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CIAT 1996 Program Plans and Funding Requirements

Including 1994 Outcome,
and 1995 Program and Working Budget

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture

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April, 1995

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Contents

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The present document is CIAT's program and budget request for 1996. The documents that establish the relevant planning framework are:

1) CIAT Medium-Term Plan 1993-1998;

2) The "Action Plan" as summarized and operationalized in CIAT's "Funding Request for 1995"; and

3) Summary Record of TAC 66, 13-24 March 1995, Lima, Peru, with specific reference to the "Overview of TAC's 1996 Core Funding Recommendations."

I. Overview

In September 1992, CIAT submitted its Medium-Term Plan for 1993-1998 to TAC and the CGIAR. In the course of 1993, it became evident that the financial resources to execute the core program as projected in the MTP would not be available. CIAT then introduced the "Action Plan" which laid out a series of changes in the organization and resource deployment patterns that would enable the Center to pursue the essential goals as presented in the Strategic Plan and the MTP, but with less core resources. The Action Plan was implemented in the course of 1994.

In the same year, the CGIAR set a funding target for CIAT of $27.5 million. This included the necessary core resources to continue to implement the Action Plan, plus the incorporation into core of core-type activities previously labeled as "complementary" activities. This funding target was to be applied in 1994, 1995, and 1996, i.e., with no automatic inflation adjustment.

With these core resources, in 1994 CIAT deployed a total of 76 senior staff (plus 4 supported by complementary resources) to execute its program as follows:

Senior staff positions in 1994:

	Core	Comple-mentary	Total
Research	66	4	70
Research Support	1	---	1
Inst. Developm. Support	5	---	5
Management & Admin.	4	---	4
Total	76	4	80

In 1994, the core budget supported 1,118 support staff positions (an additional 50 support staff positions were financed with complementary funding).

In 1995, assuming that the CGIAR will be in a position partially to make up for the revaluation of the Colombian Peso (see discussion below), the work program as approved by the CGIAR in the latter half of 1994 can be continued, with the same deployment of senior staff as in 1994.

The budget request for 1996 is based on the TAC recommendation for core funding of CIAT, and proposes to continue the research program presented in the Action Plan.

Revaluation of the Colombian Peso: A Special Issue for CIAT

The funding target of $27.5 million is expressed in current dollars. Therefore, all Centers, including CIAT, are expected to absorb inflation in their 1995 and 1996 core budgets. It can be assumed that, on average, the inflation as experienced in OECD countries will apply. That inflation rate is approximately 3.0% per annum.

1995 Financial Year. Unfortunately, in the case of CIAT, the continuing revaluation of the Colombian Peso is translating into cost increases that are significantly above the OECD rates. Specifically, the cost increases in the 1994/95 period were 12.5%. If it is to be assumed that CIAT should absorb cost increases equivalent to the OECD rates, the cost increases that must be built into the funding level for 1995 is 9.5%.

Keenly aware that the CGIAR is not in a position to make up cost increases of such a magnitude, CIAT is making an extraordinary effort to go beyond absorbing 3.0% of cost increases as described above. In fact, through a unilaterally imposed further cost

cutting and personnel reduction plan, CIAT is forcing cost reductions in 1995 amounting to US$2.4 million, or 4.9% of its 1994 budget base.

CIAT Management and the CIAT Board have carefully analyzed the implications of these cost cutting measures and concluded that the Center cannot absorb cost increases beyond 4.9% without doing irreparable damage to the Action Plan (which, by itself, was an effort to operationalize the Medium-Term Plan at the lowest possible cost). Therefore, CIAT is implementing a 1995 working budget of $29,600,000, which is $2,100,000 above the proposed funding level in 1995. CIAT is making a special case to the Finance Committee for an adjustment in its 1995 funding base of $2,100,000, so that the Center may be able to execute its 1995 work program without incurring a deficit.

1996 Financial Year. Based on the best estimates available from government, the financial community, and industry as to the behavior of the Colombian Peso vis-à-vis inflation in the 1995/1996 period, we are estimating that the cost increases for CIAT will be 7%. (The same projections show that the revaluation of the Colombian Peso will have run its course by the end of 1996.) CIAT is making plans to absorb 3% of the projected cost increases in 1996 (i.e., the expected inflation rate in OECD countries). This will mean, however, that for 1996, the funding base will need to be adjusted by $1,200,000 (4% of the 1995 funding base) in order to make up for the cost of the revaluation effect.

The Table on top of page 4 summarizes the financial information as presented here.

NOTE: The Tables at the end of this document are based on the CGIAR (1995) and TAC (1996) core funding recommendations, and therefore do not contemplate adjustments for the cost of the revaluation of the Colombian Peso. Accordingly, the Tables show the cost of that part of the revaluation effect which CIAT is unable to absorb as operating deficits in 1995 and 1996.

Projected Deficits in 1995 and 1996, Due to Revaluation of the Colombian Peso

	1994	1995			1996		
	Actual	CGIAR Approved	With cost of inflation and revaluation [1]	Minimum amount needed [2]	TAC Recommended	With cost of inflation and revaluation [3]	Minimum amount needed [4]
Research	20,659		23,770	22,004		23,544	22,884
Research Support	951		1,104	1,021		1,092	1,062
Institutional Development	2,507		2,924	2,703		2,892	2,811
Management/Administration	6,309		4,813	4,473		4,786	4,652
Total Operations	30,426	28,850	32,611	30,201	28,109	32,314	31,409 [5]
Self-generated Income	2,220	1,350	601	601	609	609	609
From CGIAR donors	28,242	27,500	27,500	27,500	27,500	27,500	27,500 [5]
Surplus or (Deficit)	36		(4,510)	**(2,100)**		(4,205)	**(3,300)**

1/ 12.5% over 1994
2/ 7.6% over 1994
3/ 7.0% over "Minimum amount needed in 1995"
4/ 4.0% over "Minimum amount needed in 1995"
5/ Does not include $300,000 for System-wide initiative on SWNM

II. CIAT TODAY

CIAT's Mission and Strengths

By using its research and technology development skills, CIAT endeavors to help developing countries achieve agricultural growth, distribute the resulting benefits equitably to alleviate poverty, and maintain or even enhance the agricultural resource base. To fulfill this mission, CIAT draws on three areas of strength, which together characterize the Center.

1. *Commodities:* The Center researches four commodities for which it has either a global mandate (beans, cassava) or a restricted mandate (tropical pastures for acid, infertile soils; rice for Latin America and the Caribbean). With appropriate technologies, these four commodities hold enormous potential for contributing to sustainable agricultural development.

2. *Agroecosystems:* Through its more recent commitment to research on the forest margins, hillsides, and savannas of Latin America, the Center is gaining expertise on vital resource management issues of these agroecosystems.

3. *Strategic research competences:* CIAT's expertise in a wide range of agricultural and related disciplines enables it to conduct path-breaking research on themes that cut across crops and agroecosystems.

A major challenge for CIAT is to generate new interest and commitment among research partners and donors to exercise these strengths in a coordinated and complementary fashion. The Center must actively design research around links between its mandate crops and other species, and among commodity, resource management, and land use issues.

Research Programs

CIAT has six research programs:

- Beans
- Cassava
- Rice
- Tropical Forages
- Hillsides
- Tropical Lowlands

Although this program structure reflects a continuing commitment to the Center's crop mandates, it has little meaning unless commodity research extends from conservation and utilization of genetic resources to networking with research partners and clients.

The investment of donors' resources in these activities is justified by the importance of (1) beans, cassava, and rice in the livelihoods and diets of the poor; (2) tropical forages as an essential input of livestock production and as a key component of sustainable farming systems; and (3) hillsides and tropical lowlands as agroecologies in Latin America.

Starting in 1994, all activities of CIAT's research programs are being restructured along project lines. Each program delineates its research in terms of *project areas*, which are subdivided into projects and subprojects.

Scientific Resource Groups

Through its scientific resource groups (SRGs), CIAT can effectively encourage innovation within the various scientific disciplines that contribute to its mission.

Each group comprises the Center's scientific expertise in one of five areas and their respective research units. The five groups, their respective units, and overall objectives are:

1. **Genetic Diversity (Genetic Resources Unit).** Collect, conserve, analyze, evaluate, and distribute genetic diversity within and among selected species to support germplasm development. Help other institutions in Latin America characterize, conserve, and monitor a wide range of plant genetic diversity.

2. **Germplasm Development (Biotechnology Research Unit).** Identify sources of useful genetic variability; assemble and recombine this variability into pools and complexes for variety development (using both conventional and biotechnology approaches); devise efficient selection techniques for rapid enrichment with desirable genes; and promote networks for disseminating improved germplasm.

3. **Disease and Pest Management (Virology Research Unit).** Provide tools for detecting and monitoring pests and pathogens, gene complexes that can provide durable resistance, and biological control agents. Provide new knowledge on resistance mechanisms and the dynamic relationships among pests, diseases, natural enemies, and their plant hosts.

4. **Production Systems and Soil Management (Soils Research Unit).** Develop sustainable systems that combine plant species to increase productivity, maintain adequate soil cover, cycle nutrients efficiently, and increase soil organic matter.

5. **Land Management (Geographic Information Systems).** Analyze current patterns of land use and develop tools for designing sustainable land management strategies, including analysis of community action and government policies.

The expertise of the first three groups relates mainly to CIAT's mandate commodities and their wild relatives. But, in its role as a convening center for ecoregional research, where its work cuts across crops and agroecologies, the Center will apply, in selected cases and with the collaboration of national partners, its capabilities to the integration of other species in sustainable farming systems.

The Center will step outside its commodity mandates only where this would enhance its contributions to resource management and related work in the hillside and lowland tropical environments of Latin America. In Africa and Asia, its commodity research will focus exclusively on beans, cassava, and tropical forages.

The fourth and fifth scientific resource groups will focus primarily on forest margins, hillsides, and savannas in Latin America, but should also provide significant input for commodity programs and the other scientific resource groups.

Scientific resource groups are new to CIAT. Initially, they were established to provide continuity and cohesiveness to the work of scientists operating in given areas of competence across different research programs. When implementing the *Action Plan*, however, scientific resources groups quickly became important sources of project identification and/or generation. In fact, the projects identified by the scientific resources groups contributed heavily to the mandates and objectives of CIAT in general, and to the objectives of different research programs in particular. Hence, the scientific resources groups were given the opportunity to formulate, in conjunction with the research programs, their own research projects. While the specific research units attached to the scientific resources groups already have ongoing research projects, the scientific resources groups, as yet, do not have their own research projects approved and financed.

Projects: The Hub of Activity

CIAT's experience shows that agricultural research can no longer be organized around broad-based research programs. Not only are such programs inflexible vis-a-vis constantly changing external demands and opportunities, but their outputs are also

more difficult to document and highlight in a world that continually looks for results, feedback, and proof of relevance. Donors are increasingly interested in funding well-designed projects that generate tangible outputs with measurable impact in finite periods of time. In turn, by structuring its research along project lines, CIAT can maintain a highly flexible and dynamic research program that can respond to the expectations and priorities expressed by the CGIAR, CIAT's national and regional research partners, and donors and potential investors in CIAT's overall research program.

As the *Action Plan* was being implemented, projects were identified and developed as centers of activity, resource allocation, and accountability. But, for the sake of organization and accountability, each project is assigned to the research program or scientific resource group to which it most contributes.

This *modus operandi* guarantees a high degree of interdependence and fluidity among projects. At the same time, the Center is assured that the sum total of the projects directly contributes to the mandates and objectives of each research program and SRG-and therefore to the overall mission and objectives of CIAT.

By organizing research along project lines, CIAT introduced a total budget approach to funding these projects. Budgets for core and complementary projects are integrated, thus enabling staff and management to better ascertain the real cost of any activity; report expenditures for auditing; identify inefficiencies in resource utilization and constraints on outputs; and assess project performance.

Relationships between Core and Complementary Funding

CIAT scientists generate outputs related to specific crops and agroecosystems through projects that are "housed" in six research programs and five scientific resource groups. Most financial resources are assigned or attributed to projects, so that the Center's total budget is the sum of resources assigned to all projects together, with some central costs that cannot readily be attributed to projects (e.g., administration and maintenance).

With projects as its key operational and budgetary unit, CIAT is able to achieve full transparency and accountability in its priorities, outputs, expenditures, and income. This enables the CGIAR, other donors, and national partners to see clearly how resources are deployed and the purposes for which they are used. Core resources provided by the CGIAR constitute the main part of CIAT's budget. These resources are assigned to projects according to priorities determined with the CGIAR and TAC. These priorities form the backbone of CIAT's project structure and these resources are its lifeblood.

But the project structure also enables the Center to attract other donors and investors. Priority is placed on attracting additional funding for outputs that contribute directly to the achievement of CIAT's core goals within its CGIAR mandate. Complementary funds are also sought to speed up and extend the scope of application of the Center's core outputs (e.g., through regional germplasm networks).

Complementary resources can also be used to produce other complementary outputs and services demanded by CIAT partners, especially in Latin America and the Caribbean, where the Center fulfills an ecoregional function. These complementary outputs are closely related to CIAT core outputs and capacities (e.g., training in molecular markers or GIS methods). The resources generated to deliver these outputs allow CIAT to expand the capacity of its scientific resource groups (e.g., through extra visiting scientists or postdoctoral fellows).

Thus, CIAT's project structure enables it to merge funds from a variety of sources into a single total budget. These resources are deployed synergistically to produce an interrelated set of core and complementary outputs. All outputs derive from CIAT's core capacities, which expand or contract according to the resources available.

III. PROGRAM HIGHLIGHTS

Germplasm Development

BEANS. The core collection of bean germplasm has moved fully from a development and testing stage to maturity as a research tool. In 1994, evaluations were conducted for seed protein types, tolerance to low P and Mn toxicity, adaptation to water deficit, and temperature response of phenology.

The tragic war in Rwanda lead to the Seeds of Hope initiative. This major collaborative effort between IARCs, NGOs and foreign aid programs has the duel goals of helping relief efforts provide Rwandan farmers with seed stocks of bean and other crops, while protecting the genetic diversity in the region, and of understanding how genetic diversity is affected by major catastrophes and how diversity should be managed in future relief efforts.

Confirming our continued commitment to improvement of bean production through plant breeding, over 15 bean cultivars derived from CIAT materials were released by NARS in 1994.

CASSAVA. New germplasm of cultivated cassava and *Manihot* species were incorporated into the world collection this year. Molecular markers were used to confirm putative duplicates in the germplasm collection, suggested by prior morphological and isozyme characterization, resulting in a reduction of the total number of accessions to be maintained in the field gene bank. Two types of molecular markers, RAPDs and RFLPs from DNA probes developed at CIAT, were used to construct the first genetic map of cassava, based on their segregation in an intraspecific cross.

Fermented cassava starch has proven to be the unique in terms of conferring expansion properties to bakery products. This cassava characteristic could open up important niche markets for starch in dietary and gluten-free products.

Progress was made toward understanding the basis of cassava's ability to maintain high photosynthetic rates under conditions of drought and temperature stress. High activity of photosynthetic enzymes and unusual anatomic features, possibly related to xerophytic adaptation, were discovered in two *Manihot* species.

The global cassava needs assessment exercise that was initiated in 1993 has been completed. This study has quantified the major constraints faced by cassava farmers and

processors by continent and by ecosystem. This information is in the process of being further reviewed by national program collaborators.

TROPICAL FORAGES. In 1994, new accessions with potential for pasture, fodder, soil cover, and erosion barriers were identified for the mid-altitude hillsides, savannas, and forest margins, MCAC and Southeast Asia within the genera *Arachis, Cratylia, Centrosema* and *Brachiaria.* 100 accessions of the promising new forage species *Arachis pintoi* are now available in Brazil, 60 of which are duplicated at CIAT. Superior accessions of *Arachis pintoi* were identified for the humid tropics, dry season savannas and Southeast Asia.

An international workshop was held on the major tropical forage grass genus *Brachiaria.* Coarse mapping of the apomixis gene was achieved, and sources of resistance to foliar blight were identified.

Interspecific differences were demonstrated in acquisition and utilization of N, P and Ca. Differences in Ca acquisition were shown between *Brachiaria* species. Greater Ca uptake was found to occur in grass-legume than grass-alone pastures.

Funding was obtained to develop a forage research and development network in SE Asia.

RICE. A watershed event during 1994-early '95 was the creation of an association of private and public-sector rice institutions, farmer cooperatives and industries to fund international irrigated rice research. The Fondo Latinoamericano de Arroz de Riego (FLAR) is the first organization in the developing world self-fund international agricultural research on a food crop. It should place Latin American rice improvement on a more sustainable long-term path, since the benefits derived from research will now feed the research itself, as direct beneficiaries take its control and responsibility. CIAT was instrumental in the process that gave life to FLAR.

A major triennial meeting took place during 1994, the " IX International Rice Research Conference for Latin America." Jointly coordinated by CIAT and EMBRAPA, the meeting was attended by 297 participants from 21 countries. A course-workshop was also held at CIAT to share CIAT's knowledge and expertise on rice anther culture, and to stimulate closer collaboration between tissue culturists and breeders.

The preparation of cDNA libraries and the molecular characterization of rice hoja blanca virus has led to the design of novel virus-resistant strategies to genetically engineer commercially-grown rice cultivars.

We developed a methodology to derive economic thresholds for multi-species weed infestations in direct-seeded rice, with options to remove some site specificity constraints.

Such thresholds are the key to unlock IPM for weeds in rice, and could reduce herbicide applications by up to 30%.

Resource Management

HILLSIDES. Spatial autocorrelation of soil chemical properties across contrasting land uses stratified by environment showed autocorrelation for many properties, notably C and Al and micronutrients across contrasting land use types. The results of this study will be used to define representative properties for different land use mapping units.

A prototype, decision-support system for land use planning in the hillsides was tested, linking farmer decision-making with crop models which simulate the effect of farmer decisions. Progress was made in assessing the applicability with available data of simulation models to assess degradation processes, such as run-off and nitrate leaching.

The effects of changes in land use on degradation processes at the watershed level have been modeled for a pilot catchment area, determining consequences of plot-level effects for degradation at the watershed scale. This research will provide tools to be tested with CIPASLA, the local consortium of institutions in Rio Ovejas, Colombia. CIPASLA conducted joint projects testing participatory approaches to soil conservation which showed a five-fold increase in adoption of conservation barriers in the pilot micro catchment area in Río Ovejas due to farmer participation in the adaptive research.

A case study of farmer decision-making in the Atlantic littoral hillsides of Honduras, showed that itinerant agriculture was more sustainable than previously believed. Forest-to-pasture conversion was more a consequence of the low productivity of dairy farming in the lowlands, which leads to the colonization of steep slopes for pasture. Local operational committees, the project's mechanism for interinstitutional collaboration in watershed sites, were set up in Honduras, and Nicaragua. Training continued to national programs in Brazil, Ecuador, Bolivia and Peru.

TROPICAL LOWLANDS. An adoption study of pasture-based technologies in the Colombian savanna showed that 98% of sample farmers had planted improved pastures, covering 17% of the surveyed area. As natural increase in herd size occurs, farmers appear to be accepting improved grass pastures as an alternative to overgrazing.

Extensive studies were conducted during 1994 on the floristic composition of native savanna, which constitutes the main (>70%) land use form of the region. These data have been georeferenced, and extensive soil and plant tissue analyses were conducted. On the whole, 173 plant species were identified belonging to 40 different families.

An excellent indicator of positive changes in the biological properties of savanna oxisols appears to be soil microbial biomass, to the extent that nutrient cycling is very tightly linked to its turnover rate. In fact, P flux through microbial biomass, at least under grass-legume pastures (12-34 kg ha^{-1} $year^{-1}$), indicates that this could be a major pathway of P cycling in these soils.

Investigations of deep-rooted germplasm that can effectively sequester carbon at depth, and possibly affect the exchange of other greenhouse gases as well, showed exciting results. Introduced grass and grass-legume pastures were found to make a major contribution to soil organic matter to a depth of at least 100 cm in both on station and on-farm experiments. As a minimum it was estimated that a three year old *B. dictyoneura* pasture contributes 30 t C ha^{-1} in 3 years, and that the addition of a legume significantly increases the amount of carbon sequestered. A C-sequestration workshop took place with the participation of several NARs and international institutions, to develop an interinstitutional project on the subject for submission to potential donors.

LAND MANAGEMENT. CIAT was invited to become, and is now, one of a selected few "UNEP Collaborating Centres for International Environmental Assessment, Reporting and Forecasting". This has already opened new channels of collaboration such as with the Dutch RIVM.

The CIAT climate database covers the whole of the world tropics. It has been built over the last 17 years and now contains long term climatic normals for 9,864 stations in Latin America, 5,536 in Africa and 3,721 in Asia. Recently it was given a major update, adding data for almost 2,000 additional stations. Updating and expansion of the GIS hardware and software as well as the database software continued in 1994.

Two Wild/Leitz model 200 dual frequency P code Global Positioning Satellite (GPS) systems were acquired. These will allow the Unit to perform control surveys for satellite images and digital ortho-photography, as well as detailed project mapping.

IV. FINANCIAL AND BUDGETING INFORMATION

For details of the financial years 1993, 1994, 1995, and the 1996 funding request, see Tables 1 to 17 at end of publication.

1994 Financial Year

1. Core

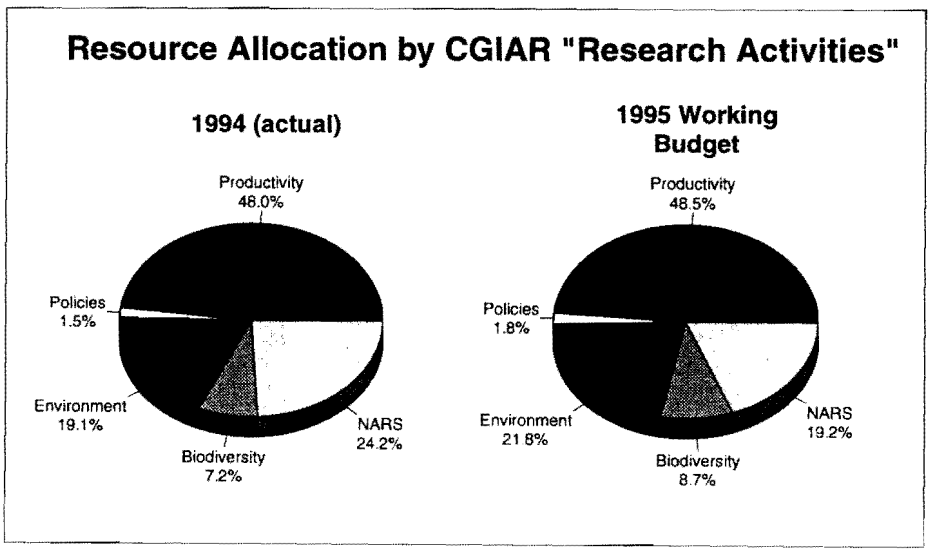
As shown on Table 1, core income from donors amounted to $28,242,000. With self-generated income of $1,585,000, and indirect cost recovery of $635,000 the total amount available for core operations was $30,462,000.

With core expenditures amounting to $30,426,000, a positive balance of $36,000 was achieved. Expenditures for the core program were as follows:

Core expenditures by area:

	US Dollars	Percent
Research	20,659,000	68
Research Support	951,000	3
Inst. Developm. Support	2,507,000	9
Management and Admin.	6,309,000	20

In terms of the "activities" structure as defined by the CGIAR, expenditures were as follows:



2. Complementary

Complementary funding amounted to $4,747,000 (see Table 2). When taken into consideration that in 1994, an amount of $1,918,000 of complementary activities was incorporated into the core program, it is evident that in 1994, funding for complementary activities was $1,877,000 (39%) higher than in the previous year.

1995 Program and Working Budget

1. Core

The 1995 CGIAR-approved core funding level for CIAT is $27,800,000[1]. Together with indirect cost recovery of $601,000, total availability of funds is projected at $28,401,000. With core expenditures projected at $30,501,000, CIAT anticipates a deficit of $2,100,000. As mentioned in the introduction, the deficit projected here represents that portion of the costs to CIAT of the revaluation of the Colombian Peso which CIAT is unable to absorb. A special case is being presented to the Finance Committee to help CIAT deal with this projected shortfall.

The allocation of resources in 1995 is as shown in the attached tables.

2. Complementary

In 1995, CIAT expects to execute complementary activities amounting to some $5,160,000. A number of special projects have been, or are in the process of being submitted to donor agencies. Depending on the approval rate of these projects, additional complementary funds will become available in the course of 1995.

[1] Includes $300,000 for EPMR.

1996 Request

1. Core

The 1996 budget request is comprised of two components: (a) the recasting of the 1995 program and budget for 1996; and (b) the development of the globally defined System-wide initiative on Soil, Water and Nutrient Management (SWNM).

Composition of 1996 Budget Request

Requirements for core program in 1995:	$30,501,000
Subtractions:	
- EPMR 1995	($300,000)
- Irrigated Rice Breeder (see explanation below)	($256,000)
- CIAT-wide reductions in operating expenditures	($905,000)
Additions:	
+ Joint Venture with Private Sector in Irrigated Rice (see explanation below)	$256,000
+ System-wide Initiative on Soil, Water and Nutrient Management (as per TAC recommendation)	$300,000
+ Inflation (including revaluation of Colombian Peso) in 1996 over 1995	$2,113,000
Requirements for core program in 1996:	**$31,709,000**

Self-generated income, including indirect cost recovery, is projected at $609,000. As per the TAC recommendation, **income from CGIAR donors is projected at $27,800,000**. Therefore, 1996 expenditures are projected to be $3,300,000 above income. This difference represents that portion of the cost to CIAT of the revaluation of the Colombian Peso which CIAT is unable to absorb. A special case will be presented to the Finance Committee to assist CIAT in dealing with this extra inflation cost.

Explanation of Proposed Programmatic Changes

Irrigated Rice in the Latin American Region. The Board of Trustees of CIAT accepted a proposal by Management to seek to re-conceptualize the form by which the irrigated rice sector of Latin America would be served by technology generation efforts at the regional and international level. This entails the organization of the rice producing sector of the region (including the public, semi-public and private sector) into a region-wide cooperative endeavor that will provide a priority-setting mechanisms for rice research, as well as financial resources for the execution of the technology generation efforts. CIAT's participation in this effort is limited to providing an organizing mechanism to catalyze and promote the initiative. This mechanism is represented by a position for a senior scientist with a background in economics, rice production and business development to catalyze and promote the irrigated rice initiative.

This organizing mechanism is proposed to be financed by eliminating from core support a senior staff position for irrigated rice breeding.

The EPMR of CIAT has paid close attention, and provided strong support to CIAT's efforts in providing leadership for an integrated joint venture with the Latin American rice industry and to develop management experience in implementing long term linkages with the private sector.

2. Complementary

Currently existing contracts with special project donors amount to $2,944,000 of complementary activities. This sum is expected to increase in the course of 1995 and 1996 as additional special project-funded activities come on stream.

TABLES

Table 1. Funding requirements by Programs and Units: Amounts for core activities in 1993, 1994, 1995, and Budget Request 1996. (SYs = Senior Staff years; thousands of current US dollars).

	Actual		1995 Budget		1996 Budget request	Changes over 1995 estimate	
	1993	1994	Approved	Estimate		$'000	%
Operations							
Research Programs							
Beans	4,033	4,705	4,818	4,762	4,952	190	4
Cassava	2,660	3,687	3,802	3,857	4,011	154	4
Rice	1,735	2,050	2,058	2,081	2,164	83	4
Tropical Forages	2,936	2,940	2,869	2,795	2,907	112	4
Forest Margins	218	-	-			-	-
Hillsides	591	1,038	1,610	1,574	1,637	63	4
Tropical Lowlands	1,481	2,331	2,143	2,110	2,194	84	4
Research Units							
Biotechnology	574	715	726	706	734	28	4
Virology	438	549	575	569	592	23	4
Genetic Resources	676	780	907	894	930	36	4
Land Management	850	932	1,490	1,551	1,613	62	4
Impact Assessment	92	336	404	427	444	17	4
Research Management							
Research management	438	466	451	451	469	18	4
Strategic research initiatives	178	55	113	116	121	5	4
Scientific Resources Groups	-	75	119	111	116	5	4
Total research	**16,900**	**20,659**	**22,085**	**22,004**	**22,884**	**880**	**4**
Research Support							
Research services	495	73	103	100	104	4	4
Field operations	1,027	60	195	195	204	9	4
Carimagua	539	450	387	381	396	15	4
Information management	605	265	231	287	298	11	4
Biometry support	187	-	-	-	-	-	-
Visiting scientists and postdoctorals	99	103	59	58	60	2	3
Total research support	**2,952**	**961**	**975**	**1,021**	**1,062**	**41**	**4**
Institutional Development Support							
Linkages	224	258	311	308	320	12	4
Training and conferences	797	622	1,033	839	873	34	4
Information and documentation	586	688	663	653	679	26	4
Publications	462	417	436	431	448	17	4
Bussisness development	438	522	516	472	491	19	4
Total institutional development	**2,507**	**2,507**	**2,959**	**2,703**	**2,811**	**108**	**4**
Management and administration							
Board of Trustees	164	268	273	269	280	11	-
Central administration	2,146	2,618	2,200	2,232	2,321	89	-
Central services	4,496	3,423	2,008	1,972	2,051	79	4
Total management and administration	**6,806**	**6,309**	**4,481**	**4,473**	**4,652**	**179**	**4**
Subtotal operations	**29,165**	**30,426**	**30,500**	**30,201**	**31,409**	**1,208**	**4**
Surplus or (Deficit)	(1,019)	36	(1,650)	(2,100)	(3,300)	(1,200)	-
Total operations	**28,146**	**30,462**	**28,850**	**28,101**	**28,109**	**8**	**-**
Self-generated income							
Investments	2,251	1,515	650	-	-	-	-
Complementary cost recovery	612	635	600	601	509	(92)	(15)
Other (sales, etc.)	21	70	100	-	100	100	-
Total self-generated income	**2,884**	**2,220**	**1,350**	**601**	**609**	**8**	**1**
Total operating requirements	**25,262**	**28,242**	**27,500**	**27,500**	**27,500**	**-**	**-**
System-wide initiatives							
Soil, water, and nutrient management	-	-	-	-	300	300	-
EPMR	-	-	300	300	-	(300)	-
Total funding requirements	**25,262**	**28,242**	**27,800**	**27,800**	**27,800**	**-**	**-**

Table 2. Funding requirements by Programs and Units: Amounts for complementary activities in 1993, 1994, 1995, and Budget Request 1996. (SYs= Senior Staff years; thousands of current US dollars).

	Actual		1995 Budget		1996 Budget	Changes over 1995 estimate	
	1993	1994	Approved	Estimate	request	$'000	%
1. Operations							
Research Program							
Beans	1,850	844	1,004	903	740	(163)	(18)
Cassava	1,163	937	709	1,028	330	(698)	(68)
Rice	227	152	140	44	34	(10)	(23)
Tropical Forages	146	87	9	296	500	204	69
Forest Margins	24	-	-	-	-	-	-
Hillsides	148	338	340	522	264	(258)	(49)
Tropical Lowlands	68	959	341	700	101	(599)	(86)
Research Units							
Biotechnology	-	330	267	307	157	(150)	(49)
Virology	-	1	-	-	-	-	-
Genetic resources	10	-	-	-	-	-	-
Land Management	-	414	-	352	348	(4)	(1)
Impact Assessment	-	36	-	78	-	(78)	(100)
Total research	**3,638**	**4,098**	**2,810**	**4,230**	**2,474**	**(1,756)**	**(42)**
Institutional Development Support							
Training and conferences	398	162	408	71	70	(1)	(1)
Bussiness development	-	-	-	249	-	(249)	(100)
Total institutional development	**398**	**162**	**408**	**320**	**70**	**(250)**	**(78)**
Research Support							
Farmer participatory research	77	-	-	-	-	-	-
Total research support	**77**	-	-	-	-	-	-
Contingencies	-	-	-	-	-	-	-
Total operations	**4,111**	**4,260**	**3,218**	**4,550**	**2,544**	**(2,006)**	**(44)**
Overhead	452	349	340	460	250	(210)	(46)
Total operations	**4,563**	**4,609**	**3,558**	**5,010**	**2,794**	**(2,216)**	**(90)**
2. Capital	225	138	-	150	150	-	-
3. Total funding requirements	**4,788**	**4,747**	**3,558**	**5,160**	**2,944**	**(2,216)**	**(43)**

Table 3. Research agenda - Research and research-related expenditures: Amounts for core activities in 1993, 1994, 1995 and Budget Request 1996. (SYs = Senior Staff years; thousands of current US dollars).

Research Activities	Actual		1995 budget		Budget request	Changes over 1995 estimate	
	1993	1994	Approved	Estimate	1996	$' 000	%
1. Increasing Productivity							
1.1 Germplasm enhancement and breeding	9,332	6,050	6,618	7,152	7,438	286	4
1.2 Production system development and management							
1.2.1 Crop and Cropping Systems	3,792	6,403	5,185	5,863	6,098	235	4
1.2.2 Livestock and Livestock Systems	437	2,125	3,263	1,640	1,706	66	4
Total activity 1	**13,561**	**14,578**	**15,066**	**14,655**	**15,242**	**587**	**4**
2. Protecting and Environmental							
Eco-system conservation and management	**5,104**	**5,798**	**6,131**	**6,580**	**6,843**	**263**	**4**
3. Saving Biodiversity							
Germplasm collection, conservation, characterization and evaluation	**2,187**	**2,232**	**1,708**	**2,617**	**2,721**	**104**	**4**
4. Improving policies							
Socio-economic, public policy, and public management research	**3,354**	**453**	**1,342**	**537**	**558**	**21**	**4**
5. Fortifying National Programs							
5.1 Training and conferences	1,460	845	2,074	1,055	1,097	42	4
5.2 Documentation, publication and dissemination of information	2,916	2,189	2,227	1,959	2,038	79	4
5.3 Organizations and management conselling	-	-	122	-	-	-	-
5.4 Networks	583	4,331	1,830	2,798	2,910	112	4
Total activity 5	**4,959**	**7,365**	**6,253**	**5,812**	**6,045**	**233**	**4**
Total research and research - related activity	**29,165**	**30,426**	**30,500**	**30,201**	**31,409**	**1,208**	**4**

Table 4. Research agenda - Research and research-related expenditures: Amounts for complementary activities in 1993, 1994, 1995 and Budget Request 1996. (SYs = Senior Staff years; thousands of current US dollars).

	Actual		1995 budget		Budget request	Changes over 1995 estimate	
Research Activities	**1993**	**1994**	**Approved**	**Estimate**	**1996**	**$' 000**	**%**
1. Increasing Productivity							
1.1 Crop and Cropping Systems	3,198	1,450	1,284	1,771	780	(991)	(56)
1.2 Livestock and Livestock Systems	48	90	46	336	578	242	72
Total activity 1	**3,246**	**1,540**	**1,330**	**2,107**	**1,358**	**(749)**	**(36)**
2. Protecting and Environmental							
Eco-system conservation and management	**335**	**1,793**	**669**	**1,743**	**827**	**(916)**	**(53)**
3. Saving Biodiversity							
Germplasm collection, conservation, characterization and evaluation	**263**	**60**	**89**	**11**	**-**	**(11)**	**(100)**
4. Improving policies							
Socio-economic, public policy, and public management research	**670**	**95**	**71**	**148**	**-**	**(148)**	**(100)**
5. Fortifying National Programs							
5.1 Training and conferences	220	282	680	-	-	-	-
5.2 Documentation, publication and dissemination of information	-	-	71	-	-	-	-
5.3 Organizations and management conselling	-	16	185	22	-	(22)	(100)
5.4 Networks	154	961	463	1,129	759	(370)	(33)
Total activity 5	**374**	**1,259**	**1,399**	**1,151**	**759**	**(392)**	**(34)**
Total research and research - related activity	**4,788**	**4,747**	**3,558**	**5,160**	**2,944**	**(2,216)**	**(43)**

Table 5. Regional distribution of research and, research-related activity requirements: Allocation resources in 1993, 1994, 1995, and 1996. (percent share).[1]

Activities	SSA (%)				Asia (%)				LAC (%)			
	1993	1994	1995	1996	1993	1994	1995	1996	1993	1994	1995	1996
Core activities:												
1. Increasing Productivity	11.0	7.5	9.7	9.7	7.5	4.7	4.2	4.2	28.0	35.8	34.7	34.7
2. Protecting the Environmental	-	-	-	-	-	-	-	-	17.5	19.1	21.7	21.7
3. Saving Biodiversity	2.0	1.0	1.2	1.2	1.5	1.0	1.1	1.1	4.0	5.4	6.4	6.4
4. Improving Policies	1.0	0.2	0.3	0.3	0.5	0.1	0.1	0.1	10.0	1.2	1.4	1.4
5. Fortifying National Systems	5.0	10.4	6.4	6.4	2.0	1.4	1.3	1.3	10.0	12.2	11.5	11.5
Total core activities	**19.0**	**19.1**	**17.6**	**17.6**	**11.5**	**7.2**	**6.7**	**6.7**	**69.5**	**73.7**	**75.7**	**75.7**
Complementary activities:												
1. Increasing Productivity	11.0	6.9	11.9	18.9	7.5	2.6	1.5	4.0	28.0	23.0	27.6	23.1
2. Protecting the Environmental	-	-	-	-	-	-	-	-	17.5	37.8	33.5	28.1
3. Saving Biodiversity	2.0	0.3	-	-	1.5	0.2	-	-	4.0	0.8	0.1	-
4. Improving Policies	1.0	1.1	2.9	-	0.5	-	-	-	10.0	0.9	-	-
5. Fortifying National Systems	5.0	6.7	2.6	3.6	2.0	2.3	1.9	2.5	10.0	17.4	18.0	19.8
Total complementary activities	**19.0**	**15.0**	**17.4**	**22.5**	**11.5**	**5.1**	**3.4**	**6.5**	**69.5**	**79.9**	**79.2**	**71.0**

[1] **LAC = Latin America and Caribbean; SSA = Sub-Saharan Africa.**

Table 6. Project expenditures summary. (in thousands of US dollars)

	Actual				1995		Budget Request	
	1993		1994		Estimate		1996	
	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity
I. **Research Agenda Project**								
Beans :								
Phaseolus Conservation	-		34	3	40	3	40	3
Phaseolus Genetic Structure	-		269	1.21	317	1.21	317	1.21
Wild and Cultivated Phaseolus	-		86	1.21	100	1.21	100	1.21
Bean Utilization	-		49	1.21	59	1.21	59	1.21
Biotic Stress Resistance	-		582	1.1	519	1.1	519	1.1
Abiotic Stress Tolerance	-		459	1.1	407	1.1	407	1.1
Improved Yield Potential	-		327	1.1	287	1.1	287	1.1
Latin America and The Caribbean :								
Germplasm Improvement	-		180	1.1	154	1.1	154	1.1
Network Development	-		322	5.4	275	5.4	275	5.4
Integrated Bean Production Systems	-		440	1.21	373	1.21	373	1.21
Sub-sahara Africa :								
Germplasm Development	-		122	1.1	1,245	1.1	1,245	1.1
Network Development	-		1,835	5.4	986	5.4	986	5.4
Cassava :								
Conservation and characterization of Manihot	-		90	3	106	3	106	3
Defining Desirable Characteristics of Cassava	-		438	1.21	503	1.21	503	1.21
Germ. Dev. for the Semiarid Tropics	-		359	1.1	383	1.1	383	1.1
Germ. Dev. for the subhumid tropics	-		354	1.1	378	1.1	378	1.1
Germ. Dev. for the Humid Tropics	-		141	1.1	148	1.1	148	1.1
Germ. Dev. for the Highlands	-		116	1.1	119	1.1	119	1.1
Germ. Dev. for the Subtropics	-		116	1.1	125	1.1	125	1.1
Tools and Methodologies for Gene Pool Development	-		194	1.21	196	1.21	196	1.21
Integrated Pest and Disease Management	-		713	1.21	711	1.21	711	1.21
Integrated Soil Crop Management	-		477	1.21	561	1.21	561	1.21
Cassava Product, Processing, and Market Development	-		297	1.21	231	1.21	231	1.21
Research Planning, Information Exch. and Networking	-		392	5.4	396	5.4	396	5.4
Rice :								
Improved Lowland Rice Gene Pools	-		441	1.1	541	1.1	541	1.1
Joint Venture with Private Sector in Irrigated Rice	-		-		-		-	5.4
Information and Technology Sharing	-		223	5.4	114	5.4	114	5.4
Improved Upland Rice Gene Pools	-		472	1.1	488	1.1	488	1.1
Durable Blast Resistance	-		404	1.1	475	1.1	475	1.1
Rice Traits to Enhance Weed Control	-		259	1.21	197	1.21	197	1.21
Diversified Tagosodes/Hoja Blanca Resistance	-		161	1.1	147	1.1	147	1.1
Integrated Pest and Crop Management	-		90	1.21	119	1.21	119	1.21
Biochemestry of Host Plant Resistance	-		-		-		-	
Tropical Forages :								
Enhanced Genetic Resources of Tropical Forages	-		337	3	517	3	517	3
Forage Ecotypes with Known Environment al Adaptation	-		288	1.22	-		-	
Genetic Enhancement of Brachiaria	-		452	1.22	486	1.22	486	1.22
Improved Forage Arachis Gene Pools	-		333	3	305	3	305	3
Stylosanthes Cultivars with Anthracnose Resistance	-		254	1.1	274	1.1	274	1.1
Development of Centrosema Gene Pools	-		23	1.22	-		-	
Forage Ecotypes with High Feed Quality	-		329	1.22	243	1.22	243	1.22
Adaptive Attributes of Forages to Acid Soils	-		256	1.21	243	1.21	243	1.21
Forage Components with Known Performance	-		484	1.22	576	1.22	576	1.22
Institutional Support and Skill Acquisition	-		184	5.4	151	5.4	151	5.4
Biochemestry of Host Plant Resistance	-		-		-		-	1.1
Tropical Lowlands :								
Cerrados :								
Prototype Sustainable Cropping Systems	-		378	2	450	2	450	2
A Mechanistic Understanding and Models of Soil ...	-		124	2	180	2	180	2
Dynamics of Land Use	-		61	2	85	2	85	2
Llanos :								
Prototype Sustainable Cropping Systems	-		128	2	113	2	113	2
A Mechanistic Understanding and Models of Soil ...	-		304	2	280	2	280	2
Dynamics of Land Use	-		385	2	247	2	247	2
Carbon Sequestration as Affected by Agricultural...	-		-	-	-	-	-	2
Soil Biology	-		-	-	-	-	-	1.1
Forest Margins :								
Prototype Sustainable Cropping Systems	-		410	2	463	2	463	2
Dynamics of Land Use	-		270	2	123	2	123	2

(Continued)

Table 6. Project expenditures summary. (in thousands of US dollars)

	Actual				1995		Budget Request	
	1993		1994		Estimate		1996	
	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity
(Continued.)								
Interprogram projects :								
Hillsides Program	-		60	2	64	2	64	2
Tropical Forages Program	-		211	2	105	2	105	2
Hillsides :								
Effects of Soil Degradation and Practices of Soil Conservation...	-		177	2	263	2	263	2
Decision Support System for Land Use Planning ...	-		130	2	191	2	191	2
Prototype Systems for Ecologically Sound Intensification ...	-		119	2	169	2	169	2
Central America :								
Improving Agricultural Sustainability ..	-		434	2	682	2	682	2
Participatory research :								
Improving Agricultural Sustainability ..	-		178	2	269	2	269	2
Biotechnology :								
Molecular Character. and Analysis of Genetic Diversity	-		82	3	220	3	220	3
Biochemical and Molecular Char. of Plant Adaptation	-		464	1.21	202	1.21	202	1.21
Gene Transfer and Conservation of Genetic Diversity	-		169	1.21	284	1.21	284	1.21
New Tools for the Analysis and Utilization of Biodiversity	-		-	-	-	-	-	3
Manipulating the Apomixis Gene from Brachiaria	-		-		-		-	
Virology :								
Genetic Interaction between Phaseolus vulgaris L. ...	-		310	1.21	242	1.21	242	1.21
Characterization of Viruses Infecting Manihot esculenta	-		73	1.21	54	1.21	54	1.21
Molecular Characterization of Rice Hoja Blanca Virus	-		36	1.21	5	1.21	5	1.21
Characterization of Viruses Affecting Tropical Forages	-		76	1.21	54	1.21	54	1.21
Screening for Viral Disease Resistence in Phaseolus	-		26	1.21	101	1.21	101	1.21
Integrated Control of Cassava Viruses	-		23	1.21	91	1.21	91	1.21
Genetic Transformation of Rice Plants	-		5	1.21	22	1.21	22	1.21
Genetic resources :								
Genetic Resources	-		780	3	894	3	894	3
Land management :								
Maintenance of the GIS Facility	-		230	2	539	2	539	2
Background GIS/Database Activities	-		176	2	196	2	196	2
CIAT Climate Database for the Tropical World	-		273	2	436	2	436	2
Diagnostic Surveys and Research Planning	-		253	2	380	2	380	2
Impact Assessment :								
Ex ante Analysis of Returns to Research	-		191	4	274	4	274	4
Monitoring the Acceptability, Adoption and Impact	-		145	4	153	4	153	4
Institutional building :								
Institutional Linkages	-		257	5.4	305	5.4	305	5.4
Training and Conferences	-		627	5.1	839	5.1	839	5.1
Information and documentation	-		688	5.2	651	5.2	651	5.2
Publications	-		415	5.2	464	5.2	464	5.2
Business Development	-		520	5.2	444	5.2	444	5.2
Overhead (Research Support and Admin.)	-		7,856		6,172		6,172	
Price increase/Colombian Peso revaluation (net)	-		-		-		1,208	
Total research agenda project	-		**30,426**		**30,201**		**31,409**	
II. Complementary Projects								
Beans :								
Competition and survival of Rhizobium strains	-		12	1.21	3	1.21	-	
Bean research in southern Africa	-		143	5.4	-		-	
Develop IPM systems for small beans farmer in Andean region	-		61	1.21	95	1.21	80	1.21
Improvement of common bean cultivars	-		27	1.1	23	1.1	34	1.1
Bean improvement in Malawi	-		130	1.1	384	1.1	361	1.1
Junior research fellow for bean East Africa	-		61	1.21	23	1.21	-	
Improvement of bean production in the Central America and the Caribbean Region - Phase III	-		56	5.4	28	5.4	14	5.4
Bean research network for the Andean Zone of South America (PROFRIZA)	-		327	5.4	340	5.4	308	5.4
Genetic mapping of root architectural traits controlling productivity of beans	-		10	1.21	4	1.21	-	
Workshop of bean	-		21	5.1	-		-	

(Continued)

Table 6. Project expenditures summary. (in thousands of US dollars)

	Actual				1995		Budget Request	
	1993		1994		Estimate		1996	
	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity
(Continued.)								
Pilot linkage program	-		7	2	13	2	-	
Seeds of hope	-		49	4	143	4	-	
Cassava :								
Cassava biotechnology network	-		349	5.4	370	5.4	284	5.4
Control of cassava pest cytromenus bergi	-		32	1.21	78	1.21	22	1.21
Development of cassava molecular map	-		31	3	-		-	
Improving small-scale cassava - starch extraction	-		47	1.21	60	1.21	-	
Cassava biotechnology meeting in Indonesia	-		37	5.1	-		-	
Production marketing in cassava	-		37	1.21	-		-	
Asia cassava agronomy	-		50	1.21	-		-	
Investigation of metabotites implementation	-		34	1.21	-		-	
Field testing of improved cassava flour production process technologies	-		22	1.21	11	1.21	-	
Soil degradation and crop productivity research in Andean hillside farming	-		204	1.21	126	1.21	34	1.21
Modernization and strengthening of the cassava agroindustry in the Atlantic Coast of Colombia	-		-		440	1.21	-	
Cassava utilization	-		70	1.21	-		-	
Rice :								
Activities CIRAD-SAR	-		71	1.21	29	1.21	-	
Integrating rice improvement within agropastoral systems.	-		28	1.21	36	1.21	42	1.21
Silicon fertilization : an alternative to fungicides for desease management	-		15	1 21	8	1.21	-	
INGER rice evaluation	-		58	5.4				
Tropical Forages:								
Development of Stylosanthes cultivars	-		47	1.22	7	1.22	-	
Legume selectivity by grazing animals	-		41	1.22	-		3	1.22
Forages for smallholder project	-		-		319	1.22	545	1.22
Tropical Lowland :								
Soils indicator of sustainable agropastoral systems	-		3	2	105	2	111	2
Agropastoral systems	-		741	2	600	2	-	
Improved pastoral system on P. dynamics	-		26	2	-		-	
Identification/development for area-based strategic resource management research in Tropical ..	-		15	2	25	2	-	
Research improvement native grassland	-		67	2	-		-	
Alternatives of Slash and Burn	-		109	2	-		-	
Hillsides :								
Postdoctoral fellow - Hillsides Program DAMIDA	-		23	2	100	2	49	2
Junior research fellow - Hillsides Program R.F.	-		19	2	-		-	
Sustainable hillside agriculture (Latin America) IDRC	-		117	2	187	2	-	
Farmer participation in technology design and transfer - Phase III Kellogg	-		175	2	292	2	241	2
Land Management :					579			
Diagnostic study of agricultural land use	-		340	2	-		-	
Strategies for sustainable agricultural land use in the lowland savannas of South America	-		77	2	367	2	383	2
Land use sociology	-		21	2	-		-	
Biotechnology :								
Construction of a molecular map of Phaseolus	-		177	1.21	141	1.21	97	1.21
Rice biotechnology research	-		29	1.21	-		-	
Improving chilling tolerance in Phaseolus.	-		28	1.21	17	1.21	-	
Research on phaseolus germplasm	-		71	1.21	238	1.21	69	1.21
Research on molecular of cassava and its wild relatives.	-		27	3	11	3	-	
Impact assessment :								
The impact of public intervention	-		43	4	-		-	
Institutional buildings :								
Public Awareness activity	-		16	5.3	21	5.3	-	
Transfer of agicultural technology	-		177	5.1	-		-	
Training and conferences	-		39	5.1	50	5.1	70	5.1

(Continued)

Table 6. Project expenditures summary. (in thousands of US dollars)

	Actual				1995		Budget Request	
	1993		1994		Estimate		1996	
	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity	Amount	CGIAR Activity
(Continued.)								
Ecoregional activities in Latin America	-		-		249	5.4	-	
Others	-		192	1.21	67	5.4	47	5.4
Total complementary projects	-		**4,609**		**5,010**		**2,794**	
III. Systemwide /Ecoregional Initiatives								
CIAT as ecoregional convening center			-		150		-	
Soil, water, and nutrient management			-		125		300	
Total Systemwide / Ecoregional Initiatives			-		**275**		**300**	

Table 7. Funding requirements by categories of expenditures: Amounts for core and complementary activities in 1993, 1994, 1995, and Budget Request 1996. (thousands of current US dollars).

	Actual		1995 Budget		1996 budget	Changes over 1995 estimate	
Expenses by categories	1993	1994	Approved	Estimate	request	$'000	%
Core							
Personnel	19,648	20,052	20,066	20,671	20,671	-	-
Supplies and services	5,898	6,673	5,692	5,655	5,647	(8)	-
Travel	1,810	1,772	1,742	1,374	1,374	-	-
Depreciation expense	1,809	1,929	1,650	1,900	1,900	-	-
Contingency	-	-	-	-	-	-	-
Subtotal	**29,165**	**30,426**	**29,150**	**29,600**	**29,592**	**(8)**	**-**
Capital	-	-	-	-	-	-	-
Surplus or (Deficit)	(1,019)	36	(1,650)	(2,100)	(3,300)	(1,200)	57
Price increase	-	-	-	-	1,208	1,208	-
Total core	**28,146**	**30,462**	**27,500**	**27,500**	**27,500**	**-**	**-**
Complementary							
Personnel	3,352	3,563	2,348	3,209	1,798	(1,411)	-
Supplies and services	902	521	854	1,280	723	(557)	-
Travel	309	525	356	521	273	(248)	-
Contingency	-	-	-	-	-	-	-
Subtotal	**4,563**	**4,609**	**3,558**	**5,010**	**2,794**	**(2,216)**	**(44)**
Capital	225	138	-	150	150	-	-
Additional operating funds	-	-	-	-	-	-	-
Total complementary	**4,788**	**4,747**	**3,558**	**5,160**	**2,944**	**(2,216)**	**(43)**
Total							
Personnel	23,000	23,615	22,414	23,880	22,469	(1,411)	-
Supplies and services	6,800	7,194	6,546	6,935	6,370	(565)	-
Travel	2,119	2,297	2,098	1,895	1,647	(248)	-
Depreciation expense	1,809	1,929	1,650	1,900	1,900	-	-
Contingency	-	-	-	-	-	-	-
Subtotal	**33,728**	**35,035**	**32,708**	**34,610**	**32,386**	**(2,224)**	**(6)**
Capital	225	138	-	150	150	-	-
Additional operating funds	(1,019)	36	(1,650)	(2,100)	(3,300)	(1,200)	-
Price increase	-	-	-	-	1,208	1,208	-
Grand total	**32,934**	**35,209**	**31,058**	**32,660**	**30,444**	**(2,216)**	**(7)**

Table 8. Funding requirements for capital expenditures and assets: Amounts for core, complementary activities in 1993, 1994, 1995, and Budget Request 1996. (thousands of current US dollars).

Asset Acquisition Cost :

	Actual				1995		1996	
	1993		1994		Budget		Budget request	
	Research Agenda	Complementary	Research Agenda	Complementary	Research Agenda	Complementary	Research Agenda	Complementary
A. Physical Facilities								
Research	70	-	7	-	60	-	50	-
Training	-	-	-	-	70	-	-	-
Administration	-	-	87	-	-	-	-	-
Housing	-	-	141	-	-	-	50	-
Auxiliary Units	312	-	-	-	170	-	150	-
Subtotal	**382**	-	**235**	-	**300**	-	**250**	-
B. Infrastructure and Leasehold	-	-	**651**	-	**350**	-	**400**	-
C. Furnishing and Equipment								
Heavy duty equipment	344	-	719	-	400	-	400	-
Laboratory and Scientific	589	10	471	16	650	50	850	50
Office equipment and others	163	15	307	24	650	40	300	40
Computers	1,238	160	333	53	500	60	600	60
Vehicles	673	40	1,843	45	350	-	430	-
Aircraft	-	-	-	-	-	-	-	-
	3,007	**225**	**3,673**	**138**	**2,550**	**150**	**2,580**	**150**
Total	**3,389**	**225**	**4,559**	**138**	**3,200**	**150**	**3,230**	**150**

Capital Fund Movement :

	Actual		1995	Budget request 1996			
	1993	1994	Estimate	Physical facilities	Infra-structure	Furnishing & equipm.	Total
A. Balances January 1	**2,982**	**2,536**	**2,358**	**308**	**350**	**1,400**	**2,058**
B. Sources:							
Depreciation charges	1,809	1,929	1,900	500	150	1,250	1,900
Gains (Losses) of Disposal	1,134	1,421	1,000	-	-	1,000	1,000
Additional allocations	-	1,031	-	-	-	180	180
C. Uses:							
Acquisition	3,389	4,559	3,200	250	400	2,580	3,230
D. Balances December 31	**2,536**	**2,358**	**2,058**	**558**	**100**	**1,250**	**1,908**

Table 9. Staffing pattern: approved positions for 1993, 1994, 1995, and Estimated 1996.

	Actual				1995		1996 Budget		Changes over	
	1993		1994		Budget		request		1995 estimate	
	Center hired	Other hired	Center hired	Other hired	Center hired	Other hired	Center hired	Other hired	No.	%
Core programs:										
I. International staff positions					*	*	*			
Research	64	5	66	4	66	4	66	4	-	-
Research support	1	-	1	-	1	-	1	-	-	-
Institution building	5	-	5	-	5	-	5	-	-	-
Management and administration	5	-	4	-	4	-	4	-	-	-
Total	75	5	76	4	76	4	76	4	-	-
II. Post-Doctoral Fellows	1	4	3	3	3	3	2	1	(1)	(33)
III. Supervisory staff	275	-	259	-	259	-	259	-	-	-
IV. Support Staff	875	-	780	-	780	-	780	-	-	-
Total Core	1,226	9	1,118	7	1,118	7	1,117	5	(1)	-
Complementary programs:										
I. International staff positions					*	*	*	*		
Research	11	-	4	-	4	-	4	-	-	-
Research support	1	-	-	-	-	-	-	-	-	-
Institution building	-	-	-	-	-	-	-	-	-	-
Management and administration	-	-	-	-	-	-	-	-	-	-
Total	12	-	4	-	4	-	4	-	-	-
II. Post-Doctoral Fellows	4	6	5	4	5	4	2	-	(3)	(60)
III. Supervisory staff	28	-	28	-	28	-	28	-	-	-
IV. Support Staff	65	-	13	-	13	-	13	-	-	-
Total Complementary	109	6	50	4	50	4	47	-	(3)	(6)
Grand Total	1,335	15	1,168	11	1,168	11	1,164	5	(4)	-

* Positions are shown for the full year although for budgetary purposes a fill ratio of 96 % is assumed.

Table 10: Donor funding for Research Agenda Projects, 1994. (in thousands of current US dollars).

Donor	Australia	Belgium	Brazil	Canada	Colombia	China	EEC	Ford Foundati	France	Germany	IDB	Dinamarca	Japan	Netherlan	Norway	Rockef. Found.	Sasakawa Foundati	Spain	Sweden	Switzer.	United Kingdom	UNDP	USAID	World Bank	Unrestricted funding: Total funding	Unrestricted funding: Center income	
Unrestricted Funding	177	124	-	1,268	-	10	-	400	207	548	-	-	-	282	422	-	-	75	266	1,036	749	-	3,200	5,980	14,744	2,220	
Research Agenda Projects	Donors' Restricted Funding to Projects ($ '000)																								Total Restr. Funding	Allocation: unrest pool	Project total
Phaseolus Diversity							439																		439	-	439
Yield Stability											429														429	939	1,368
Sustaining Bean Productivity in Latin America and the Caribbean							880																		880	54	934
Sustaining Bean Productivity in Sub-Saharan Africa				756																482			501		1,739	225	1,964
Manihot Genetic Diversity							176				352														528	-	528
Improved Cassava Gene Pools					50		348						830												1,228	52	1,280
Integrated Crop Management							235						241				280					433			1,189	1	1,190
Cassava Markets							221						76												297	-	297
Institutional Development													238												238	154	392
Lowland Rice Improvement					97																				97	567	664
Upland Rice Improvement					147																				147	325	472
Reducing Losses to Rice Pests					133											171									304	610	914
Forages Diversity	47				117								173												337	-	337
Forage Improvement					164								707												871	202	1,073
Forage for Acid Soils	98				176						361		675												1,310	220	1,530
Brazilian Cerrados			35								300		228												563	-	563
Colombian Llanos					166						300														466	351	817
Forest Margins											379														379	301	680
Tropical Lowlands-Interprograms										?															-	271	271
Sustainable Agriculture for Andean Zone												249	170												419	7	426
Participatory Research																									-	178	178
Sustainable Agriculture for Central America																				115					115	319	434
Molecular Characterization and Analysis of Genetic Diversity																									-	82	82
Biochemical and Molecular Characterization of Plant Adaptation to the Environment																									-	464	464
Gene Transfer and conservation of Genetic Diversity																									-	169	169
Characterization of Plant Viruses																									-	495	495
Control of Plant Viruses Affecting CIAT's Mandate Commodities																32									32	22	54
Land management					153					637			130												920	12	932
Genetic Resources																									-	780	780
Impact assessment																									-	336	336
Institutional buildings											235														235	2,272	2,507
Overhead (Research support/Mgt./Admin.)													336												336	7,520	7,856
Additional operating funds																									-	36	36
Project totals	145	-	35	756	1,203	-	2,299	-	-	637	2,356	249	3,804	-	-	203	280	-	-	597	-	433	501	-	13,498	16,964	30,462
																								Total received from donors	28,242		

Table 11: Donor funding for Research Agenda Projects, 1995. (in thousands of current US dollars).

Donor	Australia	Belgium	Brazil	Canada	Colombia	China	EEC	Ford Foundati	France	Germany	IDB	Dinamarca	Japan	Mexico	Netherlan	Norway	Rockef. Found.	Sasakawa Foundati	Spain	Sweden	Switzer.	United Kingdom	UNDP	USAID	World Bank	Unrestricted funding: Total funding	Unrestricted funding: Center income
Unrestricted Funding	177	124	-	1,268	-	10	-	400	-	548	-	-	-	-	282	422	-	-	75	266	1,036	749	-	3,200	7,777	16,334	601

Research Agenda Projects	Donors' Restricted Funding to Projects ($ '000)																									Total Restr. Funding	Allocation: unrest pool	Project total
Phaseolus Diversity							516																			516	-	516
Yield Stability									15		429															444	768	1,212
Sustaining Bean Productivity in Latin America and the Caribbean							803																			803	-	803
Sustaining Bean Productivity in Sub-Saharan Africa				840																	419			450		1,709	522	2,231
Manihot Genetic Diversity							176				433															609	-	609
Improved Cassava Gene Pools					73		404						872													1,349	-	1,349
Integrated Crop Management							280						287					271					435			1,273	-	1,273
Cassava Markets							120		31				80													231	-	231
Institutional Development													150													150	245	395
Lowland Rice Improvement					104				30																	134	521	655
Upland Rice Improvement					152																					152	336	488
Reducing Losses to Rice Pests					143												140									283	655	938
Forages Diversity	57				65								380													502	52	554
Forage Improvement					177								500													677	294	971
Forage for Acid Soils	143				189						280		500													1,112	158	1,270
Brazilian Cerrados			35										320													355	360	715
Colombian Llanos					178																					178	462	640
Forest Margins											379															379	206	585
Interprograms																										-	170	170
Sustainable Agriculture for Andean													223													223	400	623
Participatory Research																										-	289	289
Sustainable Agriculture for Central America																					500					500	182	682
Molecular Characterization and Analysis of Genetic Diversity																										-	220	220
Biochemical and Molecular Characterization of Plant Adaptation to the Environment																										-	202	202
Gene Transfer and conservation of Genetic Diversity																										-	284	284
Characterization of Plant Viruses																										-	355	355
Control of Plant Viruses Affecting CIAT's Mandate Commodities																	10									10	204	214
Land management					319					637			130													1,086	465	1,551
Impact assessment																										-	427	427
Genetic Resources																										-	894	894
Institutional buildings											229															229	2,474	2,703
Overhead (Research support/Mgt./Admin.)													362													362	5,810	6,172
Surplus or (Deficit)																										(2,100)		
Project totals	200	-	35	840	1,400	-	2,299	-	76	637	1,750	-	3,804	-	-	-	150	271	-	-	919	-	435	450	-	11,186	16,836	30,291
																									Total received from donors	27,500		

Table 12: Donor funding for Research Agenda Projects, 1996. (in thousands of current US dollars).

Donor	Australia	Belgium	Brazil	Canada	Colombia	China	EEC	Ford Foundati	France	Germany	IDB	Dinamarca	Japan	Mexico	Netherlan	Norway	Rockef. Found.	Sasakawa Foundati	Spain	Sweden	Switzer.	United Kingdom	UNDP	USAID	World Bank	Unrestricted funding: Total funding	Unrestricted funding: Center income	
Unrestricted Funding	177	124	-	1,268	-	10	-	400	-	548	-	-	-	-	282	422	-	-	75	266	1,036	749	-	3,200	8,977	17,534	1,633	
Research Agenda Projects	Donors' Restricted Funding to Projects ($ '000)																									Total Restr. Funding	Allocation: unrest pool	Project total
Phaseolus Diversity							516																			516	-	516
Yield Stability									15		429															444	768	1,212
Sustaining Bean Productivity in Latin America and the Caribbean							803																			803	-	803
Sustaining Bean Productivity in Sub-Saharan Africa				840																	419			450		1,709	522	2,231
Manihot Genetic Diversity							176				433															609	-	609
Improved Cassava Gene Pools					73		404						872													1,349	-	1,349
Integrated Crop Management							280						267					271					435			1,273	-	1,273
Cassava Markets							120		31				80													231	-	231
Institutional Development													150													150	245	395
Lowland Rice Improvement					104				30																	134	521	655
Upland Rice Improvement					152																					152	336	488
Reducing Losses to Rice Pests					143												140									283	655	938
Forages Diversity	57				65								380													502	52	554
Forage Improvement					177								500													677	294	971
Forage for Acid Soils	143				189						280		500													1,112	158	1,270
Brazilian Cerrados			35										320													355	360	715
Colombian Llanos					178																					178	462	640
Forest Margins											379															379	206	585
Interprograms																										-	170	170
Sustainable Agriculture for Andean													223													223	400	623
Participatory Research																										-	269	269
Sustainable Agriculture for Central America																					500					500	182	682
Molecular Characterization and Analysis of Genetic Diversity																										-	220	220
Biochemical and Molecular Characterization of Plant Adaptation to the Environment																										-	202	202
Gene Transfer and conservation of Genetic Diversity																										-	284	284
Characterization of Plant Viruses																										-	355	355
Control of Plant Viruses Affecting CIAT's Mandate Commodities																	10									10	204	214
Land management					319					637			130													1,086	465	1,551
Impact assessment																										-	427	427
Genetic Resources																										-	894	894
Institutional buildings											229															229	2,474	2,703
Overhead (Research support/Mgt./Admin.)													362													362	5,810	6,172
Price increase																											1,208	1,208
Surplus or (Deficit)																										(3,300)		
Project totals	200	-	35	840	1,400	-	2,299	-	76	837	1,750	-	3,804	-	-	-	150	271	-	-	919	-	435	450	-	8,986	15,143	31,409
																									Total received from donors	27,500		

Table 13: Donor funding for Complementary Projects and Systemwide/Ecoregional Initiatives, 1994. (In thousands of current US dollars).

Donor	Belgium	BMZ/ GTZ	CIDA	Colom-bia	DANIDA	EEC	GEF	IDB	IDRC	Iran	Italy	Japan	Kelloggs Foundation	France	NRI	ODA	Nether-lands	Rockef. Foundation	Switzer-land	UNDP	USDA	USAID	Various	Project total
Complementary projects	**Restricted Funding to Projects ($ '000)**																							
Construction of a molecular map of Phaseolus	177																							177
Public Awareness activity																							16	16
Diagnostic study of agricultural land use								340																340
Competition and survival of Rhizobium strains		12																						12
Soil indicators of sustainable agropastoral systems		3																						3
Bean research in southern Africa			143																					143
Transfer of agicultural technology				177																				177
Agropastoral systems								741																741
Cassava biotechnology network																	349							349
Development of Stylosanthes Cultivars																							47	47
Control of cassava pest cyrtomenus bergi					32																			32
Postdoctoral fellow Hillsides Program					23																			23
Junior research fellow Hillsides Program					19																			19
Strategies for sustainable agricultural land use in the lowland savannas of South America																	77							77
Development of cassava molecular map																		31						31
Improving small-scale cassava - starch extraction														46										46
Improved pastoral system on P. dymanics																			28					28
Legume selectivity by grazing animals																			20					20
Activities CIRAD-SAR														71										71
Identification/development for area-based strategic resource management research		15																						15
Land use sociology																		21						21
Cassava biotechnology meeting in Indonesia																		37						37
Rice biotechnology research																		29						29
Production marketing in cassava									15															15
Asia cassava agronomy												50												50
Research improvement native grassland												67												67
The impact of public intervention											43													43
Improving chilling tolerance in Phaseolus.		28																						28
Soil degradation and crop productivity research in Andean hillside farming		205																						205
Develop IPM systems for small beans farmer in Andean Region									61															61
Sustainable hillside agriculture (Latin America)									117															117
Improvement of common bean cultivars										27														27
Research on phaseolus germplasm											71													71
Cassava root post harvest deteriotation															20									20
Farmer participation in technology design and transfer - Phase III													175											175
Field testing of improved cassava flour production process technologies															22									22
Bean improvement in Malawi																130								130
Integrating rice improvement within agropastoral systems.																30								30
Research on molecular of cassava and its wild relatives.																		27						27
Junior research fellow for bean East Africa																			61					61
Improvement of bean production in the C.A and the Caribbean Region - Phase III																			56					56
Bean research network for the Andean Zone of South America (PROFRIZA)																			327					327
Seed Multiplication for Rwanda - Seeds of Hope																							49	49
Genetic mapping of root architectural traits controlling productivity of beans																					10			10
Pilot linkage program																					7			7
Silicon fertilization : an alternative to fungicides for desease management																					15			15
Training and conferences																			39					39
Alternatives of Slash and Burn							109																	109
Workshop of bean																							21	21
INGER activities																							57	57
Cassava utilization						70																		70
Capital	6	21	28						6		1			3				2		7	16	9	39	138
Others	11	30							22					6	14			10					153	246
Complementary totals	**194**	**314**	**171**	**177**	**74**		**109**	**1,081**	**221**	**27**	**115**	**117**	**175**	**126**	**56**	**160**	**426**	**157**	**531**	**7**	**48**	**9**	**382**	**4,747**

Table 14: Donor funding for Complementary Projects and Systemwide/Ecoregional Iniatiatives, 1995. (in thousands of current US dollars).

Donor	Australia	Belgium	BMZ/ GTZ	Colombia	Denmark	IDB	IDRC	Iran	Italy	Kelloggs Foundation	France	NRI	ODA	Nether-lands	Rockefeller Foundation	Switzer-land	UNDP	USDA	USAID	Various	Project total
Complementary projects																					
Construction of a molecular map of Phaseolus		141																			141
Public awareness activity																				21	21
Competition and survival of Rhizobium strains			3																		3
Soil indicators of sustainable agropastoral systems			105																		105
Cassava biotechnology network														370							370
Development of Stylosanthes Cultivars																				7	7
Control of cassava pest cyrtomenus bergi					78																78
Postdoctoral fellow Hillsides Program					100																100
Strategies for sustainable agricultural land use in the lowland savannas of South America														367							367
Improving small-scale cassava - starch extraction											60										60
Activities CIRAD-SAR											29										29
Identification/development for area-based strategic resource management research			25																		25
Improving chilling tolerance in Phaseolus			17																		17
Soil degradation and crop productivity research in Andean hillside farming			126																		126
Develop IPM systems for small beans farmer in Andean region							95														95
Sustainable hillside agriculture (Latin America)							187														187
Improvement of common bean cultivars								23													23
Research on Phaseolus germplasm									238												238
Farmer participation in technology design and transfer - Phase III										292											292
Field testing of improved cassava flour production process technologies												11									11
Bean improvement in Malawi													384								384
Integrating rice improvement within agropastoral systems.													36								36
Research on molecular of cassava and its wild relatives.															11						11
Junior Research fellow for bean East Africa																23					23
Improvement of bean production in the C.A and the Caribbean Region - Phase III																28					28
Bean research network for the Andean Zone of South America (PROFRIZA)																340					340
Seed Multiplication of Rwanda - Seeds of Hope																					143
Genetic mapping of root architectural traits controlling productivity of beans																		4			4
Pilot linkage program																		13			13
Silicon fertilization : an alternative to fungicides for desease management																		8			8
Training on sustainable land use for the LA tropic						600															600
Modernization and strengthening of the cassava agroindustry in the Atlantic Coast of Colombia				440																	440
Forages for smallholders project	319																				319
Ecoregional activities in Latin America					249																249
Capital																				150	150
Others																				117	117
Complementary totals	**319**	**141**	**276**	**440**	**427**	**600**	**282**	**23**	**238**	**292**	**89**	**11**	**420**	**737**	**11**	**391**	**-**	**25**	**-**	**295**	**5,160**
Systemwide projects																					
CIAT as ecoregional convening center																				150	150
Soil, water, and nutrient management																				125	125
Systemwide projects totals	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**275**	**275**

Table 15: Donor funding for Complementary Projects and Systemwide/Ecoregional Iniatiatives, 1996. (in thousands of current US dollars).

Donor	Australia	Belgium	BMZ/ GTZ	DANIDA	IDRC	Iran	Italy	Kelloggs Foundation	France	NRI	ODA	Nether-lands	Rockefeller Foundation	Switzer-land	UNDP	USDA	USAID	Various	Project total
Complementary projects	Restricted Funding to Projects ($ '000)																		
Construction of a molecular map of Phaseolus		97																	97
Soil indicators of sustainable agropastoral systems			111																111
Cassava biotechnology network												284							284
Control of cassava pest cyrtomenus bergi				22															22
Postdoctoral fellow Hillsides Program				49															49
Strategies for sustainable agricultural land use in the lowland savannas of South America												383							383
Determining phosphorus dynamic in the rhizosphere of certain grass and legumes			3																3
Soil degradation and crop productivity research in Andean hillside farming			34																34
Develop IPM systems for small beans farmer in Andean region					80														80
Improvement of common bean cultivars						34													34
Research on Phaseolus germplasm							69												69
Farmer participation in technology design and transfer - Phase III								241											241
Bean improvement in Malawi											361								361
Integrating rice improvement within agropastoral systems											42								42
Improvement of bean production in the C.A and the Caribbean Region - Phase III														14					14
Bean research network for the Andean Zone of South America (PROFRIZA)														308					308
Forages for smallholders project	545																		545
Capital																		150	150
Others																		117	117
Complementary totals	**545**	**97**	**148**	**71**	**80**	**34**	**69**	**241**	**-**	**-**	**403**	**667**	**-**	**322**	**-**	**-**	**-**	**267**	**2,944**
Systemwide projects																			
CIAT as ecoregional convening center																		-	-
Soil, water, and nutrient management																		300	300
Systemwide projects totals	**-**	**-**	**-**	**-**	**-**			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**300**	**300**

Table 16: Cash Requirements and Timing of Donor Contributions

	Actual				Estimate		Budget Request	
	1993		1994		1995		1996	
USES: Operations and Capital Acquisitions	Amount	% annual	Amount	% annual	Amount	% annual	Amount	% annual
Cash requirements for 3 months ended March	7,679	22.4	8,763	23.7	8,846	24.8	8,996	24.0
Cash requirements for 3 months ended June	9,868		7,599		8,891		9,496	
Cash requirements - Cumulative (6 months)	17,547	51.3	16,362	44.2	17,737	49.7	18,492	49.3
Cash requirements for 3 months ended September	8,029		7,992		8,802		9,401	
Cash requirements - Cumulative (9 months)	25,576	74.7	24,354	65.8	26,539	74.3	27,893	74.4
Cash requirements for 3 months ended December	8,656		12,663		9,159		9,590	
Cash requirements - Cumulative (12 months)	34,232	100.0	37,017	100.0	35,698	100.0	37,483	100.0
SOURCES: Center Reserves & Donor Funding								
Cash & Cash equivalents on hand at January 1	15,338		14,495		13,997		13,600	
Grant Income for 3 months ended March	7,129	21.4	7,627	20.9	8,278	23.4	8,039	21.0
Grant Income for 3 months ended June	5,751		6,961		6,638		7,657	
Grant Income - Cumulative (6 months)	12,880	38.6	14,588	39.9	14,916	42.3	15,696	41.0
Grant Income for 3 months ended September	10,085		11,030		10,527		11,485	
Grant Income - Cumulative (9 months)	22,965	68.8	25,618	70.1	25,443	72.1	27,181	71.0
Grant Income for 3 months ended December	10,424		10,901		9,858		11,102	
Grant Income - Cumulative (12 months)	33,389	100.0	36,519	100.0	35,301	100.0	38,283	100.0
MEMO NOTE: Cash & equivalents on hand Dec. 31	14,495		13,997		13,600		14,400	

Funding as Percentage of Cash Requirements	1993	1994	1995	1996
For 3 months ended March	92.8%	87.0%	93.6%	89.4%
For 6 months ended June	73.4%	89.2%	84.1%	84.9%
For 9 months ended September	89.8%	105.2%	95.9%	97.4%
For 12 months ended December	97.5%	98.7%	98.9%	102.1%

Table 17. Funding requirements: Balance sheet. Amounts for core, and complementary activities in 1993, 1994, 1995, and Projection 1996. (thousands of current US dollars).

	Actual		Estimate	Projection
	1993	1994	1995	for 1996
Assets				
Cash and bank balances	14,495	13,997	13,600	14,400
Accounts receivable				
Donors	2,305	5,778	4,000	4,500
Employees	365	187	200	150
Other	3,199	2,279	2,500	2,580
Inventories	1,572	1,868	2,200	2,500
Other current assets	242	631	800	800
Total current assets	**22,178**	**24,740**	**23,300**	**24,930**
Fixed assets				
Property, plant, and equipment	35,845	38,722	40,422	42,372
Less: accumulated depreciation	(16,138)	(17,565)	(18,965)	(20,365)
Total fixed assets	**19,707**	**21,157**	**21,457**	**22,007**
Total assets	**41,885**	**45,897**	**44,757**	**46,937**
Liabilities and fund balances				
Liabilities				
Bank indebtedness	1,420	129	610	280
Accounts payable				
Donors	5,161	5,487	5,000	5,800
Employees	934	629	700	900
Others	4,155	8,751	7,500	8,200
In-trust accounts	169	165	170	180
Accruals and provisions	2,001	1,218	1,300	1,500
Staff reserves	2,876	3,041	3,000	3,200
Total liabilities	**16,716**	**19,420**	**18,280**	**20,060**
Fund balances				
Capital invested in fixed assets				
Core	14,382	15,694	15,844	16,244
Complementary	5,325	5,463	5,613	5,763
Capital fund	2,536	2,358	2,058	1,908
Operating fund	2,926	2,962	2,962	2,962
Infrastructure fund	-	-	-	-
Total fund balances	**25,169**	**26,477**	**26,477**	**26,877**
Total liabilities and fund balances	**41,885**	**45,897**	**44,757**	**46,937**