opposed the decision. CIAT's Director General was peremptorily invited to a summit meeting with ICA, the Colombian National Agricultural Institute, and FEDEARROZ, the national Rice Growers Federation, on 14 December 1993, in which they voiced their concern.

It was finally agreed **to establish a process seeking to put in place an institutional mechanism for international research on irrigated rice**. Funds for such an endeavor would eventually have to be provided by interested countries and/or the rice industry, but in an initial phase (some 18 months) bridging funds would be sought from the international donors community.

On 15 December GH was designated by the Director General to coordinate the initiative on CIAT's part.

Chronology of the development of the Fund

To establish a new international institutional mechanism in not more than a year was a formidable challenge. The process unfolded as follows.

16 and 17 December 1993

Internal meetings were held among the Rice Program Leader, Dr. Mark Winslow (MW), the prospective consultant for the process, Dr. Luis R. Sanint (LRS), and GH.

It was agreed that the process should lead to a plan containing

- * An international research agenda for Latin America and the Caribbean on irrigated rice;
- * An interinstitutional strategy for designing and implementing the research agenda; and
- * A strategy for funding the research agenda.

The plan would probably have two components: (1) an 18 months bridging project and (2) a longer term project (3-5 years).

11 January 1994

Internal meeting with MW, LRS, the DDG-Research William Scowcroft (WS) and Rice Program staff facilitated by GH.

It was agreed that the Institutional Mechanism for International Research on Irrigated Rice would be a **Partnership Enterprise** (PE) which, in summary, would

- * Bring together the various national institutional players (public and private) interested in research on irrigated rice;
- * Be self governed, not-for profit, and legally legitimized and binding; and
- * Raise funds and mobilize other resources from the region.

12-13 January 1994

Presentation by GH of the PE concept to representatives and technical staff of FEDEARROZ and ICA.

Outputs

- * Agreement on the PE concept;
- * Action plan (and division of responsibilities) to present the concept to prospective partners in Ecuador, Venezuela and Brazil;
- * Prioritized topics for the PE.

2 February 1994

LRS contracted as consultant to prepare draft institutional proposal; develop consensus among prospective partners on structure of partnership and research priorities; and obtain formal expression of intent of prospective members to establish partnership.

8 February 1994

LRS and a representative of FEDEARROZ briefed colleagues from Venezuelan rice industry on PE. They strongly supported the initiative and expressed a preference for a simple institutional mechanism such as an interinstitutional fund. Committed to participate in a meeting in conjunction with the IXth Latin American Rice Conference.

28 February - 2 March 1994

LRS briefed prospective Brazilian partners who supported the proposal and undertook to participate in a meeting to further discuss the proposal in conjunction with the IXth Rice Conference.

3-4 March 1994

LRS briefed prospective Uruguayan partners who took the same position as their Brazilian colleagues.

10 March 1994

LRS briefed prospective partners in the Dominican Republic who joined Brazilians and Uruguayans in supporting the

proposal but expressed reservations about being able to fund their trip to the IXth Rice Conference.

24 March 1994

Meeting in Goiania, Brazil, of prospective PE member institutions: PROARROZ/INTA, Argentina; IRGA and SUPRARROZ, Brazil; FEDEARROZ, Colombia; INIA, Uruguay; CCNA/APROSCHELLO, Venezuela; IICA; IRRI; CIAT. Discussion facilitator GH.

Conclusions

- * PE mechanism should be simple, with outputs clearly related to participants' needs;
- * PE should encompass rice germplasm exchange and a related breeding activity;
- * Any investment proposal for the participants' institutions would have to clearly state expected benefits;
- * A needs assessment should be made to match the proposal with the demand side;
- * A budget could only be prepared after the needs assessment, but the order of magnitude is thought to be about US\$ 500,000 yearly for three to five years.

25 March 1995

GH addressed the IXth Latin American Rice Conference at its closing ceremony to

- * Report on CIAT's rationale for discontinuing core funding of traditional rice research, and to clarify that strategic activities, such as research on blast and 'hoja blanca' virus, would be maintained;
- * Inform on CIAT's commitment to facilitate the establishment of the PE;
- * Summarize developments on the PE and conclusions of the consultation held the previous day; and
- * Communicate the next steps, approximate deadlines and expected outcomes.

5 April 1994

Dr. Federico Cuevas (FC) hired as consultant to carry out the needs assessment proposed in the Goiania meeting.

14 April 1994

A communication on the PE initiative, describing the process followed until then, reporting on the Goiania meeting, and outlining the next steps, was prepared by GH and mailed to approximately 160 persons or institutions in the LAC rice sector; 33 of the covering letters were personalized.

For prospective PE members an invitation to the consultations to be carried out by FC and instructions for the consultations were added to the communication.

22 April 1994

FC consultation in Caracas, Venezuela, with participation of representatives from Colombia, Dominican Republic and Venezuela.

4 May 1994

Presentation by GH of PE concept and progress report to, and endorsement by, Directing Board of PROCISUR in Buenos Aires, Argentina.

11 May 1994

FC consultation in Concepcion del Uruguay, Argentina, with representatives from Argentina, Brazil and Uruguay.

17 May 1994

Meeting of FC with CIAT's Rice Program to get feedback on consultations.

25 May 1994

FC's final report on consultations which indicated:

- * A strong desire to support an international irrigated rice research mechanism;
- * Its comparative advantage would lie in neutrality, credibility and economies of scale;
- * It should complement and strengthen national efforts, not duplicate them;
- * Its work should be organized in a project format;
- * It should focus on germplasm development, at least in the beginning;
- * Priorities: blast and sheath blight diseases, and gene pools.

9 and 10 June 1994

Presentation by GH of PE concept and progress report to, and endorsement by, Directing Boards of PROCITROPICOS and PROCIANDINO in Bogota, Colombia.

24 June 1994

MW concludes draft proposal for PE with three projects based on findings of FC's consultations.

16 July 1994

CIAT's Board of Trustees authorizes the use in 1995 of core funds to bridge the gap until the PE becomes functional, but urges to bring the process to a successful end as soon as possible. This decision eases the pressure to bring the process to a close before the end of 1994.

27 July 1994

Meeting of WS, MW and GH to discuss draft proposal. LRS translates and GH edits the proposal.

27 August 1994

Draft proposal with projects on

1. Application of durable blast resistance strategies across LAC;
2. Sheath blight analysis and control; and
3. Improved irrigated rice gene pools

is distributed in consultation to rice program leaders and institutional decision-makers of prospective PE members, and to PROCIANDINO, PROCISUR, PROCITROPICOS, IICA, and IDB.

9 September 1994

GH invites prospective PE members to meeting at CIAT to reach consensus on projects, operational and financial aspects of PE.

11-14 October 1994

Meeting at CIAT of prospective members of PE. Substantive progress is made under the leadership of LRS.

14 December 1994

GH distributes invitations to prospective members of PE, and to IICA, IDB, and IRRI to convene at CIAT on 16 January 1995 to

- * Sign Framework Agreement for Latin American Fund for Irrigated Rice Research;
- * Establish Technical and Administrative Committees for the Fund

16 January 1995

Framework Agreement for Latin American Fund for Irrigated Rice Research is signed by representatives from Brazil, Colombia, Uruguay, Venezuela, IICA, IDB, IRRI, and CIAT.

4. DEVELOPMENT OF IRDS MANAGEMENT TOOLS

Information System

A system of inter-linked relational databases was developed over the years. It can be envisaged as having at its heart databases of persons and institutions which are linked to other databases which inform on the linkages of these persons and institutions with CIAT, mainly through access to CIAT's services and products.

The system informs on

- * persons trained by CIAT (where, when, how, in what);
- * participants in CIAT conferences (with summary data on conferences);
- * visitors;
- * subscribers to publications (who is subscribed to what);
- * institutions (public, private, NGOs, AROs, RAROs, Universities...);
- * interinstitutional agreements;
- * projects; and
- * staff's trip reports.

The system is ready to also include distribution of germplasm.

The structure of the system is in place. With regard to content, however, much information is still dispersed throughout CIAT's research Programs and Units. Given the growing demand of information from the CGIAR's governance, shareholders, and stakeholders, the prompt completion and continuous updating of the system are a matter of urgency. Ever more frequent requests of information of distribution of services and products or of collaboration by countries, types of institutions, over varying periods of time, and the like, have become a heavy burden on CIAT's management. Once the system is fully functional, it should be possible to answer most such questions

immediately, and clerical staff should be able to pull out most of the answers.

This information system supersedes the concept of mailing list. For the distribution of serial publications the database informs on subscribers. And for the production planning and distribution of non-serial publications or other types of information, the system allows to pull out subsets of persons according to specific profiles (professional background, institutional affiliation, geographic distribution, etc.).

Standard Cooperation Agreements

Since its inception CIAT engaged in a large number of interinstitutional agreements crafted case by case. In recent years a more standard procedure was introduced for increased efficiency; flexibility was kept, however, to make room for specific institutional idiosyncrasies. The procedure for establishing formal links with an institution now starts with a general agreement which records the mutual intention to cooperate and establishes that specific actions will be formalized in projects, memoranda of understanding, and the like, which clearly lay out the partners responsibilities, timeframe, budget, activities, outputs, and proprietary rights on outputs.

In other words, a project approach to collaboration has become the framework for CIAT's interinstitutional agreements, and is clearly established up front.

IV. ACCOUNT OF AD HOC AND SHARED WORK

In addition to line and institutional relations responsibilities, the AD-IR was given others. They were tasks that fell outside the specific domain of individual Directors or tasks that corresponded to vacant Director positions and they were assigned by the Director General to the AD-IR on an *ad hoc* basis.

Another kind of work were activities shared among the members of the directors committee.

All these activities competed with the AD-IR's specific responsibilities and absorbed substantial time and energy.

1. AD HOC WORK

The following is the account of main *ad hoc* activities in approximately chronological order of their initiation .

Intellectual property rights policy

By 1992, property rights of genetic resources and of research output had become a hot issue for International Centers which were torn between the interests of industrialized countries (including some donors to the CGIAR), which were promoting the private appropriation of research outputs by means of intellectual property rights, and the frequent opposition in developing countries against such an appropriation. Non-governmental organizations throughout the world were also opposing excessive privatization of science and technology, especially the patenting of life beings.

The legal status of germplasm collections held by the Centers was particularly controversial. For years they had been considered to be a «heritage of mankind», but the Convention on Biological Diversity recognized that countries hold the sovereign property of their biodiversity.

To define its position on these issues, in May 1992 CIAT established a working group on intellectual property rights with the mandate to prepare a draft policy for consideration of the BOT.

GH, designated chair of the group, led an intensely participatory process of iterative consultations with NARS scientists and decision-makers, CIAT's own scientists, and members of the BOT on an emerging conceptual framework, until a draft policy was shaped and proposed to the BOT in April 1993 and approved.

In essence, the policy expresses CIAT's preference for maintaining its research output as a public good; but keeping the flexibility of exceptionally protecting certain outputs under property rights to prevent misappropriation. On germplasm collections in the Center's custody, the policy sanctioned their unquestionable inappropriability and supported their being put under the auspices of FAO, which eventually was enacted.

The policy was carefully balanced to express firm values which effectively underpin CIAT's approach to intellectual property rights, yet maintaining enough flexibility to be able to adapt to changes that are likely to continue occurring in this dynamically evolving field.

Moving CIAT towards administration by projects

In May 1993 CIAT's research programs and units were instructed by the DG to put all activities into a project format.

To facilitate this transformation, the AD-IR and the Project Development Officer prepared instructional materials and in June-July 1993 held a series of workshops with Directors, Program Leaders and scientists to help them becoming familiarized with standard project design methods, particularly with logical framework analysis and the arrangement of project activities and outputs in a work-breakdown structure.

Definition of CIAT's core research competencies

To have a sound basis for decision-making on downsizing, in April 1993 the BOT requested management to define CIAT's core competencies, i.e., those minimum research capacities that would have to be maintained to remain a viable organization.

The task was assigned to the two Deputy Directors General for Research and the AD-IR, who was designated «timekeeper» to maintain the working group on schedule to deliver in time for an extraordinary meeting of the BOT in November 1993.

Five competence areas were eventually defined

- * Agrobiodiversity;
- * Germplasm development;
- * Management of pests and diseases;
- * Soils and production systems; and
- * Land management.

It was felt that it would be possible to downsize and still maintain a competence in these five areas. Thus CIAT would remain a competitive organization which

- * could continue addressing its actual mandate, albeit at a reduced level;
- * would be well positioned to reduce, expand or change its mandate; and
- * would be ready to re-expand when resources became available.

The competence areas could also provide an alternative for organizational re-structuring if CIAT's program structure were to become unsustainable.

As a result of the dynamics of collective decision making, the competence areas were eventually turned into a structural feature as *Scientific Resources Groups* and approved by the BOT as one of the vectors of a «soft matrix structure», with

research programs as the other vector, and projects as the operational units within the matrix.

Fourth External Program and Management Review (EPMR)

GH was CIAT's liaison person with the EPMR Panel, and responsible for logistically supporting their activities.

The review was in two phases. In the first one (September/October 1994), the Panel spent one week at CIAT Headquarters meeting with all levels of CIAT staff to solicit their views. Immediately thereafter, the Panel divided into small groups for visits to countries (Brazil, Colombia, Costa Rica, Kenya, Nigeria, Thailand, Uganda), regional organizations, and NARS with which CIAT collaborates. In the second phase (January/February 1995) the Panel reconvened at CIAT and produced its report.

GH coordinated the provision of the following to the Panel

- * documentary information on CIAT;
- * office space and equipment, and secretarial support;
- * travel arrangements and in-country visits (with the invaluable help of CIAT's outposted staff);
- * interviews with CIAT staff;
- * interaction with CIAT's Directors Committee during the preparation of the Panel's Report and the practically simultaneous elaboration of a CIAT draft response to the Report.

Interviewing process of final candidates for the position of Director General at CIAT

There were five final candidates for the position of DG at CIAT. Over a period of two days (16-17 February 1995) each of them gave a seminar to CIAT's principal staff, and was interviewed by a group of Program Leaders and directing staff and by CIAT's Board of Trustees.

GH coordinated the process; proposed criteria and drafted instruments, for DG and BOT chair's approval, for the

appraisal of candidates by the seminars' audience and by the principal staff interviewing group; chaired the principal staff interviewing group; and summarized the results of applying the appraisal instruments for BOT consideration.

The process was completed flawlessly.

Selection of Deputy Director General - Research

A Search Committee (SC) of six senior scientists and chaired by GH was appointed by the Interim Director General in May 1995.

The Search Committee prepared the job description and a preferred candidate's profile in terms of professional qualifications and personality traits. The vacancy was announced in appropriate mass media and close to 800 letters were sent worldwide requesting nominations. Special care was exerted to tap the global pool of highly qualified women.

In August 1995, the newly appointed DG converted the pre-existing Search Committee into a Selection Advisory Committee (SAC) under GH's continued chairmanship. In an iterative process, the SAC assessed applicants against a set of selection criteria until 15 top candidates were identified. From these the DG selected three finalists who were invited to be interviewed.

An exhaustive interviewing process was completed in three days in November 1995. During the first two days each candidate gave a seminar to scientific and administrative staff and was interviewed by the DG, six groups of staff (the SAC, other leading staff, two groups of senior scientists, junior scientists, and secretaries) and two groups of staff spouses over two days (for a total of about ten hours per candidate). Towards the end of the second day and during the third day the interviewing groups wrapped up their conclusions and reported to the DG.

GH led the preparation of guidelines and instruments for candidates' appraisal for the various interviewing groups, and the briefing on how those guidelines and instruments should be applied. He also scheduled the interviews, seminars, and debriefing.

The interviewing process was completed flawlessly and two working days after the end of the process the position was offered to the DG's preferred candidate and accepted. The whole recruitment process, in which the search had cast its net wider than ever before for a CIAT position, and staff involvement in the selection had been of unparalleled breadth and depth, was completed in little more than six months.

Policy against harassment and discrimination, and framework for action on gender staffing

As chairman of an *ad hoc* working group, GH led the drafting of CIAT's policy against harassment and discrimination which was promulgated by the Interim Director General on 1 September 1995.

As CIAT representative (together with Mrs. Elizabeth Goldberg) to an Inter-Center Consultation on Gender Staffing convened by the CGIAR's Gender Program (Washington DC, August 1995), GH presented a project outline to capture the full benefits of people diversity at CIAT. Further pursuit of the project idea was contingent upon approval by the incoming Director General.

Contract with the Secretariat to the Convention on Biodiversity

CIAT forged links with the former Interim and then Permanent Secretariat to the Convention on Biological Diversity (SCBD) through the participation of the Head of the Biotechnology Unit, Dr. William Roca, in an experts meeting on technologies for the conservation and sustainable use of biodiversity convened by the SCBD in Mexico City in April 1994, and Dr. William Scowcroft's and

GH's participation in the First Conference of the Parties to the Convention on Biological Diversity (COP I) in Nassau, Bahamas, in November-December 1994.

COP I established a draft provisional agenda for the first meeting of its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) which included an item on *Ways and means to promote and facilitate access to, and transfer and development of technologies as envisaged in Articles 16 and 18 of the Convention*. The SCBD, who were to prepare a draft paper on the matter as input to the SBSTTA, contracted CIAT to prepare a preliminary draft. GH with the collaboration of Drs. Daniel Debouck and William Roca prepared a proposal titled *Technology Development and Exchange in Relation to the Convention on Biological Diversity* which was fully accepted by the SCBD. Thereafter, however, the Executive Secretary of the SCBD was changed and the proposal was not forwarded to the SBSTTA.

2. Shared Work

2.1. MARCH - JULY 1994

When in March 1994 CIAT's DG took leave of absence, the DDG-Finance and Administration was appointed acting DG, and together with the DDG-Research and the AD-IR he was mandated by the BOT to vigorously pursue the implementation of the BOT-approved Action Plan.

Activities immediately concentrated on three fronts

- * Pursuit of an integrated fund raising strategy, to counteract CIAT's financial erosion;
- * Improvement of staff morale which was at an all-time low; and
- * Improvement of deteriorated CIAT-NARS relations.

The first two became main activities shared among the directors. The third one is addressed elsewhere in this report.

Fund-raising strategy

The development of an integrated fund-raising strategy, to counteract CIAT's financial erosion, was led by the DDG-Finance and Administration and supported by the DDG-Research, the AD-IR and the Project Development Officer (PDO). A two-pronged approach aimed at consolidating the support of «traditional» donors and mobilizing resources from new donors.

The first objective was pursued through assertively informing key traditional donors on CIAT's strategic changes and adaptation to a rarefied funding environment. As part of this effort GH prepared a paper *CIAT, A New Model of International Agricultural Research Center for Sustainable Development*.

For the second objective CIAT, on the one hand, contracted the services of professional fund-raisers, to advise on potential new donors and how to approach them. On the other hand, the PDO systematically collected information (from published sources and through personal visits) on new «windows» of traditional donors—especially with relation to research on sustainability issues—and on «non-traditional» donors, particularly with an environmental concern. It became clear that (1) there was little scope for tapping financial resources from new donors except for relatively small grants, and (2) there appeared to be a large potential for mobilizing funds from new «windows» in traditional donor agencies, especially in relation to bilateral country-donor projects. To tap these, however, CIAT would have to change substantially its way of developing projects.

A special case of the second strategic approach were negotiations with the Colombian government which eventually led to Colombia becoming a full member of the CGIAR and making a substantial contribution to CIAT's core funds.

Improvement of staff morale

As a result of the lengthy downsizing process, staff morale was at an all-time low by March 1994 and credibility of management had slipped badly.

The spending of Directors' energy on widely sharing information on management and providing more opportunities for staff and Program Leader participation in CIAT's affairs, on the one hand, and an improvement in the CGIAR's funding environment wrought by CG-chairman Ismail Serageldin, on the other hand, contributed to staff rapidly returning to a more positive attitude.

2.2. JULY 1994 - AUGUST 1995

In July 1994 Mr. Robert D. Havener took office as Interim Director General of CIAT. He integrated the Directors team in a Directors Committee which under his guidance continued the three broad activities initiated in the previous period, namely

- * Pursuit of an integrated fund raising strategy;
- * Improvement of staff morale; and
- * Improvement of CIAT-NARS relations.

Fund-raising strategy

Negotiation with the Colombian government culminated with Colombia becoming a fully fledged donor of the CGIAR and contributing substantial funds for CIAT's core budget.

Credit for this success goes to

- * Mr. Jesús A. Cuéllar, CIAT's administrative executive officer, who most ably negotiated on CIAT's behalf with oversight by the Directors team and support from Directors and Program Leaders;
- * The relevance and credibility of CIAT's research; and, of course,
- * The vision and generosity of Colombia's authorities.

The PDO put together a database on donors (more than 150 agencies and offices) which contains information on their policies, priorities and preferences, decision-making cycle, and contact persons. This is an important aid for scientists for developing and targeting projects (part of the general strategy of getting the right projects to the right donors at the right time).

The Deputy and Associate Directors and the PDO constituted a *Project Portfolio Management Group* (PPMG) in order

- * to propose to the Director General a standard procedure for submission and prioritization of project proposals in CIAT; and
- * provide a mechanism for following up on approved proposals until prospective donors make decisions on them.

The first objective was achieved and a standard internal procedure for submission and prioritization of project proposals is now in place. Pursuit of the second objective is, of course, an ongoing task.

Improvement of staff morale

The designation of the Interim Director General, his management style, and the work of the Directors Committee under his leadership continued improving staff morale and management-staff relations.

The improvement of the CGIAR's funding environment under Chairman Serageldin's leadership further ameliorated staff motivation.

However, the outrageous kidnapping of Dr. Thomas Hargrove, Head of the Communications Unit, who was held captive during 11 months, disquieted and anguished staff, generated doubts on the management of a process that by necessity could not be transparent, and added heavily to the Directors' workload (the DG's and the DDG-FA's for managing the case; and GH's for supporting directly the

senior writer/editor who acted as head of communications in Dr. Hargrove's absence, and for some involvement in managing the case).

V. REVIEWS OF IRDS

The TCSP and then the IRDS Division were routinely submitted to review under CIAT's annual Program Review with a consistently favorable outcome.

The IRDS was also submitted to an internal in-depth review in December 1992; and it was further evaluated as part of CIAT's Fourth External Program and Management Review in October 1994 - February 1995.

1. Internal In-Depth Review

Although the review was defined as being *internal* it actually was led by an external reviewer, Dr. Burton Swanson, consultant to the BOT's Program Committee.

The IRDS Division made extensive presentations on its various activities, outputs, and achievements. The presentations were supported by a comprehensive set of documents as follows:

1. Executive Summary and Introduction (including the Division's organizational arrangement).
2. Report of the Information-Documentation Unit 1987-1992.
3. The CIAT Communications Unit: 1987-1997 and beyond.
4. Project Design for Tropical Agricultural Research and Development 1992.
5. CIAT Conferences 1987-1991; Visitors to CIAT 1989-1992.
6. Training for Tropical Agricultural Research and Development 1987-1991.
7. Development of Subregional Capacities for Training in Commodity Production Problem Solving.
8. CIAT Linkages Information System.
9. A Retrospective and Prospective View of CIAT's Activities in Institutional Development for Tropical Agricultural Research and Development.

PROARROZ = Asociación de Productores de Arroz. Argentina
PROCIANDINO = Programa Cooperativo de Investigación y
Transferencia de Tecnología Agropecuaria para la
Subregión Andina
PROClS = Programas Cooperativos de Investigación y
Transferencia de Tecnología
PROCISUR = Programa Cooperativo para el Desarrollo
Tecnológico Agropecuario del Cono Sur
PROCITROPICOS = Programa Cooperativo de Investigación y
Transferencia de Tecnología para los Trópicos
Suramericanos

R

R&D = Research and Development
RAROs = Regional Agricultural Research Organizations

S

SAC = Selection Advisory Committee
SBSTTA = Subsidiary Body on Scientific, Technical and
Technological Advice
sc = Specialized courses
SC = Search Committee
SCBD = Secretariat to the Convention on Biological
Diversity
SpanAm = Spanish-English translation software developed
by the Panamerican Health Organization (PAHO)
SUPRARROZ = Private Rice Business, Brazil

T

TCSP = Training and Communications Support Program

U

UNDP = United Nations Development Programme

W

WBS = Work breakdown structure
WLAS = World List of Agricultural Serials

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. This includes not only sales and purchases but also any other financial activities that may occur over the course of the business.

2. It is also essential to ensure that all records are properly organized and stored in a secure location. This will help to prevent any loss or damage to the data, which could have serious consequences for the business.

3. Finally, it is important to review the records regularly to ensure that they are up-to-date and accurate. This will help to identify any potential issues or discrepancies early on, allowing them to be resolved before they become a problem.

4. In addition to maintaining accurate records, it is also important to ensure that all transactions are properly documented. This includes obtaining receipts for all purchases and sales, as well as keeping track of any other relevant information.

5. It is also important to ensure that all records are properly audited. This will help to ensure that the data is accurate and that there are no discrepancies or errors.

6. Finally, it is important to ensure that all records are properly protected. This includes using secure storage methods and ensuring that only authorized personnel have access to the data.

7. In conclusion, maintaining accurate records of all transactions is a critical part of any business. It helps to ensure that the data is accurate and up-to-date, and it helps to identify any potential issues or discrepancies early on.

8. It is also important to ensure that all records are properly organized and stored in a secure location, and that they are properly audited and protected.

9. By following these guidelines, businesses can ensure that they are maintaining accurate records of all transactions, which is essential for the success of the business.

10. It is also important to ensure that all records are properly documented, audited, and protected, to prevent any loss or damage to the data.

11. In summary, maintaining accurate records of all transactions is a critical part of any business. It helps to ensure that the data is accurate and up-to-date, and it helps to identify any potential issues or discrepancies early on.

12. It is also important to ensure that all records are properly organized and stored in a secure location, and that they are properly audited and protected.

documentation functions which they were specifically mandated to assess.

On the office of the AD-IR the EPMP Report stated

•Its institutional relations role brings the IRDS office important tasks in facilitating country operations, liaising on Programme activity and providing institutional strengthening in support of this through its training, information and documentation thrusts. The office has been severely affected by the budget reductions, and its staff have shown great devotion in coping with a large workload despite many problems.

The office also has a role in supporting the convening and organization of systemwide and ecoregional initiatives which involve a range of institutions. Coordinators of these activities, as well as Programme and Project Leaders, can benefit from its support and counsel. The Panel believe it is important that they discuss their intentions with IRDS and keep it well informed of their in-country activities. Within the new organizational scheme advanced in the next chapter, the Panel hopes that the office can play a high-profile policy role in the management of the Centre's external relations with NARS (including the new actors at national level), with donors and with the CGIAR.

The Panel's assessment of Training at CIAT and of the Information and Documentation Unit was as follows:

•In the context of a Board and Management decision to try to maintain CIAT's human research capability in place, the erosion of training support and funds has inevitably had an impact on the volume of training supplied by CIAT. Against this background the strategy to develop subregional and national training capacity has been effectively implemented. An external evaluation on behalf of IDB, the donor, while acknowledging the duration of the project was too short, said:

•CIAT and the Bank should be proud to have jointly fostered a stellar example of a learning strategy

undergirding the technology adaptation and diffusion process.*

The Panel believes that CIAT has, after a series of adjustments, successfully accommodated its training strategy to its evolving circumstances. It would like to emphasize that the subject matter focus of training should be demand-driven, albeit of course within the CIAT range of specializations. The consortia being pursued with regional partners should be organized to articulate regional needs. Within the consortia arrangements the training needs of small countries, particularly those with large numbers of poor farmers, should be protected. The interface of researchers with small farmer communities is essential to technology design for their circumstances, but remains weak in most countries. Training of trainers in community dynamics and participatory methods remains important.

The Panel commends the increase in graduate students at the Ph.D. level over the last five years. It believes this offers valuable leverage to increase CIAT's research output as well as providing important experience to the next generation of researchers. The Panel encourages CIAT to continue increasing numbers of developing country Ph.D. students and urges the Centre to seek finance where this is a bottleneck.

The [Information and Documentation] Unit has revolutionized CIAT's organization and dissemination of scientific information over the last five years, despite shrinking resources. The task continues. The connection with Internet, together with the CGIAR-wide information initiative brings new challenges.

In fact, the paucity of references to IRDS in the EPMR Report was explained by the EPMR chairman, Mr. Declan Walton, as being complimentary, in the sense that more comments were not found to be necessary.

ACRONYMS AND ABBREVIATIONS

A

- AD-IR = Associate Director, Institutional Relations
AGLINET = Agricultural Libraries Network
AGRIS = Agricultural Research Information System, FAO
AROs = Advanced Research Organizations

B

- Bitnet = Because It's Time Network (Inter-University
Communications Network)
BOT = Board of Trustees

C

- CATIE = Centro Agronómico Tropical de Investigación y
Enseñanza, Costa Rica
CCNA/APROSCHELLO = Consejo Consultivo Nacional del
Arroz/Asociación de Productores de Semilla
Certificada de los Llanos Occidentales, Venezuela
CD-ROM = Compact Disc Read Only Memory
CGIAR = Consultative Group on International Agricultural
Research
CGNET = CGIAR Electronic Network
CIRAD = Centre de Coopération Internationale en
Recherche Agronomique pour le Développement
CIAT = Centro Internacional de Agricultura Tropical
COP I = First Conference of the Parties to the Convention
on Biological Diversity
CRIN = Caribbean Rice Improvement Network

D

- DDG = Deputy Director General
DDG-R = Deputy Director General-Research
DG = Director General

E

- EngSpan = English-Spanish translation software developed by the Panamerican Health Organization (PAHO)
- EPMR = External Program and Management Review, Commissioned by the Technical Advisory Committee to the CGIAR

F

- FAO = Food and Agriculture Organization of the United Nations
- FC = Federico Cuevas
- FEDEARROZ = Federación Nacional de Arroceros, Colombia
- FLAR = Latin American Fund for Research on Irrigated Rice

G

- GH = Gerardo E. Häbich

I

- IARCs = International Agricultural Research Centers
- ic = Introductory research and production courses
- ICA = Instituto Colombiano Agropecuario, Colombia
- ic+it = Introductory research and production courses + individualized training
- ICRAF = International Centre for Research in Agroforestry, Kenya
- IDB = Interamerican Development Bank
- IDSP = Institutional Development Support Program
- IFPRI = International Food Policy Research Institute, U.S.A.
- IICA = Instituto Interamericano de Cooperación para la Agricultura, Costa Rica
- ITA = International Institute of Tropical Agriculture, Nigeria
- INIA = Instituto Nacional de Investigación Agropecuaria, Uruguay
- INTA = Instituto Nacional de Tecnología Agropecuaria
- Internet = International Network of Computers

IPGRI = International Plant Genetic Resources Institute,
Italy
IRDS = Institutional Relations and Development Support
IRGA = Instituto Riograndense do Arroz, Brazil
ISNAR = International Service for National Agricultural
Research, The Netherlands
It = Individualized training

L

LAC = Latin America and Caribbean
LFA = Logical framework analysis
LRS = Luis R. Sarint

M

M.Sc. = Master of Science
Micro CDS/ISIS = Bibliographic database software developed
by the United Nations Educational, Scientific
and Cultural Organization (UNESCO)
MW = Mark Winslow

N

NARIs = National Agricultural Research Institutes
NARDS = National Agricultural Research and Development
System(s)
NARS = National Agricultural Research System(s)
NGO = Non Governmental Organization
Nexus = Search Interface for Micro CDS/ISIS

O

ODA = Official development assistance

P

PAHO = Panamerican Health Organization
PDO = Project Development Office(r)
PE = Partnership Enterprise
Ph.D. = Doctor of Philosophy
PPMG = Project Portfolio Management Group

PROARROZ = Asociación de Productores de Arroz, Argentina
PROCIANDINO = Programa Cooperativo de Investigación y
Transferencia de Tecnología Agropecuaria para la
Subregión Andina
PROCIs = Programas Cooperativos de Investigación y
Transferencia de Tecnología
PROCISUR = Programa Cooperativo para el Desarrollo
Tecnológico Agropecuario del Cono Sur
PROCITROPICOS = Programa Cooperativo de Investigación y
Transferencia de Tecnología para los Trópicos
Suramericanos

R

R&D = Research and Development
RAROs = Regional Agricultural Research Organizations

S

SAC = Selection Advisory Committee
SBSTTA = Subsidiary Body on Scientific, Technical and
Technological Advice
sc = Specialized courses
SC = Search Committee
SCBD = Secretariat to the Convention on Biological
Diversity
SpanAm = Spanish-English translation software developed
by the Panamerican Health Organization (PAHO)
SUPRARROZ = Private Rice Business, Brazil

T

TCSP = Training and Communications Support Program

U

UNDP = United Nations Development Programme

W

WBS = Work breakdown structure
WLAS = World List of Agricultural Serials