

Consultative Group on International Agricultural Research

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From: The Secretariat

September 6, 1993

AGR/TAC:IAR/93/11

International Centers Week Washington D.C. October 25-29, 1993

Agenda Item 16

Review and Approval of Center Medium-Term Plans 1994-98

Attached is a copy of "CGIAR Medium-Term Resource Allocation - 1994-1998". The document completes TAC's analysis and recommendations on CGIAR priorities and strategies and their link to resource allocation.

The paper contains priority-based recommendations on 1998 core allocations among centers which correspond to the 1998 core funding expectations approved by the Group at the 1992 Mid-Term Meeting. The paper also provides proposals for allocating funds in excess of or lower than these base recommendations. To adjust the center allocations to the actual funding level in the short term, a mechanical formula is proposed.

TAC believes that if the actual resources provided during 1994-1998 are persistently below those approved by the CGIAR at MTM'92 for use in the allocation process, a restructuring of the CGIAR would be warranted and this is summarized in Section 3.4. To facilitate the examination of this scenario, TAC has revised Chapter 13 of "CGIAR Priorities and Strategies" which will be discussed under Agenda Item 15.

During ICW, the Group will have the opportunity to discuss the options and recommendations laid before it. The approved allocations will guide the implementation of the centers' 1994-1998 medium-term plans.

Distribution

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CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

TECHNICAL ADVISORY COMMITTEE

Alex F. McCalla
Chair

6 September 1993

Dear Mr. Rajagopalan

I am pleased to submit to you TAC's recommendations for allocation of CGIAR resources during 1994-98. This completes the process of linking CGIAR priorities and strategies with resource allocation. The recommendations provide TAC's views on the medium-term plan proposals submitted by the CGIAR Centres to implement the priorities and strategies endorsed by the Group at MTM'92 in Istanbul, Turkey. As you are aware since MTM'92, the centres, TAC and the Group have been involved in an interactive process on these plans. The consideration of these recommendations by the Group will be the final step in this process, leading to resource allocation decisions at ICW'93 to guide the implementation of CGIAR Priorities and Strategies over the period 1994-98.

Consistent with the decision of the Group at ICW'91, the TAC recommendations are based on a projected 1998 funding support for core programmes of US\$ 270 million, in 1992 dollars. This level of funding support, maintains the 1992 pledges in real terms, except for a modest increase for forestry and fisheries. Obviously this does not represent the totality of the high payoff research opportunities at CGIAR centres. In this respect, the report identifies additional investment opportunities if a higher funding level were to become available. However, to inject realism in this planning, the report suggests an annual progression starting from the present 1993 funding levels to reach the proposed 1998 level. For 1994 therefore TAC recommends core funding support of US\$ 229 million in 1992 dollars or US\$ 248 million in current dollars.

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TAC has addressed the concerns expressed by some donors of the programme implications of funding below the recommended levels. TAC is convinced that lower funding levels if sustained over the 1994-98 period will require that discussions of alternatives for CGIAR programme and institutional restructuring presented in the context of 2010 (Chapter 11 of the CGIAR Expansion report considered at ICW'91) be advanced.

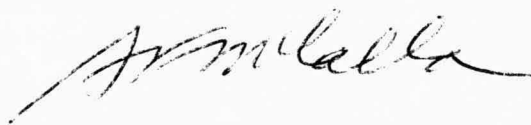
The resource allocation recommendations are therefore accompanied by a revision of Chapter 13 of the CGIAR Priorities and Strategies paper (MTM'92 dated 15 April 1992) which proposes a mechanism for looking at the structural options and alternative strategies available to the CGIAR. This revision has benefited from the extensive consultations that have taken place over the last twelve months regarding the ecoregional approach to research - a key principle in the proposed restructuring of the CGIAR.

You will also note that TAC has made two types of recommendations on funding in the CGIAR: centre specific funding, and programme funding for particular CGIAR Systemwide initiatives. With respect to programme funding, TAC has identified convening centres which will have an initiating and facilitating role, and which, in partnership with collaborating institutions, will develop proposals for joint programmes. TAC would be willing to receive these proposals if so requested by the Group. TAC recognizes the innovative but experimental nature of such programme funding and that many issues, for example with respect to accountability, have still to be resolved. However, TAC strongly believes that programme funding would provide an attractive and innovative mechanism to promote partnerships among centres, national programmes and other actors in the global agricultural research systems.

Mr. Chairman these reports represent the culmination of a concentrated and arduous process. They provide TAC's collective views and recommendations of priorities, strategies and resource allocation in the CGIAR. I would like to thank TAC members for their dedication and commitment throughout this exercise. I would like to publicly acknowledge the contributions of the staff of both the TAC and CGIAR Secretariats. Special recognition must be given to the enormous contributions that Guido Gryseels, TAC Secretariat, and Jean-Pierre Jacqmotte and Ravi Tadvalkar, CGIAR Secretariat, made to the analytical work throughout the process and to the writing of this report. I wish to stress the excellent cooperation and team spirit among members of the two Secretariats.

We look forward to the discussion at ICW'93. Hopefully our efforts will facilitate a constructive dialogue and useful conclusions.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'A.F. McCalla', with a stylized, flowing script.

A.F. McCalla
TAC Chair

CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH
TECHNICAL ADVISORY COMMITTEE

CGIAR MEDIUM-TERM RESOURCE ALLOCATION

1994-98

Analysis and Recommendations

TAC SECRETARIAT

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

September 1993

CGIAR MEDIUM-TERM RESOURCE ALLOCATION 1994-1998

Analysis and Recommendations

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CGIAR Medium-Term Resource Allocation 1994-1998

Analysis and Recommendations

Summary

This report concludes TAC's review of CGIAR priorities and strategies for research on agriculture, forestry and fisheries, and the linking of these to resource allocation for the medium-term period 1994-98. It thus completes the report presented to, and endorsed by, the Group at MTM'92¹, in that it presents TAC's recommendations to the CGIAR for resource allocation for the System as a whole, for individual centres, and for Systemwide programmes. These recommendations are presented to the Group at ICW'93, as the basis for decision making in implementing CGIAR priorities and strategies in the medium term, and for approval of centre and programme funding requirements between 1994 and 1998.

The resource allocation process was undertaken in the framework of TAC developing its views on CGIAR priorities and strategies. In this process, TAC used a comprehensive analytical framework for setting priorities which facilitated the linking of resource allocation within the CGIAR to the priorities. Consistent with these priorities, TAC proposed, and the CGIAR endorsed, a tentative core resource envelope for 1998 for each centre. These indicative envelopes were subsequently used by the centres as planning guidelines in developing their Medium-Term Plan (MTP) proposals. Centre proposals were presented to TAC and the CGIAR, allowing both to raise issues to which the centres could respond. Progress in the resource allocation process was presented and discussed at a TAC/CGIAR Workshop in San Juan, Puerto Rico, in May 1993. Finally, at TAC 61, the Committee simultaneously considered all centres' MTP proposals and any additional information provided by the centres. It reconciled the MTP proposals with the System priorities and allocated resources accordingly by proceeding through a number of steps.

First, TAC evaluated the relevance of each centre's indicative resource envelope in close reference to the CGIAR priorities as views on both priorities and envelopes might have evolved since MTM'92 when they were agreed upon. In this step, the Committee took into account centres' MTP proposals and supplementary information, as well as recent internal and external developments in the CGIAR, and determined if a change in the level of resources tentatively assigned to each centre would be justified. This comprehensive review, comprising all centres, completed TAC's discussion of CGIAR priorities.

¹ TAC/CGIAR, 1992. Review of CGIAR Priorities and Strategies. Parts I and II. TAC Secretariat, FAO, Rome.

Second, TAC evaluated the MTP proposal of each centre in accordance with a set of five equally-weighted criteria: the strategic character of the centre's proposed research programme; the programme's potential for breakthroughs; centre's past performance and likelihood of sustained success; the centre's external environment, institutional health and quality of management; and, finally, the centre's collaboration with NARS, other IARCs and advanced institutions.

Third, TAC reconciled the outcome of these two evaluations, the first, largely priority- and demand-driven and the second, largely supply/institution-driven, in a step towards assigning core resources to individual centres and to a number of CGIAR Systemwide initiatives. In this step, TAC considered the implications of the proposed allocations for the implementation of the overall System priorities. This was done at two aggregate levels of assumed core resources in 1998, i.e., US\$ 270 million and US\$ 280 million expressed in 1992 dollars.

Also, aware of the limitations inherent to MTPs being developed at centre level, TAC considered a number of inter-centre and System issues which were not adequately addressed, and formulated a number of recommendations of funding of Systemwide initiatives within the overall funding assumptions for 1998.

In response to a request expressed at the TAC/CGIAR May 1993 Workshop, TAC also considered the scenario of a significant, sustained shortfall in core funding in 1998, e.g., at 10% below the base level of US\$ 270 million. Consistent with the views of participants in the Workshop, TAC concluded that the implications of such a scenario could not adequately be addressed by budgetary procedures only, such as across-the-board reductions: sustained under-funding would require structural adjustments of the CGIAR. Therefore, TAC concluded that the resource allocation process did not constitute the appropriate framework in which to explore and formulate System adjustments of a structural nature. Instead, the Committee decided to present to the Group a timed sequence of stripe reviews, of reviews of delivery mechanisms in the CGIAR and ad hoc reviews of possibilities of other structural adjustments. These reviews would be undertaken with a view to achieving the necessary savings, while assuring the maintenance of the System's integrity at a significantly lower level of core funding. The recommendations arising from these reviews could be implemented during the MTP period to the extent they will be accepted by the Group.

Recommendations of 1998 System Level Core Funding

TAC made two sets of recommendations on resource allocation across the System for the period, 1994-98. The first set was for allocations specific to all 18 CGIAR centres. The second set concerned a number of CGIAR Systemwide initiatives for which funding was recommended so that they could be undertaken on a collaborative basis, involving a number of CGIAR centres, national programmes and other relevant partners. Both sets of recommendations are summarized in Table S1.

Table S1: System Level Core Funding Recommendations (1998) (1992 US\$ million)		
	At US\$ 270 m.	At US\$280 m.
<u>A. Centres</u>		
Recommended Centres Core Funding	257.8	262.1
Provision for External Reviews	1.2	1.2
Reserve for Fisheries	1.0	1.0
<i>Sub-total Centres</i>	<i>260.0</i>	<i>264.3</i>
<u>B. CGIAR Systemwide Initiatives</u>		
Ecoregional Programmes	4.0	6.0
Genetic Resources Programme	1.0	2.0
Livestock Programme	4.0	4.8
Water Management Programme	1.0	2.0
Fisheries Programme	0.0	1.0
<i>Sub-total Systemwide Initiatives</i>	<i>10.0</i>	<i>15.7¹</i>
Total Recommended Core Funding	US\$ 270.0	US\$ 280.0

¹ Totals may not add due to rounding.

Recommendations of 1998 Centre Core Funding

TAC's recommendations on 1998 centre core funding, at the aggregate System levels of US\$270 million and US\$280 million (expressed in 1992 dollars) are summarized in Table S2. The Table also lists the indicative envelope assigned to each centre in March 1992 and TAC's recommended 1994 core funding for each of the eighteen centres. Centre core funding levels for 1992 and 1993 are also presented for comparison purposes.

TAC's rationale and arguments for each of the recommended allocations are presented, centre by centre, in Chapter 4 of this report.

Recommendations for 1998 Core Funding of CGIAR Systemwide Programmes

In the review of centre MTP proposals, TAC identified a number of programmes that were put forward by more than one centre, mostly with cross reference to each other but not necessarily in a orderly or consistent way. In this respect, the Committee considered the need to promote collaboration not only among CGIAR centres, but also with national programmes and other relevant institutions.

Also, TAC noted that the medium-term resource allocation process was limited in its ability to deal adequately with concerns of System interest and transcending individual centre interests.

On that basis, the Committee identified eight ecoregional and four other Systemwide initiatives which it recommends for funding on a Systemwide programme basis within the 1994-98 medium-term period. TAC's recommended core funding for these programmes are also shown in Table S2. These resources would be intended to catalyse inter-centre collaboration in the planning and initiation of the specified global and ecoregional programmes. TAC selected the individual programmes listed in close reference to Chapter 13 of the Report on Priorities and Strategies, and to pertinent global and ecoregional research proposals contained in the centres' MTPs. TAC's rationale in selecting the eight ecoregional and four global programmes in question is outlined in Section 3.1.2.

Follow-Up

This report will be discussed at ICW'93 by the Group as the basis for decision-making on the implementation of the CGIAR priorities and strategies during the 1994-98 period, and on funding requirements during the same period of centres and Systemwide programmes. The latter would allow centres to finalize their medium-term plans and 1994 programmes of work and budget.

Table S 2: Recommended 1994 and 1998 Core Funding Requirements with Historical Comparisons
(in constant 1992 US\$ Millions)

A. CENTRES	1992		1993 Estimate		Base Envelope Assigned in March 1992	Recomm. 1994 Core Funding	Recommended 1998 Core Funding	
	Chap. 14 Estimate	Actual	in '92 \$	in '93 \$			At US\$ 270 m.	At US\$ 280 m.
CIAT	26.5	26.9	24.4	25.4	27.5	25.0	27.5	28.3
CIFOR	3.4	3.2	4.9	5.1	7.6	5.3	7.6	7.6
CIMMYT	25.6	26.1	22.6	23.5	24.1	23.3	26.5	26.5
CIP	15.2	15.3	14.3	15.0	14.3	14.3	14.3	14.3
IPGRI								
IBPGR	7.4	9.1	8.5	8.8	8.4	8.6	9.2	10.7
INIBAP	2.2	1.8	1.7	1.8	2.1	1.7	1.8	1.8
Sub-total	9.6	10.8	10.2	10.6	10.5	10.3	11.0	12.5
ICARDA	18.9	17.9	13.0	13.5	17.6	13.8	17.6	17.6
ICLARM	4.0	4.5	4.2	4.4	4.8	4.4	4.8	4.8
ICRAF	11.9	11.1	11.4	11.9	15.6	11.9	14.0	14.0
ICRISAT	27.7	27.3	25.0	26.0	26.9	25.4	26.9	27.9
IFPRI	8.3	8.3	7.8	8.1	8.6	8.1	9.5	9.5
IIMI	7.3	6.4	6.0	6.2	7.6	6.3	7.6	7.6
IITA	22.2	21.7	20.3	21.1	22.2	20.8	23.3	23.3
Livestock Centre								
ILCA	19.4	15.8	11.7	12.1	14.0	12.1	14.0	14.0
ILRAD	12.6	12.6	9.7	10.1	9.1	9.9	11.1	11.1
Sub-total	32.0	28.4	21.3	22.2	23.1	22.0	25.1	25.1
IRRI	28.3	28.6	24.6	25.6	25.8	25.5	29.4	29.4
ISNAR	6.6	7.0	5.9	6.2	6.8	6.1	6.8	7.8
WARDA	6.2	5.8	4.9	5.1	5.8	5.1	5.8	5.8
TOTAL	253.8	249.2	220.8	229.8	248.8	227.7	257.8	262.1
External Review Provision	1.2		0.9	0.9	1.2	1.2	1.2	1.2
Allocable Reserve					20.0			
Reserve for Fisheries							1.0	1.0
CENTRES TOTAL	255.0	249.2	221.7	230.7	270.0	228.9	260.0	264.3
B. CGIAR SYSTEMWIDE PROGRAMMES								
Ecoregional Programmes in:								
Sub-Saharan Africa:								
Subhumid & Humid Ecoreg. Programme							0.50	0.70
Semi-Arid Ecoregional Programme							0.50	0.65
Highlands Ecoregional Programme							0.25	0.75
Sub-total							1.25	2.10
WANA								
							0.40	0.53
Asia:								
Semi-Arid Ecoregional Programme							0.40	0.53
Subhumid & Humid Ecoreg. Programme							0.70	0.90
Sub-total							1.10	1.43
LAC								
							0.75	0.95
Cross-region. Slash & Burn Programme								
							0.50	1.00
Sub-Total							4.00	6.00
Genetic Resources Programme							1.00	2.00
Livestock Programme							4.00	4.75
Water Management Programme							1.00	2.00
Fisheries Programme								1.00
TOTAL CGIAR SYSTEMWIDE PROGRAMMES							10.00	15.75
TOTAL SYSTEM								
	255.0	249.2	221.7	230.7	270.0	228.9	270.0	280.0

1. Introduction

This report presents TAC's recommendations for allocating resources across the CGIAR centres and programmes for the period 1994-98. These recommendations are presented to the CGIAR at ICW'93 to provide the basis for the Group's decisions on implementing the System priorities and strategies in the medium term, and approval of centre funding requirements between 1994 and 1998. Centres will finalize their medium-term plan (MTP) proposals according to the recommendations of TAC and the CGIAR to complete this round of the revised resource allocation process.

The process of recommending resource allocation in the CGIAR for 1994-1998 proceeded in several stages. First, TAC made recommendations on priorities and strategies for the System, which were subsequently endorsed by the Group at MTM'92. TAC used a comprehensive analytical framework for setting priorities which provided the basic mechanism for linking the recommended priorities for the CGIAR to resource allocation. Based on its priority considerations, TAC developed tentative resource envelopes for 1998 for each centre. Second, these indicative envelopes were used by the centres as planning guidelines for developing their MTP proposals. These proposals were presented to TAC and the CGIAR, providing them with an opportunity to raise issues to which centres responded. Third, TAC considered simultaneously all centres' MTP proposals, together with the centre responses, and reconciled proposals with its System-level recommendations on CGIAR priorities and strategies. The outcome of this process is TAC's funding recommendations which are presented in this report.

On the basis of the consensus reached by the CGIAR at ICW'93, centres will revise their proposals in line with their recommended funding and associated programme recommendations, and will finalize their programmes of work and budget for 1994. Between 1994 and 1998, the analytical framework used in the priority-setting and resource-allocation process will provide a mechanism for monitoring the implementation of the CGIAR's priorities and strategies through analysis of annual programmes of work and budget of the centres.

The remainder of this report describes the medium-term resource-allocation process, and the resulting TAC recommendations for resource allocation for the System as a whole, for each centre, and for Systemwide initiatives.

Chapter 2 provides a historical perspective of the process followed by TAC in making recommendations on resource allocation. TAC's main recommendations on CGIAR priorities and strategies are summarized, and an overview is given of the analytical framework which assisted TAC in making recommendations on the allocation of resources within the System.

Chapter 3 sets out the outcome and results of this process for the System as a whole at core funding levels of US\$ 270 and 280 million (in constant 1992 US dollars) in 1998. The processes followed, and the considerations and criteria used in developing resource allocation recommendations are described first. The chapter also contains a proposal for core funding in 1994 and for annual core funding in the intermediary years (1995-97) of the MTP period. In Chapter 14 of its report on CGIAR priorities and strategies, TAC had recommended a relative distribution of System core resources to be

achieved by 1998, expressed in the form of a proposed allocation among categories of activity, regions, production sectors and commodities. Chapter 3 also discusses the degree of convergence between the originally-recommended distribution among the different parameters, and the distributions which result from centres' aggregate MTP proposals and from TAC's recommended System resource allocations. Furthermore, TAC discussed the implications of a core funding level of US\$ 240 million (in 1992 values) and considered that, if sustained over a longer period, such a level of funding would necessitate further major structural changes in the CGIAR, rather than marginal budgetary adjustments. TAC's views on this matter are presented both here and with further details in the revised Chapter 13 of the Review of CGIAR Priorities and Strategies, which is being circulated separately.

Chapter 4 provides, for each centre, a summary of its MTP proposal, TAC's views on the proposal, and TAC's recommendations for the centre's core funding in 1998 - with the rationale underpinning the recommendations - and in 1994. A financial summary for 1990-1998 is given in tabular form for each centre.

2. An Overview of the Medium-Term Planning Process

2.1 Evolution of the CGIAR Resource Allocation Process

Initially, centres' programmes and budgets were prepared annually, complemented with multi-year projections of requirements, and reviewed by TAC and endorsed by the Group. The programmes and budgets were based on centres' long-term plans. Starting in 1987, centres prepared five-year, medium-term plans, based both on CGIAR priorities as proposed by TAC and endorsed by the Group, and on their own long-term strategic plans. At ICW'90, the Group reviewed a report ('Review of the Resource Allocation Process') which examined the experiences gained from the five-year allocation process. The Group endorsed the recommendations which, among others, called for a more transparent linkage between System priorities and centres' operational programmes, and the consideration of constrained resource supply in a so far largely demand-driven resource allocation process. The completion by TAC in 1992 of the Review of CGIAR Priorities and Strategies, including its implications for resource allocation, offered an opportunity to further improve the linkage between System priorities and resource allocation to the centres and programmes in the framework of the development of new MTPs by centres.

First Round of MTPs (1987-89). Using TAC's 1986 priorities paper as a reference, the development of centre MTPs became the mechanism for translating the System's priorities into operational programmes. Since the development of centre MTPs was, from a core resource point of view, open-ended, centres were able to present the full potential of their core programmes and activities in an environment of unconstrained supply of core funding. However, the initial round of MTPs had two major limitations. Firstly, the review and approval of centre MTPs was phased over a three-year period, causing the MTP time horizon of individual centres to vary from 1988-1992 to 1990-94. This reduced the scope for a comprehensive monitoring of the achievement of System priorities resulting from the implementation of individual centre MTPs. Secondly, the sum of centres' core resource requirements was substantially in excess of actual core funding during the implementation of the MTPs. Consequently, each year, centre core requirements needed to be adjusted downward mechanically, which generated increasing discrepancies between approved MTP programmes and centres' actual operational programme levels.

Second Round of MTPs (1992-93). In the framework of the current round of MTPs, the resource-allocation process has been modified so that it:

- provides a framework which explicitly links resource allocation decisions with recommendations on CGIAR priorities and strategies;
- introduces *ex ante*, a resource supply constraint on core programmes, consistent with reasonable projections of core resource supply;
- clearly defines the centre programme building blocks in terms which allow easy identification of their relation to the System priorities;

- improves the justification and review of centre proposals, thus enhancing transparency and equitable treatment of all centres' proposals; and
- provides, through consolidation of all centres' MTPs covering a common five-year period (1994-98), a System five-year plan - allowing global monitoring of the implementation of System priorities within realistic resource boundaries.

The specific objectives of the re-design of the resource-allocation process were:

- to improve the matching, in programme terms, of the System ('top down') priority setting by TAC and the CGIAR, and the ('bottom up') preparation by individual centres of MTP proposals; and
- to improve the matching, in financial terms, of approved allocations of core resources to centres with the supply of core funds by donors.

The medium-term resource-allocation process is underpinned by the following principles:

- **transparency**, i.e., the rationale of the centre allocation recommendations can be related to the recommendations on System priorities as recommended by TAC and endorsed by the Group;
- **supply constraint**, i.e., centres were asked to prepare MTP proposals on the basis of the indicative core resource envelopes recommended by TAC; however, centres had a reasonable margin of flexibility since they were also requested to present alternative proposals at 10% above and below the level of the core resource envelope. Centres could also present supplementary proposals in excess of this margin;
- **interactive**, i.e., starting from a centralized indicative planning allocation endorsed by the Group, centres constructed their MTP proposals, and presented these to both TAC and the CGIAR; subsequently, TAC reconciled the MTP proposals both in substance - i.e., the convergence of the sum total of centres' medium-term programme proposals with the System priorities - and financially - i.e., the compatibility between the sum total of centres' proposed funding requirements and the core funding assumption used for the System as a whole.

2.2. Assumptions on 1998 Core Funding for the CGIAR System

To guide the MTP process, the Group had indicated at ICW'91 that prospects for growth in core funding for the next few years were extremely limited, and any growth was likely to be limited to the CGIAR's new initiatives, mainly in the forestry-related activities. Subsequently, at MTM'92, the CGIAR endorsed a financial planning assumption of US\$ 270 million (in 1992 dollars) for 1998 which projected no growth, in real terms, in core resources from the 1992 estimated level of US\$ 255 million except for an increment of US\$ 15 million for forestry and fisheries; this excluded the possibility of reallocation of existing resources towards these new activities. Since then, the global development assistance environment has worsened significantly, at least in the short term.

The level of CGIAR core resources actually provided in 1992 was US\$ 8 million lower than the projection at MTM'92. By TAC 61, 1993 funding was projected to contract further to US\$ 231 million (US\$ 221 million in 1992 dollars), which compared to the original planning assumption (which assumed no growth) now implies a 15% real growth in core resources by 1998, in addition to the US\$ 15 million increment for forestry and fisheries.

The constraint on funding currently being experienced raised the issue of whether the planning assumptions should be revised to reflect the lower funding level prevailing in 1993. However, centre medium-term planning had proceeded on the assumption of US\$ 270 million core funding for the System in 1998. Reducing the medium-term planning levels would have required the centres to revise their MTP proposals, which would have delayed the reconciliation between centre plans and System requirements well beyond ICW'93. Furthermore, it is unclear whether the present low levels of core funding will persist until 1998. It was therefore proposed and accepted at the May 1993 MTP Workshop (see Section 2.4) that TAC proceed with recommending the allocation of 1998 core resources at the level of US\$ 270 million (in 1992 dollars). It was also agreed that TAC would outline a contingency programme for allocating core resources at a funding level of US\$ 240 million, or about 90% of the original planning level for 1998. It was understood that TAC's recommendations to that effect could go well beyond proposals for across-the-board reductions of all centres' programmes and requirements, or a proposal to simply postpone the initiation of new activities. At the MTP Workshop, it was made clear that TAC's proposals should be based on considerations of structural adjustments of the CGIAR through the restructuring, streamlining or phasing out of entire programmes at the level of subject matter, regions, commodities or institutions, based on criteria such as relative priority ranking of commodities or regions, management capability, institutional delivery capacity, potential alternative sources of supply, etc.

Consequently, TAC formulated recommendations for the allocation of core resources for 1998 at levels of US\$ 270 and 280 million (in 1992 values), from which it derived recommendations for core funding in 1994 and each intermediary year of the MTP period, for the System as a whole as well as for each centre. TAC also presented a strategy, process and timetable on how to adjust the System to enable it to cope with funding at a US\$ 240 million level (in 1992 values) in 1998 while assuring the integrity of the System.

2.3. TAC's Recommendations on CGIAR Priorities

During 1992, TAC finalized its review of CGIAR priorities and presented its report to the Group. Compared to TAC's previous reviews, the approach had been modified to take into account the current goals of the CGIAR and its expanded mandate, emerging trends in world agriculture, including the greater emphasis on sustainability and resource management issues, and the evolution of scientific capacity in developing countries. TAC also strove to achieve meaningful interactions with stakeholders, transparency in decision making, the development of mechanisms which would facilitate CGIAR priority setting as a continuing activity, and enable the implementation of agreed CGIAR priorities to be monitored.

In assessing priorities and strategies for the System, TAC used an analytical framework with three dimensions: an activities dimension, including the five categories of CGIAR research and research-related activities; a spatial dimension with nine agroecological zones, and four geographic regions; and a product dimension, with four main production sectors and their respective commodities. Quantitative tools, such as congruence, scoring and economic surplus models were used in addition to informed judgement to assist in the formulation of recommendations.

The main outcome, presented in Chapter 12 of the report, was TAC's recommendations on CGIAR priorities in Systemwide terms by: (a) category of activity; (b) region; (c) agroecological zone; (d) commodity; and (e) production sector.

Overall, these recommendations represented the following changes in the focus of CGIAR activities compared to 1991, expressed in terms of relative core resource allocations:

By category of activity

- a substantial increase in priority for research on the conservation and management of natural resources, including germplasm conservation (from 13 to 18%); and for socioeconomic, public policy and public management research (from 9 to 11%);
- a slight increase in priority for research on germplasm enhancement and breeding (from 21 to 22%);
- a reduction in the priority assigned to research on the development and management of production systems (from 33 to 29%), and on institution building (from 24 to 20%);

By region

- an increase in priority for Asia (from 29 to 33%) and Latin America and Caribbean (LAC) (from 15 to 17%), and a reduction in priority for sub-Saharan Africa (from 43 to 39%) and that of West Asia and North Africa (WANA) (from 13 to 11%);

By commodity

- an increase in priority of groundnut and soybean, and a reduction in priority of phaseolus bean and pigeonpea. The priority of cereals and root and tuber crops, other food legumes, and banana and plantain is to be maintained. The overall priority of livestock should also be maintained but TAC considered that the CGIAR was over-investing in livestock research in sub-Saharan Africa;

By ecoregion

- TAC identified six priority ecoregions: (i) the warm arid and semi-arid tropics, and (ii) the warm humid and sub-humid tropics in sub-Saharan Africa; (iii) the cool subtropics with winter rainfall in WANA; (iv) the warm arid and semi-arid

tropics and subtropics and (v) the warm humid and sub-humid tropics and subtropics in Asia; and (vi) the warm humid and sub-humid tropics and subtropics in LAC.

2.4. Linking CGIAR Priorities to Resource Allocation

TAC's analysis of CGIAR priorities was largely based on 'needs' considerations, which were to be complemented subsequently, through the MTP process, by centres' proposals on how these needs could be addressed effectively, taking into account the role of other non-CGIAR institutions. For this purpose, TAC assigned each centre a tentative, priority-based resource envelope as the basis for the development of each centre's MTP proposal. The methodology for developing the resource envelopes and the outcome of this part of the process are described in Chapter 14 of the Review of Priorities and Strategies. In recommending the tentative distribution of resources, TAC attempted to ensure consistency with its recommendations on CGIAR priorities. This was achieved:

- at the **System** level, by allocating 1998 core resources in relative and actual dollar terms for a total of US\$ 270 million (in 1992 values) among the five categories of activity and 14 sub-activities, as well as among the four geographical regions;
- at the **centre** level,
 - first, by considering the impact of the priority recommendations on the distribution of core resources by centres, particularly in terms of directional changes in the distribution among centres and within centres, among activities and commodities;
 - subsequently, the System resource allocations and the directional changes in centre allocations were translated into centre-specific dollar amounts (expressed in 1992 values); the latter representing the 1998 indicative resource envelope for each centre, which constituted the starting point for the preparation of centre 1994-1998 MTP proposals.

Finally, in order to assure a certain degree of flexibility in the final allocations, out of the total US\$ 270 million TAC allocated only US\$ 255 million to centres' indicative resource envelopes; this provided TAC with an allocatable reserve of US\$ 15 million (in 1992 values), to which another US\$ 5 million was originally added on account of a livestock reserve fund. This fund of US\$ 5 million was composed of US\$ 3 million from ILCA and US\$ 2 million from ILRAD in view of the uncertainty at that time surrounding the future evolution and direction of CGIAR livestock research. At TAC 59, TAC presented its preliminary views on CGIAR priorities for livestock research which concluded that support for livestock research should not be reduced from current levels. TAC subsequently returned these funds to ILCA and ILRAD for planning purposes to supplement their resource envelopes.

In order to allow appropriate flexibility in the development of MTP proposals, centres were urged to develop alternative proposals at levels of core funding above and below their planning envelopes.

2.5. Preparation and Analysis of Centres' Medium-Term Plans

Once TAC reached consensus on CGIAR priorities and strategies and had assigned the centres' tentative resource envelopes, guidelines were issued to assist centres in the preparation of their MTP proposals.² The centres were invited to present their MTP proposals at the level of their resource envelope and at 10% above and below that range, and explain the programmatic impact of funding at each level. Centres could also present proposals that implied core requirements beyond the 10% range.

Prior to the formal presentation and discussion of the MTP proposal by TAC and the CGIAR, a working party, consisting of a TAC member and staff of the TAC and CGIAR Secretariats, visited each centre so as to familiarize themselves with the proposals. Subsequently, each centre presented its MTP proposal to TAC first and then to the CGIAR: seven at TAC 59 and ICW'92, and ten at TAC 60 and MTM'93; CIFOR's MTP proposal was presented at MTM'93 and at TAC 61. In each case, TAC, in collaboration with the CGIAR Secretariat, prepared an interim commentary on centres' proposed plans raising programmatic and financial issues and, in most cases, requesting additional information from centres. These commentaries were shared with members of the CGIAR prior to the presentation and discussion of the MTPs by the Group. Centres then had the opportunity to respond to the TAC interim commentary and to questions raised by the CGIAR before all of the MTPs were considered again, individually and collectively at TAC 61 in June 1993. It was understood that no final recommendations by TAC, nor decisions by the CGIAR would be made before all centres' MTPs had been considered individually by both TAC and the Group: this would ensure that TAC would be able to formulate consistent recommendations for all centres, and reconcile its centre- and System-level recommendations.

A summary of each MTP proposal, TAC's interim commentary and programmatic issues, the centre's response, and TAC's evaluation, assessment and final funding recommendations is given for each centre in Chapter 4 of this report.

Immediately after MTM'93 and before TAC 61, the progress made by centres and TAC in the MTP process was presented and discussed at an MTP Workshop held in San Juan, Puerto Rico. The Workshop was attended by representatives of most of the CGIAR members, Centre Directors and senior staff, the TAC Chair and some TAC members, and staff of the two Secretariats.

At the Workshop, a progress report on the MTP process - jointly prepared by TAC, and the TAC and CGIAR Secretariats - was presented and discussed.³ It presented an initial assessment of the experiences gained. The report also presented a preliminary analysis of the implications of aggregating all centre proposals (at the level of their base resource envelopes) and compared the outcome with TAC's recommendations on CGIAR

² CGIAR Secretariat, 1992. Guidelines for the CGIAR Medium-Term Resource Allocation Process 1994-98. World Bank, Washington, D.C.

³ CGIAR Secretariat, 1993. Progress Report on the CGIAR Medium-Term Resource Allocation Process. Paper presented at the 'Workshop on the Medium-Term Plans', San Juan, Puerto Rico, 30 May 1993.

priorities and strategies. A first assessment was made of the degree of convergence of centres' collective proposals with the CGIAR priorities by category of activity, region, production sector and commodity. It was concluded that, despite large discrepancies at the individual centre level, in the aggregate the congruence was high: the directional changes were consistent in all cases, though the pace of implementation of the changes clearly accelerated under the centres' collective proposals. The report also expanded on how TAC intended to complete the resource allocation process and presented the format in which the recommendations to the Group would be formulated.

2.6. Initial Review of the MTP Proposals

2.6.1. Overview of Proposals

In the aggregate, centres' MTP proposals submitted to TAC and the Group, up to MTM'93, called for core funding which exceeded the planning estimate of 1998 core funding of US\$ 270 million by some 20%. Centres' complementary funding projections called for considerable increases also. In several cases, centres asserted that the constraint imposed by the resource envelope they had been assigned made planning quite irrelevant by limiting centres' ability to demonstrate to the full extent their capacity to develop more activities and absorb more resources effectively. Also centres argued that core funding should not necessarily stagnate at levels currently provided to the CGIAR. For these reasons, most centres presented a primary MTP proposal at a level equivalent to (or in excess of) 110% of the base resource envelope. A number of centres also noted that providing alternative scenarios at lower levels of core funding was not sensible in view of the high demands for their services, or inappropriate because of unwanted negative connotation such proposals may have within and outside the institutions.

However, subsequent to the interactions between centres, TAC and the Group, by TAC 61 all centres had provided adequate information on the programme and institutional implications of alternative core funding levels. This avoided TAC having to make judgements about centres' internal priorities and how these had to be re-arranged under different funding assumptions, and which is properly the prerogative of the centres themselves.

From the review of centres' proposals, a number of general observations could be made:

- (a) There was a wide variation in the methodology, transparency and subjectivity of priority-setting analysis by the centres. The approach to internal priority setting ranged from being highly quantitative to highly qualitative. There was also a wide variation in the conciseness of documentation. This observation does not suggest that there was a "correct way" for centres to prepare their proposals, it rather points out the rich diversity of approaches that were encountered;
- (b) Centres were responding to the call for greater collaboration with other CGIAR centres as well as with other partners to the extent of giving the impression that each centre is proposing collaboration with 'everyone else'. Caution had to be expressed against proliferation of bilateral collaborative efforts leading to the

dilution of many, currently-positive examples of collaboration, or the development of unsustainable institutional relations, outside a comprehensive framework;

- (c) As indicated above, despite having been encouraged to limit themselves to constrained resources in their MTP proposals, as indicated by donors, centres still emphasized the need to increase their assigned level of resources. Only six centres presented their primary MTP proposals at the base resource level. On TAC's insistence, however, all centres provided information - in many cases as addenda to their MTP document - on the programmatic implications of core funding at lower levels;
- (d) During the last three years, the System has gone through a process of rapid downscaling; this is reflected in the fact that several centres are currently operating at levels substantially below 1990-91 funding;
- (e) When aggregated, centre proposals appeared to be broadly in line with TAC's recommendations on CGIAR priorities by region, by category of activity and by commodity. While differences were to be expected because of the very nature of the process at this stage (i.e., bottom up), it was not always clear at the time whether the proposed changes in centre's priorities reflected a true shift in emphasis or resulted from a re-categorization of ongoing activities. Table 3.3 on page 24 shows the distribution by category of activity, activity, region, production sector and commodity as this resulted from aggregating all centres' core proposals at the base level and puts it in context of prior distributions and recommendations.

2.6.2. Considerations with Respect to CGIAR Priorities

TAC's comprehensive review of all the centres' MTP proposals occurred at TAC 61 in June 1993. The first step in the process was to consider centres' responses to issues raised by TAC and the CGIAR - in October 1992 and May 1993 respectively - and to assess whether developments within and outside the CGIAR System since early 1992 (when TAC's original proposals were endorsed) necessitated adjustments to the centres' indicative resource envelopes. Among these developments were: (a) the changes brought about by UNCED which had stressed the need for much greater consideration of sustainability and environmental issues; (b) a number of external reviews of centres;⁴ (c) sectoral reviews of rice, livestock, banana and plantain; (d) the joint TAC/Centre Directors' review of the ecoregional approach to research; and (e) the decisions taken by the CGIAR related to these issues, especially those taken at MTM'93 which had major structural implications. TAC also took into account the centres' own estimates of the distribution of efforts by activity categories, activities, regions and commodities. As it is to be expected from an iterative process (i.e., a top down followed by bottom up approach), in many cases the centres' estimates were quite different from the distribution used by TAC in its March 1992 deliberations on resource allocation. Sometimes, different interpretations in the classification of activities and categories of activities have caused such differences. In other cases, differences were caused by evolving interpretations in the classification of centres' operations in TAC's new classification of

⁴ CIMMYT, ICARDA, ICLARM, ICRAF, IFPRI, ILCA, ILRAD, INIBAP, IRRI and WARDA

activities by category. A number of centres had challenged TAC's estimates and considered therefore that their indicative resource envelopes had been negatively affected by inaccurate estimates. The Committee carefully considered the centres' arguments in each case.

Following a collective discussion of the priority issues as these emerged from the considerations described above, at TAC 61 each of the TAC members was asked to indicate by ballot whether centres' resource envelopes should qualify, **on priority considerations alone**, for an upward or downward adjustment of, or for the maintenance at, the base resource level as indicatively set in March 1992. This evaluation was based only on priority considerations which, in line with the priority and strategy exercise, were essentially demand driven and of a qualitative nature. Therefore TAC members were asked to omit institutional considerations at this stage. The objective was to complete TAC's discussion on the CGIAR priorities and on how these were to be translated into centre resource envelopes.

After TAC members had indicated their assessment by ballot, the ballots were compiled and the outcome was shared among all TAC members. TAC members were invited to share their vote and explain the reasoning behind it. This exchange of decision-making information fostered an in-depth discussion involving all TAC members and led gradually to a consensus on the priority considerations for each centre. The outcome of this discussion was that five centres **tentatively** qualified for an upward adjustment of their base resource envelope, ten centres for maintenance and three centres for a downward adjustment of their envelopes as an expression of TAC's modified priorities.

2.6.3. Institutional Considerations

Once consensus had been reached on the priority considerations, TAC members were asked to evaluate each centre. This step was introduced by an examination by all TAC members of centres' MTP proposals and their quality, adequacy of centres response to TAC commentaries and CGIAR questions, recent centre performance, outstanding programme or management issues, centre financial performance and condition, etc. Following such a detailed discussion of each centre, TAC members were asked to evaluate each centre according to a common set of largely supply-oriented criteria. TAC discussed and agreed on the following, equally-weighted criteria, which were considered to be relevant and pertinent to the assessment of all centres:

- the strategic character of the centre's research programme, i.e. whether the centre had developed a coherent, forward-looking programme to address critical future strategic issues;
- the potential for breakthroughs, i.e. an assessment of the chances that research would be successful and that the results would be converted to usable technology which would be widely adopted;
- past performance and likelihood of continuance (or improvement), i.e. whether the centre had delivered results and products in the past and whether there were firm indications that it could do so in the future;

- the external environment, institutional health and quality of management, i.e. whether the location of the centre and its relationships with host country/countries suggested a conducive environment for successful research; and whether the institution was appropriately endowed with human and physical resources and had a management team that would lead it towards achieving important results;
- collaboration with NARS, other CGIAR centres and advanced institutions, i.e. whether the centre was an active partner with NARS and had an appropriate set of links with other institutions to maximize the effectiveness of its resources.

Once the criteria had been discussed and agreed upon, each TAC member was asked to assign a score of between 0 and 20 for each criterion and each centre. The total score for each centre per TAC member could not exceed 100 points. The results of this second ballot were collated and shared among all TAC members. Information on centres' total and average scores, their comparison with System averages, centres' mean (excluding the highest and the lowest score), standard deviation and median, all led to a relative ranking of centres which reflected TAC members' evaluation on the basis of the criteria described above. This second input provided TAC with a basis to progress in the resource allocation process by reconciling the outcome of the priority considerations (first step and ballot) with institutional considerations (second step and ballot). A relatively high degree of convergence between the two evaluations generally emerged. However, in some cases, there was a divergence indicating that TAC members considered that the subject matter areas were of high priority, but that there were concerns about the centres' present capacity to deliver an effective research outcome.

2.6.4. Systemwide Considerations

Finally, TAC recognized the limitations of the MTPs having been developed at the centre level only. On the one hand, the centre-specific proposals did not, and could not deal comprehensively with matters of interest to more than one centre, and on the other, tended to ignore matters which transcend centres' own interests but are of interest to the System as a whole. With regard to the former, TAC considered it necessary to promote effective inter-centre collaboration as well as collaboration with national programmes and other institutions. With regards to the latter, TAC decided to foster the concept of Systemwide programme initiatives. In so doing, TAC referred to recent CGIAR decisions on global issues such as livestock and plant genetic resources, and to other CGIAR undertakings such as that on ecoregional research, and TAC's own working groups on specific subject matters.

3. System Level Recommendations

3.1. Recommendations for 1998 Core Funding at a US\$ 270 million System Vector

As indicated in Section 2.2., the original planning figure for 1998 consisted of, on the one hand, US\$ 255 million (i.e., the March 1992 estimate of core funding for 1992) and, on the other, an additional US\$ 15 million for the implementation and expansion of activities in the forestry and fisheries areas. As explained in Section 2.4., 5% of the estimated supply of core funds was set aside to provide TAC with a reserve of US\$ 15 million which it could allocate either at the time it would formulate its final allocation recommendations, or during the implementation of the MTPs.

3.1.1. Centre Level Considerations

Based on the outcome of the priority-based and institutional evaluations discussed in Section 2.6., TAC first considered which of the centres should see their base resource envelope for 1998 decrease and by how much. The reductions obtained in this way would be added to the US\$ 15 million reserve. TAC members discussed in depth the outcome of the two evaluations and their implications on System priorities and centres' operations. Eventually, TAC identified three centres whose indicative resource envelopes for 1998 should be reduced. The rationale for these conclusions is explained in greater detail in the centre-specific sections in Chapter 4 of this report. In summary, TAC proposed to reduce:

- INIBAP's base resource envelope for 1998 from US\$ 2.1 million to US\$ 1.8 million, mainly due to expected savings in Board and other administrative functions which will result from the implementation of the CGIAR decision (at MTM'93) to have INIBAP operate under the umbrella of IBPGR/IPGRI;
- ILCA's supplemented envelope from US\$ 17 million to US\$ 14 million (as originally assigned) because the Committee considered that research on feed resources and their utilization could be more appropriately and more efficiently planned within the framework of the new, integrated entity for global livestock research (decided upon by the CGIAR at MTM'93) and relevant ecoregional mechanisms; and,
- ICRAF's base resource envelope for 1998 from US\$ 15.6 million to US\$ 14 million mainly because TAC considered that ICRAF's original envelope had been set too high relative to that of other centres. In addition, TAC felt that there was a need to temper ICRAF's projected growth so as to safeguard the quality of its nascent research programmes as well as the integrity of the institution, in line with the recommendations of ICRAF's external review.

These reductions added some US\$ 4.8 million to the US\$ 15 million allocatable reserve.

In the next step and following a similar approach - i.e., considering the outcome of the priority-based and institutional evaluations - TAC considered which centres should

have their base resource envelope for 1998 increased, for what purpose and by how much. Again, this provoked an in-depth discussion among TAC members of the relative merits of centres, their proposals, their past and potential achievements, etc. At the end of this discussion, TAC decided to recommend increases for five centres: IRRI, CIMMYT, IBPGR, IFPRI and IITA. For IRRI, TAC augmented the base resource envelope for 1998 by 14%. For CIMMYT, IBPGR and IFPRI, TAC decided to recommend increases in their base resource envelope for 1998 of 10%. In IITA's case, TAC decided to recommend a 5% increase in the base resource envelope. This corresponded in each case to a funding scenario which was included in the centres' MTP proposals and which thus provided TAC with full documentation on the programmatic implications of such increases. As in the case of the centres for which decreases in the base resource envelope were proposed, the rationale underpinning the proposed upward adjustments is presented in the centre-specific section in Chapter 4. In summary, TAC proposed to increase:

- IRRI's resource envelope for 1998 from US\$ 25.8 million to US\$ 29.4 million (in 1992 values) mainly to include the five mega projects it had proposed in its 1998 core programme, i.e., raising the irrigated rice yield ceiling; reversing the decline in productivity trends in intensive irrigated rice, improving rice-wheat systems; conserving rice genetic resources; and exploiting biodiversity for sustainable pest management;
- CIMMYT's resource envelope for 1998 from US\$ 24.1 million to US\$ 26.5 million (in 1992 values), mainly to strengthen CIMMYT's work in maize and wheat genetic enhancement and biological applications;
- IBPGR's resource envelope for 1998 from US\$ 8.4 million to US\$ 9.2 million (in 1992 values) to enable IBPGR to include the Coconut Genetic Resources Network in its core programme, and to strengthen the implementation of a Systemwide programme on plant genetic resources;
- IFPRI's resource envelope for 1998 from US\$ 8.6 million to US\$ 9.5 million (in 1992 values) to enable IFPRI to give greater attention to research on natural resources management and to macroeconomic studies on sustainability; and
- IITA's resource envelope for 1998 from US\$ 22.2 million to US\$ 23.3 million (in 1992 values) to allow IITA to integrate the operation of its biological control programme into its core activities.

The increases in the base resource envelopes amounted to US\$ 8.8 million. Total net allocations to centres following these two steps totalled US\$ 257.8 million (in 1992 values).

In addition to a provision of US\$ 1.2 million for external reviews, TAC decided to set aside a reserve of US\$ 1 million for research on fisheries to reaffirm its views on the priority of this sector. However, TAC considered that the principal CGIAR Centre involved (ICLARM) needed to strengthen its research programmes and its capacity to deliver these effectively, and to improve its institutional health. If these conditions were

fulfilled during the MTP implementation period, as to be testified by the interim external review during 1995, the funds held in reserve would be released to the Centre.

Thus the total recommended core funding for 1998 (in 1992 values) resulting from this centre-focused process amounted to US\$ 260 million, and the proposed distribution is as follows:

Centre	Amount in 1992 US\$ million⁵
CIAT	27.5
CIFOR	7.6
CIMMYT	26.5
CIP	14.3
IBPGR	9.2
ICARDA	17.6
ICLARM	4.8
ICRAF	14.0
ICRISAT	26.9
IFPRI	9.5
IIMI	7.6
IITA	23.3
ILCA	14.0
ILRAD	11.1
INIBAP	1.8
IRRI	29.4
ISNAR	6.8
WARDA	5.8
CENTRES' TOTAL	257.8
Provision for External Reviews	1.2
Reserve for Fisheries	1.0
TOTAL	260.0

3.1.2. Systemwide Considerations

In a third step, TAC considered centres' MTP proposals from a different perspective, recognizing that the process of developing the MTP proposals at centre level was limited in its ability to deal fully with concerns of particular importance at the System level, but transcending centres' own interests. TAC observed that several centre MTPs contained proposals to contribute to one or more inter-centre undertaking, some of which were in an early stage of implementation while others were essentially being proposed in the MTPs. TAC noted inconsistencies in the centres' perception of the relative priority of inter-centre undertakings as a part of their overall activities. The

⁵ Totals may not add because of rounding.

multi-centre ecoregional programme components and the CGIAR genetic resources effort - both dispersed over a large number of centres - were good examples of such situations.

TAC noted that, in some cases, centre MTP proposals did not lead to adequate treatment of a subject matter particularly important from a Systemwide perspective and deserving a higher priority than the centres concerned were assigning within their overall programmes. This was the case with water management, in aspects beyond irrigation and irrigation management, such as irrigated crop research, human health, watershed management and downstream environmental concerns.

TAC also recognized the decision taken by the CGIAR at MTM'93 to establish a single entity for global livestock research, into which relevant components of ILCA and ILRAD will be integrated and which will focus on a livestock research programme of global relevance in the CGIAR.

On the basis of the discussion of Systemwide considerations described above, TAC decided to recommend, to the CGIAR, allocations of core funds to a number of undertakings of particular importance to the System as a whole. TAC proposed that these initiatives be implemented gradually during the MTP period, by the end of which their aggregate core funding would total US\$ 10 million (in 1992 values).

For each of the Systemwide initiatives, TAC identified a convening centre and likely partners from within the CGIAR, while it stressed the crucial importance of early involvement of national programmes and other relevant non-CGIAR counterparts in these initiatives. TAC envisages that the convening centre will act as initiator and facilitator. The convener would be a catalyst for the formation of a consortium and channel seed money to stimulate early planning activities but will not necessarily provide research leadership to the initiative concerned. It would also provide financial accountability to the donors. For each proposed initiative, TAC is prepared to receive joint proposals from the partners involved and submitted through the convening centre, describing the initiative and defining specific roles for each contributing partner. In all cases, the research would be conducted collaboratively with interested CGIAR centres, NARS and relevant non-CGIAR institutions.⁶

The initiatives proposed by TAC for the forthcoming medium-term period and their core funding by 1998 (in 1992 values) are as follows:

- (a) The initiation of ecoregional programmes referred to in the revised Chapter 13 of the report on CGIAR priorities and strategies would require core funding amounting to US\$ 4 million by 1998 (in 1992 values), for the following inter-centre undertakings:
 - (i) An ecoregional programme for the warm humid and sub-humid tropics of sub-Saharan Africa including the inland valleys of West Africa (US\$ 500,000); IITA would be the convening centre through its

⁶ It is assumed that global, subject-matter centres, such as ISNAR (institution building) and IFPRI (policy research) would be involved in most of these initiatives.

programmes in the moist savanna and forest-zone areas of West, Central and Eastern Africa; for the work on inland valleys, IITA would work in close collaboration with WARDA and other relevant research institutions.

- (ii) An ecoregional programme for the semi-arid tropics in sub-Saharan Africa (US\$ 500,000). ICRISAT would be the convening centre, both through its Sahelian programme and its programme in Bulawayo, in collaboration with the South African Centre for Cooperation in Agricultural Research (SACCAR).
 - (iii) An ecoregional programme in the East and Central African highlands (US\$ 250,000). ICRAF would be the convening centre and would collaborate with several CGIAR centres and NARS in the context of a consortium. TAC noted that, while the cool tropics of sub-Saharan Africa were not considered to be a high priority ecoregion, this highlands initiative merited support because of its innovative approach, involving centres and NARS from the outset, and because of the weakness of the national research systems involved in research on resource management.
 - (iv) An ecoregional programme for the WANA region, emphasizing the subtropics with winter rainfall (US\$ 400,000). ICARDA would be the convening centre.
 - (v) An ecoregional programme for the warm arid and semi-arid tropics and subtropics in Asia (US\$ 400,000). ICRISAT would be the convening centre. Elements of the CIMMYT/IRRI rice-wheat cropping system would also be included in this initiative.
 - (vi) An ecoregional programme for the warm sub-humid and humid tropics and subtropics of Asia (US\$ 700,000), for which IRRI would be the convening centre, particularly through its upland farming systems consortium and upland rice research programme.
 - (vii) An ecoregional programme for the LAC region with particular focus on the sub-humid and humid tropics and subtropics (US\$ 750,000). CIAT would be the convening centre and the programme would include relevant parts of CIP's proposed Andean programme.
 - (viii) A cross-ecoregional programme on Alternatives to Slash-and-Burn Agriculture (US\$ 500,000). This programme is currently led by ICRAF which works in close collaboration with IITA, CIAT, CIFOR and IRRI.
- (b) An inter-centre programme on the conservation of genetic resources with IBPGR/IPGRI as the convening centre, and involving all relevant centres, to which TAC proposes to allocate US\$ 1 million (in 1992 values) by 1998. In arriving at this recommendation, TAC examined the broader issue of the System's role in plant genetic resources conservation, which included the following considerations:

- (i) The CGIAR is the leading actor in international plant genetic resources conservation and in related research. Germplasm collection, conservation, characterization and utilization is a primary responsibility of IBPGR but also an important activity in at least 11 other CGIAR centres many of which are located in, or close to, the area of origin of the crop concerned. In the aggregate, it is estimated that CGIAR core expenditure on plant genetic resources was US\$ 23 million in 1992 and required 63 senior staff years (SSY), of which IBPGR's share was US\$ 9 million and 22 SSY.
- (ii) TAC considers that given the scale of the CGIAR involvement in genetic resources conservation and research, its wide knowledge of the ways in which gene pools can be characterized, evaluated and utilized, and a wide range of other important considerations, suggest that the CGIAR should be an active participant in the international debate on plant genetic resources and biodiversity. It should also be proactive in initiating thinking about the principles that are emerging concerning genetic resources.
- (iii) TAC considers that there is a need for a central oversight of the collective responsibility to safeguard the System's genetic resources commitment and to be able to speak for the whole System.

To accelerate the process of defining TAC's recommendations on a Systemwide strategy for plant genetic resources, TAC is commissioning a strategic stripe study of genetic resources work in the CGIAR. The US\$ 1 million that is being proposed is to support activities arising from this strategy.

- (c) The new global livestock research entity should be allocated core funds (US\$ 4 million) to facilitate the establishment of new livestock research programmes of both a global and ecoregional nature. Relevant components of ILCA and ILRAD's programmes will be integrated into this new entity, which will work in partnership with ecoregional mechanisms through the respective convening centres. The core funds hereby proposed for the new entity are in addition to the core funding proposed for ILCA and ILRAD, and are intended to build and strengthen linkages with plant-oriented centres to develop integrated programmes on livestock feed and production systems.
- (d) TAC considers that the efficiency with which increasingly-scarce irrigation water is used for crop production should be studied along with resource degradation issues such as salinization and waterlogging. TAC does not see a case for IIMI to develop its own capacity in irrigated crops research. It should draw on the capacity that already exists in other CGIAR centres, particularly IRRI, WARDA and ICARDA.

A water management research programme should be initiated with IIMI as the convening centre in partnership with several CGIAR centres. TAC proposes to allocate US\$ 1 million by 1998 (in 1992 values) to this new initiative. Those

funds would be assigned for work in Asia (US\$ 500,000), in WANA (US\$ 250,000), and in sub-Saharan Africa (US\$ 250,000).

3.1.3. Recommendations for 1998 Core Funding at a US\$ 270 million System Vector

TAC's recommended core funding of centre-specific requirements amounts to US\$ 260 million as described in Section 3.1.1. TAC's recommendations related to inter-centre, CGIAR System initiatives described in the previous section, will total US\$ 10 million by 1998, in 1992 values. The total thus amounts to US\$ 270 million in 1992 values, i.e., the level of the core funding assumption for 1998 used throughout the resource allocation process.

The following table summarizes these recommendations:

Recommended Core Funding in 1998 (in 1992 US\$ million)	
	At US\$ 270 m.
<u>A. Centres</u>	
Recommended Centres Core Funding	257.8
Provision for External Reviews	1.2
Reserve for Fisheries	1.0
<i>Sub-total Centres</i>	<i>260.0</i>
<u>B. CGIAR Systemwide Initiatives</u>	
Ecoregional Programmes	4.0
Genetic Resources Programme	1.0
Livestock Programme	4.0
Water Management Programme	1.0
<i>Sub-total Systemwide Initiatives</i>	<i>10.0</i>
Total Recommended Core Funding	US\$ 270.0

These recommendations, expressed in both 1992 and 1998 values (US\$ 270 million and US\$ 361 million respectively), by centre and by CGIAR Systemwide initiative are presented in Table 3.1. Section A of the table presents each centre's recommended funding in conjunction with its 1992 estimated funding, the amount of complementary funding projected for 1998 in both 1992 and nominal dollars, and the resulting total centres' 1998 funding requirements in both 1992 and current dollars. Section B of the table presents TAC's recommendations for CGIAR Systemwide

Table 3.1: Recommended 1998 Core and Complementary Funding Requirements
(in US\$ Millions -- at US\$ 270 Million Vector)

A. CENTRES	Base Resource Envelopes assigned in March 1992 (in 1992 \$)	1998 RECOMMENDED FUNDING REQUIREMENTS					
		CORE		COMPLEMENTARY		TOTAL	
		in '92 \$	in '98 \$	in '92 \$	in '98 \$	in '92 \$	in '98 \$
CIAT	27.5	27.5	34.8	8.0	10.1	35.5	44.9
CIFOR	7.6	7.6	9.6	2.8	3.5	10.4	13.1
CIMMYT	24.1	26.5	33.5	7.6	9.6	34.1	43.1
CIP	14.3	14.3	18.1	5.6	7.1	19.9	25.2
IPGRI							
	IBPGR	8.4	9.2	5.5	7.0	14.7	18.6
	INIBAP	2.1	1.8	0.8	1.0	2.6	3.3
	Sub-total	10.5	11.0	6.3	8.0	17.3	21.9
ICARDA	17.6	17.6	22.3	3.5	4.5	21.1	26.7
ICLARM	4.8	4.8	6.1	3.0	3.8	7.8	9.9
ICRAF	15.6	14.0	17.7	2.0	2.5	16.0	20.2
ICRISAT	26.9	26.9	34.0	5.5	7.0	32.4	41.0
IFPRI	8.6	9.5	12.0	8.2	10.4	17.7	22.4
IIMI	7.6	7.6	9.6	7.1	9.0	14.7	18.6
IITA	22.2	23.3	29.5	7.4	9.4	30.7	38.8
Livestock Center							
	ILCA	14.0	14.0	7.4	9.4	21.4	27.1
	ILRAD	9.1	11.1	0.4	0.5	11.5	14.6
	Sub-total	23.1	25.1	7.8	9.9	32.9	41.6
IRRI	25.8	29.4	37.2	9.8	12.4	39.2	49.6
ISNAR	6.8	6.8	8.6	3.1	3.9	9.9	12.5
WARDA	5.8	5.8	7.3	3.6	4.6	9.4	11.9
TOTAL	248.8	257.8	326.1	91.3	115.5	349.1	441.7
External Review Provision	1.2	1.2	1.2			1.2	1.2
Allocable Reserve	20.0						
Reserve for Fisheries		1.0	1.3			1.0	1.3
CENTRES TOTAL	270.0	260.0	328.6	91.3	115.5	351.3	444.2

B. CGIAR SYSTEMWIDE PROGRAMMES							
Ecoregional Programmes in:							
Sub-Saharan Africa:							
Subhum. & Humid Ecoregion. Programme		0.50	0.6			0.50	0.5
Semi-Arid Ecoregional Programme		0.50	0.6			0.50	0.5
Highlands Ecoregional Programme		0.25	0.3			0.25	0.3
Sub-total		1.25	1.6			1.25	1.6
WANA		0.40	0.5			0.40	0.5
Asia:							
Semi-Arid Ecoregional Programme		0.40	0.5			0.40	0.4
Subhum. & Humid Ecoregion. Programme		0.70	0.9			0.70	0.7
Sub-total		1.10	1.4			1.10	1.4
LAC		0.75	0.9			0.75	0.9
Cross-region. Slash & Burn Programme		0.50	0.6			0.50	0.6
Sub-Total		4.00	5.1			4.00	5.1
Genetic Resources Programme		1.00	1.3			1.00	1.3
Livestock Programme		4.00	5.1			4.00	5.1
Water Management Programme		1.00	1.3			1.00	1.3
TOTAL CGIAR SYSTEMWIDE PROGRAMMES		10.00	12.7			10.00	12.7

TOTAL SYSTEM	270.0	270.0	341.3	91.3	115.5	361.3	456.8
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initiatives totalling US\$ 10 million in 1992 values, or US\$ 12.7 million in current 1998 values.

Table 3.2 compares TAC's recommendations on 1998 core allocations with actual funding in 1992, both as estimated (at the time of formulating tentative resource envelopes) and actual, with estimated 1993 core funding, and the indicative base envelope for 1998. The table also indicates the differences in dollar terms and in percentages between the indicative resource envelope and TAC's recommended level of 1998 funding.

3.2. Reconciliation of TAC's Recommendations on 1998 Resource Allocation with CGIAR Priorities and Strategies

The objective of TAC's recommendations on the allocation of core resources among centres and CGIAR Systemwide initiatives is to ensure that the System priorities and medium-term targets of change will be implemented effectively. In order to determine priorities and benchmarks for intended changes, and to allocate resources so as to achieve the priorities and targets, the CGIAR used an interactive process which involved TAC, centres, donors, national programmes and other stakeholders. As a consequence of the iteration and interactions, the perceptions of priorities, the required programme changes, and effective ways to achieve both were in a state of flux throughout the process since at each step, the prevailing view could be (and was) questioned or challenged.

For this reason and before closing the priority-setting and resource-allocation process, it was important for TAC to examine whether, and to what extent, the priorities originally proposed to, and endorsed by, the CGIAR had been changed or affected during the MTP process, due to external events (e.g., UNCED), CGIAR centre and stripe reviews or studies, and centres' own views on System priorities and their respective contributions to their achievement (through activities, regional distributions, etc.).

Table 3.3 assists in identifying any such changes and in evaluating their impact:

- the first column shows the estimated distribution of 1991 CGIAR core resources among the four main decision parameters, which constituted the basis for discussing and determining centres' indicative 1998 resource envelopes (see Chapter 14 of the report on CGIAR priorities and strategies);
- the second column presents TAC's March 1992 recommendations of 1998 System resource allocation among these decision parameters;
- the third column presents the distribution of resources which, by aggregation, results from all centres' proposals (at their base resource envelope level);
- the fourth column shows the distribution which, in the aggregate, results from TAC's recommendations on individual centre core funding; and
- the fifth and last column shows the distribution of resources by activity, region, and production sector which results from TAC's recommendations on resource allocations to both centres and CGIAR System initiatives; in this case it is not

Table 3.2: Recommended 1998 Core Funding Requirements with Historical Comparisons
(in US\$ Millions -- at US\$ 270 Million Vector)

A. CENTRES	CORE FUNDING														
	1992 Core Funding				1993 Core Funding			Base Envelope		Recommended 1998 Core Funding					
	Ch. 14 Estim.		Actual		(Estimate 6/93)			(in 1992 \$)		Amount		Change fr. Envelope			
	Am't	%	Am't	%	in '92 \$	in '93 \$	%	Am't	%	in '92 \$	in '98 \$	%	Amount (92\$)	%	
CIAT	26.5	10%	26.9	11%	24.4	25.4	11%	27.5	11%	27.5	34.8	11%	0.0	0%	
CIFOR	3.4	1%	3.2	1%	4.9	5.1	2%	7.6	3%	7.6	9.6	3%	0.0	0%	
CIMMYT	25.6	10%	26.1	10%	22.6	23.5	10%	24.1	10%	26.5	33.5	10%	2.4	10%	
CIP	15.2	6%	15.3	6%	14.3	15.0	6%	14.3	6%	14.3	18.1	6%	0.0	0%	
IPGRI															
	IBPGR	7.4	3%	9.1	4%	8.5	8.8	4%	8.4	3%	9.2	11.8	4%	0.8	10%
	INIBAP	2.2	1%	1.8	1%	1.7	1.8	1%	2.1	1%	1.8	2.3	1%	-0.3	-12%
	Sub-total	9.6	4%	10.8	4%	10.2	10.6	5%	10.5	4%	11.0	14.0	4%	0.5	5%
ICARDA		18.9	7%	17.9	7%	13.0	13.5	6%	17.6	7%	17.6	22.3	7%	0.0	0%
ICLARM		4.0	2%	4.5	2%	4.2	4.4	2%	4.8	2%	4.8	6.1	2%	0.0	0%
ICRAF		11.9	5%	11.1	4%	11.4	11.9	5%	15.6	6%	14.0	17.7	5%	-1.6	-10%
ICRISAT		27.7	11%	27.3	11%	25.0	26.0	11%	26.9	11%	26.9	34.0	10%	0.0	0%
IFPRI		8.3	3%	8.3	3%	7.8	8.1	4%	8.6	3%	9.5	12.0	4%	0.9	10%
IIMI		7.3	3%	6.4	3%	6.0	6.2	3%	7.6	3%	7.6	9.6	3%	0.0	0%
IITA		22.2	9%	21.7	9%	20.3	21.1	9%	22.2	9%	23.3	29.5	9%	1.1	5%
Livestock Centre															
	ILCA	19.4	8%	15.8	6%	11.7	12.1	5%	14.0	6%	14.0	17.7	5%	0.0	0%
	ILRAD	12.6	5%	12.6	5%	9.7	10.1	4%	9.1	4%	11.1	14.0	4%	2.0	22%
	Sub-total	32.0	13%	28.4	11%	21.3	22.2	10%	23.1	9%	25.1	31.8	10%	2.0	9%
IRRI		28.3	11%	28.6	11%	24.6	25.6	11%	25.8	10%	29.4	37.2	11%	3.6	14%
ISNAR		6.6	3%	7.0	3%	5.9	6.2	3%	6.8	3%	6.8	8.6	3%	0.0	0%
WARDA		6.2	2%	5.8	2%	4.9	5.1	2%	5.8	2%	5.8	7.3	2%	0.0	0%
TOTAL		253.8	100%	249.2	100%	220.8	229.8	100%	248.8	100%	257.8	326.1	100%	9.0	4%
External Review Provision		1.2				0.9	0.9		1.2		1.2				
Allocable Reserve									20.0						
Reserve for Fisheries											1.0	1.3			
CENTRES TOTAL		255.0		249.2		221.7	230.7		270.0		260.0	328.6			

B. CGIAR SYSTEMWIDE PROGRAMMES														
Ecoregional Programmes in:														
Sub-Saharan Africa:														
Subhumid & Humid Ecoreg. Programme											0.50	0.6		
Semi-Arid Ecoregional Programme											0.50	0.6		
Highlands Ecoregional Programme											0.25	0.3		
Sub-total											1.25	1.6		
WANA														
											0.40	0.5		
Asia:														
Semi-Arid Ecoreg. Programme											0.40	0.5		
Subhumid & Humid Ecoreg. Programme											0.70	0.9		
Sub-total											1.10	1.4		
LAC														
											0.75	0.9		
Cross-region. Slash & Burn Programme											0.50	0.6		
Sub-Total											4.00	5.1		
Genetic Resources Programme											1.00	1.3		
Livestock Programme											4.00	5.1		
Water Management Programme											1.00	1.3		
TOTAL CGIAR SYSTEMWIDE PROGRAMMES											10.00	12.7		

TOTAL SYSTEM	255.0	249.2	221.7	230.7	270.0	270.0	341.3
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possible to identify the distribution among commodities since several CGIAR System initiatives (the ecoregional and the genetic resources programmes in particular) will have commodity components which are not yet identified.

As Table 3.3 indicates, there is a reasonable degree of congruence between TAC's original recommendations on relative priorities and directional changes, and the relative priorities and directional changes which result from TAC's final recommendations on 1998 core resource allocations among centres and CGIAR System initiatives.

The fifth column of the table indicates that the integration of TAC's recommendations on CGIAR System initiatives reduces somewhat the disparity between the original 1992 recommendations and the outcome of the final recommendations of allocations:

By Category of Activity

- the overall allocation of 23% of 1998 core resources to category of activity 1 (natural resources) is **above** TAC's 1992 recommendation of 18%;
- the allocation of 21% of 1998 core resources to category of activity 2 (germplasm enhancement and breeding) is **below** TAC's 1992 recommendation of 22%;
- the allocation of 27% of 1998 core resources to category of activity 3 (production systems research) is **below** the original recommendation of 29%;
- the allocation to category of activity 4 (policy research) is **identical** to the 11% of total core resources in 1998 as recommended;
- the allocation of 19% of 1998 core resources to category of activity 5 (institution building) is **below** the original recommendation of 20%.

It is worth noting that, while there are differences in the magnitude of the changes, in all cases, except for activities in category 2, they are consistent with the originally-intended direction, but the implementation of the changes is accelerated, i.e., higher rates of increases, and faster reductions than originally anticipated. As indicated earlier, discrepancies may be due to differences in the classification of centres' operations in TAC's categorization of activities, especially in the overlap between natural resources conservation and management (category 1) and production systems research (category 3). Nevertheless, TAC is concerned about the high share of resources assigned to category 1 of natural resources conservation and management to research on 'ecosystem conservation'. This sub-category of activities has been assigned 16% of resources compared to 10% as originally recommended by TAC. This trend may have been partly donor driven and may be difficult to justify on programmatic terms alone. TAC is also concerned about the apparent reduction in category 2 (germplasm enhancement and breeding), although this may also be explained, in part, by differences in interpretation of the categorization of activities. TAC intends to carefully monitor the implications of these apparent discrepancies during the period of MTP implementation.

Table 3.3: Congruence of Priorities and Resource Allocations by Activity, by Region, by Production Sector, and by Commodity (in percentages)

	1991 Distribution	Priorities Paper's Recommendations for 1998	Centres' Proposals for 1998	Recommended 1998 Total Core Allocations to Centres Only	Recommended 1998 Total Core System Allocations
Categories of Activity					
1. Conservation & Management of Natural Resources	13%	18%	23%	23%	23%
1.1 Ecosystem conservation & management	7%	10%	16%	16%	16%
1.2 Germplasm coll., conserv., character., evaluat.	6%	8%	7%	7%	7%
2. Germplasm Enhancement & Breeding	21%	22%	21%	21%	21%
2.1 Crops	20%	20%	19%	20%	19%
2.2 Livestock	0%	0%	0%	0%	1%
2.3 Trees	1%	2%	1%	1%	1%
2.4 Fish	0%	0%	0%	0%	0%
3. Production Systems Development & Management	33%	29%	25%	24%	27%
3.1 Cropping Systems	18%	14%	13%	14%	15%
3.2 Livestock systems	13%	11%	9%	8%	9%
3.3 Tree systems	2%	3%	2%	2%	2%
3.4 Aquatic systems	0%	1%	0%	0%	1%
4. Socio-Economic, Public Policy, & Public Management Research	9%	11%	11%	12%	11%
5. Institution Building	24%	20%	20%	20%	19%
5.1 Training & Conferences	9%	7%	8%	7%	7%
5.2 Docum./Public./Dissemination of Info.	8%	6%	8%	7%	7%
5.3 Organization and Management Counselling	2%	2%	2%	2%	2%
5.4 Networks	5%	4%	2%	2%	2%
Regional Distribution:					
Sub-Saharan Africa (SSA)	43%	39%	37%	37%	37%
West Asia and North Africa (WANA)	13%	11%	11%	11%	11%
Asia	29%	33%	32%	33%	33%
Latin America and Caribbean (LAC)	15%	17%	20%	19%	19%
Production Sector/Commodity (Aggregation of categories 2 and 3)					
Cereals					
Rice	15%	14%	16%	17%	
Wheat/Barley	10%	9%	8%	9%	
Maize	10%	9%	9%	9%	
Sorghum	4%	3%	3%	3%	
Millet	3%	3%	3%	2%	
Cereals Subtotal:	42%	39%	39%	41%	
Roots & Tubers					
Cassava	5%	5%	7%	8%	
Potato	4%	4%	6%	5%	
Sweet Potato	1%	1%	3%	3%	
Roots & Tubers Subtotal:	10%	9%	15%	15%	
Food Legumes					
Phaseolus bean	5%	4%	4%	4%	
Faba bean/Lentil	2%	2%	1%	1%	
Chickpea	2%	2%	2%	2%	
Cowpea/Soybean	3%	4%	2%	2%	
Groundnut	2%	2%	3%	3%	
Pigeonpea	1%	1%	1%	1%	
Food Legumes Subtotal:	16%	15%	14%	14%	
Banana & Plantain					
Banana/Plantain/Yam	3%	3%	3%	3%	
Agricultural Crops Total	70%	66%	71%	74%	71%
Livestock	24%	23%	20%	18%	21%
Fish	1%	2%	1%	1%	2%
Trees	4%	9%	7%	6%	7%
TOTAL	100%	100%	100%	100%	100%

By Region

The implications of TAC's recommendations on resource allocation are largely congruent with TAC's recommendations on priorities by region. As Table 3.3 indicates, in the aggregate, the allocation of core resources to the four regions, as they result from TAC's final allocation recommendations, are broadly consistent with the original recommendations. The same comment applies as in the case of the distribution of activity, i.e., that the changes in direction are fully consistent but are happening faster in some cases than originally envisaged:

- 37% of total 1998 core resources would benefit sub-Saharan Africa which compares with 39% as recommended in 1992; this rapid reduction is in part linked to the reclassification of the regional relevance of some livestock research activities from a regional focus on sub-Saharan Africa to a global focus;
- the share of the WANA region and Asia, at 11% and 33% respectively of total 1998 core resources, are fully consistent with the original recommendation; and,
- 19% of total 1998 core resources will benefit the LAC region, a marginally higher share than the 17% recommended in 1992.

By Commodity

With respect to the relative distribution of effort by commodity, and before considering the allocations to Systemwide initiatives, there is an increase in allocation for rice research, particularly in Asia. Cassava also benefits from a major increase in resource allocation, resulting largely from the incorporation of the biological control programme of IITA in the Centre's core operation.

In conclusion, it appears that, overall, the discrepancies between recommendations on priorities and resource allocation result more from different approaches to classification of CGIAR activities than from differences in substance. However, TAC will carefully monitor the distribution of effort and classification of activities during the MTP implementation period.

3.3. Recommendations for 1998 Core Funding at a US\$ 280 million System Vector

3.3.1. Approach

As indicated earlier in this report, centres were asked to provide TAC with information on the potential impact, on their programmes, of core funding at levels different from the indicative base resource envelopes assigned in early 1992. Because of the centres' concern that the planning level that drove the process was really constraining their ability to expose their full potential to donors, at the May 1993 MTP Workshop, TAC proposed, and the participants agreed, that it would present recommendations of allocation of core funding in excess of the planning level. This would also give the CGIAR insight into what it would forego if core funding were limited in 1998 to US\$ 270 million. Therefore, TAC examined how an additional US\$ 10 million could be

effectively allocated; this would bring total core funding to US\$ 280 million by 1998 or 10% above the total of centres' resource envelopes assigned in March 1992 (US\$ 255 million).

To this effect, TAC members were asked to individually identify elements (i.e., centres, specific centre programmes or activities, regions, production sectors, commodities, or CGIAR Systemwide initiatives) which would merit increased support at a higher level of core funding. This information was collated, and each TAC member was asked to explain which elements he or she had selected and on what grounds. This paved the way for an in-depth discussion among TAC members of the relative merits of their proposals, and gradually led to consensus among the members in two steps, as in the process of determining the US\$ 280 million vector, i.e., incremental allocations to centres, then to CGIAR Systemwide initiatives.

3.3.2. Additional Allocations to Centres

Following the process described above, TAC reached a consensus to recommend increased centre support for a total of US\$ 4.3 million by 1998 (in 1992 values), pending core funding in 1998 at a level of US\$ 280 million (in 1992 values). While the more detailed justification is provided in the centre-specific commentaries presented in Chapter 4, the following summarizes TAC's recommendations for each centre concerned:

- CIAT: increase the 1998 recommended core funding of US\$ 27.5 million (under the US\$ 270 million vector) by US\$ 0.75 million. This would allow the Centre to restore the commodity work which, as a result of TAC's recommendation on the funding level under the US\$ 270 million vector, was expected to decrease;
- IBPGR: increase the 1998 recommended core funding level of US\$ 9.2 million (under the US\$ 270 million vector) by US\$ 1.5 million for the development of IBPGR's work on forest genetic resources and biodiversity, in situ conservation/ethnobotany, and on population genetics and the genetic structures of populations;
- ICRISAT: increase the 1998 recommended core funding level of US\$ 26.9 million (under the US\$ 270 million vector) by US\$ 1 million to encourage the further strengthening of inter-centre collaboration in the ICRISAT-led innovative resource management research programme in its Sahelian operations;
- ISNAR: increase the 1998 recommended core funding level of US\$ 6.8 million (under the US\$ 270 million vector) by US\$ 1 million to enable the Institute to develop a more comprehensive research programme.

3.3.3. Additional Allocations to CGIAR Systemwide Initiatives

Besides increments to centre core funding under the US\$ 280 million vector, TAC also recommends increased support of CGIAR Systemwide initiatives under the same assumption for a total of US\$ 5.7 million by 1998 (in 1992 values):

Ecoregional Initiatives: increase the 1998 recommended core funding level of US\$ 4 million (under the US\$ 270 million vector) by US\$ 2 million to supplement the original allocations as follows:

- US\$ 500,000 each to the African Highland initiative and to the Alternatives to Slash-and-Burn Programme; and
- US\$ 1 million to the other ecoregional initiatives to be distributed in the same general relative proportion as the original distribution under the US\$ 270 million vector, as follows:
 - (a) US\$ 200,000 for the initiative in the humid and sub-humid zone of sub-Saharan Africa for which IITA is the convening centre;
 - (b) US\$ 150,000 to the arid and semi-arid zone of sub-Saharan Africa initiative for which ICRISAT is the convening centre;
 - (c) US\$ 125,000 for the WANA initiative for which ICARDA is the convening centre;
 - (d) US\$ 125,000 for the initiative in the arid and semi-arid zone of Asia for which ICRISAT is the convening centre;
 - (e) US\$ 200,000 for the humid and sub-humid zone of Asia initiative for which IRRI is the convening centre; and
 - (f) US\$ 200,000 for the LAC initiative for which CIAT is the convening centre;

Genetic Resources: increase the 1998 recommended core funding level of US\$ 1 million (under the US\$ 270 million vector) by US\$ 1 million;

Global Livestock Research: increase the 1998 recommended core funding level of US\$ 4 million (under the US\$ 270 million vector) by US\$ 0.75 million to strengthen the linkages with other centres and to support livestock research activities in ecoregional initiatives;

Water Management Research: increase the 1998 recommended core funding level of US\$ 1 million (under the US\$ 270 million vector) by US\$ 1 million to augment inter-centre collaboration on irrigated cropping systems research, including work on watershed management, human health issues in irrigated areas, and downstream environmental problems associated with irrigated agriculture; and

Fisheries: While the reserve for fisheries research would be maintained at the recommended level of US\$ 1 million (recommended under the US\$ 270 million vector), TAC recommends an additional US\$ 1 million for global fisheries research in support of ecoregional initiatives, particularly on inland valleys, and for policy research work on common property resources and open access issues. ICLARM would be the likely convening centre for this initiative.

In ways similar to those used in Tables 3.1 and 3.2, Tables 3.4 and 3.5 show the TAC-recommended 1998 allocation at a System total of US\$ 280 million (in 1992 values). Table 3.4 indicates the allocation by centre and by CGIAR System initiative, and includes centres' projections of 1998 complementary funding requirements as well as the resulting total 1998 funding requirements. As in Table 3.1, in the case of the US\$ 270 million vector, Table 3.4 also indicates each centre's 1993 estimated core funding, and compares the proposed allocations with each centre's indicative, base resource envelope assigned by TAC in 1992. Table 3.5 also provides a comparison with funding in 1992, both actual and as estimated in Chapter 14 of the report on CGIAR priorities and strategies, and between indicative and final, recommended resource envelopes.

3.4. Coping with a Sustained Shortfall of Core Funds in 1998

The CGIAR has experienced significant real and nominal declines in core funding in recent years. TAC therefore undertook a consideration of mechanisms for dealing with a potential shortfall of funds in 1998. Discussion at the MTP Workshop in May 1993 confirmed that it was appropriate for TAC to consider funding at least at 10% below the target figure of US\$ 270 million for 1998 agreed upon at MTM'92.

Thus TAC, after completing the formulation of recommendations at the US\$ 270 million and US\$ 280 million levels, began consideration of how the System should cope with a possible significant sustained underfunding of as much as 10%, or 30 million, below the 1998 funding target of US\$ 270 million used by TAC and endorsed by the CGIAR.

In keeping with the conclusions of the Puerto Rico Workshop, TAC concluded that alternatives to simple across-the-board budgetary cuts should be explored. Thus, each Committee member was asked to identify elements (programmes, activities, centres, regions, production sectors and commodities) which could or should be curtailed or eliminated at reduced funding levels. The results of each member's proposed list was shared with the Committee and each member explained why cuts were proposed. There then followed a general discussion of what was the best way to proceed.

From the discussion it quickly emerged that it was the Committee's view that a sustained funding shortfall of such a magnitude (10% or more) could not and should not be accommodated by marginal budgetary adjustments across all centres' programmes. The Committee is fully aware of the fact that current (1993) nominal funding levels are in this range already. So far, some centres have coped with the shortfalls in mostly ad hoc and expedient ways.

Table 3.4: Recommended 1998 Core and Complementary Funding Requirements
(in US\$ Millions -- at US\$ 280 Million Vector)

A. CENTRES	Base Resource Envelopes assigned in March 1992 (in 1992 \$)	1998 RECOMMENDED FUNDING REQUIREMENTS					
		CORE		COMPLEMENTARY		TOTAL	
		in '92 \$	in '98 \$	in '92 \$	in '98 \$	in '92 \$	in '98 \$
CIAT	27.5	28.3	35.8	8.0	10.1	36.3	45.9
CIFOR	7.6	7.6	9.6	2.8	3.5	10.4	13.1
CIMMYT	24.1	26.5	33.5	7.6	9.6	34.1	43.1
CIP	14.3	14.3	18.1	5.6	7.1	19.9	25.2
IPGRI							
IBPGR	8.4	10.7	13.5	5.5	7.0	16.2	20.5
INIBAP	2.1	1.8	2.3	0.8	1.0	2.6	3.3
Sub-total	10.5	12.5	15.9	6.3	8.0	18.8	23.8
ICARDA	17.6	17.6	22.3	3.5	4.5	21.1	26.7
ICLARM	4.8	4.8	6.1	3.0	3.8	7.8	9.9
ICRAF	15.6	14.0	17.7	2.0	2.5	16.0	20.2
ICRISAT	26.9	27.9	35.3	5.5	7.0	33.4	42.3
IFPRI	8.6	9.5	12.0	9.2	11.7	18.7	23.7
IIMI	7.6	7.6	9.6	7.1	9.0	14.7	18.6
IITA	22.2	23.3	29.5	7.4	9.4	30.7	38.8
Livestock Centre							
ILCA	14.0	14.0	17.7	7.4	9.4	21.4	27.1
ILRAD	9.1	11.1	14.0	0.4	0.5	11.5	14.6
Sub-total	23.1	25.1	31.8	7.8	9.9	32.9	41.6
IRRI	25.8	29.4	37.2	9.8	12.4	39.2	49.6
ISNAR	6.8	7.8	9.9	6.3	8.0	14.1	17.8
WARDA	5.8	5.8	7.3	3.6	4.6	9.4	11.9
TOTAL	248.8	262.1	331.6	95.6	120.9	357.6	452.5
External Review Provision	1.2	1.2	1.2			1.2	1.2
Allocable Reserve	20.0						
Reserve for Fisheries		1.0	1.3			1.0	1.3
CENTRES TOTAL	270.0	264.3	334.1	95.6	120.9	359.8	455.0
B. CGIAR SYSTEMWIDE PROGRAMMES							
Ecoregional Programmes in:							
Sub-Saharan Africa:							
Subhum. & Humid Ecoregion. Programme		0.70	0.9			0.70	0.9
Semi-Arid Ecoregional Programme		0.65	0.8			0.65	0.8
Highlands Ecoregional Programme		0.75	0.9			0.75	0.9
Sub-total		2.10	2.7			2.10	2.7
WANA		0.53	0.7			0.53	0.7
Asia:							
Semi-Arid Ecoregional Programme		0.53	0.7			0.53	0.7
Subhum. & Humid Ecoregion. Programme		0.90	1.1			0.90	1.1
Sub-total		1.43	1.8			1.43	1.8
LAC		0.95	1.2			0.95	1.2
Cross-region. Slash & Burn Programme		1.00	1.3			1.00	1.3
Sub-Total		6.00	7.6			6.00	7.6
Genetic Resources Programme		2.00	2.5			2.00	2.5
Livestock Programme		4.75	6.0			4.75	6.0
Water Management Programme		2.00	2.5			2.00	2.5
Fisheries Programme		1.00	1.3			1.00	1.3
TOTAL CGIAR SYSTEMWIDE PROGRAMMES		15.75	19.9			15.75	19.9
TOTAL SYSTEM	270.0	280.0	354.0	95.6	120.9	375.6	474.9

Table 3.5: Recommended 1998 Core Funding Requirements with Historical Comparisons
(in US\$ Millions -- at US\$ 280 million Vector)

A. CENTRES	CORE FUNDING													
	1992 Core Funding				1993 Core Funding			Base Envelope		TAC Recommended 1998 Core Funding				
	Ch. 14 Estim.		Actual		(Estimate 6/93)			(in 1992 \$)		Amount		Change fr. Envelope		
	Am't	%	Am't	%	in '92 \$	in '93 \$	%	Am't	%	in '92 \$	in '98 \$	%	Amount (92\$)	%
CIAT	26.5	10%	26.9	11%	24.4	25.4	11%	27.5	11%	28.3	35.8	11%	0.8	3%
CIFOR	3.4	1%	3.2	1%	4.9	5.1	2%	7.6	3%	7.6	9.6	3%	0.0	0%
CIMMYT	25.6	10%	26.1	10%	22.6	23.5	10%	24.1	10%	26.5	33.5	10%	2.4	10%
CIP	15.2	6%	15.3	6%	14.3	15.0	6%	14.3	6%	14.3	18.1	5%	0.0	0%
IPGRI														
IBPGR	7.4	3%	9.1	4%	8.5	8.8	4%	8.4	3%	10.7	13.5	4%	2.3	27%
INIBAP	2.2	1%	1.8	1%	1.7	1.8	1%	2.1	1%	1.8	2.3	1%	-0.3	-12%
Sub-total	9.6	4%	10.8	4%	10.2	10.6	5%	10.5	4%	12.5	15.9	5%	2.0	19%
ICARDA	18.9	7%	17.9	7%	13.0	13.5	6%	17.6	7%	17.6	22.3	7%	0.0	0%
ICLARM	4.0	2%	4.5	2%	4.2	4.4	2%	4.8	2%	4.8	6.1	2%	0.0	0%
ICRAF	11.9	5%	11.1	4%	11.4	11.9	5%	15.6	6%	14.0	17.7	5%	-1.6	-10%
ICRISAT	27.7	11%	27.3	11%	25.0	26.0	11%	26.9	11%	27.9	35.3	11%	1.0	4%
IFPRI	8.3	3%	8.3	3%	7.8	8.1	4%	8.6	3%	9.5	12.0	4%	0.9	10%
IIMI	7.3	3%	6.4	3%	6.0	6.2	3%	7.6	3%	7.6	9.6	3%	0.0	0%
IITA	22.2	9%	21.7	9%	20.3	21.1	9%	22.2	9%	23.3	29.5	9%	1.1	5%
Livestock Centre														
ILCA	19.4	8%	15.8	6%	11.7	12.1	5%	14.0	6%	14.0	17.7	5%	0.0	0%
ILRAD	12.6	5%	12.6	5%	9.7	10.1	4%	9.1	4%	11.1	14.0	4%	2.0	22%
Sub-total	32.0	13%	28.4	11%	21.3	22.2	10%	23.1	9%	25.1	31.8	10%	2.0	9%
IRRI	28.3	11%	28.6	11%	24.6	25.6	11%	25.8	10%	29.4	37.2	11%	3.6	14%
ISNAR	6.6	3%	7.0	3%	5.9	6.2	3%	6.8	3%	7.8	9.9	3%	1.0	15%
WARDA	6.2	2%	5.8	2%	4.9	5.1	2%	5.8	2%	5.8	7.3	2%	0.0	0%
TOTAL	253.8	100%	249.2	100%	220.8	229.8	100%	248.8	100%	262.1	331.6	100%	13.3	5%
External Review Provision	1.2				0.9	0.9		1.2		1.2	1.2			
Allocable Reserve								20.0						
Reserve for Fisheries										1.0	1.3			
CENTRES TOTAL	255.0		249.2		221.7	230.7		270.0		264.3	334.1			
B. CGIAR SYSTEMWIDE PROGRAMMES														
Ecoregional Programmes in:														
Sub-Saharan Africa:														
Subhum. & Humid Ecoregion. Programme										0.70	0.9			
Semi-Arid Ecoregional Programme										0.65	0.8			
Highlands Ecoregional Programme										0.75	0.9			
Sub-total										2.10	2.7			
WANA														
Sub-total										0.53	0.7			
Asia:														
Semi-Arid Ecoreg. Programme										0.53	0.7			
Subhum. & Humid Ecoregion. Programme										0.90	1.1			
Sub-total										1.43	1.8			
LAC														
Sub-total										0.95	1.2			
Cross-region. Slash & Burn Programme														
Sub-total										1.00	1.3			
Sub-Total										6.00	7.6			
Genetic Resources Programme										2.00	2.5			
Livestock Programme										4.75	6.0			
Water Management Programme										2.00	2.5			
Fisheries Programme										1.00	1.3			
TOTAL CGIAR SYSTEMWIDE PROGRAMMES										15.75	19.9			
TOTAL SYSTEM	255.0		249.2		221.7	230.7		270.0		280.0	354.0			

Significant funding shortfalls on short notice have very serious consequences for research organizations with long-term programmes in place. While some CGIAR centres have undertaken substantive downsizing and programmatic restructuring, others have dealt with unanticipated shortfalls as best they could by measures such as: using reserves; drawing down and in some cases eliminating working capital funds; deferring contributions to depreciation accounts; not refilling positions vacated by resignation or retirement which results in random, not planned programme reductions; borrowing; and running deficits. These short-term adjustments are disruptive to centres' research work and are clearly not sustainable as solutions to long-term budgetary shortfalls.

The CGIAR may have assumed in recent years that funding shortfalls were a temporary phenomenon and therefore has not developed approaches to consider comprehensive restructuring of the System to accommodate sustained shortfalls.

TAC on two recent occasions (Chapter 11 of the 1990 Expansion Report, and the first draft of Chapter 13 of the 1992 Priorities and Strategies paper) has presented the CGIAR with a comprehensive set of structural options which could have led to savings in governance and management costs. On each occasion, the Group has had difficulty dealing with possible comprehensive restructuring. However, in May 1993, the CGIAR did make significant structural decisions on two components of the System - livestock and banana and plantain. In each case, the decision was preceded by a comprehensive priorities and strategy analysis by TAC and an institutional options analysis by a donor working group.

It is therefore TAC's conclusion that a reasoned, sequential approach to possible downsizing is more likely to be manageable than an across-the-board consideration of options despite the obvious merits of a comprehensive review. TAC proposes to undertake a series of across-centre/System stripe reviews on significant components of CGIAR activities. These could form the basis for similar approaches as were used in the cases of livestock and banana and plantain.

TAC presents in the revised Chapter 13 of the 1992 Priorities and Strategies paper a firm set of recommendations regarding priority-consolidated ecoregions and proposes mechanisms - convening centres and Systemwide initiative allocations - for furthering the implementation of ecoregional approaches. Also in the revised Chapter 13, TAC reviews carefully CGIAR global activities, both commodity and subject matter. These reviews led to TAC's conclusions that recent decisions by the CGIAR on rice, livestock and banana and plantain have for the near term settled these issues. TAC concludes that the current arrangements for legume, coconut and fisheries research are appropriate and that past recommendations on vegetable research remain relevant from a technical point of view.

In Chapter 13, TAC proposes a series of approaches for future analysis of System priorities and structural modalities. While these are presented in more detail in Chapter 13, the essence is presented here in the sequence that TAC proposes to follow.

1. *Genetic resources*: Genetic resource conservation and management is the primary responsibility of IBPGR/IPGRI and a significant scientific activity in at least 11 other CGIAR centres. The CGIAR is a major holder of genetic resources of relevance to the developing world and could play a major leadership role in these increasingly important

areas. TAC proposes to initiate in 1993, and complete in 1994 a strategic review of this activity to facilitate the development of a Systemwide strategy and programme in this vital area. TAC has also proposed System funding to new approaches in this area. The undertaking of this particular review does not necessarily imply reduced resources or restructuring in this vital area. Rather, it will address the question of Systemwide strategies and resource use efficiency.

2. *Institution building, public policy and public management research:* The CGIAR is investing an increasing share of its monetary resources in research and research-related activities in this area. Public policy research is the primary function of IFPRI but is an important area of work for many other centres including ISNAR, CIFOR, ICRAF and IIMI. Institution building is the primary function of ISNAR but almost all other centres engage in NARS strengthening activities. Public management is the primary concern of IIMI and ISNAR but many others are involved. Common property resource issues are important for IIMI, CIFOR, ICRAF, ICLARM and IFPRI. Therefore TAC proposes to initiate a strategic stripe review in this area to assist TAC and the CGIAR in defining a System strategy and exploring alternative structural options. TAC proposes to initiate this review in 1994.

3. *Roots and tubers:* Research on roots and tubers is currently dispersed across several institutes - CIP, CIAT and IITA. Fortuitously, each of these centres is scheduled for an external programme and management review during 1995. At the same time, TAC proposes to organize an inter-centre review on roots and tubers to assess the possibilities of a more optimal organization of research on the commodities involved.

4. *Cereals:* While rice was extensively reviewed in 1992-1993, a comprehensive look at how the CGIAR is organized to do research on the other cereals - wheat, maize, barley, millet and sorghum - seems appropriate but not as urgent as the other reviews already discussed. TAC proposes such an inter-centre review in 1996 which would both address structural issues and provide valuable inputs into the next review of CGIAR priorities and strategies.

5. *CGIAR Delivery Mechanism:* The comprehensive and simultaneous review of 18 MTP proposals has given TAC and the CGIAR a complete snapshot of the CGIAR in all of its dimensions. One of these dimensions is geographic and one of the things that stands out is the growing number of CGIAR activities, facilities and programmes that exist side by side in many regions. Each taken separately no doubt can be explained rationally by the centre involved. However, looked at from a System perspective one must ask the question as to whether there are not more cost-effective ways of organizing the CGIAR presence in many regions.

Therefore TAC proposes to initiate a regional inventory of CGIAR facilities, personnel, programmes and activities in West Africa. This type of study, if proven useful, could be conducted for other regions as well. There is nothing ominous about the selection of West Africa. TAC chose it because many centres have a physical presence in the region - IITA, WARDA, ICRISAT, ILCA, CIMMYT, IFPRI, CIP, IIMI and ICRAF, to name only some. The study would identify physical locations of facilities, personnel resident in the region, programme expenditure and level of capital investment. In a

period of sustained resource shortfall, all possible avenues of sharing and cost saving need to be explored. TAC proposes to initiate the study in 1994.

It is also noted that the revised Chapter 13 contains an extensive discussion of evolving programmes in forestry and agroforestry. The MTP proposals of the two centres involved show a high degree of complementarity and potential overlap. As TAC notes in Chapter 13, separate centre programmes and governance structures for ICRAF and CIFOR may be sustainable at full funding levels. But if funding levels continue to stagnate or decline, TAC suggests that prudence and efficiency concerns may point towards a re-examination of the two-centre approach.

The approach proposed by TAC is summarized as follows:

	1993	1994	1995	1996	1997
Genetic resources	X-----X				
Public policy and public management		X			
CGIAR delivery mechanisms		X-----X			
Roots and tubers			X		
Cereals				X	
Priorities and strategies review					X

The above set of proposals is obviously incomplete. Further reviews of the System's capacity to sustain its current portfolio of centres and activities in all regions, production sectors and commodities may be necessary if funding levels stagnate at 1993 levels or decline further. The reviews should provide options for a more cost-effective organization of CGIAR research in particular areas. TAC stands ready to advise on institutional options as it already has in Chapter 11 of the 1990 Expansion Paper and the earlier draft of Chapter 13 (priorities and strategies). However, we now believe the sequential component approach outlined in this section may be a more fruitful way to proceed than through complete System reviews.

3.5. Transition from 1993 and Progression from 1994 towards 1998

3.5.1. Purpose

The preceding sections describe TAC's views on what should be achieved by individual centres and through a number of Systemwide initiatives by the year 1998, and by what means. In a next step, TAC considered the mapping of the path which, starting from the present 1993 situation, will assure a gradual and effective achievement of the 1998 targets during the MTP period. To that effect, TAC indicated for each centre a

pattern of allocation of core resources in each of the five years of the MTP period; once approved by the Group, the pattern will enable centres to finalize their medium term plans, and to construct annual programmes of work and budgets starting in 1994. Similarly for the inter-centre, Systemwide initiatives, TAC indicated the likely year in which each initiative is likely to start and how core resources should gradually be built up to the level recommended for 1998. For donors, this provides the basis for determining the level of future contributions and their allocation among centres and programmes.

3.5.2. Methodology Applied by TAC

In the process of formulating core funding recommendations for 1994 through 1997, TAC perceived the need, on the one hand, to be consistent with its recommendations for 1998 and, on the other hand, to relate somehow its short-term recommendations to current core funding trends in the CGIAR.

For TAC to formulate recommendations on resource allocation over the medium term, the Committee needed to make assumptions with regard to both the likely level of core funding for the System in the first year, and the pace of implementation of centres' programmes and budgets between the present and 1998. Several possibilities exist in formulating these assumptions.

At the **System level**, among at least two possible approaches⁷, TAC chose the option which, from a supply perspective, implies that the current estimate of core funds available to centres in 1993 (US\$ 231 million, or US\$ 221 million in 1992 values) constitute the benchmark to determine an average, annual rate of real growth necessary to reach the 1998 recommended level of core funding. This produces, in the aggregate, an annual, average real rate of increase for centres' requirements of 3.1% - from US\$ 221 million in 1993 to US\$ 258 million in 1998 both expressed in 1992 dollars.

At the **centre level**, TAC also selected from among two possible approaches to set yearly core funding levels for each centre⁸. The option chosen by TAC consists in using, for each centre, the average, annual rate of growth between the centre 1993 estimated core funding and its recommended 1998 funding level. When applied consistently to all centres, this approach implies that all centres will progress in a linear mode from their respective 1993 funding levels towards their 1998 target funding level. The major reasons for TAC to select this option over the alternative, was that the alternative would have

⁷ The other option - from a demand perspective - would imply that the required core funding in 1994 be derived from the difference between the funding estimated for 1992 (when 1998 indicative envelopes were set) and the sum of those envelopes for 1998; i.e., by relating the then-estimated 1992 funding of US\$ 255 million to the 1998 recommended level of US\$ 270 million (in constant 1992 terms).

⁸ The alternative option consists in using the relative distribution between centres of the 1998 core funding of US\$ 258 million (i.e., exclusive of the allocations to CGIAR System initiatives) and applying the distribution to the 1994 System funding in 1994 projected as described above, i.e., using the System's average growth rate of 3.1%.

imposed a distribution of resources among centres in the very early years of the MTP period. This distribution, however, is actually intended to be achieved through gradual implementation of programme changes over the five-year period. In addition, by ignoring present levels of centres' funding, the alternative approach could have produced anomalies; e.g., a centre, not well funded in 1993 but with a high rate of growth in 1998 compared with 1993, could have a recommended 1994 core funding level considerably higher than in 1993, possibly unattainable for donors and the centre alike.

The option selected by TAC, i.e., the linear progression from 1993 towards 1998, is not flawless in that a centre's future resource allotment, resulting from the linear progression, is highly contingent on that centre's funding in the year of reference, i.e., 1993, which is not (or not necessarily) related to programme or priority considerations.

3.5.3. TAC's Recommendations of 1994 Core Funding and Allocations

The application of the average rate of growth of 3.1 % to 1993 System core funding produces a core funding level of US\$ 228 million in 1994 (in 1992 dollars). Augmenting this amount by an annual rate of 4% for cost adjustments translates it into US\$ 246 million in 1994 dollars. Including a provision for external reviews, the nominal core funding requirement for the centres' aggregate will thus amount to US\$ 248 million in 1994 dollars. The latter compares with US\$ 230.7 million in 1993 and calls for a nominal increase of US\$ 16.8 million, or 7.3%.

It should be noted that, because of the newness and thus experimental character of the CGIAR Systemwide initiatives, and the time required by centres to make specific proposals, TAC did not recommend initiating any of these during 1994.

The outcome of TAC's recommendations of 1994 core funding is presented in the table below, by centre and for the System as a whole.

Recommended 1994 Core Funding

Centre	Amount in 1992 US\$ million	Amount in 1994 US\$ million
CIAT	25.0	27.0
CIFOR	5.3	5.8
CIMMYT	23.3	25.2
CIP	14.3	15.5
IBPGR	8.6	9.3
ICARDA	13.8	14.9
ICLARM	4.4	4.7
ICRAF	11.9	12.9
ICRISAT	25.4	27.4
IFPRI	8.1	8.8
IIMI	6.3	6.8
IITA	20.8	22.5
ILCA	12.1	13.1
ILRAD	9.9	10.7
INIBAP	1.7	1.9
IRRI	25.5	27.6
ISNAR	6.1	6.6
WARDA	5.1	5.5
Centres' Total	227.7	246.3
External Reviews	1.2	1.2
SYSTEM TOTAL	US\$ 228.9	US\$ 247.5

These recommendations are described in greater detail in Table 3.6 which presents the total recommended 1994 core funding requirements (US\$ 229 million in 1992 dollars, or US\$ 248 million in 1994 values) in the context of centres' total funding requirements, i.e., US\$ 341 million in 1994 dollars inclusive of US\$ 94 million in complementary funding. The recommended 1994 core funding is also presented in relation to the 1998 resource envelopes and reserves assigned in March 1992, as well as to current estimates of core funding in 1993.

3.5.4. TAC's Recommendations of 1995 Through 1997 Core Funding and Allocations

Consistent with the procedure followed for determining core resources for the System as a whole and for individual centres, the core resource allocations for each of the three intermediary years were projected in two steps.

The first step consisted in applying to each centre, and to the centres as a whole, the linear, average rate of growth between 1993 and 1998 - i.e., 3.1% per year for the

Table 3.6: Recommended 1994 Core and Complementary Funding Requirements
(US\$ Millions)

CENTRES	Base Envelopes assigned in March 1992 (in 1992 \$)	1993 Core Funding (Estimate June '93)		1994 RECOMMENDED FUNDING REQUIREMENTS					
		Amount in '92 \$	Amount in '93 \$	CORE		COMPLEMENTARY		TOTAL	
				in '92 \$	in '94 \$	in '92 \$	in '94 \$	in '92 \$	in '94 \$
CIAT	27.5	24.4	25.4	25.0	27.0	9.3	10.1	34.3	37.1
CIFOR	7.6	4.9	5.1	5.3	5.8	0.8	0.9	6.1	6.6
CIMMYT	24.1	22.6	23.5	23.3	25.2	7.6	8.2	30.9	33.5
CIP	14.3	14.3	15.0	14.3	15.5	5.4	5.8	19.7	21.4
IPGRI									
IBPGR	8.4	8.5	8.8	8.6	9.3	3.5	3.8	12.1	13.1
INIBAP	2.1	1.7	1.8	1.7	1.9	0.8	0.9	2.5	2.7
Sub-total	10.5	10.2	10.6	10.3	11.2	4.3	4.7	14.6	15.8
ICARDA	17.6	13.0	13.5	13.8	14.9	3.5	3.8	17.3	18.7
ICLARM	4.8	4.2	4.4	4.4	4.7	3.0	3.3	7.4	8.0
ICRAF	15.6	11.4	11.9	11.9	12.9	1.4	1.5	13.3	14.4
ICRISAT	26.9	25.0	26.0	25.4	27.4	7.3	7.9	32.7	35.3
IFPRI	8.6	7.8	8.1	8.1	8.8	5.4	5.9	13.6	14.7
IIMI	7.6	6.0	6.2	6.3	6.8	4.6	5.0	10.9	11.8
IITA	22.2	20.3	21.1	20.8	22.5	7.4	8.0	28.2	30.5
Livestock Centre									
ILCA	14.0	11.7	12.1	12.1	13.1	3.0	3.2	15.1	16.3
ILRAD	9.1	9.7	10.1	9.9	10.7	0.5	0.6	10.5	11.3
Sub-total	23.1	21.3	22.2	22.0	23.8	3.5	3.8	25.6	27.6
IRRI	25.8	24.6	25.6	25.5	27.6	15.5	16.8	41.0	44.4
ISNAR	6.8	5.9	6.2	6.1	6.6	3.1	3.4	9.2	9.9
WARDA	5.8	4.9	5.1	5.1	5.5	4.4	4.8	9.5	10.2
TOTAL	248.8	220.8	229.8	227.7	246.3	86.6	93.7	314.3	340.0
External Review Provision	1.2	0.9	0.9	1.2	1.2			1.2	1.2
Allocable Reserve	20.0								
CENTRES & SYSTEM TOTAL	270.0	221.7	230.7	228.9	247.5	86.6	93.7	315.5	341.2

centres' aggregate - to each of 1994, 1995, and 1996 to assess the following year's funding requirements.

In a second step, the 1998 allocation to CGIAR Systemwide initiatives were built up gradually over the four-year period (1995-98). This TAC did on the basis of the relative priorities of the proposed global initiatives, of the degree in which the proposal represents a new activity or the expansion of a not yet fully developed initiative, and in accordance with the likely timing for convening and partner centres to prepare and submit concrete proposals for review and approval.

Thus, for each of the intermediary years, the projected allocation of resources consists of two components, i.e., a centre-focused resource allocation and a CGIAR Systemwide initiatives' allocation, the sum of which composes the System total core resource requirements in each of the years.

These projections, at the US\$ 270 million vector, are summarized in Tables 3.7 and 3.8 which show the projected progression of core resource allocations to centres and the CGIAR Systemwide initiatives for each of the intermediary years of the 1994-98 MTP period.

Table 7 compares the medium-term core resource requirements with 1992 core funding estimates when the 1998 indicative envelopes were assigned, and with 1993 funding as currently estimated. In all cases values are given in constant 1992 dollars and in current terms.

Table 8 presents the projections and recommendations in the context of 1992 actual and 1993 estimated core funding, and of the 1998 indicative resource envelope as assigned in March 1992.

3.5.5. Implementation Monitoring and Funding Adjustments

As indicated earlier, the final recommendations refer to the achievement in the medium and longer term of priorities and to a consistent allocation of core resources to that effect.

This requires monitoring, through the process of annual programme and budget review and approval, of both the programmatic and financial performances of centres, programmes and the System.

The programme monitoring will oversee and regulate the gradual implementation of programmes and changes thereof, and of the achievement of intermediate targets and longer-term objectives.

The financial monitoring will watch, at the System, individual centres and Systemwide initiatives level, the progress made in resource mobilization and utilization, and indicate - when and where needed - which corrective action need to be taken so as to assure a reasonable match between supply and demand at the respective levels.

Table 3.7: Projected Progression of Core Funding Requirements during 1994-98
(in US\$ Millions -- at US\$ 270 Million Vector)

	Base Envelopes assigned in March 1992 (in 1992 \$)	1993 Core Funding (Estimate June '93) Amount in '92 \$ Amount in '93 \$		Projected Progression of Core Funding Requirements									
				1994		1995		1996		1997		1998	
				Am't in 92 \$	Am't in 94\$	Am't in 92 \$	Am't in 95\$	Am't in 92\$	Am't In 96\$	Am't In 92\$	Am't In 97\$	Am't in 92\$	Am't In '98 \$
A. CENTRES													
CIAT	27.5	24.4	25.4	25.0	27.0	25.6	28.8	26.2	30.7	26.8	32.7	27.5	34.8
CIFOR	7.6	4.9	5.1	5.3	5.8	5.8	6.5	6.4	7.4	7.0	8.5	7.6	9.6
CIMMYT	24.1	22.6	23.5	23.3	25.2	24.1	27.1	24.9	29.1	25.7	31.2	26.5	33.5
CIP	14.3	14.3	14.9	14.3	15.5	14.3	16.1	14.3	16.8	14.3	17.4	14.3	18.1
IPGRI													
	IBPGR 8.4	8.5	8.8	8.6	9.3	8.7	9.8	8.9	10.4	9.0	11.0	9.2	11.6
	INIBAP 2.1	1.7	1.8	1.7	1.9	1.8	2.0	1.8	2.1	1.8	2.2	1.8	2.3
	Sub-total 10.5	10.2	10.6	10.3	11.2	10.5	11.8	10.7	12.5	10.9	13.2	11.0	14.0
ICARDA	17.6	13.0	13.5	13.8	14.9	14.7	16.5	15.6	18.2	16.6	20.1	17.6	22.3
ICLARM	4.8	4.2	4.4	4.3	4.7	4.4	5.0	4.5	5.3	4.7	5.7	4.8	6.0
ICRAF	15.6	11.4	11.9	11.9	12.9	12.4	14.0	12.9	15.1	13.4	16.4	14.0	17.7
ICRISAT	26.9	25.0	26.0	25.4	27.4	25.7	29.0	26.1	30.6	26.5	32.3	26.9	34.0
IFPRI	8.6	7.8	8.1	8.1	8.8	8.4	9.5	8.8	10.3	9.1	11.1	9.5	12.0
IIMI	7.6	6.0	6.2	6.3	6.8	6.6	7.4	6.9	8.1	7.2	8.8	7.6	9.6
IITA	22.2	20.3	21.1	20.8	22.5	21.4	24.1	22.0	25.8	22.7	27.6	23.3	29.5
Livestock Centre													
	ILCA 14.0	11.7	12.1	12.1	13.1	12.5	14.1	13.0	15.2	13.5	16.4	14.0	17.7
	ILRAD 9.1	9.7	10.1	9.9	10.7	10.2	11.5	10.5	12.3	10.8	13.1	11.1	14.0
	Sub-total 23.1	21.3	22.2	22.0	23.8	22.8	25.6	23.5	27.5	24.3	29.6	25.1	31.8
IRRI	25.8	24.6	25.6	25.5	27.6	26.5	29.8	27.4	32.1	28.4	34.5	29.4	37.2
ISNAR	6.8	5.9	6.2	6.1	6.6	6.3	7.0	6.4	7.5	6.6	8.1	6.8	8.6
WARDA	5.8	4.9	5.1	5.1	5.5	5.2	5.9	5.4	6.3	5.6	6.8	5.8	7.3
TOTAL	248.8	220.9	229.7	227.7	246.3	234.8	264.1	242.1	283.2	249.8	303.9	257.9	326.1
External Reviews Provision	1.2	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Allocable Reserve	20.0												
Reserve for Fisheries								0.5	0.6	1.0	1.2	1.0	1.3
CENTRES TOTAL	270.0	221.8	230.6	228.9	247.5	236.0	265.3	243.8	284.4	252.0	305.1	260.1	328.6
B. CGIAR SYSTEMWIDE PROGRAMMES													
Ecoregional Programmes in:													
Sub-Saharan Africa:													
Subhum. & Humid Ecoregion. Programme						0.25	0.3	0.50	0.6	0.50	0.6	0.50	0.6
Semi-Arid Ecoregional Programme										0.25	0.3	0.50	0.6
Highlands Ecoregional Programme										0.13	0.2	0.25	0.3
Sub-total						0.25	0.3	0.50	0.6	0.88	1.1	1.25	1.6
WANA								0.20	0.2	0.40	0.5	0.40	0.5
Asia:													
Semi-Arid Ecoregional Programme						0.20	0.2	0.40	0.5	0.40	0.5	0.40	0.5
Subhum. & Humid Ecoregion. Programme								0.35	0.4	0.70	0.9	0.70	0.9
Sub-total						0.20	0.2	0.75	0.9	1.10	1.3	1.10	1.4
LAC						0.38	0.4	0.38	0.4	0.75	0.9	0.75	0.9
Cross-region. Slash & Burn Programme										0.25	0.3	0.50	0.6
Sub-Total						0.83	0.9	1.83	2.1	3.38	4.1	4.00	5.1
Genetic Resources Programme						0.50	0.6	1.00	1.2	1.00	1.2	1.00	1.3
Livestock Programme						1.00	1.1	2.00	2.3	3.00	3.6	4.00	5.1
Water Management Programme						0.50	0.6	0.50	0.6	1.00	1.2	1.00	1.3
TOTAL CGIAR SYSTEM PROGRAMMES						2.83	3.2	5.33	6.2	8.38	10.2	10.00	12.7
TOTAL SYSTEM	270.0	221.8	230.6	228.9	247.5	238.8	268.4	249.1	290.7	260.4	315.3	270.1	341.3

Table 3.8: Progression of Core Funding 1994 through 1998 with Historical Comparisons
(in US\$ Millions -- at US\$ 270 Million Vector)

A. CENTRES	1992 Actual Core Funding	1993 Core Funding (Estimate of June 1993)		Base Envelopes assigned in March 1992 (1992 \$)	Recommended 1998 Core Funding		Projected Progression of Core Funding Requirements										
		Am't in '92 \$	Am't in '93 \$		Am't in '92 \$	Ann. Rate of Growth '93-'98	1994		1995		1996		1997		1998		
							Am't in '92 \$	Am't in '94 \$	Am't in '92 \$	Am't in '95 \$	Am't in '92 \$	Am't in '96 \$	Am't in '92 \$	Am't in '97 \$	Am't in '92 \$	Am't in '98 \$	
CIAT	26.9	24.4	25.4	27.5	27.5	2.4%	25.0	27.0	25.6	28.6	26.2	30.7	26.8	32.7	27.5	34.8	
CIFOR	3.2	4.9	5.1	7.6	7.6	9.3%	5.3	5.8	5.8	6.5	6.4	7.4	7.0	8.5	7.6	9.6	
CIMMYT	26.1	22.6	23.5	24.1	26.5	3.2%	23.3	25.2	24.1	27.1	24.9	29.1	25.7	31.2	26.5	33.5	
CIP	15.3	14.3	15.0	14.3	14.3	0.0%	14.3	15.5	14.3	16.1	14.3	16.7	14.3	17.4	14.3	18.1	
IPGRI																	
	IBPGR	9.1	8.5	8.8	8.4	9.2	1.7%	8.6	9.3	8.7	9.8	8.9	10.4	9.0	11.0	9.2	11.6
	INIBAP	1.8	1.7	1.8	2.1	1.8	1.6%	1.7	1.9	1.8	2.0	1.8	2.1	1.8	2.2	1.8	2.3
	Sub-total	10.9	10.2	10.6	10.5	11.0	1.7%	10.3	11.2	10.5	11.8	10.7	12.5	10.9	13.2	11.0	14.0
ICARDA	17.9	13.0	13.5	17.6	17.6	6.3%	13.8	14.9	14.7	16.5	15.6	18.2	16.6	20.1	17.6	22.3	
ICLARM	4.5	4.2	4.4	4.8	4.8	2.5%	4.3	4.7	4.5	5.0	4.6	5.3	4.7	5.7	4.8	6.1	
ICRAF	11.1	11.4	11.9	15.6	14.0	4.1%	11.9	12.9	12.4	14.0	12.9	15.1	13.4	16.4	14.0	17.7	
ICRISAT	27.3	25.0	26.0	26.9	26.9	1.5%	25.4	27.4	25.7	29.0	26.1	30.6	26.5	32.3	26.9	34.0	
IFPRI	8.3	7.8	8.1	8.6	9.5	4.0%	8.1	8.8	8.4	9.5	8.8	10.3	9.1	11.1	9.5	12.0	
IIMI	6.4	6.0	6.2	7.6	7.6	4.8%	6.3	6.8	6.6	7.4	6.9	8.1	7.2	8.8	7.6	9.6	
IITA	21.7	20.3	21.1	22.2	23.3	2.8%	20.8	22.5	21.4	24.1	22.0	25.8	22.7	27.6	23.3	29.5	
Livestock Centre																	
	ILCA	15.8	11.7	12.1	14.0	14.0	3.7%	12.1	13.1	12.5	14.1	13.0	15.2	13.5	16.4	14.0	17.7
	ILRAD	12.6	9.7	10.1	9.1	11.1	2.8%	9.9	10.7	10.2	11.5	10.5	12.3	10.8	13.1	11.1	14.0
	Sub-total	28.4	21.3	22.2	23.1	25.1	3.3%	22.0	23.8	22.8	25.6	23.5	27.5	24.3	29.6	25.1	31.8
IRRI	28.6	24.6	25.6	25.8	29.4	3.6%	25.5	27.6	26.5	29.8	27.4	32.1	28.4	34.5	29.4	37.2	
ISNAR	7.0	5.9	6.2	6.8	6.8	2.8%	6.1	6.6	6.3	7.0	6.4	7.5	6.6	8.1	6.8	8.6	
WARDA	5.8	4.9	5.1	5.8	5.8	3.4%	5.1	5.5	5.2	5.9	5.4	6.3	5.6	6.8	5.8	7.3	
TOTAL	249.4	220.8	229.8	248.8	257.8	3.1%	227.6	246.2	234.7	264.0	242.1	283.2	249.8	303.9	257.8	326.1	
External Review Provision		0.9	0.9	1.2	1.2		1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Allocable Reserve				20.0													
Reserve for Fisheries					1.0						0.5	0.6	1.0	1.2	1.0	1.3	
CENTRES TOTAL	249.4	221.7	230.7	270.0	260.0	3.2%	228.8	247.4	235.9	265.2	243.8	284.4	252.0	305.1	260.0	328.6	
B. CGIAR SYSTEMWIDE PROGRAMMES																	
Ecoregional Programmes in:																	
Sub-Saharan Africa:																	
Subhum. & Humid Ecoregion. Programme																	
Semi-Arid Ecoregional Programme																	
Highlands Ecoregional Programme																	
Sub-total																	
WANA																	
Asia:																	
Semi-Arid Ecoregional Programme																	
Subhum. & Humid Ecoregion. Programme																	
Sub-total																	
LAC																	
Cross-region. Slash & Burn Programme																	
Sub-Total																	
Genetic Resources Programme																	
Livestock Programme																	
Water Management Programme																	
TOTAL CGIAR SYSTEM PROGRAMMES																	
TOTAL SYSTEM																	

In addition, the current, highly uncertain funding environment is not likely to change drastically in the very near future. Thus the CGIAR should have at its disposal a non-discriminatory tool to deal with moderate, annual funding variances in a simple and transparent way which treats all centres fairly and which is consistent with the System's views on relative priorities. More significant variances will call for different, non budgetary approaches similar in nature to those described in Section 3.4.

The option for determining centres' 1994-97 core funding on the basis of a linear progression from 1993 to 1998 offers a simple and transparent mechanism to adjust centres' core funding, in any year of the MTP period, to any level of System core funding.

To illustrate this, three scenarios can be envisaged:

- (a) CGIAR core funding, in any year, increases in real terms by more than the average, aggregate growth rate between 1993 and 1998. In this case, all centres' average growth rates would be increased in the same proportion as the average increase exceeds the projected 3.1 %. For example, if 1994 core funding is 4.5% above 1993 estimated core funding in constant terms, the average growth rate of each centre is increased by 45% (i.e., 4.5% compared to 3.1%). The resulting, centre specific new average rate of growth is then consistently applied from 1994 through 1998, which should result in an upward adjustment of each centre's 1998 target amount.
- (b) CGIAR System core funding in 1994 is greater in real terms than in 1993 (i.e., US\$ 221 million in 1992 dollars), but the rate of growth is smaller than 3.1 %.. In this case, all centres' average rates of growth would be reduced in the same proportion as the 1994 core funding (expressed in constant terms) is below the projected 3.1% rate of growth. For example, if the 1994 core funding is 2% above the 1993 estimated core funding in constant terms, the growth rate of each centre would be adjusted downwards by 35%. The new average, centre specific rate of growth rate is then consistently applied from 1994 through 1998, which should result in a downward adjustment of each centre's 1998 target amount.
- (c) CGIAR System core funding in 1994, expressed in constant dollars, is below the level estimated for 1993 (US\$ 221 million in 1992 dollars). Under this scenario, a more complex approach is required consisting in (i) first, determining for each centre its core funding in the past two years⁹ as a percentage of the System core funding in those years; (ii) second, in applying each centre average percentage to the estimated System core funding in the year of concern; and, (iii) third, adjusting the resulting relative percentage of each centre with the centre's linear growth rate between 1993 and 1998.

⁹ Averaging out two years should moderate the impact of abrupt changes in funding (e.g., an unexpected reduction in, or withdrawal of, a donor's contribution) or other aberrations (such as delays in renewal or extension of restricted project agreements).

This formula should allocate the shortfall in core funding, below the previous year's level, among centres in a fair way by taking as reference points both their actual funding in the past two years and the directional changes aimed at by the medium-term resource allocation, i.e., the centre's linear progression between 1993 and 1998.

The adjustment mechanism should in principle be applicable throughout the period 1994-97 as far as the centres' proper allocations are concerned, and to the extent the variance between the projected and actual centre core funding do not exceed 5% either way. From 1995 onwards, the CGIAR Systemwide initiatives would be incorporated gradually in the System's annual programme and budget process, possibly through incorporation in centres programmes of work and budget which will be submitted for review and approval on an annual basis.

4. Centre Proposals, Evaluation and Recommendations

4.1. Process Followed

The process followed in arriving at recommendations on the medium-term resource allocations has been presented in Chapter 2 of this report. After the consideration of TAC's recommendations on CGIAR priorities and strategies at the CGIAR MTM'92, centres were invited to submit MTP proposals for the period 1994-1998 based on the tentative resource envelope assigned by TAC. These proposals were assessed by TAC in the context of its recommendations on CGIAR priorities and strategies and the centres' strategic plans. An interim commentary was issued on each centre MTP proposal. Subsequently, the MTP proposals, together with TAC's interim commentary, were presented and discussed by the CGIAR. Seven MTP proposals were reviewed at TAC 59 and ICW'92, and ten at TAC 60 and MTM'93, while the CIFOR MTP was first discussed by the Group at MTM'93 and then by TAC at TAC 61. In June 1993 at TAC 61, the Committee considered all MTP proposals comprehensively, and the supplementary information provided by the centres in response to the interim commentaries and issues raised by the Group. It also took into account new developments, both within and outside the System which had occurred since March 1992, when TAC's recommendations on CGIAR priorities and strategies had been finalized.

In finalizing recommendations on resource allocation across the System for the period 1994-1998, TAC proceeded in several stages. First, TAC considered whether on priority grounds only, a change in the level of resources tentatively assigned to each centre was warranted; institutional issues were omitted from the discussion at this stage. Second, TAC evaluated the MTP of each centre in accordance with a set of five equally-weighted criteria: the strategic character of the centre's research programme, potential for breakthroughs, past performance and likelihood of continuance (or improvement), external environment, institutional health and quality of management, and collaboration with NARS, other IARCs and advanced institutions. Third, TAC reconciled the outcome of the first stage which was largely priority and demand driven, and the second stage which was largely supply/institution driven. This led TAC to assign core resources to individual centres and to a number of CGIAR Systemwide initiatives at an aggregate level of System core resources of US\$ 270 million in 1998. In that process, TAC took into account the implications of its allocation proposals for the implementation of the overall System priorities. TAC also made recommendations on the level of core resources to be assigned to centres and CGIAR Systemwide initiatives if, in 1998, an additional US\$ 10 million were available to the System.

The background to, and outcome of, TAC's deliberations for each centre is presented in Sections 4.3 to 4.20 below. First, a summary is given of the primary MTP proposal as it was presented by the centre to TAC and to the Group. This is followed by TAC's interim commentary and some of the major programmatic issues raised by the Group, and the centre's response. The subsequent section on 'Evaluation' summarizes the outcome of TAC's discussions. The last section presents TAC's recommendations for each individual centre.

4.2. Centres' Financial Highlights

For each centre, a table is provided which contains key data organized in a standard format. These data provide, in summary form, funding, expenditure, staffing, and financial information. The tables contain the following information for each centre:

I. Funding:

- (a) The core funding history from 1990 to 1993 (current estimate) is shown, in absolute terms and as a percentage of the System total. The 1993 core funding is also expressed in 1992 values, using a 4% deflator. The percentage of unrestricted funding is indicated, as is the number of donors for the years 1990-1993, and the share of total core funding provided by the top three, the top five, and the top 10 donors for the centre. These data indicate the degree of dependence on the centres' most important donors. Complementary funding data is shown for 1990-1992. The sources of historical funding information are the CGIAR financial reports (1990 - 1992), and the June 1993 CGIAR Secretariat funding advisory.
- (b) TAC's core funding recommendation for 1994-1998 is provided in both current dollars and constant 1992 dollar values. The share of the centre's recommended core funding for 1998 is expressed as a percentage of US\$ 257.8 million, which is the sum of the centre-recommended allocations at the US\$ 270 million vector. The proposed complementary funding is shown for both 1994 and 1998, for each centre at the base level, that is, US\$ 91.3 million (in 1992 values) for the System in 1998.

II. Expenditure:

- (a) The distribution of core and complementary expenditures in 1992 and 1998 is shown in a number of dimensions, including by category of activity and commodity, by region, by object of expenditure, and by cost centres. The latter three groupings are shown only for core operations. The source of information for this section is centres' MTP documents.
- (b) The share of expenditure which is projected for capital acquisitions over the 1994-98 period is less than 2% of the total (US\$ 30 million for the 1994-98 period). More than half of that amount is projected in complementary programmes. Thus, centres' capital requirements will be largely covered through the annual depreciation provision.

III. Staffing and Financial Indicators:

The evolution of a number of institutional indicators is shown, notably the staffing complements (actual and estimates), income from sources other than donor contributions, and indicators of the centre's financial position (operating fund balances, fixed asset and capital fund balances). The sources of this information for 1990-92 are the centres' financial statements and CGIAR financial reports.

The centre staff are categorized as international, supervisory and support. Although there may be definitional differences between some centres as to what constitutes a supervisory position, the evolution over time at each centre is generally consistent with that centre's definitions.

The estimate of 1998 supplemental income for core operations is lower than the actual 1992 amount for half of the centres, while the other centres estimate that this amount will be the same as in past years or somewhat higher. This figure includes overhead from complementary grants and is shown to indicate the total resources available for a centre's core operations, but does not represent total resources available to the centre.

4.3. CIAT

4.3.1. Summary of the MTP Proposal

CIAT's MTP proposal reflects the implementation of its strategic plan which was discussed by TAC and the CGIAR in 1991. The proposals comprise an integrated strategy for research on germplasm development and natural resources management in selected agroecosystems of Latin America and the Caribbean, and global and regional responsibilities for germplasm development work on beans, rice, cassava and pastures in the tropics. Since the development of the strategic plan, CIAT's budget has been reduced in real terms by well over 20%, and the Centre considers that its MTP proposal reflects the minimum input level required to implement the broad directions of its strategic plan.

CIAT's primary proposal to implement the Centre's strategic plan was based at 119% of the resource envelope tentatively assigned by TAC for 1998. At this level, a total of 90 senior staff would be required, 50 for germplasm development research, 27 for resources management research, 3 for research support, 5 for institutional development and 5 for management and administration.

In addition to the 119% scenario, CIAT presented a second scenario, labelled the "minimum critical mass programme", which was based on the funding at 110% of the TAC indicative resource envelope, and which would require 79 senior staff positions. This scenario was arrived at by shifting core activities in the primary proposal to the complementary budget. At this level, germplasm development research would account for a total of 46.5 senior staff positions, of which 13 would be assigned to the Bean Programme, 10 to the Cassava Programme, 6 to the Rice Programme, 10.5 to the Tropical Forages Programme, 3 to the Biotechnology Unit, 2 to Virology, 1 to Genetic Resources and 1 to Research Management. Natural resources management research would account for 20.5 senior staff positions, and would be implemented by Agroecosystems Programmes focused on forest margins (4 positions), hillsides (4) and savannas (5.5), a Land Use Programme (5) and Research Management (1). In its original proposal, CIAT projected a complementary programme at a total of US\$ 7.7 million including 21 senior staff.

CIAT's proposed allocation of core resources by category of activity was: 27% to research on the conservation and management of natural resources, 26% to germplasm enhancement and breeding, 25% to production systems, 5% to socioeconomic and policy research, 17% to institution building.

4.3.2. Interim Commentary and Programmatic Issues

TAC commended CIAT for its rigorous and balanced response to the financial crisis faced by the Centre since 1991, which had resulted in a substantially leaner CIAT at the start of this medium term planning process.

TAC requested CIAT to submit Board-approved supplementary information on the implications of a budget allocation at the levels of 90% and 100% of the tentative resource envelope. TAC also sought additional information on the consequences of a reduction of resources on the balance of effort between germplasm development and

natural resources management research. TAC further noted that close collaboration with other institutes would be vital for the achievement of critical mass in many important areas of CIAT's proposed natural resources management research, and clarification was requested on CIAT's relationships with other Centres whose global mandate crops were important components of the ecosystem studies.

4.3.3. Centre Response

CIAT submitted additional Board-approved tentative plans on how the Centre would cope with funding at the level of the resource envelope and at 90% of that level.

At the 100% level, 7 senior staff positions would be eliminated from the staffing proposed at the 110% level. Reductions include 3 of the 4 positions in the Forest Margins Programme, with the remaining position kept to uphold existing institutional and donor commitments. Furthermore, 1 position in the Hillsides Programme, 2 in the Bean Programme and 1 in the Tropical Forages Programme, would also be eliminated.

The Centre provided a rationale for the eventual reductions, and stressed that substantial social benefits would be forgone, and why, if these scenarios were to be implemented.

CIAT's resource management proposals focus on high-priority ecosystems within agroecological zones. The multicommodity perspective of the ecoregional approach to research would be provided through collaborative arrangements with other centres and institutes.

4.3.4. Evaluation

TAC considered that on the basis of priority considerations, the amount of resources tentatively assigned to CIAT should be maintained. In determining the level of the tentative envelope, TAC had already incorporated an increase for the Centre's work in the area of conservation and management of natural resources, and for its focus on Latin America.

CIAT's proposals were sound and consistent, and were developed on the basis of a transparent and coherent priority-setting mechanism. The programmes are of a strategic character and have a good potential for breakthrough.

TAC attached a high priority to CIAT's proposals for resource management work which focus on important ecosystems. The three ecosystems under study are of vital importance to the future of resource-poor farmers in Latin America: the hillsides programme is particularly important for equity reasons; the savanna programme offers tremendous scope for productivity increases; and the forest margin programme addresses many of the major sustainability issues that are of vital importance.

The Committee considered that, if CIAT were to be funded below the 110% level, then commodity programmes should be scaled down first. The strong reduction in the scale of the resource management programmes should only occur at the 90% funding level. CIAT's proposals are ambitious and the success of their implementation will

depend upon the effectiveness of a wide set of collaborative arrangements with NARS, NGOs, other IARCs, advanced research institutes and bilateral programmes. The proposed cuts in staff at the base level and the 90% level may be compensated by strengthening such collaborative arrangements.

CIAT has performed very well in the past and this is likely to continue in the future. The Centre is well managed, and has a healthy institutional environment and effective mechanisms for collaboration with NARS and other institutions.

4.3.5. Recommendations

TAC recommends that CIAT be assigned core resources in 1998 in the amount of US\$ 27.5 million in 1992 dollars which is equivalent to 100% of the tentative envelope. The Committee considers that the level of the tentative envelope adequately reflects CIAT's potential contribution to the achievement of System priorities. TAC encourages CIAT to maintain the main features of its forest margin programme at the expense of scaling down its commodity programmes within this funding level. CIAT has also been identified as the convening centre for an ecoregional programme for the humid and sub-humid tropics and subtropics in Latin America for which US\$ 750,000 of core resources by 1998 is recommended. At the US\$ 280 million vector, TAC recommended an additional US\$ 750,000 to enable CIAT to maintain its commodity research which, at the US\$ 270 million vector, is projected to decrease in favour of the forest margin programme. At the US\$ 280 million vector, TAC also recommends an increase of US\$ 200,000 of the funding of the Systemwide LAC ecoregional initiative.

For 1998, CIAT projects complementary funding of US\$ 8 million (in 1992 values), representing 29% of CIAT's recommended core funding for that year.

For 1994, TAC recommends a core funding for CIAT of US\$ 25.0 million in 1992 dollars, or US\$ 27.0 million in current values. Together with complementary funding at US\$ 10.1 million, total funding of CIAT in 1994 would amount to US\$ 37.1 million.

CIAT: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990	1991	1992	1993		1994	1995	1996	1997	1998	
	<---<	actual	--->	(est)							
a) Core											
Current dollars :	27.7	27.9	26.9	25.4	11.0%	27.0	28.8	30.7	32.7	34.8	
1992 dollars :			26.9	24.4		25.0	25.6	26.2	26.8	27.5	10.7%
% Unrestricted :	84%	86%	89%								
Balancing Funds :	11%	17%	23%	22%							
Core Donors:											
Number	22	22	20	19		1998 funding guideline (Chap. 14), in 1992 \$:					27.5
% funding, top 3	46%	46%	54%	54%		TAC recommendation, as % of guideline :					100%
% funding, top 5	65%	65%	70%	73%		TAC recommendation, as % of 1992 :					102%
% funding, top 10	91%	90%	93%	94%		TAC recommendation, as % of 1993 :					113%
b) Complementary											
Current dollars:	4.6	5.1	5.5			10.1				10.1	
1992 dollars:			5.5			9.3				8.0	9%
c) Total											
Current dollars:	32.4	33.0	32.5			37.1				44.9	
1992 dollars:			32.5			34.3				35.5	10%

II. EXPENDITURE :						1992		1998 Projected	
a) By Category of Activity						(Core)	(Comp)	(Core)	(Comp)
1. Conservation/Management of Natural Resources						21%	8%	27%	23%
2. Germplasm Enhancement & Breeding						27%	42%	26%	22%
3. Production Systems Development & Management						23%	21%	25%	37%
4. Socio-Econ / Public Pol / Pub Mgmt Research						9%	9%	5%	1%
5. Institution Building						20%	20%	17%	17%
b) By Commodity (details of #2 & #3 above)									
Rice						9%	4%	9%	6%
Phaseolus Beans						16%	32%	16%	29%
Cassava						12%	19%	14%	16%
Livestock						13%	7%	11%	9%
c) By Region									
Africa						21%		14%	
Asia						12%		5%	
LAC						68%		80%	
WANA						0%		0%	
d) By Object of Expenditure									
Personnel						67%		66%	
Supplies/Services						23%		22%	
Travel						5%		5%	
Depreciation						6%		6%	
Other						0%		1%	
e) By Cost Center									
Research						58%		58%	
Research Support						11%		11%	
Training and Information						10%		9%	
Management and Administration						21%		22%	

III. STAFFING :					% Change from 1992	
	1990	1991	1992	1998		
International Staff (#)						
Core	76	81	70	72		3%
Complementary	9	9	13	28		115%
Supervisory Staff (#)	337	340	325	348		7%
Support Staff (#)	1,295	1,302	1,067	1,117		5%

IV. FINANCE :					% Change from 1992	
	1990	1991	1992	1998		
Supplemental core revenue :						
(Investment, overhead recovery and other earned income)	1.9	1.8	1.7	0.7		-58%
Operating Fund, (Days Operations)	25	25	44	10		-77%
Fixed Assets Value, yr end (\$)	20.3	20.4	18.9	20.0		6%
Capital Fund Balance, yr end (\$)	0.0	1.0	3.0	1.3		-58%

4.4. CIFOR

4.4.1. Summary of the MTP Proposal

CIFOR's broad mandate, as enunciated in its MTP proposals is to respond to rising international concerns about the problems caused by increasing deforestation and resource degradation. CIFOR plans to contribute to poverty alleviation and income generation through socioeconomic and policy research to improve land use, and the development of techniques for optimum management of forests, trees and degraded lands, including the better utilization of wood and non-wood products with emphasis on multiple-end use.

CIFOR's MTP proposal focuses on partnership with a broad range of research institutions in developing countries so as to "strengthen national capacity for research to support optimal use of forest and forest lands; to improve the worldwide scientific basis for decisions influencing forests and forest lands; and develop technologies so that yields of forest goods and services are increased, their sustainability is assured and the resulting benefits are equitably distributed to all sectors of society." CIFOR also foresees close collaboration with advanced institutions. Technology, from the viewpoint of CIFOR, includes legislation and policies as well as science-based techniques.

CIFOR has placed the highest priority on policy research as a fundamental basis for identifying the gaps in knowledge which must be overcome to improve economic and financial production functions for making meaningful predictions of the results of alternative land use options. These will in turn influence the agenda for biological and technological research.

The MTP document presents four research programmes and one research support programme. The research programmes consist of policy development (Programme 1), management and conservation of natural forests (Programme 2), reforestation of degraded lands (Programme 3), and products and markets (Programme 4). Each research programme is subdivided into research activities, and the latter are broken down into two or more problems or study areas. CIFOR research activities composing the programmes are in effect research 'thrusts' or subprogrammes which will serve as a basis for developing field projects. The MTP proposal lists 63 problem/study areas. Exceptionally, Activity 3.2 - matching tree species/genotype to bio-physical site conditions and management systems - contains three distinct major problem areas which are further broken down into 14 study areas.

The MTP is built around two priority components 'a' and 'b', and one complementary component 'c'. CIFOR's basic proposal, Priority 'a' activities, would require resources at a level of US\$ 7.6 million, equivalent to the base resource envelope. The preferred funding level would be a combination of Priorities 'a' and 'b', which requires a total of US\$ 9.4 million or about 123% of the level of the envelope.

CIFOR's Board and Management have undertaken wide-ranging consultations and have come to the conclusion that the Centre's research agenda should be guided by six main factors: a continental/regional planning matrix; an agroecological/systems approach; the local geographical scale of particular problems; research activity clusters; partnership

with NARS, and collaboration with IARCs and advanced institutions; and dynamic research priority-setting. The last factor is of crucial importance as programmes have been formulated without participation of Centre scientists who are as yet to be recruited.

In summary, CIFOR's proposed activities will attempt to develop research-based technologies which show how production of goods and services from the remaining tropical forest systems can be improved and sustained; how the mosaic of forest and non-forest land use can be stabilized; and how degraded forest systems, or forests replaced by less sustainable and beneficial land uses, can be rehabilitated.

4.4.2. Interim Commentary and Programmatic Issues

TAC considered CIFOR's MTP proposal to be ambitious. The proposal reflected the Centre's appreciation of the wide range of issues mentioned under Agenda 21 of UNCED. TAC commended the interactive process CIFOR had followed in formulating the MTP. The Committee was of the view that the large list of proposed research topics would need to be reduced to a manageable list of inter-related problems for CIFOR's work. TAC recognized, however, the difficulty of developing a medium-term plan before a Board-approved strategic plan, and key staff are in place. TAC's comments would have to be taken in a similar sense as being tentative and subject to review and change as CIFOR's programme actually evolves.

CIFOR's emphasis on policy and socioeconomic research was noted. The Centre needs to clarify its relationship to IFPRI and the type and extent of independent capacity in policy research which CIFOR would develop within the plan period. There was also a need to develop further its priority-setting process, in view of the large number of research topics listed in its plan. A further clarification was also required on CIFOR's procedure for selecting collaborators. TAC wished to be informed of the specific issues that CIFOR would address in reproductive biology and genetics, and the extent to which the work would be done in-house.

TAC was concerned about the timing of the build-up of the various programmes and the intended rate of expansion of a Centre only at the point of developing basic infrastructure. CIFOR was asked to indicate alternative scenarios if growth was slower than currently planned. Other issues related to the nature and intended operations of the matrix management approach implied in the MTP proposal, the impact criteria and targets CIFOR would be adopting, the specifics of the links to be developed with ICRAF, and the manner in which CIFOR would accomplish the donor-suggested balance of resource allocation of 30% at headquarters and 70% in the regions.

4.4.3. Centre's Response

CIFOR agreed that the list of research topics in the MTP proposal was long. The wording in the final plan would be modified to indicate that there would be a degree of selection from among the list of activities proposed.

On its relationship with IFPRI, CIFOR reported the completion of a series of three workshops with IFPRI to examine forestry policy issues in the three regions. IFPRI staff would visit CIFOR in Bogor early in 1994 to draw conclusions from these meetings and

plan for a future collaboration which would lead to a harmonious and synergistic relationship between the two Centres.

CIFOR noted TAC's comments on the priority-setting process, but favoured a gradual evolution of the process as more staff and quantitative information became available for the evaluation of the cost and benefits of options. As far as the selection of collaborators was concerned, CIFOR would adopt a flexible approach and a modality of collaboration most appropriate to any particular venture or partner. It was essential to avoid the danger of a too formalistic approach to partnership arrangements which could draw CIFOR into providing an institutional support function to the NARS.

CIFOR intended to have in-house expertise in reproductive biology and had already recruited a scientist to work on the issues involved. CIFOR's reaction to the consequences of slower growth would be pragmatic. If available resources were to become limited, CIFOR would move slowly in taking on new activities. If available resources were to fall far short of expectations, CIFOR would not trim from each activity, but would rather delay the start-up of some.

The extent to which more formal matrix management systems might be required in the future would depend largely on CIFOR's rate of growth. Initially inter-programme interaction would be encouraged through staff selection and evaluation procedures, but there would be no cross-matrix line management functions to avoid overload among the small set of scientists to be recruited during the plan period.

With the collaboration of ISNAR and the US Forest Service, CIFOR would undertake research on techniques for the evaluation of the impact of forestry research. Details would be provided in the revised MTP. Apart from cross-Board membership, CIFOR shared facilities with ICRAF's office in Bogor and several of CIFOR's planned activities would involve ICRAF. There was a conviction that ICRAF's central activities were quite distinct from those of CIFOR.

In terms of the allocation of resources between Headquarters and non-Headquarters activities, much of CIFOR's research would be conducted in and for countries other than Indonesia. However, to attain a rapid critical mass at the Headquarters more senior members of the team would initially be located in Indonesia; there would be a minimum of full-time staff outposted and no geographic coordinators.

As far as the budget was concerned, CIFOR would prefer TAC to approve categories 'a' and 'b' activities as the outer core budget, which constituted a fully integrated 'package', to give a core programme of US\$ 9.4 million with the core activities in category 'b' (calling for US\$ 1.8 million) funded from complementary sources.

4.4.4. Evaluation

TAC commended CIFOR for putting together comprehensive medium-term proposals within months of its establishment as a Centre. The proposals are to some extent to be considered as preliminary, pending recruitment of staff.

The main thrust of CIFOR's MTP proposal is the policy development programme. This programme will consume about 29% of the entire MTP core resources - and 35% of the senior staff years - to the four research programmes. Even the biological and technological programmes are expected to produce data and knowledge contributing to the determination of policy options. This substantial allocation of resources to the policy research programme is in line with CIFOR's determination to make an early impact on the forestry policy domain.

However, the strong emphasis placed on policy research has inevitably led to a degree of overlap with IFPRI's research activities. As much as one third of its policy work may impinge on IFPRI's activities. Consequently, there should be a high degree of collaboration and consultation between the two Centres to ensure synergism and to minimize duplication of efforts. Similarly, care should be taken by CIFOR in respect of its activities in agroforestry, Imperata grassland rehabilitation and tree improvement to maintain strict complementarity with ICRAF's work in these areas.

TAC considers that CIFOR's research proposals are of a strategic character and is encouraged about the collaborative approach the Centre is taking in developing its research programme. CIFOR stands to benefit from the worldwide interest in the control of deforestation and the maintenance of biodiversity. Its Programme 2 (Management and Conservation of Natural Forests) fits very neatly into the provision of Chapter 11 of Agenda 21 of UNCED. With well-articulated projects, funding from complementary sources may be easily secured.

4.4.5. Recommendations

TAC recommends that CIFOR be assigned in 1998 core resources in the amount of US\$ 7.6 million in 1992 dollars, which is equivalent to 100% of the tentative envelope. This level of funding is thought adequate at the stage of present development of the new Centre and the need to avoid a too rapid rate of growth. No addition is recommended at the US\$ 280 million vector. However, the Centre would share in the funding recommended for the 'Alternatives to Slash and Burn' Systemwide initiative, for which ICRAF would serve as the convening centre, and also in other ecoregional initiatives.

For 1998, CIFOR projects complementary funding of US\$ 2.8 million (in 1992 dollars) in 1998, representing 37% of CIFOR's recommended core funding.

For 1994, TAC recommends a core funding for CIFOR of US\$ 5.3 million in 1992 dollars, or US\$ 5.8 million in current values. Together with complementary funding at US\$ 0.9 million, total funding of CIFOR in 1994 would amount to US\$ 6.6 million.

CIFOR: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 <--- actual	1991 actual	1992 ---	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :			3.2	5.1	2.2%	5.8	6.5	7.4	8.5	9.6	
1992 dollars :			3.2	4.9		5.3	5.8	6.4	7.0	7.6	2.9%
% Unrestricted :			100%								
Balancing Funds :			19%	0%							
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:					7.6
Number			10	15		TAC recommendation, as % of guideline :					100%
% funding, top 3			56%	53%		TAC recommendation, as % of 1992 :					238%
% funding, top 5			79%	65%		TAC recommendation, as % of 1993 :					155%
% funding, top 10			99%	95%							
b) Complementary											
Current dollars:			0.0			0.9				3.5	
1992 dollars:			0.0			0.8				2.8	3%
c) Total											
Current dollars:			3.2			6.6				13.1	
1992 dollars:			3.2			6.1				10.4	3%

II. EXPENDITURE :		1992		1998 Projected	
		(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity					
1. Conservation/Management of Natural Resources				31%	33%
2. Germplasm Enhancement & Breeding				12%	0%
3. Production Systems Development & Management				2%	17%
4. Socio-Econ / Public Pol / Pub Mgmt Research				35%	33%
5. Institution Building				19%	17%
b) By Commodity (details of #2 & #3 above)					
Trees				14%	17%
c) By Region					
Africa				28%	
Asia				34%	
LAC				38%	
WANA				0%	
d) By Object of Expenditure					
Personnel					
Supplies/Services					
Travel					
Depreciation					
Other					
e) By Cost Center					
Research				64%	
Research Support				0%	
Training and Information				15%	
Management and Administration				21%	

III. STAFFING :		1990	1991	1992	1998	% Change from 1992
International Staff (#)						
Core					30	
Complementary					11	
Supervisory Staff (#)						
Support Staff (#)						

IV. FINANCE :		1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :						
(Investment, overhead recovery and other earned income)						
Operating Fund, (Days Operations)						
Fixed Assets Value, yr end (\$)						
Capital Fund Balance, yr end (\$)						

4.5. CIMMYT

4.5.1. Summary of the MTP Proposal

CIMMYT was founded in 1966 with the objective of increasing the production of maize and wheat in developing countries principally through research and research-related activities in germplasm enhancement and breeding.

In 1992, CIMMYT amended its mission statement to draw attention to the potentially negative effects of agriculture on the environment, and to highlight the importance of collaboration with national research systems. It now reads: "To help the poor by increasing the productivity of resources committed to maize and wheat in developing countries while protecting the natural resources. We do this through agricultural research and in concert with national research systems."

CIMMYT has essentially maintained the strategic direction envisaged in its 1989 Strategic Plan as modified through changing CGIAR priorities, in spite of the dramatic decline experienced in the number of senior and support staff, and significant reductions in core and complementary programmes since 1990. The downsizing of staff and programme activities was primarily due to financial stringencies in the CGIAR. Between 1989 and 1993, CIMMYT's core budget declined by about 25% in real terms, and by 13% in nominal terms between 1990 and 1993. During the same period, the number of senior international staff years in the core programme was reduced from 95 to about 75.

CIMMYT considers poverty to be the main underlying element in the nexus of problems associated with environmental deterioration and population increases. CIMMYT's role in alleviating these problems is to stimulate economic growth by developing new improved technologies that will increase productivity without degrading the natural resource base.

In view of the increased concern for natural resources management within the CGIAR, CIMMYT has decided to redeploy some of its core resources for research on natural resources management in two environments where maize and wheat cropping systems predominate. The Centre will concentrate on strategic research in natural resources management, particularly that of a long-term nature. Close collaboration is planned with NARS and other CGIAR Centres mainly: CIAT, on maize based cropping systems in the hillside region of Central America; IIMI and IRRI on rice-wheat cropping systems in Asia; and IFPRI on public policy research.

The plan provides full programmatic details and financial requirements at the 110% level of the base resource envelope, requiring US\$ 26.5 million in core resources to support 77.3 senior staff years (SSY) in 1998. Under this scenario, CIMMYT will devote a declining proportion of its core resources for maintenance breeding in wheat. A short narrative is also given on the impact of decreasing the budget to the level of the base resource envelope, which would require US\$ 24.1 million to support 68.3 SSY in 1998, and of funding at 90% of the base resource envelope.

CIMMYT proposes to allocate 20% of its resources to conservation and management of natural resources, 38% to germplasm enhancement and breeding, 19% to

production systems development and management, 2% to socioeconomic, public policy and public management research, and 21% to institution building. Maize and wheat research receive an approximately equal share of core resources, but research on wheat and barley benefit from a much greater share of complementary funds.

4.5.2. Interim Commentary and Programmatic Issues

The programmatic issues on which TAC and the CGIAR asked CIMMYT to provide further information and clarification were: the status of the research on hillside maize cropping systems in Central America and the rice-wheat cropping systems in Southern Asia, including institutional mechanisms, relative to the ecoregional approach to research recommended by TAC; lowering costs through the use of consultants; the implications of the expected resource shifts towards natural resources research on CIMMYT's special advantage as a global commodity centre; and CIMMYT's advantage in maintenance research relative to the stronger NARS in developing countries.

4.5.3. Centre Response

CIMMYT considers the proposed hillside maize cropping system work in Central America to be a part of the broader ecoregional approach as defined by CIAT. CIMMYT's research activities will be in the biological/economic component of the ecoregional effort led by CIAT.

Regarding the rice-wheat irrigated cropping systems in South Asia, the work is expected to traverse more than one ecoregion. A broader range of issues normally associated with an ecoregion will be addressed through collaboration with IIMI, IFPRI and possibly ICRISAT. CIMMYT and IRRI plan to jointly identify a person to lead their effort in the region. Participating national programmes are expected to receive funding directly from bilateral sources. A regional organization of some type will be required to bring all interested parties together to share information and to foster cooperation.

With respect to maintenance research, CIMMYT argues that it is less costly to continue its maintenance breeding as at present than by devolution to the stronger NARS. CIMMYT believes that, in some circumstances, the use of consultants for its ecoregional activities will be a lower cost option for necessary inputs into the effort. Consultants will be used to obtain skills in areas such as modelling or computer-based simulation efforts which are required for periods too brief to justify a full-time position.

Because of financial stringencies, the growth in the activity of natural resources management research was at the expense of other activities, primarily TAC activity category 3 on production systems. Consequently CIMMYT believes that its principal role as a global commodity centre has not been compromised. Further, CIMMYT supports this redeployment of resources because it considers that the two natural resources management research projects are well focused. They fit and complement the Centre's goal of increasing productivity of resources committed to maize and wheat production. The research proposed is of a longer time frame but still focuses on systems based on maize and wheat and features extensive collaboration.

4.5.4. Evaluation

CIMMYT's MTP proposals are concise, transparent, and well reasoned. The priorities among and within programmes are clearly articulated and the objectives and targets have been well stated. Despite the reduced size of its staff and less funds than in the past, CIMMYT's MTP proposals provide an excellent scope for high quality research, achievements and impact. TAC recognizes that while CIMMYT has emerged from the MTP exercise with a more focused and more streamlined operation, the enforced downsizing has nevertheless affected the scale and scope of its operations and impact. If the downsizing were to continue, it would seriously affect the performance of the Centre. TAC considered that on priority considerations the tentative planning envelope assigned to CIMMYT should be readjusted upwards.

With respect to CIMMYT's planned activities in maintenance breeding, TAC notes a certain reluctance on the part of CIMMYT to relinquish some aspects of its germplasm enhancement and breeding activities. However, TAC notes that CIMMYT has devolved some of its training activities to selected national institutions in sub-Saharan Africa and Latin America. TAC would encourage CIMMYT to continue to devolve the routine aspects of breeding, including maintenance breeding, to the stronger national programmes.

TAC considered that CIMMYT's proposals were of a highly strategic character and with a very good potential for breakthroughs. CIMMYT has an excellent record in generating farm level impact and this is expected to continue. CIMMYT is well managed and has a healthy institutional environment. It collaborates well with NARS and other institutions.

4.5.5. Recommendations

On the basis of the additional information provided by CIMMYT and the views expressed by the Group at ICW'92, TAC found that there were convincing arguments for an increase in the resource envelope of US\$ 24.1 million (in 1992 dollars) which had been tentatively assigned to CIMMYT. TAC recommends that CIMMYT be assigned for 1998 core resources in the amount of US\$ 26.5 million which corresponds to 110% of the tentative resource envelope. With this level of funding at the US\$ 270 million vector, TAC expects CIMMYT to strengthen its maize and wheat genetic enhancement work, biotechnology applications, natural resources management research, and research support services. This recommendation takes into account the importance of wheat and maize in developing countries, CIMMYT's impressive record of impact, and potential for future breakthroughs, and institutional health. CIMMYT will also benefit from funds recommended for Systemwide ecoregional and water management initiatives.

At the US\$ 280 million vector CIMMYT would benefit from enhanced Systemwide activities in ecoregional research and water management.

For 1998, CIMMYT projects complementary funding at US\$ 7.6 million (in 1992 values), which represents 29% of the Centre's recommended core funding for that year.

For 1994, TAC recommends a core funding of CIMMYT of US\$ 23.3 million in 1992 dollars, or US\$ 25.2 million in current values. Together with complementary funding of US\$ 8.2 million, total funding of CIMMYT in 1994 will amount to US\$ 33.5 million.

CIMMYT: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 <---	1991 actual	1992 --->	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	27.1	26.6	26.1	23.5	10.2%	25.2	27.1	29.1	31.2	33.5	
1992 dollars :			26.1	22.6		23.3	24.1	24.9	25.7	26.5	10.3%
% Unrestricted :	90%	87%	87%								
Balancing Funds :	12%	15%	19%	15%							
Core Donors:											
Number	23	28	25	25							
% funding, top 3	50%	46%	49%	47%							
% funding, top 5	67%	62%	66%	66%							
% funding, top 10	88%	85%	90%	89%							
b) Complementary											
Current dollars:	5.4	7.5	5.3			8.2				9.6	
1992 dollars:			5.3			7.6				7.6	8%
c) Total											
Current dollars:	32.5	34.1	31.4			33.5				43.1	
1992 dollars:			31.4			30.9				34.1	10%

1998 funding guideline (Chap. 14), in 1992 \$:	24.1
TAC recommendation, as % of guideline :	110%
TAC recommendation, as % of 1992 :	102%
TAC recommendation, as % of 1993 :	117%

II. EXPENDITURE :	1992		1998 Projected	
	(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity				
1. Conservation/Management of Natural Resources	12%	5%	20%	10%
2. Germplasm Enhancement & Breeding	41%	12%	38%	0%
3. Production Systems Development & Management	21%	40%	19%	44%
4. Socio-Econ / Public Pol / Pub Mgmt Research	2%	0%	2%	2%
5. Institution Building	24%	42%	21%	44%
b) By Commodity (details of #2 & #3 above)				
Maize	31%	20%	28%	19%
Wheat/Barley	32%	33%	29%	26%
c) By Region				
Africa	18%		19%	
Asia	39%		41%	
LAC	26%		26%	
WANA	17%		15%	
d) By Object of Expenditure				
Personnel	57%		57%	
Supplies/Services	23%		25%	
Travel	7%		6%	
Depreciation	6%		5%	
Other	6%		6%	
e) By Cost Center				
Research	60%		56%	
Research Support	16%		10%	
Training and Information	5%		14%	
Management and Administration	18%		20%	

III. STAFFING :	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	83	85	79	77	-3%
Complementary	21	12	13	7	-46%
Supervisory Staff (#)	61	45	45	43	-4%
Support Staff (#)	762	750	692	650	-6%

IV. FINANCE :	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	1.7	0.6	2.0	1.2	-42%
Operating Fund, (Days Operations)	31	29	30	25	-17%
Fixed Assets Value, yr end (\$)	12.6	12.2	12.0	10.7	-11%
Capital Fund Balance, yr end (\$)	0.0	0.3	0.4	1.4	286%

For explanation of table content, see section 4.2

4.6. CIP

4.6.1. Summary of the MTP Proposal

CIP's primary MTP proposal reflects the implementation of its strategic plan, which was developed in 1991. The major thrusts of CIP's proposed activities are to continue research on potato and sweet potato, and to give greater emphasis to crop, soil and postharvest management. The most significant change proposed in the MTP is the creation and development of an ecoregional programme for the Andes region, which would expand CIP's mandate to include an ecoregional responsibility. CIP also proposed changes in the way it conducts research, by implementing a matrix management system composed of:

- 6 programmes: production systems; germplasm management and enhancement; disease management; insect and nematode management; propagation and crop management; and postharvest management and marketing
- 33 projects
- 7 departments: breeding and genetics; genetic resources; nematology and entomology; physiology; pathology; social sciences; training and information
- 5 regional entities.

CIP's original primary MTP proposal was formulated at 127% of TAC's resource envelope, in which the allocation of resources by commodity amounted to 60% for potato and 40% to sweet potato. Approximately 5% of resources would have been allocated to conservation and management of resources, 41% to germplasm enhancement, 32% to production systems, 9% to socioeconomics and policy analysis, and 13% to institution building.

CIP's proposed activities in the Andes have grown out of a research network for Andean roots and tubers neglected by research, in which the Centre was already involved. CIP would expand this work by assuming a principal role in the coordination of research to develop sustainable systems for management of natural resources in the Andes. CIP's role would be primarily a catalytic one and would focus on activities in natural resources management and biodiversity. An international workshop has already been held with the collaborating partners, and responsibilities have been assigned.

4.6.2. Interim Commentary and Programmatic Issues

TAC did not accept CIP's redefinition of its tentative resource envelope and requested supplementary proposals at the levels of 90%, 100% and 110% of the indicative resource envelope assigned by TAC. TAC was also concerned that CIP's global commodity responsibilities and its strategic germplasm work might be compromised by devoting increased emphasis on natural resources management research.

TAC asked for clarification of several aspects of the Andean initiative such as scope of the activity, role and contribution of the various partners, including CIP, the

specific advantage CIP offers in this area, and the justification for the activity to be part of CIP's core programme. The Andes area is not considered a high-priority ecoregion in the review of CGIAR priorities and strategies. While CIP's priority-setting mechanism has been very methodological and rigorous, the new Andean Programme has not yet been incorporated in this analysis. Clarification was also requested about how the proposed activities in the Andean ecoregion could be reconciled with a proposed allocation of only 5% of CIP's resources to research on natural resources management.

4.6.3. Centre Response

CIP submitted a supplementary MTP proposal at the level of the base resource envelope, and at 110% and 90% of this level. The major implication of the lower budget levels (compared to the original MTP proposal) for CIP's programme would be the virtual elimination of the Andean Ecoregional Programme from the Centre's core activities. The total number of senior staff would amount to 55 positions at the base envelope level, and 60 at the 110% level.

At 100% of the envelope level, 57% of core resources would be allocated to potato research, 37% to sweet potato research and 6% to Andean activities. At this level which calls for core funding of US\$ 14.3 million in 1998 (in 1992 values), CIP considers that it would be operating well below the critical mass required to operate effectively for a centre with its mandate. The core programme of the Centre at this level would consist of research on potato and sweet potato, while the Andean activities would be mostly part of the complementary programme. The only Andean activity to be continued at this level would consist of the Andean root and tuber germplasm research network to which two senior staff would be assigned, as a minimum effort required to fulfil CIP's mandate as specified in the founding agreement with the Government of Peru. At the base envelope level, CIP would also eliminate from its current core programme two senior staff posts at headquarters and two sets of regional activities; CIP's computer-based support and personnel management would be seriously eroded, as would its work in China and its support to African NARS for seed production systems.

At the 110% level, CIP would continue to operate more or less at current levels. Still, it would seek complementary funds to expand its activities beyond this level.

CIP has stressed the importance of a CGIAR involvement in the Andean ecoregion, particularly in view of the extent of rural and urban poverty, the importance for biodiversity, the rapid degradation of resources, the need to address the problems of migration effects on coastal and Amazonian ecologies, and the opportunities for spillovers from the research to other highland areas. The Andean initiative is strongly supported by donors and members of the CGIAR, several of which have expressed strong preference for core support to this activity. CIP's work on potato and sweet potato would not be seriously affected by the Andean Programme: TAC has been invited to carefully monitor the situation through CIP's detailed, project-based accounting system. CIP has submitted to TAC detailed information on the progress to date in implementing the Andean proposal, which involves participation of eight other CGIAR centres.

CIP considers that the high share of resources allocated to production systems and the low share for research on natural resources management is due to the confounding of

cropping-systems work and land and water resources management. The objective of most of this cropping-systems work is to improve management of natural resources, but it requires community-level, participatory research. CIP has reclassified its activities in production systems and now estimates its allocation of resources as 24% to production systems development and management, and 16% to conservation and management of natural resources.

4.6.4. Evaluation

TAC saw no compelling reason on priority considerations to change the tentative level of resources assigned to CIP. The priority assigned to research on potato and sweet potato remains unchanged and TAC considers that the resource management aspects of the Andean Programme should be funded from complementary sources as the Andes are not considered as a high-priority ecoregion for the CGIAR. The Committee attaches high priority to the work on lesser-known roots and tubers in the Andes however. While the demand for potato in developing countries is growing rapidly, TAC also noted the substantial amount of research on this commodity in developed countries. With respect to sweet potato, TAC recalls that this commodity is predominantly grown in China and used increasingly as a livestock feed and for industrial purposes. CIP has a transparent, coherent priority-setting mechanism which, however, does not yet include the proposed Andean Programme.

TAC considers that CIP's proposals are of a strategic character and that they provide good potential for breakthroughs. CIP has performed well in the past and with its new impact-oriented strategy it is expected to do even better in the future. While the political situation in the host country is a continuing source of concern, some progress has been made lately. CIP is managed well and has demonstrated its ability to cope with difficulties related to host country situations, compounded by funding restrictions. CIP has excellent collaboration and partnership with national research systems around the world and has very innovative mechanisms for collaboration with advanced research institutes.

4.6.5. Recommendations

TAC recommends that CIP be assigned in 1998 core resources in the amount of US\$ 14.3 million (in 1992 dollars) which is equivalent to 100% of the tentative envelope, under the US\$ 270 million vector. TAC considers that the level of the tentative envelope adequately reflects the potential contribution of CIP to the achievement of System priorities. In a situation of more restrained funding, TAC would encourage CIP to maintain its applications of biotechnology which have proven to be successful in the past. CIP could also be a major partner in the proposed Systemwide ecoregional programme for the humid and sub-humid tropics and subtropics in Latin America for which CIAT will be the convening centre.

For 1998, CIP projects complementary funding of US\$ 5.6 million (in 1992 dollars), which represents 39% of CIP's recommended core funding.

For 1994, TAC recommends core funding of US\$ 14.3 million in 1992 dollars or US\$ 15.5 million in current values. Together with a projected complementary funding of

US\$ 5.8 million, CIP's total funding in 1994 would amount to US\$ 21.4 million. In addition to the core funding of US\$ 15.5 million, TAC recommends to reinstate the one-time compensation of US\$ 950,000 in 1994 to allow CIP to restore its working capital which was virtually depleted in 1989-92 as a consequence of difficult economic circumstances in its host country.

CIP: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 ----- <---	1991 actual	1992 ---->	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	16.9	17.1	15.3	15.0	6.5%	15.5	16.1	16.8	17.4	18.1	
1992 dollars :			15.3	14.4		14.3	14.3	14.3	14.3	14.3	5.5%
% Unrestricted :	95%	92%	91%								
Balancing Funds :	14%	11%	7%	6%							
<u>Core Donors:</u>						1998 funding guideline (Chap. 14), in 1992 \$:					14.3
Number	25	25	25	25		TAC recommendation, as % of guideline :					100%
% funding, top 3	36%	32%	33%	30%		TAC recommendation, as % of 1992 :					93%
% funding, top 5	52%	46%	49%	44%		TAC recommendation, as % of 1993 :					99%
% funding, top 10	80%	73%	79%	70%							
b) Complementary											
Current dollars:	4.3	4.5	5.6			5.8				7.1	
1992 dollars:			5.6			5.4				5.6	6%
c) Total											
Current dollars:	21.3	21.6	20.9			21.4				25.2	
1992 dollars:						19.8				19.9	6%

II. EXPENDITURE :	1992		1998 Projected	
	(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity				
1. Conservation/Management of Natural Resources	14%	39%	17%	43%
2. Germplasm Enhancement & Breeding	41%	6%	44%	10%
3. Production Systems Development & Management	21%	20%	24%	24%
4. Socio-Econ / Public Pol / Pub Mgmt Research	9%	11%	9%	9%
5. Institution Building	14%	24%	6%	15%
b) By Commodity (details of #2 & #3 above)				
Potato	42%	25%	45%	33%
Sweet Potato	20%	1%	23%	1%
c) By Region				
Africa	19%		19%	
Asia	35%		34%	
LAC	35%		37%	
WANA	11%		9%	
d) By Object of Expenditure				
Personnel	62%		56%	
Supplies/Services	26%		33%	
Travel	7%		7%	
Depreciation	4%		4%	
Other	1%		1%	
e) By Cost Center				
Research	49%		48%	
Research Support	14%		14%	
Training and Information	10%		10%	
Management and Administration	27%		28%	

III. STAFFING :				1998	% Change from 1992
	1990	1991	1992		
International Staff (#)					
Core	84	73	67	55	-18%
Complementary	11	11	12	14	17%
Supervisory Staff (#)	12	11	14	14	0%
Support Staff (#)	527	527	479	495	3%

IV. FINANCE :				1998	% Change from 1992
	1990	1991	1992		
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	0.8	0.5	1.1	0.7	-38%
Operating Fund, (Days Operations)	42	-5	38	37	-3%
Fixed Assets Value, yr end (\$)	10.7	10.2	9.8	9.6	-2%
Capital Fund Balance, yr end (\$)	0.2	1.5	2.1	4.1	96%

For explanation of table content, see section 4.2

4.7. IBPGR

4.7.1. Summary of the MTP Proposal

IBPGR's MTP proposal reflects the implementation of a new strategy which was adopted by its Board in 1992 and is written for the new institute - the International Plant Genetic Resources Institute (IPGRI) - which IBPGR will become, after ratification by the Italian Parliament of an agreement to locate IPGRI's headquarters in Italy.

The primary MTP proposal and the new strategy take into account the implementation of Agenda 21, and the new funding opportunities likely to arise in response to new challenges for IBPGR in the follow-up to UNCED. The MTP proposal presents a 1998 core budget of US\$ 9.2 million (110% of the base envelope and 31 SSY) which IBPGR considers to allow for a minimum core programme, and permitting IBPGR to continue its 1993 programme and to implement its new strategy. The Plan presents three additional proposals in order of priority, i.e., forest genetic resources/biodiversity in situ conservation/ethnobotany, calling for an additional US\$ 1.9 million per year in core funding (scenario 2); activities on crops of ecoregional importance, which calls for an additional US\$ 1.2 million per year (scenario 3); and coconut genetic resources network, calling for an additional US\$ 0.4 million per year (scenario 4).

IBPGR translates its mission into four operational objectives, to be pursued in collaboration with partners: (i) to assist countries, particularly developing nations, to assess and meet their needs for plant genetic resources conservation and to strengthen links to users (absorbing 30% of core resources); (ii) to strengthen and contribute to international collaboration in the conservation and use of plant genetic resources (20% of core); (iii) to develop and promote improved strategies and technologies for plant genetic resources conservation (30% of core); and (iv) to provide an information service on plant genetic resources (20% of core).

The Plan proposes to fulfil these objectives through five regional and three thematic programme groups. The regional groups are: sub-Saharan Africa, West Asia and North Africa (WANA), Asia, the Pacific and Oceania, the Americas and Europe. The thematic groups are: genetic diversity, germplasm maintenance and use, and documentation, information and training.

The regional, country and species/genepool priorities are set using aspects related to people and development, to genetic resources, and global partnership as the major guiding principles, and involves collaborative arrangements with CGIAR centres, FAO and other UN agencies, national and regional programmes, NGOs and the private sector.

Since plant genetic resources cross national and regional boundaries, their conservation has to be a truly global activity, and could not be confined to developing countries alone. In this context, IBPGR intends to allocate about 4% of its core resources to a regional programme in Europe in order to strengthen links and facilitate technology transfer between the extensive germplasm collections in Europe and the developing world, and to assist the management of plant genetic resources in Eastern Europe and the CIS Republics. For this reason the MTP proposal includes in its core programme a group leader for networking activities in Europe. While much of the work in Europe would

continue to be undertaken through resources provided by the participating countries, IBPGR considers that one core staff position, with appropriate support, would be essential to provide a base for developing this networking approach. In particular, IBPGR will consider collaboration, through complementary programmes, with countries in Eastern Europe and the CIS Republics, where historic germplasm collections are under threat.

Of IBPGR's proposed 1998 core resources, 26% would be allocated to sub-Saharan Africa, 22% to WANA, 26% to Asia and the Pacific, 22% to the Americas, and 4% to Europe. By category of activity, the respective distribution would be: 46% to conservation and management of natural resources, 7% to germplasm enhancement and breeding, 4% to production systems development and management, 14% to socioeconomic, public policy and public management research, and 29% to institution building. Using explicit criteria to differentiate complementary activities from core, IBPGR proposes a budget for complementary activities which is equivalent to approximately 60% of the core budget, and most of the complementary project funding will be utilized for contracting out research, for training, and for funding network activities.

4.7.2. Interim Commentary and Programmatic Issues

TAC commended IBPGR for the clarity of its MTP. TAC wanted to know the implications on the MTP proposals of including the additional proposals (scenarios 2, 3 and 4) at a budgetary level of the base envelope. TAC sought further details on IBPGR's research on socioeconomics and policy which are being worked out in collaboration with IFPRI, and on IBPGR's role in forestry relative to that of CIFOR, ICRAF and FAO. As a Systemwide issue, TAC asked whether there was a case for considering a separate funding mechanism to facilitate action on a Systemwide programme on plant genetic resources, and if so, what form it could take and what role IBPGR could play.

4.7.3. Centre Response

IBPGR considers that its primary core funding scenario of 110% of the indicative base envelope is the minimum needed to maintain a significant programme in ex situ conservation - the traditional area of strength of IBPGR. Under this scenario the major disciplines would be represented by one internationally-recruited scientist, with additional senior staff stationed in the regions to ensure close integration of the Centre's activities with those of national programmes and other relevant organizations. This funding level would allow only limited involvement in areas such as in situ and on-farm conservation, forest genetic resources and social science. Much of the urgently needed work in these areas would have to be funded from extra-core sources.

The effects of funding at the level of the indicative base envelope (US\$ 8.4 million) would result in the loss of three SSYs (i.e. 10% of the current international staff) from the primary funding scenario and would seriously compromise IBPGR's ability to work in several key strategic and technical areas. Although it may be possible to maintain certain high priority activities through special projects, areas in which significant programme reductions would occur are likely to include: the work on genetic diversity distribution (including the use of genetic and biochemical markers) and other key aspects of population genetics; seed and pollen physiology in relation to low-input drying and

storage methods; social and cultural aspects of in situ conservation; and/or conservation strategy and technology development and support to national programmes in the Americas. Restructuring of the current Thematic Groups based at Headquarters would also have to be considered.

Of the three additional proposals, IBPGR gives the highest priority to scenario 2, which calls for support for five additional SSYs (one at headquarters and four in the regions) to strengthen the activities on in situ and on-farm conservation, forest genetic resources and social science. These activities would significantly expand IBPGR's opportunities to contribute towards the achievement of the goals agreed at UNCED.

The focus of socioeconomics work is on the role of land-races in farming systems, from the perspective of both the conservation of genetic diversity (including in situ conservation systems) and the contribution that such materials can make to crop development. It will involve recording indigenous knowledge about species characteristics and their role in farming systems, and building on the complementarity between in situ and ex situ conservation methods. In addition to its involvement in the policy area concerning intellectual property rights, IBPGR, in partnership with other organizations such as FAO, IFPRI and ISNAR, will assist in the development of policy and management options for key players in agricultural development. This will involve looking at national genetic resources conservation policies, and links between conservation and use, as well as organizational and structural issues concerning plant genetic resources programmes within NARS.

IBPGR's main emphasis in forest genetic resources will be on the conservation of intra-specific genetic diversity. The programme will provide support to national programmes and conduct research and training in the development of appropriate conservation strategies, improvement of the scientific basis for in situ conservation, development of techniques for characterizing genetic diversity, improvement of methods for conserving recalcitrant seeds, development of improved phytosanitary procedures, development of an international information system, and integrating work on socioeconomics and cultural aspects in support of in situ conservation.

4.7.4. Evaluation

TAC considers that IBPGR's MTP proposal is clear and well thought through. It reflects the implementation of IBPGR's new strategic plan and its response to the recommendations of the Third External Review in 1991. The MTP document and the Centre response to TAC's interim commentary make a convincing case for IBPGR's vision of the minimum core programme required to implement its strategy, as well as the additional work that would be undertaken under a more favourable funding environment. IBPGR's regional and thematic priorities are realistic and forward looking, and the programmes are structured to ensure the required critical mass and scientific credibility.

TAC considers that IBPGR's programmes are catalytic and have a clear focus. The institution building activities and the strategic research work are an excellent response to the changing global perspectives on plant genetic resources, and the challenges and opportunities arising from the follow-up to UNCED. IBPGR's work is important because of the magnitude and the fundamental nature of the task, particularly in the traditional

areas of ex situ conservation. However, some of the second generation problems - e.g., strengthening links to users; effective conservation strategies related to core collections and genepools; in situ conservation; and improving international collaboration - are of a long-term nature, and breakthroughs may be relatively difficult to achieve.

IBPGR has an excellent reputation at the international and national level, and is recognized as a lead player in the field of plant genetic resources. Its work has generally been of high quality and relevance. IBPGR has transformed itself in the recent past, and is equipped with high calibre staff and management to provide effective international leadership in the area of its mandate.

TAC considers that IBPGR's policy to promote activities throughout the world, including Europe, is appropriate, given the global nature of the work on plant genetic resources. IBPGR's collaborative arrangements reflect the recognition of the importance of national programmes in a coordinated global effort, and its role in providing scientific and technical expertise and information.

On the basis of the above and additional information provided by IBPGR, and in the light of UNCED and other recent developments in the global perspectives on plant genetic resources and biodiversity, TAC considered that the amount of resources tentatively assigned to IBPGR should be revised upwards. IBPGR's plan addresses issues of high priority to the CGIAR and forms an appropriate response to the changing global perspectives on the conservation and use of plant genetic resources, and the concerns for biodiversity. IBPGR's collaboration with NARS, other IARCs and advanced institutions is impressive, wide ranging and generally effective. It has always relied on linkages with partners, including development agencies, to achieve its objectives.

4.7.5. Recommendations

TAC recommends that, at the US\$ 270 million vector, IBPGR's core resources for 1998 should be US\$ 9.2 million (in 1992 dollars), which is equivalent to 110% of the tentative envelope. At this funding level, TAC expects IBPGR to include the Coconut Genetics Resource Network into its core programme. IBPGR will also be the convening centre for the implementation of a Systemwide initiative on plant genetic resources (see Section 3.1.2.). For that programme, TAC recommends that US\$ 1 million be allocated from 1996 onwards at the US\$ 270 million vector, and that this amount be increased to US\$ 2 million at the US\$ 280 million vector.

TAC recommends that IBPGR's own core resources (i.e. excluding the Systemwide initiative) should increase by US\$ 1.5 million (in 1992 values) at the US\$ 280 million vector. TAC expects that this would allow IBPGR to include in its core programme the work on forest genetic resources/biodiversity/in situ conservation/ethnobotany (scenario 2), and on population genetics and the genetic structures of populations.

Also for 1998, IBPGR projects complementary funding of US\$ 5.5 million (in 1992 values), which represents 60% of its recommended core funding.

For 1994, TAC recommends a core funding for IBPGR of US\$ 8.6 million in 1992 dollars, or US\$ 9.3 million in current values. Together with complementary funding at US\$ 3.8 million, total funding of IBPGR in 1994 would amount to US\$ 13.1 million.

IBPGR: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 <--- actual	1991 actual	1992 ---	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	7.0	8.1	9.0	8.8	3.8%	9.3	9.8	10.4	11.0	11.6	
1992 dollars :			9.0	8.5		8.6	8.7	8.9	9.1	9.2	3.6%
% Unrestricted :	98%	98%	99%								
Balancing Funds :	4%	0%	9%	14%							
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:					8.4
Number	19	22	21	20		TAC recommendation, as % of guideline :					110%
% funding, top 3	45%	41%	37%	42%		TAC recommendation, as % of 1992 :					102%
% funding, top 5	61%	57%	56%	60%		TAC recommendation, as % of 1993 :					109%
% funding, top 10	85%	83%	84%	85%							
b) Complementary											
Current dollars:	0.6	0.7	1.4			3.8				7.0	
1992 dollars:			1.4			3.5				5.5	6%
c) Total											
Current dollars:	7.6	8.7	10.5			13.1				18.6	
1992 dollars:			10.5			12.1				14.7	4%

II. EXPENDITURE :	1992		1998 Projected	
	(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity				
1. Conservation/Management of Natural Resources	44%	37%	46%	26%
2. Germplasm Enhancement & Breeding	10%	23%	7%	19%
3. Production Systems Development & Management	0%	5%	4%	4%
4. Socio-Econ / Public Pol / Pub Mgmt Research	9%	0%	14%	18%
5. Institution Building	37%	35%	29%	34%
b) By Commodity (details of #2 & #3 above)				
Crops	10%	28%	11%	23%
c) By Region				
Africa	27%		27%	
Asia	27%		27%	
LAC	24%		23%	
WANA	22%		23%	
d) By Object of Expenditure				
Personnel	57%		66%	
Supplies/Services	31%		22%	
Travel	9%		10%	
Depreciation	2%		2%	
Other	0%		0%	
e) By Cost Center				
Research	47%		49%	
Research Support	8%		3%	
Training and Information	15%		18%	
Management and Administration	30%		29%	

III. STAFFING :	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	30	30	24	31	29%
Complementary	3	3	2	11	450%
Supervisory Staff (#)	8	9	8	19	138%
Support Staff (#)	25	27	38	56	47%

IV. FINANCE :	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	0.3	0.3	0.3	0.9	222%
Operating Fund, (Days Operations)	86	103	82	43	-48%
Fixed Assets Value, yr end (\$)	0.4	0.6	0.7	1.4	100%
Capital Fund Balance, yr end (\$)	0.3	0.5	0.3	0.5	50%

For explanation of table content, see section 4.2

4.8. ICARDA

4.8.1. Summary of the MTP Proposal

ICARDA's MTP proposal is based on its long-term strategy 'Sustainable Agriculture for the Dry Lands', prepared during 1989. The MTP proposal is presented at two levels of funding, i.e., the indicative base resource envelope (US\$ 17.6 million) and 110% of that level, assigned by TAC. A supplementary scenario at 90% of the resource envelope has also been presented.

The MTP proposal follows a project-budgeting approach, based on a matrix of ICARDA projects structured within the categories of activity used in the CGIAR resource allocation process. A total of 23 projects were proposed: three in Conservation and Management of Natural Resources (accounting for 26% of core resources at the base resource envelope level); nine in Germplasm Enhancement and Breeding (17%); six in Production Systems Development and Management (32%); three in Socioeconomics, Public Policy and Public Management (11%); and two in Institution Building (14%). The projects will be carried out under four programmes: Farm Resource Management (30% of resources, at the base resource envelope level); Cereals (27%); Legumes (21%); and Pasture, Forage and Livestock (22%).

Since 1989, when the level of staffing was frozen at the then-filled senior staff positions (66 out of 72 authorized posts), four positions have been vacated. Out of sixty-two currently-filled positions, four posts would have to be cut at the 110% scenario, and six more at the base resource envelope. Core-funded staff would be reduced in administration and in all categories of activity except category 4 (socioeconomics and public policy); the greatest reduction would be in category 5 (institution building). Staffing of category 4 would be increased, as would research support at the 100% and 110% funding levels and throughout the MTP period.

If 1998 core funds were to be limited to the base envelope level, ICARDA states that it would have to reduce the magnitude of the proposed natural resources management research, including work on soil fertility and sustainability. It would also cause studies on the agronomy of the barley/livestock zone to be discontinued, the formation of a livestock network to be postponed indefinitely, and affect negatively ICARDA's joint research with CIMMYT.

ICARDA states that, even at the 110% scenario, cuts will be necessary in the ongoing cereal and legume work in North Africa and rangelands studies in Baluchistan. Training, and publications in Arabic and French would also have to be reduced.

4.8.2. Interim Commentary and Programmatic Issues

TAC was pleased with the clarity of ICARDA's MTP proposal and the interactive process followed by ICARDA to develop it. TAC noted the significant reductions in senior staff positions, but requested clarification on the programmatic implications, and their nature, of the projected reductions. In view of the developments in ICARDA's mandate region and the consequent, possible increase in requests for ICARDA's

assistance, TAC requested information on the likely programmatic and resource implications of an expanded geographical focus.

Also, TAC asked ICARDA for the rationale underlying the differentiation of its core from complementary activities, and to indicate the resulting proportion of complementary activities in ICARDA's total programme. The Committee sought further information on ICARDA's projected work in irrigation research, particularly vis-a-vis IIMI's role and also requested the Centre to elaborate on its current strategy on the devolution of lentil breeding activities. Finally, TAC requested that ICARDA elaborate on the implications of income from in-trust and complementary project funds and on the programmed reductions in World Bank support to its core programme.

4.8.3. Centre Response

ICARDA noted that its MTP proposal was transparent and specific with respect to reductions in senior staff positions. ICARDA's approach was based on the assumption that austerity is cyclical, and that for the next five years the aid climate may change for the better. ICARDA's strategy has therefore been, as far as possible, to maintain the integrity of its programmes.

ICARDA stated that it had used TAC's definitions of core and complementary activities. However, due to financial constraints, non-core sources are being sought to fund some core activities. Many of the activities financed with complementary funds are outreach. In concurrence with TAC's recommendation, ICARDA reported that it would devolve its lentil breeding activities in the longer term. However, in view of donor support for a strong legume programme at ICARDA, and the statement in the report of 1993 external review that "the remaining level of activity proposed in ICARDA's MTP is appropriate and irreducible", the Centre awaited advice from TAC.

ICARDA has participated in activities with NARS in the WANA region using complementary funds. In the light of the current and projected funding constraints, ICARDA has had to withdraw some of its staff in outreach to ensure critical mass at headquarters. ICARDA's irrigation activities will be limited to research on the use of irrigation water at the farm level, e.g., research on water-saving techniques and conservation strategies. ICARDA also participates in other irrigation projects with NARS in WANA, using complementary funds, and has recently signed a collaborative agreement with IIMI.

ICARDA's interest in the Central Asian Republics is based on the ecoregional continuity of the sub-regions within WANA. The Centre is seeking additional, non-core funds for work in these areas and has already submitted two project proposals to donors. Initially, however, priority is being given to formulating a strategy for intervention in the area. The Centre has recently negotiated a five-year, US\$ 10 million project with the Government of Iran to expand its research on highland agriculture in the WANA region. ICARDA will continue to collaborate with individual scientists and institutions in the Central Asian Republics, but has no plans for a physical presence in these new areas.

ICARDA holds about US\$ 1.85 million in trust annually (8% of the annual budget) for transmittal to designated beneficiaries in the countries of its mandated region. This generates about US\$ 200,000 of earned income each year, and supplements core funding from other sources. The donor-of-last-resort funds have fallen in accordance with an established formula, but together with other reductions in donor funding, this decline is having serious adverse effects on the Centre's programme.

4.8.4. Evaluation

ICARDA's MTP proposal is clear, has been prepared through an interactive process with its national programme partners, and reflects the implementation of the Centre's strategy. Its proposal is consistent with CGIAR priorities and strategies. The tentative resource envelope assigned to ICARDA, reflected TAC's views on the priority of the WANA region, of the mandate commodities of the Centre and of ICARDA's increased emphasis on natural resources management and policy research. At TAC 61, the Committee saw no compelling reason on priority considerations to change the level of this tentative envelope.

TAC considered that ICARDA's proposals were generally of a strategic character with a good potential for breakthrough, taking into account the difficulties of making progress in arid and semi-arid environments. ICARDA has performed well in the past, and the recent external review has given firm indications that past management problems have been resolved and that the institute is institutionally healthy. TAC notes that one of ICARDA's strengths lies in its collaboration with national research systems and partnerships with other institutions, including other CGIAR centres. It sees the effectiveness of these linkages as a major advantage as the Centre expands its engagement in ecoregional activities.

TAC agrees with ICARDA's cautious approach about its involvement in the Central Asian Republics and with irrigated agriculture. The Committee would encourage ICARDA to study carefully the suggestions of the recent external review with respect to restructuring of programmes for a more effective use of resources. TAC also notes that ICARDA's future involvement in livestock research should be in accordance with the global CGIAR strategy for livestock research which, following the decisions taken at MTM'93, is currently under discussion for implementation. TAC urges ICARDA to pay particular attention to its fund-raising strategy, such that donor commitment would reach, as a minimum, the level of the core resource envelope.

4.8.5. Recommendations

TAC recommends that ICARDA be assigned in 1998 core resources of US\$ 17.6 million (in 1992 dollars), equivalent to 100% of the tentative envelope. TAC considers that this level corresponds to the potential contribution the Centre can make to the achievement of System priorities. ICARDA has also been identified as the convening centre for a Systemwide ecoregional programme in WANA (cool subtropics with winter rainfall), for which an amount of US\$ 400,000 has been recommended by 1998 under the US\$ 270 million vector; at the US\$ 280 million vector, TAC recommends that this amount be increased by US\$ 125,000.

ICARDA has also been identified as a participant in a Systemwide water management programme (see Section 3.1.2) with IIMI as the convening centre, and for which US\$ 1 million has been recommended at the US\$ 270 million vector, and an additional US\$ 1 million at the US\$ 280 million vector.

For 1998, ICARDA projects complementary funding of US\$ 3.5 million (in 1992 values), which represents 20% of ICARDA's recommended core funding for that year.

For 1994, TAC recommends a core funding for ICARDA of US\$ 13.8 million in 1992 dollars, or US\$ 14.9 million in current values. Together with complementary funding at US\$ 3.8 million, total funding of ICARDA in 1994 would amount to US\$ 18.7 million.

ICARDA: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					%, centers' allocation in 1998
	1990 -----	1991 actual	1992 -----	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	18.7	19.5	17.9	13.5	5.9%	14.9	16.5	18.2	20.1	22.3	
1992 dollars :			17.9	13.0		13.8	14.7	15.6	16.6	17.6	6.8%
% Unrestricted :	78%	80%	77%								
Balancing Funds :	22%	20%	21%	23%							
<u>Core Donors:</u>						1998 funding guideline (Chap. 14), in 1992 \$:					17.6
Number	21	24	23	24		TAC recommendation, as % of guideline :					100%
% funding, top 3	59%	55%	56%	56%		TAC recommendation, as % of 1992 :					98%
% funding, top 5	72%	67%	67%	67%		TAC recommendation, as % of 1993 :					136%
% funding, top 10	89%	84%	87%	85%							
b) Complementary											
Current dollars:	0.0	0.0	0.5			3.8				4.5	
1992 dollars:			0.5			3.5				3.5	4%
c) Total											
Current dollars:	18.7	19.5	18.4			18.7				26.7	
1992 dollars:			18.4			17.3				21.1	6%

II. EXPENDITURE :		1992		1998 Projected	
		(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity					
1. Conservation/Management of Natural Resources		26%	89%	26%	30%
2. Germplasm Enhancement & Breeding		15%	2%	17%	20%
3. Production Systems Development & Management		37%	2%	32%	35%
4. Socio-Econ / Public Pol / Pub Mgmt Research		4%	0%	11%	10%
5. Institution Building		18%	7%	14%	5%
b) By Commodity (details of #2 & #3 above)					
Wheat/Barley		20%	4%	15%	15%
Chickpea		6%	0%	5%	7%
Faba Beans/Lentil		6%	0%	5%	7%
Livestock		22%	0%	23%	25%
c) By Region					
Africa		0%		0%	
Asia		2%		1%	
LAC		1%		1%	
WANA		98%		98%	
d) By Object of Expenditure					
Personnel		55%		55%	
Supplies/Services		12%		12%	
Travel		7%		7%	
Depreciation		12%		12%	
Other		14%		14%	
e) By Cost Center					
Research		48%		45%	
Resreach Support		20%		20%	
Training and Information		10%		14%	
Management and Administration		22%		21%	

III. STAFFING :	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	59	56	66	52	-21%
Complementary	4	0	2	13	550%
Supervisory Staff (#)	48	57	60	60	0%
Support Staff (#)	519	510	552	544	-1%

IV. FINANCE :	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	3.0	2.7	2.2	2.3	5%
Operating Fund, (Days Operations)	60	98	113	96	-15%
Fixed Assets Value, yr end (\$)	29.2	28.4	27.0	30.6	13%
Capital Fund Balance, yr end (\$)	1.2	2.6	4.1	4.8	18%

For explanation of table content, see section 4.2

4.9. ICLARM

4.9.1. Summary of the MTP Proposal

ICLARM's original MTP proposal reflected the implementation of its strategic plan, on the basis of which the Centre was admitted to the CGIAR in 1992. The strategic plan had been developed using elaborate priority-setting mechanisms and a set of guiding principles. In its original MTP proposal, ICLARM proposed three major research programmes: the Coastal Resource Systems Programme (CRSP); the Coral Reef Resource Systems Programme (CRRSP); and the Inland Aquatic Resource Systems Programme (IARSP). These programmes would be supported by the National Research Support Programme (NRSP) and the Information Division. The CRSP would focus on integrated coastal fisheries management, the dynamics of multispecies resources and the socioeconomics dimension of coastal fisheries. The CRRSP would aim at improving resource management and improving reef productivity. The IARSP would work on both fish productivity and integrated resources management. The NRSP is dealing with human resources development and activities related to strengthening national institutions. The Information Division has the responsibility for technical publication and dissemination, information services and information research (impact assessment).

The original proposal made by ICLARM required resources at a level of US\$ 10.7 million, i.e., 224% of the level of the base resource envelope tentatively assigned by TAC in March 1992. It projected an annual increase in senior staff of 16.5% between 1994 and 1998. The proposed allocation of core resources by category of activity would be 30% to resource management, 5% to germplasm enhancement, 20% to production systems, 22% to policy work, and 23% to institution building. The regional distribution of these resources would have been 70% to Asia, 22% to Sub-Saharan Africa, 5% to Latin America, and 3% to WANA.

ICLARM also presented, in general terms, implications of funding at the level of the indicative base envelope of US\$ 4.8 million and at 90% and 110% of this level. At these levels, the number of senior staff (SSY) would amount to 19 SSYs, 17.5 SSYs, and 20.5 SSYs respectively - compared with 40 SSYs for the primary proposal (at 224% of the base envelope) - and each of these three scenarios would allegedly cause ICLARM to change its programme structure.

4.9.2. Interim Commentary and Programmatic Issues

TAC considered ICLARM's MTP original proposal to be very ambitious, though it reflected the implementation of the Centre's strategic plan. ICLARM's programme proposals at 90%, 100% and 110% of the resource envelope level were presented only in very general terms. More definite, Board-approved information was required. In contrast with the strategic plan, ICLARM's MTP proposal was not accompanied by a summary of ICLARM's priority-setting mechanisms and outcome of their application. Clarification was also required with regard to the linkage between programme scenarios formulated for different funding levels and the priority-setting mechanisms. TAC expressed its concern about the proposed rapid expansion of staff in the first few years of the MTP period. This would have major implications for the management of human and

physical resources and would not allow adequate time for building high quality research capacity.

TAC also required additional information about the strategic context of the proposed activities of the Coral Reef and the Coastal Resource Programmes, an issue already raised in its commentary on ICLARM's external review.

TAC noted that ICLARM intended to allocate approximately 22% of its 1998 core resources to socioeconomic and policy work. The nature, scope and context of this work, which would represent a major share of ICLARM's resources, needed to be clarified. Furthermore, TAC requested additional information about the proposed collaboration of ICLARM with WARDA and IITA in the inland valleys.

TAC considered that ICLARM's success would depend on the effectiveness of a very large number of collaborative arrangements it has. This raised the issue of the substantive quality of such arrangements and, in particular, additional information was required on the nature and modalities of ICLARM's working relations with advanced research institutes.

Finally, TAC was concerned that fisheries research should not be funded at the expense of ongoing agricultural research in the CGIAR. An updated assessment from ICLARM on the prospects of incremental CGIAR core funding for fisheries research, as well as information on ICLARM's resource mobilization and financial strategies were therefore requested.

4.9.3. Centre Response

In response to TAC's requests, ICLARM submitted a revised MTP proposal much more in the line with the guidelines on indicative envelopes and supplementary scenarios at 90 and 110% of the base envelope level. The major change in the revised proposal - compared to the original, primary proposal - was the restructuring of ICLARM's work into two major programmes only: the Inland Aquatic Resource Systems Programme would be retained, while the Coastal and Coral Reef Systems Programmes would be combined into one, and the National Research Support Programme would be reduced to a training unit. The proposed activities captured the main features of the original MTP proposal, but shifted a number of elements from the core into the complementary programme.

ICLARM submitted additional information on its priority-setting mechanisms. From this information, it appeared that the lower level scenarios of the MTP proposal were obtained by across-the-board reductions from the primary Plan. At the base envelope level, programmes were combined resulting in economies of scale.

ICLARM has considered the impact of different rates of staff growth. It had imposed on itself a 20% limit on staff growth per year and would hire a human resources manager to assist ICLARM in dealing with a rapid expansion of staff.

ICLARM considered that the strategic context of the proposed research activities of the Coral Reef and Coastal Resources Systems Programmes reflected two approaches to strategic research, each with a different focus. With respect to the CRSP, the focus was on the development of methods and tools for assessing and managing harvestable resources. The focus of the CRRSP was on social and economic aspects of management of coral reef resource systems and the way in which productivity could be increased by aquaculture or fishery enhancement systems.

With respect to the high share of core resources intended for policy research, ICLARM noted that there had been an inaccuracy in the original classification of activities into categories; the share of resources which should be allocated to policy research was actually about 17%. This still high allocation to policy work reflected the recommendations from the Study on International Fisheries Research (SIFR) and the urgent need to evaluate fisheries management within a socioeconomic context.

Regarding collaborative efforts, ICLARM had major expectations for a large collaborative research project on rice-farming systems which was still awaiting clearance by IRRI and support from donors. ICLARM also proposed collaboration with WARDA and IITA in their Inland Valleys Programme, but the nature of this work was still under discussion. ICLARM has also provided TAC with a number of examples of how it worked with advanced strategic research institutes.

ICLARM stressed that "much of its funding comes from sources that are directly related to fisheries and cannot be tapped by the agricultural research sector". ICLARM considers that it has also been successful in tapping "green" funds, which should be incremental to the CGIAR traditional sources of core funding. Joining the CGIAR had made it easier for a number of donors to support the Centre with institutional support. ICLARM was confident that in the coming years, it would be able to increase its current funding, though at a more modest rate of increase than in the past few years.

4.9.4. Evaluation

TAC considered that the priority to be assigned to fisheries research had already been adequately reflected in the level of the tentative resource envelope assigned to ICLARM in March 1992. Fisheries research is a new venture in the CGIAR and the CGIAR should plan its involvement cautiously. ICLARM's revised MTP proposal is in tune with the 'CGIAR Guidelines for the Preparation of MTP Proposals', and is less ambitious than the original plan. TAC considered that the revised MTP proposal, at the level of the indicative resource envelope, reflected an appropriate level of effort required to implement the strategic plan for international fisheries research developed by ICLARM. Recent developments, such as UNCED, had stressed the importance of fisheries research for developing countries and there is increasing evidence that many of the major species are now over-fished.

TAC considers that the major challenge facing ICLARM during the forthcoming MTP period will be to transform itself from a project- to a programme-driven organization with institutional cohesion. ICLARM's success as a CGIAR institute will be

dependent upon the implementation of a range of programme and management recommendations made by the External Review Panel.

TAC endorses the Inland Aquatic Resource Systems Programme which is of high priority to the CGIAR. The focus of the Coral Reef Systems Programme may be too broad. Furthermore, TAC considers that there is no convincing proof that the productivity of coral reef fisheries can be increased significantly by stock enhancement procedures. It urges ICLARM to first undertake research on this key question. TAC would encourage ICLARM to maintain the information activities even in a situation of budgetary restraint. As indicated earlier, TAC had considered ICLARM's original primary proposal at 224% of the base envelope to be too ambitious and involving too rapid rates of growth.

TAC considers that ICLARM's revised proposal is of a strategic character reflecting the implementation of its strategic plan. There are good chances for breakthroughs but the institutional health and the quality of governance and management - and their sustenance - will continue to be a source of concern to TAC. ICLARM collaborates well with other institutions particularly with NARS and advanced institutions. ICLARM also intends to collaborate closely with IFPRI, IITA, WARDA, IIMI, ISNAR and IRRI.

4.9.5. Recommendations

TAC recommends that ICLARM be assigned core resources in the amount of US\$ 4.8 million (in 1992 dollars) in 1998, i.e., at the level of the indicative envelope. TAC has attempted to take a long-term perspective on ICLARM so as not to be unduly influenced by current problems of management and governance. If the Centre improves its institutional health and if the Mid-Term Review of ICLARM provides convincing evidence that its research programmes can be implemented effectively, a further US\$ 500,000 will be added to the envelope during 1996 and another tranche of US\$ 500,000 during 1997. These additional allocations, treated as a reserve, are intended for the natural resources management thrust of the Inland Aquatic Resource Systems Programme, and for research on the management of resource systems in a social context of the Coastal Systems Programme. If more resources were to become available to the CGIAR, TAC recommends that at the US\$ 280 million vector, a further US\$ 1 million be assigned to Systemwide fisheries research - for which ICLARM would likely be the convening centre - in support of ecoregional initiatives, particularly on inland valleys with WARDA and IITA, and for joint policy research with IFPRI and IIMI on common property resources and open access issues.

For 1998, ICLARM projects complementary funding of US\$ 3.0 million (in 1992 values), equivalent to 63% of its recommended core funding for that year.

For 1994, TAC recommends core funding for ICLARM in the amount of US\$ 4.4 million in 1992 dollars, or US\$ 4.7 million in current values. With complementary funding projected at US\$ 3.3 million, ICLARM's total funding in 1994 would amount to US\$ 8.0 million.

ICLARM: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					%, centers' allocation in 1998
	1990 <---	1991 actual	1992 ---	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :			4.5	4.4	1.9%	4.7	5.0	5.4	5.7	6.1	
1992 dollars :			4.5	4.2		4.4	4.5	4.6	4.7	4.8	1.9%
% Unrestricted :			44%								
Balancing Funds :			11%	12%							
Core Donors:											
Number			16	13							
% funding, top 3			46%	45%							
% funding, top 5			61%	65%							
% funding, top 10			89%	93%							
b) Complementary											
Current dollars:			1.9			3.3				3.8	
1992 dollars:			1.9			3.0				3.0	3%
c) Total											
Current dollars:			6.4			8.1				9.9	
1992 dollars:			6.4			7.4				7.8	2%

1998 funding guideline (Chap. 14), in 1992 \$:	4.8
TAC recommendation, as % of guideline :	100%
TAC recommendation, as % of 1992 :	107%
TAC recommendation, as % of 1993 :	113%

II. EXPENDITURE :		1992		1998 Projected	
a) By Category of Activity		(Core)	(Comp)	(Core)	(Comp)
1. Conservation/Management of Natural Resources		40%	25%	36%	13%
2. Germplasm Enhancement & Breeding		7%	0%	9%	0%
3. Production Systems Development & Management		27%	50%	21%	55%
4. Socio-Econ / Public Pol / Pub Mgmt Research		13%	25%	17%	26%
5. Institution Building		13%	0%	17%	6%
b) By Commodity (details of #2 & #3 above)					
Fish		34%	4%	30%	55%
c) By Region					
Africa		10%		18%	
Asia		90%		80%	
LAC		0%		1%	
WANA		0%		1%	
d) By Object of Expenditure					
Personnel		58%		60%	
Supplies/Services		25%		23%	
Travel		13%		9%	
Depreciation		4%		8%	
Other		0%		0%	
e) By Cost Center					
Research		50%		55%	
Research Support		7%		5%	
Training and Information		21%		14%	
Management and Administration		22%		26%	

III. STAFFING :		1990	1991	1992	1998	% Change from 1992
International Staff (#)						
Core				18	20	11%
Complementary				4	12	200%
Supervisory Staff (#)				31	31	0%
Support Staff (#)				144	144	0%

IV. FINANCE :		1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :						
(Investment, overhead recovery and other earned income)				0.6	0.6	5%
Operating Fund, (Days Operations)				40	41	3%
Fixed Assets Value, yr end (\$)				0.4	0.7	66%
Capital Fund Balance, yr end (\$)				0.2	0.0	-100%

For explanation of table content, see section 4.2

4.10. ICRAF

4.10.1. Summary of the MTP Proposal

The structure of ICRAF's MTP proposal is closely linked to its strategy and mandate. The admission of ICRAF into the CGIAR in 1991 transformed it from an organization which was development-oriented with a focus on adaptive research, into a Centre for global research on agroforestry. ICRAF's MTP proposal has an emphasis on strategic research and the links between environmental and human equity issues. While it is now a predominantly research-oriented institution, ICRAF has attempted to retain a highly practical and collaborative approach in its programmes. The research projects are designed to build on ICRAF's aim to establish agroforestry as a viable approach to address the crucial issues of rural poverty, land degradation, and sustainability of land-use systems.

ICRAF's initial focus was on undertaking research and dissemination activities in collaboration with NARS and other institutions. The resulting networks (Agroforestry Research Networks for Africa - AFRENAs) have gained in maturity and the associated adaptive research activities are to become the main responsibility of the national programmes. A further evolution is the gradual transformation of the AFRENAs into ecoregional mechanisms as, for example, ICRAF's contribution to the new Integrated Natural Resource Management Research Programme for the Highlands of East and Central Africa, which operates under ICRAF's leadership.

The MTP proposal presents 23 projects organized into 4 research and 3 dissemination programmes. The research programmes¹⁰ provide the basis for a strategic and applied research agenda aimed at understanding and interpreting basic biophysical and socioeconomic processes connected with the performance and adoption of improved and new agroforestry technologies. The associated studies are carried out on station¹¹ and on farm¹². They include improved fallows, contour hedgerows, indigenous fruit trees, multi-strata systems (for maintenance of soil fertility and control of soil erosion), fodder banks and systems with upper storey trees for wood production. The MTP proposal expands, for each programme, on their respective objectives, major activities, milestones and the expected impact, as well as the rationale for the relative allocation of resources.

The primary MTP proposal presents resource-related data at 110% of the indicative resource envelope (US\$ 17.4 million) as well as full details for the preferred scenario at 125% (US\$ 19.7 million). However, in conformity with the CGIAR Guidelines, ICRAF produced a programme scenario at the level of the base resource envelope of US\$ 15.6 million. This scenario will involve eliminating, from the 110%

¹⁰ Characterization and impact; Multipurpose-Tree Improvement; Component Interactions; and, Systems Improvements

¹¹ Mainly in Machakos, near Nairobi

¹² For example, at Mbalmayo, Cameroon, and Maseno, Kenya

scenario, activities in the semi-arid lowlands of West Africa and one education project. In addition, ICRAF submitted information on the implications of the 90% funding scenario.

In its 110% scenario, ICRAF proposes to allocate 16% of its core resources to conservation and management of natural resources (category 1), 9% to germplasm enhancement and breeding (category 2), 42% to production systems (category 3), 11% to socioeconomic, policy and management research (category 4), and 22% to institution-building (category 5). In the same scenario and in terms of regional distribution, 82% of the core resources would benefit Africa, 8% South-East Asia and 9% Latin America.

4.10.2. Interim Commentary and Programmatic Issues

TAC asked ICRAF to elaborate on a number of programmatic issues. TAC was concerned about rapid expansion at a time when there was an urgent need for building depth and quality into ICRAF's existing research programme. TAC suggested that there should be a relatively slow rate of growth, which would also be in conformity with MTP guidelines.

While agreeing with ICRAF that there was need for research to validate agroforestry technologies, TAC felt there also should be a critical review of alley farming or hedgerow intercropping. A further clarification of ICRAF's definition of core and complementary activities, and the division between restricted and unrestricted core funds was requested by TAC. TAC wished to have a clear indication of how the 'Alternatives to Slash and Burn Agriculture' initiative fitted into the funding picture, and on the role of ICRAF as the global coordinator of this initiative.

A reassessment was required on ICRAF's role in tree breeding in terms of strategic research on genetic variation, reproductive biology, and vegetative propagation to assist national programmes in devising strategies to produce good-quality germplasm for diffusion into farming systems.

4.10.3. Centre Response

ICRAF assured TAC that it would not put growth ahead of building depth and quality in its research programmes. The Centre would avoid making hasty recruitment and was determined to recruit the best people for the various positions. ICRAF argued that the transition from being a Council to a global agroforestry research Centre was driving a large part of its growth, the greater part of which was accounted for by activities outside Africa. ICRAF currently maintained the equivalent of 2 senior staff years (SSY) in South-East Asia and 3 SSYs in Latin America. By 1995 these numbers would rise to 5 SSYs in each region.

On validation of agroforestry technologies, ICRAF reported that a group of the Centre's scientists had carried out a synthesis of research on alley-cropping. Similar reviews were being planned for the technology involving improved fallows, and the work on improved, farmed parkland systems in the semi-arid regions of West Africa. In particular, the Technology Testing Project under the Characterization and Impact

Programme and for which 3.7 SSYs were being allotted from 1994 onwards, would pool data from the biophysical and socioeconomic research into expert systems for identifying those conditions necessary for the adoption of specific technologies.

ICRAF had defined 'core' as "those activities that are essential to achieve our strategic objectives, and where the Centre has (or intends to gain) a comparative advantage in conducting the activity". Prior to 1992, the terms 'unrestricted' or 'restricted' were used to classify funds in accordance with the nature of donor contributions. But thereafter, activities had been partitioned into core and complementary by applying the criteria included in the MTP Guidelines.

The priorities of the programmes for the humid tropics of Africa, Asia and Latin America were closely related to those of the 'Alternatives to Slash-and-Burn Agriculture', which were considered as 'core'. The Global Environmental Fund (GEF) was one source of additional non-core funding which had been made available to the global consortium on 'Alternatives to Slash and Burn'. This global initiative set up by 17 national and international institutions in partnership with several NGOs was coordinated by a Global Steering Group chaired by ICRAF. One of its functions was to ensure that methodologies used to collect, analyze and present data, would be standardized across all benchmark sites. Results at each site would then be synthesized at regional and global levels for extrapolation to the appropriate agroecological zones for use by agents of change, farmers, policymakers and other relevant decision-makers.

ICRAF's tree breeding work would concentrate on eight multipurpose tree species which would focus on collections of the natural range of the test species, evaluate their genetic variation and analyze the heritable traits. Breeding strategy would concentrate on developing appropriate methods of multiplying desirable phenotypes at seed orchards. ICRAF's intention was to work closely with NARS to help them build capacity and obtain required germplasm.

4.10.4. Evaluation

ICRAF's MTP proposal is congruent with the Centre's long-term strategy and CGIAR's priorities and strategies for forestry/agroforestry. ICRAF has been forthright and transparent in addressing the various issues raised in connection with the MTP proposal. ICRAF's Board and management have indicated that the targets set in the proposed research programmes are realizable, but ICRAF has to maintain the momentum evident in its work since its admission into the CGIAR System as well as sustain the goodwill and support of its current and prospective donors.

ICRAF's leadership role in the 'Alternatives to Slash and Burn Agriculture' initiative in sub-Saharan Africa, South-East Asia and Latin America is appropriate. This project may be the precursor of many such research programmes for the realization of some of the objectives under Agenda 21 of UNCED.

ICRAF has repeatedly asserted that it can maintain scientific quality while at the same time expanding the activities of the Centre. But scientific quality is not determined solely by the recruitment of high quality scientists; it also depends on the design of

programmes, monitoring of programme development and field activities, as well as closer interaction between Centre scientists and collaborators.

TAC considered ICRAF's proposal to be generally of a strategic nature with a good potential for breakthrough. ICRAF is well managed and, as indicated by the recent external review, is institutionally healthy. The Centre has a very good record for collaboration with NARS and other partner institutions.

4.10.5. Recommendations

TAC recommends that ICRAF be assigned in 1998 core resources in the amount of US\$ 14.0 million (in 1992 dollars), equivalent to 90% of the tentative envelope it was assigned in March 1992.

The cutback from the tentative envelope level was recommended, in part, due to concern for a too-rapid development of the Centre and, in part, due to a need for a less pronounced involvement in fully-fledged tree breeding activities. TAC considered that the tentative envelope level assigned originally to ICRAF had been too high. TAC shared the concern of the External Review Panel about the possibility of an adverse trade-off between scientific quality and a too rapid rate of expansion. The recommended envelope still represents an increase in constant terms of US\$ 2.9 million - or 26% - over ICRAF's actual 1992 core funding.

TAC also recommends US\$ 250,000 of funding to the Systemwide initiative on natural resources management research in the East and Central African highlands, and US\$ 500,000 to the (currently ICRAF-led) Systemwide initiative on 'Alternatives to Slash and Burn', for both of which ICRAF will be the convening centre. Under the US\$ 280 million vector, the funding of each of these Systemwide initiatives would be increased by US\$ 500,000.

For 1998, ICRAF projects complementary funding of US\$ 2 million (in 1992 values), representing 14% of ICRAF's recommended core funding for that year.

For 1994, TAC recommends a core funding for ICRAF of US\$ 11.9 million in 1992 dollars, or US\$ 12.9 million in current values. Together with complementary funding at US\$ 1.5 million, total funding of ICRAF in 1994 would amount to US\$ 14.4 million.

ICRAF: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 <---	1991 actual	1992 ---	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :			11.1	11.9	5.2%	12.9	13.9	15.1	16.3	17.7	
1992 dollars :			11.1	11.4		11.9	12.4	12.9	13.4	14.0	5.4%
% Unrestricted :			44%								
Balancing Funds :			6%	2%							
Core Donors:											
Number			18	17							
% funding, top 3			48%	54%							
% funding, top 5			65%	71%							
% funding, top 10			89%	89%							
b) Complementary											
Current dollars:			1.3			1.5				2.5	
1992 dollars:			1.3			1.4				2.0	2%
c) Total											
Current dollars:			12.4			14.4				20.2	
1992 dollars:			12.4			13.3				16.0	5%

1998 funding guideline (Chap. 14), in 1992 \$:	15.6
TAC recommendation, as % of guideline :	90%
TAC recommendation, as % of 1992 :	126%
TAC recommendation, as % of 1993 :	122%

II. EXPENDITURE :

	1992		1998 Projected	
	(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity				
1. Conservation/Management of Natural Resources	11%	5%	19%	4%
2. Germplasm Enhancement & Breeding	13%	0%	9%	4%
3. Production Systems Development & Management	38%	65%	41%	45%
4. Socio-Econ / Public Pol / Pub Mgmt Research	10%	0%	12%	8%
5. Institution Building	28%	30%	19%	39%
b) By Commodity (details of #2 & #3 above)				
Trees	46%	54%	45%	41%
Livestock	5%	12%	4%	7%
c) By Region				
Africa	98%		80%	
Asia	0%		10%	
LAC	2%		10%	
WANA	0%		0%	
d) By Object of Expenditure				
Personnel	56%		64%	
Supplies/Services	19%		15%	
Travel	6%		7%	
Depreciation	11%		6%	
Other	8%		8%	
e) By Cost Center				
Research	45%		56%	
Research Support	7%		8%	
Training and Information	20%		17%	
Management and Administration	28%		19%	

III. STAFFING :

	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core			46	62	35%
Complementary			3	11	267%
Supervisory Staff (#)			54	80	48%
Support Staff (#)			183	304	66%

IV. FINANCE :

	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)			1.2	0.5	-57%
Operating Fund, (Days Operations)			15	65	333%
Fixed Assets Value, yr end (\$)			2.1	2.0	-5%
Capital Fund Balance, yr end (\$)			0.0	0.1	100%

For explanation of table content, see section 4.2

4.11. ICRISAT

4.11.1. Summary of the MTP Proposal

ICRISAT's MTP proposal reflects the outcome of an analytical priority-setting exercise, the implementation of its strategic plan, and the recommendations of the Centre's third External Review. ICRISAT's MTP proposal is based on a set of 110 research themes. These themes have been prioritized using a composite index, representing an amalgam of efficiency (net benefit/cost ratio), equity (poverty and gender), internationality and sustainability factors. Of the 110 themes, ICRISAT considers that 18 are suitable for complementary funding. The remaining 92 themes are presented in a ranked sequence based on the composite index, together with the cost associated with the implementation of each theme. The themes presented relate to research on ICRISAT's mandate crops, i.e., finger millet, pearl millet, sorghum, chickpea, pigeonpea and groundnut, and research on resource management. The research is currently implemented through three major programmes: cereals, legumes and resource management. The activities of these programmes would be complemented by the work of the research support, technology exchange and administrative units. An organization and management review is currently examining the value and desirability of a matrix mode of research management, which may have significant implications for ICRISAT's future structure and operations.

Most of the basic and strategic research proposed, as well as the advanced training, would be conducted at the ICRISAT Centre in Hyderabad, India. ICRISAT's African programmes are based in three locations: the ICRISAT Sahelian Centre in Niamey, Niger, is the regional centre for West Africa and focuses on long-term strategic research on resource management and on crop improvement research on millet, sorghum and groundnut; the ICRISAT Southern Africa Development Community Programme is based at Bulawayo, Zimbabwe for sorghum and millet research, and at Lilongwe, Malawi for groundnut research; and, the Eastern Africa Regional Cereals and Legumes Programme is based in Nairobi, Kenya. Furthermore, ICRISAT has a Latin American sorghum and millet improvement programme based at CIAT in Cali, Colombia.

The prioritized list of research themes led to the development of Plan A, ICRISAT's primary proposal, which requires core funding of US\$ 29.6 million (in 1992 values) and is equivalent to 110% of the indicative resource envelope assigned by TAC in March 1992. ICRISAT's research themes are listed in priority sequence with a cut-off point according to the funding available. Plan B is similar to Plan A, although the 12 lowest-ranking themes have been removed to reduce the funding requirement to the level of the indicative base resource envelope (US\$ 26.9 million). Plan C also removes themes to match funding requirements at the level of the base resource envelope but, in contrast with Plan B, with all pigeonpea themes being removed first regardless of their priority.

In comparison to its 1989-93 MTP, ICRISAT proposes in its primary proposal to increase the proportion of core resources allocated to resource management and groundnut research, reduce sorghum and millet allocations, and keep chickpea, pigeonpea and genetic resources at their current levels. Under this Plan A, the number of senior scientific staff years is projected to increase from 67 in 1992 to 76 in 1998, of which 46

would be posted at ICRISAT in Hyderabad and 30 in Africa. About 56% of ICRISAT's research themes are basically a continuation or a consolidation of ongoing activities; 22% involve a definite shift in focus of existing activities, while a further 22% are entirely new initiatives.

4.11.2. Interim Commentary and Programmatic Issues

TAC commended ICRISAT for the transparent, structured and analytical process followed in setting programme priorities. One advantage of the approach was that it provided clear yardsticks against which progress can be measured. The Committee noted, however, that while the priority-setting process used by ICRISAT was transparent and systematic, it was very much dependent on qualitative and subjective judgements made by the scientific staff. There appeared to be a problem of lack of consistency of estimates across programmes and it was suggested that Board and management give greater consideration to the implications of the analysis for the balance of effort across programmes by commodity and research themes. It was noted that the priority-setting process was commodity based and the priority ranking of resource management themes had been estimated on their potential contribution to commodity improvement.

TAC noted that ICRISAT maintained the share of resources allocated to research on pigeonpea, despite its recommendation that its priority should be reduced. TAC encouraged ICRISAT to intensify its consultations with the Indian authorities on sharing responsibilities for pigeonpea research.

The pigeonpea issue raised the wider System level issue of what happens when the CGIAR perception of a priority of a commodity is substantially different from that of a Centre. In ICRISAT's priority-setting, pigeonpea research received a higher ranking than millet research, while at the System level, millet was given a higher priority than pigeonpea. TAC asked how the System- and Centre-level views could be reconciled in this regard.

TAC also welcomed clarification of ICRISAT's ecoregional initiatives, other than those of the ICRISAT Sahelian Centre. TAC also noted an overlap in responsibilities with IITA in the semi-arid and sub-humid tropical areas of sub-Saharan Africa.

4.11.3 Centre Response

ICRISAT considers that its priority-setting analysis evolved from a year-long, transparent, peer review iterative process involving scientists from within and outside the Institute, across all disciplines and programmes. The Centre believes that the judgements on which priorities have been based are the best available. It acknowledges that the cut-off point, in the event of constrained funding, should not be drawn arbitrarily as dictated by the priority listing. Final judgement will be made by management after further careful consideration.

ICRISAT stands by its arguments on the importance of pigeonpea research in relation to research on other commodities. It will intensify discussions with the Indian authorities on sharing responsibility for pigeonpea research. Review of progress in

pigeonpea research will be made in 1997, prior to the start of a new five-year period and thus before making decisions on a future involvement of ICRISAT.

ICRISAT considers that research on both pigeonpea and pearl millet is important. It notes that TAC can avoid harsh decisions relating to these commodities by assigning funds at a 110% of the indicative envelope it assigned to ICRISAT.

On the ecoregional responsibilities ICRISAT has initiated discussions with IRRI resulting in an agreement to collaborate in the warm and semi-arid tropics, and the warm sub-humid tropics of Asia. This collaboration will relate to geographic information systems and research on the sustainability of production systems. ICRISAT has also initiated discussions with IITA and ILCA on characterizing production systems in the Sudano-Sahelian zones of Sub-Saharan Africa. The Centre will also contribute to the ICRAF-led initiative on integrated natural resource management for the highlands of East and Central Africa. ICRISAT also contributes to the savanna research programme of CIAT.

4.11.4. Evaluation

TAC saw no compelling reason on priority considerations to change the amount of resource envelope initially assigned to ICRISAT. The priority factors that work in favour of ICRISAT such as its activities in Asia, its focus on natural resources management, and its work on groundnut had already been reflected in determining the level of that envelope. While confirming its recommendation made in the Review of CGIAR Priorities and Strategies that ICRISAT should de-emphasize research on pigeonpea, TAC considered that it would take time to phase out research on that commodity. ICRISAT's proposal to continue pigeonpea research, building on the momentum of the success of the hybrid variety the Centre developed, and to assess its future involvement with the crop in 1997, was considered to be sensible. ICRISAT's priority-setting process is transparent and analytical.

TAC considers that ICRISAT's programme is of a strategic character and has good potential for breakthroughs. TAC appreciates the priority-setting methodology which has clear milestones against which progress can be measured. As indicated by its most recent External Review, ICRISAT has performed well in the past and there are firm indications that it will continue to do so. ICRISAT is well managed and is a healthy institution. It collaborates well with NARS and other organizations. ICRISAT has had a major impact on farm-level productivity particularly through its research on pearl millet. TAC is also pleased with the rapid progress made by ICRISAT and IRRI in developing proposals for an ecoregional approach in different agroecological zones of Asia.

4.11.5. Recommendations

TAC recommends that for 1998 ICRISAT be assigned core resources of US\$ 26.9 million (in 1992 values) which is equivalent to 100% of the tentative envelope assigned in March 1992. TAC specifically endorsed Plan B in the MTP proposal which, compared to ICRISAT's primary proposal, removes the 12 lowest-ranking themes to reduce the funding requirement to the level of the base resource envelope. TAC supports

ICRISAT's plan to intensify discussions with the Indian national research system on sharing responsibility for pigeonpea research.

In recognition of the importance of the needs of the warm arid and semi-arid tropics of sub-Saharan Africa, TAC also recommends an increase of US\$ 1 million of ICRISAT's envelope at the US\$ 280 million vector, so as to allow the Centre to strengthen its ecoregional role and activities on natural resources management in the Sahelian area.

ICRISAT has been identified as the convening centre for a Systemwide ecoregional programme for the arid and semi-arid zones in sub-Saharan Africa for which TAC recommends funding in the amount of US\$ 500,000 by 1998. ICRISAT was also identified as the convening centre for a Systemwide ecoregional programme in the warm arid and semi arid zones of Asia for which TAC recommends US\$ 400,000 in funding by 1998. This latter programme will also incorporate elements of the CIMMYT-IRRI rice-wheat programme. At the US\$ 280 million vector, TAC recommends that funding of these initiatives be increased, in 1998, by US\$ 150,000 and US\$ 125,000 respectively.

For 1998, ICRISAT projects complementary funding at US\$ 5.5 million (in 1992 values), representing 20% of its recommended core funding.

For 1994, TAC recommends core funding for ICRISAT in the amount of US\$ 25.4 million in 1992 values, or US\$ 27.4 million in current values. With complementary funding projected at US\$ 7.9 million, ICRISAT's total funding in 1994 would amount to US\$ 35.3 million.

ICRISAT: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 -----	1991 actual	1992 -----	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	31.5	29.4	27.3	26.0	11.3%	27.4	29.0	30.6	32.3	34.0	
1992 dollars :			27.3	25.0		25.4	25.7	26.1	26.5	26.9	10.4%
% Unrestricted :	73%	74%	76%								
Balancing Funds :	12%	10%	14%	20%							
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:					26.9
Number	22	26	22	22		TAC recommendation, as % of guideline :					100%
% funding, top 3	44%	42%	45%	54%		TAC recommendation, as % of 1992 :					99%
% funding, top 5	59%	58%	61%	69%		TAC recommendation, as % of 1993 :					108%
% funding, top 10	83%	83%	87%	87%							
b) Complementary											
Current dollars:	6.7	5.9	6.7			7.9				7.0	
1992 dollars:			6.7			7.3				5.5	6%
c) Total											
Current dollars:	38.1	35.3	34.0			35.3				41.0	
1992 dollars:			34.0			32.7				32.4	9%

II. EXPENDITURE :					
	1992		1998 Projected		
	(Core)	(Comp)	(Core)	(Comp)	
a) By Category of Activity					
1. Conservation/Management of Natural Resources	22%	11%	29%	0%	
2. Germplasm Enhancement & Breeding	30%	20%	23%	41%	
3. Production Systems Development & Management	26%	19%	26%	40%	
4. Socio-Econ / Public Pol / Pub Mgmt Research	4%	6%	7%	8%	
5. Institution Building	19%	45%	15%	11%	
b) By Commodity (details of #2 & #3 above)					
Millet	15%	7%	11%	26%	
Sorghum	16%	1%	14%	17%	
Pigeonpea	5%	9%	4%	32%	
Chickpea	5%	3%	4%	0%	
Groundnut	15%	19%	15%	6%	
c) By Region					
Africa	46%		43%		
Asia	53%		55%		
LAC	1%		2%		
WANA	1%		0%		
d) By Object of Expenditure					
Personnel	60%		59%		
Supplies/Services	27%		27%		
Travel	4%		6%		
Depreciation	9%		7%		
Other	0%		0%		
e) By Cost Center					
Research	49%		54%		
Research Support	7%		8%		
Training and Information	18%		10%		
Management and Administration	26%		28%		

III. STAFFING :					
	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	86	87	87	93	7%
Complementary	15	17	15	10	-33%
Supervisory Staff (#)	271	280	292	295	1%
Support Staff (#)	2,368	2,343	2,245	2,217	-1%

IV. FINANCE :					
	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	1.6	0.9	2.0	0.8	-61%
Operating Fund, (Days Operations)	47	21	61	16	-74%
Fixed Assets Value, yr end (\$)	55.0	52.4	50.7	45.3	-11%
Capital Fund Balance, yr end (\$)	0.0	3.0	5.4	12.0	121%

For explanation of table content, see section 4.2

4.12. IFPRI

4.12.1. Summary of the MTP Proposal

IFPRI's MTP proposal reflects the implementation of the Institute's strategic plan for the 1990s (issued in 1991) which had provided a broad outline of the needs for food policy research and outreach. The MTP proposes a major involvement in four areas of work: accelerated growth and transformation in agriculture; natural resources management policies; market economic reforms and trade policy; and household food security and nutrition. The proposed MTP would be implemented through an organizational structure consisting of five divisions which would undertake a total of 17 integrated multicountry research programmes. The five divisions are: Environment and Production Technology; Food Consumption and Nutrition; Markets and Structural Studies; Trade and Macroeconomics; and Outreach. Each of the multicountry programmes is focused on a policy issue for which IFPRI considers international strategic research is urgently needed and likely to have large benefits. IFPRI intends to enhance its activities in providing information to potential users of its research, and in contributing to the strengthening of policy research capacity in developing countries. IFPRI considers that about 90% of its total programme can be classified as core. However, only half of that programme will be supported by what are considered to be regular sources of core funding in the CGIAR, and the other half by sources of complementary funds.

IFPRI's primary proposal has been prepared at the level of the base resource envelope for 1998, requiring core funding of US\$ 8.6 million in 1992 dollars. In addition, approximately US\$ 7.6 million in complementary funds are being projected for that year. Between 1994 and 1998, the number of senior staff in the core programme would increase from 27 to 30, and in the complementary programme, from 20 to 23. IFPRI's total budget under the primary MTP proposal would call for total operations of US\$ 14.3 million and 47 senior staff in 1994. For 1998, this budget would call for total operations of US\$ 16.3 million (in 1992 values) and 53 senior staff.

Under its primary MTP proposal, approximately 53% of IFPRI's core resources would be allocated to research, 20% to outreach and networks, and 27% to administration and operations. IFPRI proposes to allocate 73% of its resources to activity 4.2 of policy analysis, and 27% to category 5 of institution building. Within this latter category, training and conferences would account for 3% of the allocation of total resources, documentation, publication and information for 14%, and outreach/networks for 10%. Regionally, 41% of IFPRI's resources would be allocated to sub-Saharan Africa, 36% to Asia, 16% to Latin America and 7% to WANA.

Supplementary proposals at the levels of 90% and 110% of the base envelope have also been submitted. At the 110% level, IFPRI would particularly expand its work on input markets, property rights and forestry margins. In the 90% scenario, presented in IFPRI's MTP document, research on rural services would be reduced considerably, while the introduction of research on the implications of rapid urbanization for agriculture, food and nutrition would be delayed, as well as the appointment of a Deputy Director General.

4.12.2. Interim Commentary and Programmatic Issues

TAC appreciated IFPRI's wide set of institutional relationships. These are necessary to achieve critical mass in the research proposed, and allow IFPRI to focus on its own area of expertise. TAC requested more information about the extent and modalities of collaboration with other IARCs, particularly in the area of natural resources management policies.

TAC noted the wide expansion of policy research activities in the CGIAR and the strong demand for collaboration with IFPRI. Almost every CGIAR centre included in its MTP a proposal for collaboration with IFPRI in the area of policy research. TAC understands that IFPRI can only engage in effective collaboration with other centres if their proposals fit within IFPRI's own priorities, and noted that IFPRI could not be expected to address all the policy research issues in the CGIAR. Members of the CGIAR raised the need for clarification on whether the adjustments at the 100% and 90% level would consist simply in transfers from core to complementary funding, or would be net additions or real decreases.

4.12.3. Centre Response

IFPRI's approach to inter-centre collaboration is to initiate discussions with centres where there is an obvious overlap of interests and capacities, and to view the approaches of other centres largely in terms of the degree to which the activities fit within its proposed research programme. IFPRI is not actively pursuing collaboration to help centres conduct policy research within their own mandates but on topics that are not of high priority for IFPRI. IFPRI's preferred model of collaboration with other centres in research on the management of natural resources is a jointly conceived and implemented research project in which the staff of the two centres work on an agreed plan and with coordination and direction appropriate to the specific topic. With some centres, such as IIMI and ICRISAT, it has joint staff appointments. The funding and implementation mechanisms under consideration vary considerably according to the circumstances. IFPRI is extremely careful not to commit itself to demands for collaboration beyond the extent to which it would no longer be able to do a good job.

4.12.4. Evaluation

TAC considered that on priority considerations the amount of resources assigned to IFPRI should be revised upwards. In the Review of CGIAR Priorities and Strategies TAC recommended that the amount of core resources allocated to public policy research should be increased substantially. TAC considered that this was inadequately reflected in the amount of IFPRI's tentative envelope, assigned in March 1992. Recent developments, such as UNCED, had stressed the importance of policy factors in the process of resource and environmental degradation. IFPRI's MTP proposal reflects the increasing emphasis by the Institute on environmental and natural resources management issues which are of high priority to the CGIAR. IFPRI's programmes were well balanced and thought through, and the rationale for the Institute's priorities is well argued.

TAC considers IFPRI's MTP to be coherent, well argued and transparent. IFPRI's programme proposals are of a highly strategic character addressing the critical future policy research issues of international importance. There is substantial potential for breakthroughs through research for the development of alternative options for policy makers. IFPRI has a very good record of performance and the results of the recent Interim External Review, as well as of ongoing research programmes, give a clear indication that the Institute will continue to deliver high quality research in the future. IFPRI is well managed and is now institutionally healthy. It has excellent collaborations with national institutions and other organizations conducting policy work. TAC is impressed with IFPRI's new multi-country programmes and considers its work on natural resources management policies, particularly on property rights and communal action to be of very high priority.

IFPRI's core programme accounts for approximately 90% of the Institute's total activities. This core component has been defined on the basis of specific programmatic criteria, and not on a source of funds basis. Only part of this core programme will be supported by CGIAR core funding. IFPRI intends to implement the balance with funding considered as complementary by the CGIAR.

TAC has carefully considered the proposed balance between core funds and complementary funds, which is expected to evolve to an overall share of 53% core and 47% complementary by 1998. The Committee recognizes that the proposed share of complementary funding is high and would normally involve a danger of over-dependency on restricted funds. In the particular case of IFPRI, however, TAC considers that the proposed ratio is reasonable. IFPRI has a high cost per scientist, even though it does not have the fixed expenses associated with work in the natural sciences. The extra cost is due to the need to collect survey data. On the other hand, IFPRI is not committed to the maintenance of fixed structures, which in contrast with other centres gives IFPRI greater flexibility in managing its resources. Its dependence on complementary funding cannot, on balance, be considered imprudent. TAC also recognizes that scale is an important factor in IFPRI's differentiation between core and complementary activities. IFPRI's core

4.12.5. Recommendations

TAC considered that both on priority and institutional considerations the amount of resources assigned to IFPRI should be revised upwards. In the Review of CGIAR Priorities and Strategies TAC recommended that the amount of core resources allocated to public policy research should be increased substantially. TAC considered that this was inadequately reflected in the amount of IFPRI's tentative envelope, assigned in March 1992. Recent developments, such as UNCED, had stressed the importance of policy factors in the process of resource and environmental degradation. The recent Interim External Review of IFPRI has also indicated that IFPRI will continue to deliver high quality research and is institutionally healthy.

Therefore, TAC recommends that IFPRI be assigned for 1998 core resources of US\$ 9.5 million (in 1992 dollars) which is equivalent to 110% of the indicative resource envelope. The Committee expects that this will allow IFPRI to give greater attention to research on natural resources management. TAC would also encourage the Institute to give greater attention to macroeconomic studies with respect to sustainability. While this latter research is currently not within the 110% proposal, TAC considers this work to be of higher priority than the proposed work on input markets which are included in that proposal.

IFPRI is also expected to contribute to several of the proposed Systemwide ecoregional initiatives for which TAC recommends programme funding and IFPRI will share in the US\$ 1 million allocated to the initiative on fisheries policy research assigned under the US\$ 280 million System vector.

For 1998, IFPRI projects complementary funding of US\$ 8.2 million (in 1992 dollars), representing 86% of its recommended core funding.

For 1994, TAC recommends core funding for IFPRI in the amount of US\$ 8.1 million in 1992 dollars, or US\$ 8.8 million in current values. With complementary funding projected at US\$ 5.9 million, IFPRI's total funding would amount to US\$ 14.7 million.

IFPRI: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990	1991	1992	1993		1994	1995	1996	1997	1998	
	<--- actual --->			(est)							
a) Core											
Current dollars :	9.1	8.9	8.3	8.1	3.5%	8.8	9.5	10.3	11.1	12.0	
1992 dollars :			8.3	7.8		8.1	8.4	8.8	9.1	9.5	3.7%
% Unrestricted :	74%	74%	80%								
Balancing Funds :	20%	17%	9%	13%							
<u>Core Donors:</u>						1998 funding guideline (Chap. 14), in 1992 \$:					8.6
Number	19	19	19	20		TAC recommendation, as % of guideline :					110%
% funding, top 3	66%	60%	54%	56%		TAC recommendation, as % of 1992 :					114%
% funding, top 5	76%	76%	70%	71%		TAC recommendation, as % of 1993 :					122%
% funding, top 10	93%	92%	90%	90%							
b) Complementary											
Current dollars:	3.2	4.5	3.8			5.9				10.4	
1992 dollars:			3.8			5.4				8.2	9%
c) Total											
Current dollars:	12.3	13.3	12.1			14.7				22.4	
1992 dollars:			12.1			13.6				17.7	5%

II. EXPENDITURE :

	1992		1998 Projected	
	(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity				
1. Conservation/Management of Natural Resources	0%	0%	0%	0%
2. Germplasm Enhancement & Breeding	0%	0%	0%	0%
3. Production Systems Development & Management	0%	0%	0%	0%
4. Socio-Econ / Public Pol / Pub Mgmt Research	82%	98%	74%	82%
5. Institution Building	18%	2%	26%	18%
b) By Commodity (details of #2 & #3 above)				
c) By Region				
Africa	41%		41%	
Asia	43%		36%	
LAC	11%		16%	
WANA	5%		7%	
d) By Object of Expenditure				
Personnel	71%		73%	
Supplies/Services	18%		17%	
Travel	8%		8%	
Depreciation	3%		3%	
Other	0%		0%	
e) By Cost Center				
Research	64%		53%	
Research Support	0%		0%	
Training and Information	9%		20%	
Management and Administration	27%		27%	

III. STAFFING :

	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	37	32	26	32	23%
Complementary	9	12	17	25	47%
Supervisory Staff (#)	4	4	4	5	25%
Support Staff (#)	92	90	102	119	17%

IV. FINANCE :

	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	0.2	0.2	1.0	0.1	-95%
Operating Fund, (Days Operations)	21	23	8	21	163%
Fixed Assets Value, yr end (\$)	0.4	0.3	0.6	0.7	17%
Capital Fund Balance, yr end (\$)	0.0	0.0	0.0	0.0	

For explanation of table content, see section 4.2

4.13. IIMI

4.13.1. Summary of the MTP Proposal

IIMI's mission is to foster the development, dissemination and adoption of lasting improvements in the performance of irrigated agriculture in developing countries. It does so by generating knowledge to improve irrigation management and policy making, strengthening national research capacity in the field of irrigation management, and supporting the introduction of improved management and policy making.

The Institute's core programme will focus on research and institution building activities that are generic in nature, designed to generate transnational rather than country specific results. The complementary programme will be made up of country-specific projects. IIMI has developed a concept of core add-on projects. These are core funded projects attached to country specific collaborative research projects to allow the Institute to generalize from country-specific projects, and thus contribute to the generic core programme.

IIMI's research approach during the MTP period will involve a combination of collaborative field research and thematic research. Research activities will be organised into five closely-related programmes:

- Assessing and improving the performance of irrigated agriculture;
- Sector-level management of irrigated agriculture;
- Improving public irrigation organizations;
- Toward the local management of irrigation systems; and
- Sustainable management of water delivery and disposal.

IIMI has also identified four cross-cutting themes: environment and health; choice and use of technology; gender issues; and, improving the global database on irrigated agriculture.

IIMI has presented its MTP proposal at three funding scenarios: the base resource envelope recommended by TAC; a level equivalent to 110% of the base resource envelope; and, a level at 90% of the base. At the base level, the estimated total manpower allocation for core research and research related activities will be 12.5 senior staff years (SSY) in 1994 rising to 13.75 SSY in 1998. In 1994, the proposed manpower distribution by programme will be 5 SSY, 1 SSY, 1 SSY, 3 SSY and 2.5 SSY for the performance, sector management, public organizations, local management, and water management programmes respectively. Over the MTP period, training, information, and documentation will account for four SSY per year. The regional allocation of core resources will be based on the distribution of the areas under irrigation, i.e., 76% for Asia, 12% for WANA, 3% for SSA, and 9% for Latin America.

4.13.2. Interim Commentary and Programmatic Issues

The issues raised by TAC and the CGIAR on IIMI's MTP proposal related to: (a) the agroecological research content of IIMI's MTP proposal; (b) the choice of programmes at the base resource envelope; (c) the focus and critical mass in the proposed core programme; (d) the regional allocation of resources and country selection criteria; (e) IIMI's response to UNCED Agenda 21; (f) collaboration with other centres and advanced institutions; and, (g) the staffing implications of the broadening IIMI's mission to irrigated agriculture, compared with the so far narrower focus on the management of irrigation systems.

4.13.3. Centre Response

IIMI argues that it has adopted an agroecological approach to research since its inception and will continue to do so during the MTP period. The Institute intends to complement and support consortia and other mechanisms of ecoregional activities by other centres in the field of irrigated agriculture.

With respect to the choice of programmes at the base resource envelope IIMI was requested to reconsider whether generic research activities in drainage and watershed management included in the MTP proposal under the 110% scenario should be part of the scenario at the level of the base resource envelope. The Institute feels that it does not presently have the advantage to undertake generic research in drainage and watershed management.

During the MTP period, IIMI management plans to monitor the issue of focus and critical mass on a regular basis and to recommend amendments to the MTP, as needed. The Institute considers the five programmes and four themes proposed in the MTP as components of an integrated whole. It plans to combine initially the sector management programme and the public organizations programme thereby overcoming critical mass issues by pooling manpower. It will also be flexible and pragmatic about the 'intellectual home' of the cross-cutting themes. Linkages between core and complementary activities will be strengthened and thus improve overall critical mass.

IIMI plans to respond to UNCED's Agenda 21 in two ways: through generic research, both conceptual and operational, oriented towards natural resources management; and country specific activities with a narrower focus on threats to the sustainability of irrigation systems. The generic work will be carried out under the cross-cutting theme 'Environment and Health'.

IIMI's management agrees with the need for close collaboration with other centres and with institutions in both developed and developing countries. This will apply principally to institutions that share with IIMI an interest in irrigation management and where, through collaboration, the parties can benefit from each others expertise. IIMI has prepared an inventory of its collaborative activities with other centres as well as with other institutions of excellence.

Finally, IIMI's management is aware of the need to review the composition of its senior scientific staff in order to respond to the challenges posed by the change in IIMI's mission. IIMI will strive to achieve an appropriate balance in disciplines, and in particular among the major disciplinary groupings of relevance to irrigated agriculture.

4.13.4. Evaluation

IIMI has prepared an analytical and a well reasoned MTP proposal which is based on its 'Strategic Plan for the 1990's' (issued in 1991) and on the major recommendations of the 1990 External Review.

TAC is broadly satisfied with the additional information provided by IIMI with respect to internal priorities, disciplinary balance, criteria for country selection and collaborative research with other centres and with advanced institutions. TAC is also satisfied with IIMI's criteria for country selection in respect of complementary and core-add-on projects.

TAC notes IIMI's arguments for the current and proposed distribution of effort between Asia, WANA, Sub-Saharan Africa and Latin America. While agreeing in principle that IIMI should concentrate on regions and countries where irrigation plays a major role in the agricultural sector, TAC considers that IIMI should also take into account alternative sources of research supply. Most of the developing countries with a large proportion of irrigated agriculture have relatively large and strong national research programmes. Further, IIMI should not only consider the area currently under irrigation but future irrigation needs and potential as well.

TAC is still concerned about the issue of programme focus with respect to the broadened mission, and critical mass, particularly with respect to the sector management and public organizations programmes. TAC notes that, by 1998, core and complementary activities will be virtually of equal importance. The high proportion of complementary activities, in relatively few countries, presents a major challenge to IIMI in ensuring effective support to its generic research and institution building activities. Finally, TAC is pleased about the collaboration IIMI has with national programmes and other research partners.

4.13.5. Recommendations

TAC recommends that IIMI be assigned core resources for 1998 of US\$ 7.6 million (in 1992 values) which is equivalent to 100% of the tentative envelope assigned in March 1992. TAC thereby took into account the importance of irrigated agriculture and of managing water as a public good in developing countries. No increase was recommended at the US\$ 270 million vector because IIMI is still in a stage of transition from a country-focused, project-led operation to an international research organization. TAC noted that two of the five research programmes are still not operational and that IIMI will be subject to an external review in 1994 at which time its programmes will be assessed in terms of their strategic orientation, relevance and resource needs.

IIMI has been identified as the convening centre for a proposed Systemwide initiative on water management research for which TAC recommends US\$ 1 million of core resources by 1998 at the US\$ 270 million vector. An additional US\$ 1.0 million is recommended at the US\$ 280 million vector for this initiative to augment inter-centre cooperation in irrigated cropping systems research, including watershed management, human health issues in irrigated areas, and downstream environmental problems created by irrigated agriculture.

For 1998, IIMI projects complementary funding of US\$ 7.1 million (in 1992 values), which represents 93% of its recommended core funding.

For 1994, TAC recommends core funding for IIMI in the amount of US\$ 6.3 million in 1992 values, or US\$ 6.8 million in current values. With complementary funding projected at US\$ 5 million, IIMI's total funding in 1994 would amount to US\$ 11.8 million.

IIMI: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					%, centers' allocation in 1998
	1990 <---	1991 actual	1992 ---	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :			6.4	6.2	2.7%	6.8	7.4	8.1	8.8	9.6	
1992 dollars :			6.4	6.0		6.3	6.6	6.9	7.2	7.6	2.9%
% Unrestricted :			45%								
Balancing Funds :			9%	15%							
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:					7.6
Number			18	17		TAC recommendation, as % of guideline :					100%
% funding, top 3			32%	50%		TAC recommendation, as % of 1992 :					119%
% funding, top 5			47%	70%		TAC recommendation, as % of 1993 :					127%
% funding, top 10			68%	93%							
b) Complementary											
Current dollars:			2.6			5.0				9.0	
1992 dollars:			2.6			4.6				7.1	8%
c) Total											
Current dollars:			9.0			11.8				18.6	
1992 dollars:			9.0			10.9				14.7	4%

II. EXPENDITURE :	1992		1998 Projected	
	(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity				
1. Conservation/Management of Natural Resources	31%	0%	38%	38%
2. Germplasm Enhancement & Breeding	0%	0%	0%	0%
3. Production Systems Development & Management	0%	0%	0%	0%
4. Socio-Econ / Public Pol / Pub Mgmt Research	61%	100%	45%	42%
5. Institution Building	8%	0%	17%	20%
b) By Commodity (details of #2 & #3 above)				
c) By Region				
Africa	23%		32%	
Asia	70%		33%	
LAC	2%		34%	
WANA	4%		0%	
d) By Object of Expenditure				
Personnel	59%		48%	
Supplies/Services	28%		33%	
Travel	8%		13%	
Depreciation	5%		6%	
Other	0%		0%	
e) By Cost Center				
Research	63%		46%	
Research Support	10%		18%	
Training and Information	7%		13%	
Management and Administration	20%		23%	

III. STAFFING :	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core			32	27	-16%
Complementary			2	21	950%
Supervisory Staff (#)			83	104	25%
Support Staff (#)			219	262	20%

IV. FINANCE :	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)			1.2	1.4	19%
Operating Fund, (Days Operations)			22	45	105%
Fixed Assets Value, yr end (\$)			2.3	2.7	17%
Capital Fund Balance, yr end (\$)			0.7	1.8	175%

For explanation of table content, see section 4.2

4.14. IITA

4.14.1. Summary of the MTP Proposal

The primary scenario in IITA's MTP proposal reflects the implementation of IITA's strategic plan and the recommendations of the 1990 External Review. It focuses on the development of sustainable production systems for the smallholder farmer in West and Central Africa within two ecological zones: the humid forest and moist savanna, with a smaller programme for the inland valley areas located within these broad zones. The MTP proposal is based on four operational programme objectives, namely: to develop systems for the management and conservation of natural resources for sustainable agriculture in the humid and sub-humid tropical zones; to increase performance of selected food crops that can be integrated into improved and sustainable production systems; to strengthen national agricultural research capabilities; and to improve quality characteristics and post-harvest technologies of food crops within IITA's mandate.

The MTP proposal presents three scenarios at different levels of core funding: the base scenario at the indicative resource envelope of US\$ 22.2 million, and which calls for 99 senior staff (SSY); a scenario at 110% of the base, calling for US\$ 24.4 million and 102 SSY; and, a scenario at 120% of the base, calling for US\$ 26.5 million and 108 SSY. In the base scenario, the balance of effort among the five categories of activity in 1998 will be 24% for natural resource conservation and management, 22% for germplasm enhancement, 34% for production systems improvement, 2% for socioeconomics and public policy research, and 18% for institution building. Under the 110% scenario, the recurrent operating costs of the Biological Control Programme are reclassified from complementary to core. The 120% scenario incorporates the expansion of IITA's current core activities to include the mid-altitude savanna and woodland areas of Eastern and Southern Africa.

The MTP proposal strikes a balance between commodity and ecoregional responsibilities, and between research and strengthening national research programmes. Within each agroecosystem, the major activities will be the characterization of the farming systems, their constraints, and the opportunities for sustainable improvements. Across all zones, management of a wide range of plant genetic resources would be needed for future use in breeding or selection of appropriate genotypes. Post-harvest research will be conducted to ensure that crops are efficiently transformed into products that meet consumer requirements.

In the lowland humid forest zone, priority will be given to: improved cropping systems and fallow practices for sustainable management of fertility on acid soils; development of plant health management systems for the major crops of the zone; and germplasm improvement. In the lowland moist savanna zone, soil improvement will be a major priority with a strong effort on increasing the nutrient-use efficiency and yields of maize; and the diversification of cropping systems through the introduction of grain legumes and cassava. Plant health management research will focus on key pests, and special emphasis will be given to the reduction of losses through the development of integrated pest management programmes.

For the inland valley ecosystems, the emphasis will be on the characterization and improved practices for land development, water management, soil fertility, weed and pest management, and the development of adapted crop varieties. In the mid-altitude savanna and woodland zone, the main thrust will be germplasm improvement and plant health management to improve the productivity and sustainability of current cropping systems.

4.14.2. Interim Commentary and Programmatic Issues

TAC considered that the process of establishing priorities and the rationale for internal priorities across programmes, commodities and activities was not always clear in IITA's MTP proposal. Further information on their rationale was sought, specifically on: IITA's plans for its future involvement with alley farming, in the light of achievements and impact to date, including the potential for greater collaboration with ICRAF; future strategic direction of the inland valley programme and the implications for collaborative work with WARDA and IIMI; and, IITA's future involvement with soybean.

In June 1991, TAC recommended to the Group approval of the strengthening of the biological control programme and its reclassification from complementary to core, but also recommended that the programme be integrated through shifts within IITA's then prevailing MTP. In the primary scenario of its MTP proposal, IITA proposes that the biological control programme be supported by non core funds as part of its complementary programme. TAC wanted to know the implications for IITA's MTP proposals of the integration of biological control programme in its core programme at the base envelope level.

The financial impact of IITA's proposals for expanding its activities in Eastern and Southern Africa are included in the 120% scenario. TAC was not clear whether the proposed expansion of IITA's mandate relates to strengthening of commodity activities or ecoregional responsibilities. Also, the implications of this expansion for collaboration with other centres such as CIMMYT and CIAT needed to be clarified.

There is an overlap in the agroecological zones to be covered by IITA and ICRISAT, particularly with respect to the semi-arid and sub-humid lowland zones. Further information was requested on IITA's future collaboration with ICRISAT and other organizations in these zones.

TAC considered that IITA's MTP proposal lacked clarity on the rationale for classifying the proposed activities as either core or complementary.

4.14.3. Centre Response

In its response IITA described its approach to priority setting across commodities and regions as one based on the relative importance to food security and future prospects for IITA's mandated commodities in the different regions of sub-Saharan Africa. It also provides an analysis of natural resources management and plant health constraints by agroecological zones as a basis for defining the priorities for research on resources management and plant health.

IITA will maintain its research effort on all the six mandated crops in accordance with TAC recommendations. Crop improvement work, apart from breeding, will address general production constraints that are responsible for low yields. Resource management research will emphasize the improvement of existing cultural practices and the development of new techniques to prevent soil degradation. Plant health management research will continue to aim for reduction in overall pest pressure through integrated pest management (IPM) approaches, including biological control and resistant germplasm.

Soybean offers an excellent opportunity for diversifying agricultural production in sub-Saharan Africa and for improving the nutritional status of people. Research at IITA has produced very promising new plant material and well adapted post-harvest technologies, but future attempts to increase efforts on soybean will be dictated by financial constraints.

The proposal to expand IITA's current mandate to mid-altitude and highland areas of Eastern and Southern Africa is primarily to strengthen commodity activities in which it considers it has a particular advantage. IITA sees this extension as logical in the light of the gradual expansion of IITA's mandate to all of the humid and sub-humid regions of sub-Saharan Africa.

Research on inland valleys will be carried out as an integral part of the moist savanna and humid forest research programmes. A proposal has been developed for the establishment of a consortium on inland valleys in West Africa, involving WARDA, IITA, IIMI and relevant national programmes. IITA and WARDA have agreed to extend the cooperation to other areas of joint interest. The consortium concept, as developed for the inland valleys programme, is regarded by IITA to be a useful mechanism to shift responsibilities to national programmes. IITA is considering the possibility of setting up a special programme for adaptive research collaboration with national programmes.

IITA and the other centres concerned (e.g., ICRISAT, CIMMYT, CIAT, WARDA) do not perceive any particular problem attributable to the overlaps noted by TAC. Within the development of the ecoregional concept, collaboration with all centres is effectively addressed by agreement at the management level, followed by the development of specific plans at the working level.

The integration of the operating costs of the biological control programme into core, at the base level, would require the elimination of four senior staff years in direct research and two positions from research support and administration. As a consequence, most of the affected crop improvement and crop protection work would be undertaken as complementary activities. The balance of effort by category of activity would then be 26% for category 1, 19% for category 2, 37% for category 3, 2% for category 4, and 16% for category 5.

4.14.4. Evaluation

IITA's programmes provide a good example of the integration of commodity improvement research with natural resources management activities within an ecoregional context. In this regard IITA proposes to conduct research on inland valleys as an integral part of the moist savanna and humid forest research programmes.

TAC was pleased with the response of IITA to the issues it had raised in its interim commentary. TAC considers that IITA's research programme is coherent, and focusing on the critical strategic issues. The potential for scientific breakthroughs and probability of success are high, particularly with cassava, banana, maize and soybean, and with integrated pest and nutrient management. There have been significant achievements in the past with crop improvement and in pest control. The Centre is well endowed with human and physical resources, and it is institutionally healthy. The Centre has extensive collaboration with national programmes, other centres and advanced institutions. More recently, the Centre has made special efforts to improve the sharing of responsibilities with national programmes, as well as other centres arrangements. The improved relationship between the Centre and the host country appears to provide a conducive environment for future success.

IITA is addressing issues of high priority in sub-Saharan Africa, and its strategic directions and target groups are in line with CGIAR priorities and strategies. IITA's revised proposals at the level of the indicative base envelope, provide compelling arguments for additional core resources if the biological control programme is to be fully incorporated into core, and if the work on banana and plantain, as well as on soybean is to be sustained and expanded.

4.14.5. Recommendations

On the basis of additional information provided by IITA and in view of the forthcoming reorganization of the banana and plantain research in the CGIAR, TAC considers that, on priority considerations, the amount of resources tentatively assigned in March 1992 to IITA should be revised upwards.

TAC recommends that IITA's core resources for 1998 should amount to US\$ 23.3 million (in 1992 dollars), which is equivalent to 105% of the indicative resource envelope. TAC expects IITA to include, at that level of resources, the operational costs of the biological control programme, and to sustain and expand its activities on banana and plantain and soybean. In addition, TAC recommends that, by 1998, US\$ 500,000 of core resources should be made available towards a Systemwide ecoregional programme for the warm humid and sub-humid tropics in sub-Saharan Africa, for which IITA would be the convening centre and would work in close collaboration with other centres, and with WARDA in particular for work on inland valleys. At the US\$ 280 million vector, TAC recommends an increase of US\$ 200,000 for this Systemwide initiative.

For 1998, IITA projects complementary funding of US\$ 7.4 million (in 1992 values), which represents 32% of its recommended core funding for that year.

For 1994, TAC recommends a core funding for IITA of US\$ 20.8 million in 1992 dollars, or US\$ 22.5 million in current values. Together with complementary funding at US\$ 8.0 million, total funding of IITA in 1994 would amount to US\$ 30.5 million.

IITA: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 -----	1991 actual	1992 -----	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	22.5	22.4	21.7	21.1	9.2%	22.5	24.1	25.8	27.6	29.5	
1992 dollars :			21.7	20.3		20.8	21.4	22.0	22.7	23.3	9.0%
% Unrestricted :	89%	89%	90%								
Balancing Funds :	17%	15%	17%	22%							
<u>Core Donors:</u>						1998 funding guideline (Chap. 14), in 1992 \$:					22.2
Number	25	25	23	19		TAC recommendation, as % of guideline :					105%
% funding, top 3	56%	54%	58%	64%		TAC recommendation, as % of 1992 :					107%
% funding, top 5	69%	68%	71%	76%		TAC recommendation, as % of 1993 :					115%
% funding, top 10	86%	86%	88%	93%							
b) Complementary											
Current dollars:	12.8	11.9	14.1			8.0				9.4	
1992 dollars:			14.1			7.4				7.4	8%
c) Total											
Current dollars:	35.3	34.3	35.8			30.5				38.8	
1992 dollars:			35.8			28.2				30.7	9%

II. EXPENDITURE :					
a) By Category of Activity	1992		1998 Projected		
	(Core)	(Comp)	(Core)	(Comp)	
1. Conservation/Management of Natural Resources	22%	7%	23%	17%	
2. Germplasm Enhancement & Breeding	24%	12%	24%	0%	
3. Production Systems Development & Management	34%	25%	36%	25%	
4. Socio-Econ / Public Pol / Pub Mgmt Research	0%	3%	1%	3%	
5. Institution Building	20%	53%	17%	55%	
b) By Commodity (details of #2 & #3 above)					
Maize	14%	10%	14%	6%	
Cowpea/Soybean	11%	12%	12%	6%	
Cassava	21%	8%	19%	6%	
Banana/Plantain	12%	7%	15%	6%	
c) By Region					
Africa	100%		100%		
Asia	0%		0%		
LAC	0%		0%		
WANA	0%		0%		
d) By Object of Expenditure					
Personnel	49%		50%		
Supplies/Services	32%		33%		
Travel	5%		5%		
Depreciation	14%		12%		
Other	0%		0%		
e) By Cost Center					
Research	52%		52%		
Research Support	8%		8%		
Training and Information	12%		10%		
Management and Administration	28%		30%		

III. STAFFING :					
	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	90	92	97	99	2%
Complementary	55	35	26	26	0%
Supervisory Staff (#)	166	203	210	245	17%
Support Staff (#)	1,177	1,222	1,170	1,177	1%

IV. FINANCE :					
	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	1.5	0.6	1.4	1.8	23%
Operating Fund, (Days Operations)	38	45	47	47	0%
Fixed Assets Value, yr end (\$)	32.8	32.2	31.6	34.1	8%
Capital Fund Balance, yr end (\$)	1.2	2.1	2.9	0.5	-83%

For explanation of table content, see section 4.2

4.15. ILCA

4.15.1. Summary of the MTP Proposal

ILCA's MTP proposal is based on the Centre's revised strategic plan, 'ILCA's Long-term Strategy 1993-2010', and takes into account the issues raised in the 1992 External Review and the recommendations on priorities and strategies for livestock research within the CGIAR. The MTP proposal reflects a more focused medium-term goal for 1994 to 1998. The research programme is outlined under seven themes, i.e., (i) mixed crop livestock systems, (ii) market-oriented smallholder dairying, (iii) conservation of biodiversity, (iv) biological efficiency of livestock, (v) livestock production under trypanosomiasis risk, (vi) livestock and resource management policy, and (vii) strengthening national research capabilities. A new emphasis is placed on strategic research and in particular on 'conservation of biodiversity' and 'biological efficiency of livestock' in the 1994-98 proposed Plan. The proposed MTP will be implemented through the existing organizational structure; ILCA recently reorganized its project-based matrix management structure in line with the recommendations of the 1992 External Review. However, the MTP proposal implies a continuing inter-disciplinary systems approach involving animal sciences, environmental sciences and socioeconomics.

The core research programme outlined in the MTP proposal is based on US\$ 17 million, which consist of the original base envelope of US\$ 14 million supplemented by US\$ 3 million from the US\$ 5 million originally withheld from livestock centres' indicative envelopes. Any expansion of activities beyond the US\$ 17 million level will be possible only with complementary funding. ILCA's proposed financial resources project a threefold increase in complementary funds (from US\$ 3.2 to 9.4 million) over the MTP period. The MTP proposal has been developed on the premise that a total of US\$ 17.8 million (over the five year period) in complementary funds will support the new strategic research themes, i.e., biological efficiency of livestock and conservation of biodiversity, and the ongoing programmes on policy, trypanosomiasis and strengthening national research capacities. The senior staff complement is projected to remain constant at the current level of 56.4 senior staff years (SSY) during the MTP period.

At the US\$ 17 million level, ILCA projected the distribution of core resources over the five categories of activity as follows: 25% to natural resource conservation; 2% to germplasm enhancement; 38% to production systems; 12% to policy research; and, 22% to institution building. Across all activities, research commands 78% of core funds and 62% of complementary funds. The MTP proposal asserts that research across all five categories of activity has the following regional relevances: 75% for sub-Saharan Africa, 3% for WANA, 12% for Asia, and 10% for LAC.

Supplementary proposals at levels equivalent to 90% and 110% of the US\$ 17 million base have also been provided. The 'plus 10% scenario' assumes an incremental funding of US\$ 1.7 million. Four research topics have been identified as meriting priority for these additional funds, i.e. (i) embryo technology, (ii) rumen ecology, (iii) livestock and research management policy and impact assessment, and (iv) collaborative research networks.

4.15.2. Interim Commentary and Programmatic Issues

Referring to TAC's commentary on the external review findings, the Committee noted an improvement in programme focus in ILCA's MTP proposal. The interim commentary raised a number of programmatic, financial, methodological and systemwide issues. TAC sought clarification of ILCA's rationale underlying its setting research priorities and for determining the balance of effort by programme theme. It also requested additional information on the programmatic implications of the Centre's global and ecoregional perspectives. ILCA's claim that 25% of its research programme relates to regions other than sub-Saharan Africa needed further justification, as were the mechanisms envisaged by ILCA to extend its expertise in crop-livestock research beyond sub-Saharan Africa. TAC requested clarification on how ILCA's proposed ecoregional activities in the Ethiopian highlands related to the ICRAF-led consortium on natural resources management research for the highlands of East and Central Africa, and an elaboration on the proposed modes of collaboration between ILCA and ILRAD, as well as with ITC and CIRDES. The Committee also noted substantial discontinuity in the research programmes between the 1988-93 MTP and the 1994-98 MTP proposal and sought information on the nature of the proposed changes. TAC also noted that ILCA's proposal did not have clear impact statements that incorporated milestones by which ILCA could measure progress. Finally, TAC requested ILCA to provide supplementary confidential information at the level of the base resource envelope of US\$ 14 million.

4.15.3. Centre Response

In its response, ILCA explained that the research prioritization process was based on the Goal-Oriented Programme Planning (GOPP) technique, that ILCA used for setting the long-term strategic priorities of its programmes in 1998. The approach was described in ILCA's first MTP for 1989-93. The process was based on both qualitative and quantitative analyses and had further taken into account priorities identified by the national programmes, by TAC and the CGIAR Working Group on livestock research, and by the Winrock study on Animal Agriculture in sub-Saharan Africa. ILCA also elaborated on its evolving strategies on global and ecoregional research, stating that its proposals on animal nutrition (biochemistry, physiology and microbiology of digestion) and genetic resource characterization and enhancement (plant and animal) have global significance. On the other hand, ILCA sees its regional research programmes in the semi-arid (Sahelian Centre), sub-humid (Ibadan and Mombasa) and cool tropics (Ethiopian highlands) as ecoregional in nature, involving close collaboration with national programmes and other centres. ILCA also explained that its proposed collaborative inter-centre programmes with crop-oriented IARCs, both within and outside Africa, would involve joint staff appointments and the development of linkages between its research networks in Africa and counterpart networks in other regions.

ILCA described its impact assessment methodology and noted that an impact perspective was incorporated with each research protocol. In reference to the issue of continuity of the research programmes initiated under the 1988-93 MTP, ILCA's response indicates that, whereas some research programmes (e.g., vertisol soil management, alley farming systems) will be terminated, the main research goals of the previous MTP are embodied in the new, proposed plan. ILCA also elaborated on its partnership

arrangements with ILRAD and shared with TAC recent proposals of ILCA's Board of Trustees which outline new initiatives taken in this regard. ILCA's assertion that 25% of its research efforts over the MTP period will have relevance to regions outside sub-Saharan Africa, is based on assumed spillover effects proportional to the relative economic values of milk and meat, from cattle, sheep and goats, in the different regions. In response to the question of ILCA/ICRAF collaboration in the East and Central African highlands, ILCA does not foresee any overlap or conflict of interest stating that the present proposals of the ICRAF-led consortium, of which ILCA is a member, relate to aspects of natural resources management under different cropping systems in the lower altitudes of the agroecological zone; ILCA's past and proposed future work is focused on the high altitude areas.

ILCA also provided a description of the reductions necessary to match the original base envelope of US\$ 14 million. The senior staff (SSY) complement would be reduced to 45.4 SSY. Production systems research would be most severely cut back (3 SSY), all germplasm enhancement work would cease and institution-building activities (training and publications) and research support would be significantly curtailed.

4.15.4. Evaluation

In evaluating ILCA's MTP proposal, TAC first considered ILCA's assertion that the actual 1991 distribution of its resources over the five categories of activity (i.e., 10%, 4%, 39%, 10% and 28%) was significantly different from the distribution percentages used by TAC and shown in Chapter 14 of its report on CGIAR priorities and strategies. The Committee noted that the resource distribution in the 1994-98 MTP proposal mirrored closely the 1991 percentages as estimated by ILCA. Broadly speaking, TAC was satisfied with ILCA's response to the questions raised in the interim commentary. However, ILCA's assertion that 25% of its research activities would have direct relevance to regions outside sub-Saharan Africa lacked adequate justification, and the Committee was not convinced that the issue of ILCA/ICRAF collaboration in the East and Central African highlands is, as yet, adequately resolved. On balance, TAC did not see any compelling reason to change ILCA's original indicative resource envelope at this stage. Furthermore, TAC noted that ILCA benefitted from a devaluation of the currency of the host country during 1992, which reduced its dollar denominated expenditures and the cost of its headquarters operations.

TAC then proceeded to evaluate the focus, relevance and potential impact of the proposals outlined in ILCA's MTP document in reference to current CGIAR priorities for livestock research. In its deliberations, the Committee was very much aware of the recent CGIAR decision to integrate ILCA and ILRAD into a new global livestock research entity. TAC concluded that ILCA's proposed programmes are in line with the Centre's Strategic Plan, and in programme terms, are closely compatible with CGIAR Priorities and Strategies for livestock research. However, TAC considers that a number of ILCA's proposed programmes are premature at this point in time, in view of the pending integration of components of ILCA and ILRAD into the new global livestock research entity.

TAC considers that, overall, ILCA's proposals are of a strategic character, but that much of the proposed programme can be more appropriately planned within the framework of the new livestock research entity. In this regard, much of feed research will be organized within the framework of ecoregional initiatives. The recent external review raised questions about ILCA's past performance and about the institutional health of the Centre. TAC shared these concerns, but noted the recent improvements in research management, staff turnover, programme focus and publication output. TAC also commends ILCA on its strategy in developing strong partnerships with the national programmes in sub-Saharan Africa.

4.15.5. Recommendations

Based on these priority and institutional assessments, and in reference to the proposed establishment of the new global livestock research entity, TAC recommends that, in 1998, core programmes - for which ILCA presently assumes responsibility - be funded, in the framework of the new livestock research entity, at the level of US\$ 14 million, i.e., the original indicative envelope assigned to ILCA in March 1992. In conjunction with this, TAC recommends that US\$ 4 million of core resources be allocated to the new livestock research entity. Of this US\$ 4 million, US\$ 3 million would come from ILCA's supplementary envelope and would be used by the new entity for collaborative feed research with ecoregional initiatives, and an additional US\$ 1 million would be generated from savings on overhead when relevant components of ILCA, ILRAD and other centres are integrated into the new entity. It is also envisaged that the new global livestock research entity will be an active participant in several of the Systemwide ecoregional programmes for which a further US\$ 4 million is recommended. Finally, TAC recommends a further support of US\$ 750,000 to the global livestock entity within the US\$ 280 million vector.

In view of the future integration of ILCA components into the new entity for global livestock research, TAC recommends that ILCA's budget be approved for a two-year period with a one-year rolling horizon.

For 1998, ILCA projects funding of complementary activities in the amount of US\$ 7.4 million (in 1992 values), and for which the new livestock research entity will assume responsibility by that time.

For 1994, TAC recommends core funds for ILCA of US\$ 12.1 million in 1992 dollars, or US\$ 13.1 million in current values. Together with complementary funds projected at US\$ 3.2 million, ILCA's total funding in 1994 would amount to US\$ 16.3 million.

ILCA: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:						TAC Recommended					% , centers' allocation in 1998
Actual/ Estimated											
	1990 < ---	1991 actual	1992 ---	1993 (est)	% of system total (1993)	1994	1995	1996	1997	1998	
a) Core											
Current dollars :	20.2	19.4	15.8	12.1	5.3%	13.1	14.1	15.2	16.4	17.7	
1992 dollars :			15.8	11.7		12.1	12.5	13.0	13.5	14.0	5.4%
% Unrestricted :	71%	82%	84%								
Balancing Funds :	21%	23%	22%	23%							
Core Donors:											
Number	25	24	24	21							
% funding, top 3	43%	48%	52%	55%							
% funding, top 5	58%	61%	64%	67%							
% funding, top 10	81%	77%	84%	87%							
b) Complementary											
Current dollars:	0.7	0.5	0.1			3.2				9.4	
1992 dollars:			0.1			3.0				7.4	8%
c) Total											
Current dollars:	20.9	19.9	15.8			16.3				27.1	
1992 dollars:			15.8			15.1				21.4	6%
						1998 funding guideline (Chap. 14), in 1992 \$: 14.0					
						TAC recommendation, as % of guideline : 100%					
						TAC recommendation, as % of 1992 : 89%					
						TAC recommendation, as % of 1993 : 120%					

<u>II. EXPENDITURE :</u>					
		1992		1998 Projected	
		(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity					
1. Conservation/Management of Natural Resources		21%	0%	27%	18%
2. Germplasm Enhancement & Breeding		7%	0%	0%	6%
3. Production Systems Development & Management		34%	100%	38%	17%
4. Socio-Econ / Public Pol / Pub Mgmt Research		11%	0%	15%	20%
5. Institution Building		27%	0%	20%	39%
b) By Commodity (details of #2 & #3 above)					
Livestock		39%	100%	38%	23%
Trees		2%	0%	0%	0%
c) By Region					
Africa		75%		100%	
Asia		12%		0%	
LAC		10%		0%	
WANA		3%		0%	
d) By Object of Expenditure					
Personnel		55%		51%	
Supplies/Services		34%		35%	
Travel		4%		4%	
Depreciation		7%		9%	
Other		0%		0%	
e) By Cost Center					
Research		55%		57% 1/	
Research Support		8%		7%	
Training and Information		14%		17%	
Management and Administration		23%		19%	

1/ Does not reflect the impact of the planned integration of ILCA's relevant components into the new Livestock Research entity.

1/ Does not reflect the impact of the planned integration of ILCA's relevant components into the new Livestock Research entity.

III. STAFFING :						% Change from 1992	
	1990	1991	1992		1998		
International Staff (#)							
Core	55	49	51		45	-12%	
Complementary	1	1	0		9		
Supervisory Staff (#)	59	32	29		32	10%	
Support Staff (#)	589	600	606		587	-3%	

IV. FINANCE :						% Change from 1992	
	1990	1991	1992		1998		
Supplemental core revenue :							
(Investment, overhead recovery and other earned income)	3.1	1.6	0.9		0.8	-17%	
Operating Fund, (Days Operations)	74	80	51		36	-29%	
Fixed Assets Value, yr end (\$)	11.7	11.0	10.3		9.9	-4%	
Capital Fund Balance, yr end (\$)	1.7	2.7	3.5		4.8	38%	

4.16. ILRAD

4.16.1. Summary of the MTP Proposal

ILRAD's MTP proposal has been structured so as to meet specific targets within the next five years in line with its strategic plan ('Strategic Plan: 1994-2003'), the recommendations of the 1992 External Review, the 1992 Winrock International report on Assessment of Animal Agriculture in sub-Saharan Africa, UNCED Agenda 21, and TAC's review of priorities and strategies for livestock research in the CGIAR. In addition, the recent decisions by the CGIAR to have a unified strategy, programme and institution for livestock research, into which the programmes of ILRAD and ILCA will be integrated within the MTP period, added to ILRAD's already numerous challenges.

In its MTP proposal, ILRAD presented three alternative scenarios for implementing cohesive sets of activities: (i) a 'Level 1', which would require 56 senior staff years (SSY) per year and US\$ 12.6 million, and would enable ILRAD to maintain its current critical mass and scope of activities; (ii) a 'Strategic' scenario, proposed in an addendum to the MTP proposal, and which would require 63 SSY and US\$ 13.9 million, and reflects what ILRAD considers to be its needs to implement its strategic plan in full with increased emphasis on ruminant genetics and helminthiasis in small ruminants; and (iii) a 'Level 2', which corresponds to the supplemented TAC indicative resource envelope of US\$ 11.1 million and would support 48 SSY per year. In addition, a confidential supplementary document describing the programmatic implications of ILRAD having to operate at the base resource envelope of US\$ 9.1 million has also been made available to TAC.

During the MTP period, ILRAD plans to broaden the scope of its work from a previous focus on theileriosis to tick-borne diseases, and to continue its activities on trypanosomiasis, socioeconomics and environmental impact, and outreach research and training. Some activities under the Trypanosomiasis Programme have been emphasized in a new programme called Ruminant Genetics.

Under the 'Level 1' scenario, work on novel vaccine development for tick-borne diseases will require 15 SSY in 1994, rising to 17 SSY in 1998. Within this manpower allocation there will be a reduction of one position for development of serological tests when these are completed in 1995, and an increase from 3 SSY to 6 SSY per year for the identification and development of potential vaccine antigens to tick-borne disease organisms. The trypanosomiasis programme will require 22 SSY in 1994. Ten of these will be devoted to the development of improved diagnostic techniques, epidemiology and drug resistance, and 12 to the identification of mechanisms of resistance to disease, and the search for vaccines. The total manpower allocation will decline to 18 SSY in 1998 as targets for the production of diagnostic tools are met.

ILRAD is involved in a global network of laboratories working on gene markers to map the bovine genome. It is also creating a resource herd, by cross-breeding N'Dama and Boran (susceptible) animals, to study genetic segregation and determine the location of genes associated with trypanotolerance. Bovine genetic markers will be made available to other institutions, for use in studies of genetic resistance to helminthiasis, and

for the identification of ruminant livestock species for germplasm conservation. This programme (ruminant genetics) will require 3 SSY per year.

The aim of the socioeconomics and environmental impact programme is to evaluate the impact of alternative methods for the control of the major disease constraints to livestock productivity. During the MTP period, ILRAD will supplement ex-ante impact assessments of livestock disease control with retrospective evaluations of vector-borne disease control programmes so as to develop predictive methodologies that may be useful in prospective disease assessments in given production systems, and environments. The programme will require 4 SSY per year. Technology transfer, manpower and institutional development activities will be organized under the Cooperative Programmes, Training and Information Department and will require 3 SSY per year.

In its MTP proposal, ILRAD estimated the allocation of its efforts by region during the forthcoming quinquennium will be 53% for sub-Saharan Africa, 26% for Asia, 18% for Latin America, and 5% for WANA.

Implementation of the 'Level 2' scenario would result in a cumulative loss over the MTP period of 15 SSY in trypanosomiasis, 9 SSY in tick-borne diseases, 7 SSY in socioeconomics and 4 SSY from research support.

4.16.2. Interim Commentary and Programmatic Issues

In its initial review of ILRAD's MTP proposal, TAC raised three programmatic issues on which ILRAD was requested to provide clarification. The first was TAC's concern that the projected expansion into other tick-borne diseases, ruminant genetics and animal physiology might divert attention from ILRAD's current effort on theileriosis and trypanosomiasis. The second was whether ILRAD had a policy and safeguards for the release of genetically modified organisms. The third related to the programmatic implications of operating at 'Level 2', i.e., the level of the supplemented resource envelope.

4.16.3. Centre Response

ILRAD plans to sustain its current focus on theileriosis and trypanosomiasis. At the 'Strategic' scenario level, aggregated over the MTP period, 87 SSY have been proposed for research on tick-borne diseases over the quinquennium of which 68 SSY (78%) would be required for research on East Coast fever and 19 SSY (22%) on collaborative research, primarily to develop novel vaccines for the control of cowdriosis, tropical theileriosis, anaplasmosis and babesiosis. At 'Level 1', also aggregated over the MTP period, 81 SSY are proposed for research on tick-borne diseases, of which 68 SSY (84%) will be devoted to East Coast fever and 13 SSY (16%) will be allocated to collaborative research on other tick-borne diseases, principally cowdriosis. At 'Level 2', 68 SSY would still be earmarked for research on East Coast fever. With respect to trypanosomiasis, an aggregated 100 SSY are proposed for research over the quinquennium at 'Level 1'. A similar figure is proposed at the strategic level. Of the cumulative 100 SSY, 90% will be devoted to research aimed at improved control of

tsetse-transmitted trypanosomiasis, including the exploitation of genetic resistance to this disease, and 10 SSY will be devoted to research on the control of non tsetse-transmitted trypanosomiasis.

ILRAD recognizes that it has no authority to release genetically modified organisms in the form of a bacterial or virus-vectored vaccines against theileriosis. Such a release would need to be authorized by individual national governments following compliance in the use of such a vaccine with relevant national regulations. However, ILRAD is also aware that most of the countries affected by theileriosis do not yet have appropriate regulations, or facilities in place, for testing such vaccines. Consequently, ILRAD plans to comply with appropriate US regulations: (a) to ensure that experimental recombinant organisms are handled safely and not inadvertently released into the environment, and (b) to proceed with the process of vaccine development in a manner which will ultimately facilitate licensing of such a vaccine by countries which do not as yet have appropriate regulations or test facilities. It is for these reasons that ILRAD is urgently seeking complementary funds to construct a large animal containment facility which will allow testing of further stages of vaccine development in appropriate numbers of cattle.

ILRAD considers the programmatic implications of operating at 'Level 2' to be serious. Research on tick-borne diseases would be limited to East coast fever. As regards trypanosomiasis, research would be even more curtailed. The resources allocated to studies of drug resistance, parasite genetics and potential vaccines would be substantially reduced, and the Centre could not undertake any work on non tsetse-transmitted trypanosomiasis. There would also be reductions in the socioeconomics and environmental impact programme, and in research support and institution building. The net effect would be to restrict ILRAD's activities to research on East Coast fever and tsetse-transmitted trypanosomiasis and to limit the utilization of knowledge and techniques already generated to develop improved means of control of other major tick-borne diseases and other forms of trypanosomiasis, and to reduce ILRAD's capacity to strengthen national programmes.

4.16.4. Evaluation

TAC commends ILRAD for the transparent and analytical process followed in preparing the MTP proposals. The document is clearly written and the proposals are well argued and prioritised, reflecting the transparent nature of the analytical process adopted. ILRAD's proposal to safeguard past achievements through increased efforts in novel vaccine development for East Coast fever, maintaining the work on socioeconomics and environmental impact, and identification of genetic markers for trypanotolerance, deserves strong support.

The scientific achievements of ILRAD's work on theileriosis and trypanosomiasis are impressive, although TAC is aware that ILRAD has been less successful with regard to institutional development and production impact on animal agriculture in Africa. However, TAC notes ILRAD's expectations to complete laboratory development of an experimental vaccine for theileriosis, in the next five years.

The MTP proposal clearly reflects ILRAD's revised strategic plan, which projects an expansion of the Centre's operational mandate to include other tick-borne diseases, non tsetse-transmitted trypanosomiasis, and ruminant genetics. The proposed expansion is in line with ILRAD's mandate and TAC's views on priorities and strategies for livestock research, currently under discussion. However, TAC sees no compelling reason to change the priority currently allocated for research on livestock diseases in the CGIAR which it considers are adequately reflected in the supplemented resource envelope of US\$ 11.1 million.

The proportion of complementary activities in ILRAD's work is very low. Due to the strategic and basic nature of the research, ILRAD does not appear to attract much donor support for complementary activities.

4.16.5. Recommendations

TAC recommends that, in 1998, core programmes - for which ILRAD presently assumes responsibility - be funded, in the framework of the new livestock research entity, in the amount of US\$ 11.1 million, i.e., the supplemented indicative core resource envelope assigned to ILRAD. In the light of the CGIAR decision to have a unified strategy, programme, and institutional mechanism for livestock research, into which the relevant components of ILRAD, ILCA and other centres are expected to be integrated within the next five years, TAC considers ILRAD to be a centre in transition. In conjunction with TAC's recommendation on ILRAD's 1998 core funding level, TAC also recommends that US\$ 4 million of core resources be allocated to the new livestock research entity. Of this US\$ 4 million, US\$ 1 million would be generated from savings on overhead when ILCA and ILRAD are integrated into the new single entity. It is also envisaged that the new global livestock research entity will be an active participant in several of the Systemwide ecoregional programmes for which a further US\$ 4 million is recommended. Finally, TAC recommends a further support of US\$ 750,000 to the new livestock research entity within the US\$ 280 million vector.

In view of the future integration of ILRAD into the new entity for global livestock research, TAC recommends that ILRAD's budget be approved for a two-year period with one-year rolling horizon.

For 1998, ILRAD projects funding of complementary activities of US\$ 400,000 (in 1992 values), for which the new livestock research entity will assume responsibility by that time.

For 1994, TAC recommended core funds for ILRAD of US\$ 9.9 million in 1992 dollars, or US\$ 10.7 million in current values. Together with complementary funds projected at US\$ 0.6 million, ILRAD's total funding in 1994 would amount to US\$ 11.3 million.

ILRAD: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					%, centers' allocation in 1998
	1990 -----	1991 actual	1992 -----	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	13.6	13.5	12.6	10.1	4.4%	10.7	11.5	12.3	13.1	14.0	
1992 dollars :			12.6	9.7		9.9	10.2	10.5	10.8	11.1	4.3%
% Unrestricted :	84%	84%	85%								
Balancing Funds :	21%	19%	26%	20%							
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:					9.1
Number	21	20	17	17		TAC recommendation, as % of guideline :					122%
% funding, top 3	44%	41%	50%	47%		TAC recommendation, as % of 1992 :					88%
% funding, top 5	57%	55%	64%	63%		TAC recommendation, as % of 1993 :					114%
% funding, top 10	80%	79%	88%	89%							
b) Complementary											
Current dollars:	0.3	0.0	0.0			0.6				0.5	
1992 dollars:			0.0			0.5				0.4	0%
c) Total											
Current dollars:	13.9	13.5	12.6			11.3				14.6	
1992 dollars:			12.6			10.4				11.5	3%

II. EXPENDITURE :

a) By Category of Activity	1992		1998 Projected	
	(Core)	(Comp)	(Core)	(Comp)
1. Conservation/Management of Natural Resources	2%	0%	2%	0%
2. Germplasm Enhancement & Breeding	7%	0%	7%	0%
3. Production Systems Development & Management	72%	0%	69%	0%
4. Socio-Econ / Public Pol / Pub Mgmt Research	4%	0%	4%	50%
5. Institution Building	15%	0%	17%	50%
b) By Commodity (details of #2 & #3 above)				
Livestock	79%	0%	76%	0%
c) By Region				
Africa	53%		43%	
Asia	26%		32%	
LAC	18%		22%	
WANA	3%		4%	
d) By Object of Expenditure				
Personnel	57%		56%	
Supplies/Services	28%		32%	
Travel	4%		3%	
Depreciation	8%		9%	
Other	2%		0%	
e) By Cost Center				
Research	48%		46% 1/	
Research Support	14%		11%	
Training and Information	10%		12%	
Management and Administration	28%		31%	

1/ Does not reflect the impact of the planned integration of ILRAD's relevant components into the new Livestock Research entity.

III. STAFFING :

	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	58	56	57	48	-16%
Complementary	0	0	0	2	
Supervisory Staff (#)	38	35	37	37	0%
Support Staff (#)	338	336	334	330	-1%

IV. FINANCE :

	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :					
(Investment, overhead recovery and other earned income)	0.5	0.4	1.1	0.5	-53%
Operating Fund, (Days Operations)	76	89	85	99	16%
Fixed Assets Value, yr end (\$)	12.0	11.1	10.5	8.9	-15%
Capital Fund Balance, yr end (\$)	0.3	1.3	1.9	3.1	64%

For explanation of table content, see section 4.2

4.17. INIBAP

4.17.1. Summary of the MTP Proposal

In 1992 INIBAP had its first external review after joining the CGIAR. This led to the creation of a CGIAR Task Force on Banana and Plantain Research, as recommended by TAC. The Task Force presented a draft report to TAC in March 1993 and its final recommendations to the CGIAR at MTM'93. After considering the report and TAC's comments on the report, the CGIAR decided that its support to banana and plantain should focus on Musa germplasm-related activities, and information, documentation and training. The CGIAR agreed to sponsor a global programme on germplasm improvement and related research to be carried out by a consortium of leading research institutions within and outside the CGIAR, including INIBAP, under the governance and administrative structure of IBPGR.

By mid-June 1993, INIBAP had revised its original draft MTP proposal in the light of the CGIAR decisions at MTM'93 on future priorities and institutional mechanisms for banana and plantain research. Under the revised proposal, INIBAP will have the following activities during the MTP period: (i) Musa germplasm conservation, management and improvement (comprising Musa germplasm collection, conservation, characterization and evaluation; safe movement of Musa germplasm; and improvement of Musa germplasm); and, (ii) institution building (comprising training and conferences; and documentation, publications and dissemination of information).

The MTP proposals were formulated under three different funding scenarios: a scenario at the level of the base indicative envelope (US\$ 2.1 million); a scenario at 110% of the base envelope; and a scenario which INIBAP calls the "Full Programme" requiring US\$ 2.8 million. INIBAP proposed to have a minimum set of core activities within each of the three scenarios, and which would include conservation of Musa diversity, virus indexing and safe exchange of germplasm, collaborative arrangements among breeding programmes (requiring 5 SSY), and information and documentation services (requiring 2 SSY). Reductions on INIBAP's administrative costs, once the transition towards association with IBPGR is completed, are indicated under all three budget scenarios.

At the level of the base resource envelope, INIBAP states that it will be unable to contribute to the Consortium's global research activities. It would be short of one core specialist position and would have to discontinue its regional information/documentation node in Latin America. Training would be restricted to the elements provided by a UNDP project for the International Musa Testing Programme (IMTP). In this scenario, INIBAP would also have difficulty in covering the costs of the IMTP testing sites.

Even with funding at 110% of the base, INIBAP considers that it would still be unable to fill one key position to reach critical mass, and no resources would be available for the IMTP testing sites. However, at this level, a limited amount of research resources would be available to the Consortium members and the Latin American information node would be retained.

Under the "Full Programme" scenario INIBAP considers that it would have a critical mass and adequate resources could be made available to Consortium members and for training purposes. A limited amount of resources would also be used to cover, in part, the costs of the IMTP testing sites.

INIBAP has not included the 90% scenario in its revised MTP proposal because in its view it would mean further erosion of its critical mass, and impose severe limitations under which it would not be able to comply with the Task Force recommendations and CGIAR expectations on Musa research.

4.17.2. Interim Comments and Programmatic Issues

The TAC interim commentary on the original draft MTP raised a number of programmatic issues. Some of these are still relevant to the revised MTP proposal, while others are no longer applicable in light of the CGIAR decision at MTM'93 that INIBAP should, in the future, operate under the administrative umbrella of IBPGR.

Among the major issues raised by TAC and the CGIAR were: the priority for global germplasm related work relative to regional research and training; how INIBAP would maintain its scientific viability at the level of the base resource envelope; and, INIBAP's concept of minimum critical mass.

4.17.3. Centre Response

INIBAP admits that the most important factor at the global scale presently is the development and dissemination of improved germplasm. However, it is also convinced that it would have a role and advantage to address selectively needs in the fields of information and communications, agronomy, socioeconomics and postharvest technology, if and when, complementary funding becomes available.

While regional research and training activities have not been retained as a specific programme in the revised MTP proposal, INIBAP is still planning to have a presence in the regions through Germplasm Officers in order to conduct and organize collecting missions, characterization, testing and evaluation of germplasm, information and communication systems and training and linkage with national programmes.

INIBAP considers that it would have difficulty in meeting the scientific staffing need at the level of the base resource envelope, and that it could not contribute to the Consortium's global research activities at that base level. However, INIBAP would be able to address a significant, albeit limited, number of issues, important to researchers at every level, and, therefore continue to fulfil a unique function in the Musa community.

4.17.4. Evaluation

In its 1992 review of CGIAR priorities and strategies, TAC stressed the importance of banana and plantain in developing countries, especially for smallholders, and the need for CGIAR support to research on this crop.

TAC notes INIBAP's claim that 9.5 SSY would be the base minimum core critical mass required to implement the recommendations of the Task Force and to meet CGIAR expectations on Musa research. To achieve this level of operation, INIBAP considers that it would require funding at the "Full Programme" Scenario. At both the 100% and 110% scenarios, INIBAP states that one key position will not be filled. However, the position has not been specified, and the MTP proposal does not state the programmatic implications of not filling this position.

Further, TAC notes INIBAP's plan to maintain its presence in the regions through the outposting of Germplasm Officers. Given the projected resource constraints, TAC considered that INIBAP should explore alternative mechanisms for such outposting, such as working through IITA in sub-Saharan Africa and closer collaboration with field staff of IBPGR's regional groups. One Germplasm Officer posted at headquarters could coordinate germplasm collection, characterization conservation and improvement activities in collaboration with the proposed global consortium of research institutions. This would also release more funds for the Consortium's activities. Similarly, most of the training could be done in partnerships with the Consortium members.

4.17.5. Recommendations

TAC recommends that, in 1998, INIBAP - by then a programme entity operating under the umbrella of IBPGR/IPGRI - be assigned a resource envelope of US\$ 1.8 million (in 1992 dollars), equivalent to 86% of the indicative resource envelope assigned, in March 1992, to INIBAP as an autonomous institution. In view of the CGIAR decision at MTM'93 to integrate INIBAP within the administrative structure of IBPGR/IPGRI, TAC's recommendation on INIBAP's allocation refers to INIBAP's programme and not the INIBAP institution. TAC agrees with the CGIAR decision to maintain the level of resources allocated to banana and plantain at current levels. It notes, however, that savings of some US\$ 300,000 could reasonably be expected from the proposed integration of INIBAP and IBPGR/IPGRI, mainly through pooling of resources for institution building, information, documentation and communications, and a net saving in total cost of administration and governance. TAC notes further the likelihood that the Montpellier facilities will be retained as a major sub-station of IBPGR/IPGRI without compromising the priority accorded to the Banana and Plantain Programme. TAC does not recommend changes in the allocation of core resources to banana and plantain research at the US\$ 280 million vector.

For 1998, INIBAP projects complementary funding of US\$ 800,000 which, by that time, will concern the INIBAP programme entity.

For 1994, TAC recommends core funding of the INIBAP programme in the amount of US\$ 1.7 million in 1992 dollars, or US\$ 1.9 million in current values. Together with complementary funds projected at US\$ 0.9 million, INIBAP total funding in 1994 would amount to US\$ 2.7 million.

INIBAP: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% , centers' allocation in 1998
	1990 <--- actual	1991 actual	1992 ---	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars:			1.8	1.8	0.8%	1.9	2.0	2.1	2.2	2.3	
1992 dollars:			1.8	1.7		1.7	1.8	1.8	1.8	1.8	0.7%
% Unrestricted:			70%								
Balancing Funds:			7%	11%							
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:					2.1
Number			11	11		TAC recommendation, as % of guideline:					86%
% funding, top 3			58%	53%		TAC recommendation, as % of 1992:					100%
% funding, top 5			74%	74%		TAC recommendation, as % of 1993:					104%
% funding, top 10			99%	99%							
b) Complementary											
Current dollars:			0.2			0.9				1.0	
1992 dollars:			0.2			0.8				0.8	1%
c) Total											
Current dollars:			2.0			2.7				3.3	
1992 dollars:			2.0			2.5				2.6	1%

II. EXPENDITURE :		1992		1998 Projected	
a) By Category of Activity		(Core)	(Comp)	(Core)	(Comp)
1. Conservation/Management of Natural Resources		35%	0%	41%	21%
2. Germplasm Enhancement & Breeding		31%	62%	21%	74%
3. Production Systems Development & Management		0%	0%	0%	0%
4. Socio-Econ / Public Pol / Pub Mgmt Research		0%	0%	0%	0%
5. Institution Building		33%	38%	38%	6%
b) By Commodity (details of #2 & #3 above)					
Banana/Plantain		31%	62%	21%	74%
c) By Region					
Africa		37%		32%	
Asia		29%		33%	
LAC		33%		34%	
WANA		0%		0%	
d) By Object of Expenditure					
Personnel		48%		46%	
Supplies/Services		33%		35%	
Travel		17%		16%	
Depreciation		1%		3%	
Other		0%		0%	
e) By Cost Center					
Research		52%		55% 1/	
Research Support		0%		0%	
Training and Information		17%		25%	
Management and Administration		31%		20%	

1/ Does not reflect the impact of INIBAP's forthcoming association with IBPGR/IPGRI

III. STAFFING :		1990	1991	1992	1998	% Change from 1992
International Staff (#)						
Core				10	9	-10%
Complementary				0	1	
Supervisory Staff (#)				0	0	
Support Staff (#)				9	11	22%
IV. FINANCE :						
		1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :						
(Investment, overhead recovery and other earned income)				0.1	0.1	0%
Operating Fund, (Days Operations)				4	68	1600%
Fixed Assets Value, yr end (\$)				0.1	1.0	900%
Capital Fund Balance, yr end (\$)				0.0	-0.3	

For explanation of table content, see section 4.2

4.18. IRRI

4.18.1. Summary of the MTP Proposal

IRRI's MTP proposal reflected the implementation of its strategic plan which was prepared in 1989 and the continuation of the 1990-1994 workplan.

IRRI proposed to have four major rice ecosystem programmes in irrigated, rainfed-lowland, upland, flood-prone rice and one cross ecosystem programme. In addition, there would be programmes on: germplasm conservation, dissemination and evaluation; a crop and resource management network; information and knowledge exchange; training; and, support to national research services. IRRI's primary proposal was based on the level of the indicative resource envelope it was assigned in March 1992 (US\$ 25.8 million), with supplementary proposals for a 90% and a 110% scenario.

IRRI's proposed plan - at 100% of the base envelope - was characterized by the integration of crop improvement and resource management research. IRRI proposed to allocate 28% of its core resources to conservation and management of natural resources, 34% to germplasm enhancement and breeding, 15% to production systems development and management, 8% to socioeconomic, public policy and public management research, and 15% to institution building. In addition to support for its programmes at the 100% envelope level, IRRI also proposed that additional support be given to the mega projects, as well as to the research consortia (rainfed lowland, upland, and flood-prone rice ecosystems) and the new frontier projects.

Mega projects are expected to have a significant impact but also require large resources for their implementation. The mega projects proposed relate to: raising the irrigated rice yield ceiling; reversing the decline in productivity trends in intensive irrigated rice; improving rice-wheat systems; conserving rice genetic resources; and, exploiting biodiversity for sustainable pest management. Each of these projects is to be funded by core resources only.

Of the three research consortia, two were officially established in 1991 - one for upland rice ecosystem and the other for rainfed lowland rice ecosystem. The third, on flood-prone rice ecosystem, is planned to follow in 1994. These consortia have the potential to be a mechanism for addressing ecoregional concerns. The new frontier projects focus on: exploiting apomixis; assessing opportunities for nitrogen fixation in rice; managing weeds using less chemicals; and, developing a perennial rice plant. Each of these projects has both a core and a complementary component.

At the 110% scenario, more core funds would be allocated to the proposed mega projects and the consortia, while at the 90% scenario, a range of training and network activities would be cut, and the flood-prone rice programme discontinued.

Since 1989, IRRI has down-sized considerably, and the number of staff has been reduced by 49%. IRRI expected to have presently 69 senior staff in core programmes and 25 staff in complementary programmes. IRRI's work is very much dependent upon

partnerships with national programmes, CGIAR centres and other institutions, and virtually every project involves some sort of a collaborative arrangement.

4.18.2. Interim Commentary and Programmatic Issues

TAC considered IRRI's MTP proposal to be well argued, transparent and coherent. The proposed mega projects and research consortia for the rainfed lowland and upland ecosystems address issues that are of high priority for global rice research. While TAC recognized that each of these carries a core component, the issues they are addressing are of such high priority and importance that, as much as possible, each programme should be fully integrated into the Centre's core resource programme. TAC requested therefore further information about the programmatic implications of fully integrating these projects both at the level of the base resource envelope and at the 110% level.

TAC also asked information about opportunities for handing over a larger share of responsibilities that are currently assumed by IRRI to national programmes. Finally, TAC welcomed additional information about the role and specific activities of IRRI as a global centre for rice research, as distinct from its regional activities in Asia, and about the multi-commodity perspective of its proposed consortium for upland farming systems.

4.18.3. Centre Response

In response to the issues raised by TAC and the members of the CGIAR, IRRI has prepared a set of papers on: opportunities for handing over a larger share of responsibilities to NARS; IRRI's role as a global centre for rice research; the multicommodity perspective of its consortium for upland farming systems; IRRI's current financial situation; the discussion by TAC and the CGIAR of the Inter-Centre Review of Rice; a reaction to TAC's commentary on the External Review and on the MTP; and, on TAC's estimate of allocation of resources by activity at IRRI in 1991.

IRRI considers that it has incorporated the proposed mega projects and research consortia as much as it could in the base resource envelope tentatively assigned by TAC. IRRI would require additional core funding of about 18% in order to implement these programmes with a critical mass and at a speed IRRI considers necessary. IRRI also notes that, under the 100% envelope scenario, the share of the budget allocated to research on the issues addressed by the mega projects is substantially greater than the budget of the mega projects alone. IRRI, indeed, envisages that the outputs of two other projects of the irrigated ecosystem programme will provide technologies for the mitigation of the productivity decline.

IRRI believes that the extensive consultation with national programmes in developing its MTP proposal has ensured that it is responsibly tapping the full capacity of national programmes. In its response to TAC, IRRI provides a detailed listing of those activities for which it has already handed over the responsibility to national programmes, those that are in the process of being handed over to national programmes within the timeframe of the new MTP, and those that are conducted collaboratively with national programmes. IRRI notes that it is holding biannual meetings with national programmes

to develop joint workplans and review progress made. These meetings provide the continuing opportunity for IRRI to gradually shift responsibilities in rice research and training. IRRI also stresses the weaknesses of many national programmes in Asia and strongly believes that through the participatory process it has used, it has explored the full capacity of national programmes to undertake a larger share of responsibilities.

IRRI has provided a detailed response on how it sees its global responsibility for rice research. It sees this role as threefold: firstly, through the development and evaluation of germplasm, such as INGER and IGRCS; secondly, through the supply of intermediary products of new knowledge and techniques; and thirdly, through a Systemwide role in information and knowledge exchange.

IRRI has carefully considered its ecoregional responsibilities. It has discussed with ICRISAT the sharing of responsibilities for resource management issues in the major agroecological zones of Asia. It has also provided additional information on the multicommodity perspective of IRRI's consortium. Due to the diversity of upland farming systems, IRRI considers that neither can it work alone in the uplands, nor can it work on rice in isolation. IRRI considers that integrated systems approaches are necessary. IRRI's upland rice programme emphasizes the rice-based component of upland farming systems within a holistic upland agroecology. In addition, IRRI has developed collaborative programmes with CIAT, CIP and AVRDC on additional crops, and with non-associated centres and ICRAF where system sustainability is a problem. In addition, the proposed 'Uplands for Life' Working Group will integrate bilateral initiatives in the planning process.

IRRI challenges TAC's estimate for 1991 that only 6% of IRRI's resources was allocated to natural resources conservation and management, 12% to germplasm enhancement, 40% to production systems, 6% to policy research, and 34% to institution building. It considers that the actual allocation has been 25%, 25%, 21%, 7%, and 21% respectively. TAC has, therefore, in IRRI's view, very much under-estimated IRRI's work in natural resources conservation and management, which resulted in a too low indicative resource envelope for 1998.

Finally, IRRI indicates that in order to meet the 100% envelope target, it would have to cut 10 senior staff positions currently filled.

4.18.4. Evaluation

On the basis of the IRRI MTP proposal, additional information provided by IRRI and the recent Strategy Statement on Rice Research in the CGIAR, TAC considered that the amount of resources tentatively assigned to IRRI in March 1992 should be revised upwards. IRRI is addressing issues of very high priority to the CGIAR with a focus on upstream and strategic research, has proven capacity to undertake research on these issues effectively and has a well-argued and transparent approach to priority setting. IRRI's programmes provide a good example of how sustainability issues and research on resource management can be incorporated in crop improvement efforts. TAC was pleased with IRRI's response to the issues raised by TAC in its interim commentary and found IRRI's arguments to be persuasive. The CGIAR Strategy Statement on Rice

Research recommends that much greater weight should be given to the priority of rice research in Asia and IRRI's proposed activities correspond to the priorities identified by TAC.

TAC considers that IRRI's Research Programme is of a highly strategic character and provides major potential for breakthroughs. Past performance of the Institute has been excellent, and IRRI has a superb record in obtaining farm level impact. The contributions of IRRI in increasing the production of rice throughout the developing world, but particularly in Asia, are impressive. The recent External Review considered IRRI to be a healthy institution, effectively led by a dynamic management team. The Institute has downsized considerably during the period of the previous MTP. TAC commends IRRI for its effective response to the needs for adjustment. IRRI has effective mechanisms for collaboration with national programmes and other institutions. TAC is pleased about the rapid progress made by IRRI and ICRISAT in developing joint proposals for an ecoregional approach to research in different agroecological zones of Asia.

4.18.5. Recommendations

In view of the recent Strategy Statement on Rice Research in the CGIAR, the recognition that IRRI is addressing issues of very high priority to the CGIAR with a focus on upstream and strategic research, the record of IRRI and its institutional health, TAC considers that the amount of resources tentatively assigned to IRRI in March 1992 should be revised upwards. Consequently, TAC recommends that IRRI be assigned core resources in 1998 in the amount of US\$ 29.4 million (in 1992 dollars), which is equivalent to 114% of the indicative base resource envelope. TAC expects IRRI, however, to include within this level of resources all five mega projects presented in the base MTP proposal, as well as the remaining expansions presented in the 110% scenario. IRRI has also been identified as the convening centre for a Systemwide ecoregional programme for the warm humid and sub-humid tropics and subtropics in Asia, particularly through its upland farming systems consortium. TAC recommends core funding in the amount of US\$ 700,000 for this Systemwide initiative. In addition, the CIMMYT-IRRI rice-wheat cropping systems programme will provide components of the Systemwide ecoregional programme for the warm arid and semi-arid tropics and subtropics in Asia, for which ICRISAT is the convening centre. At the US\$ 280 million vector, TAC recommends that additional US\$ 200,000 be allocated to this Systemwide initiative.

For 1998, IRRI projects complementary funding of US\$ 9.8 million (in 1992 values), representing 33% of its recommended core funding.

For 1994, TAC recommends core funds for IRRI of US\$ 25.5 million in 1992 dollars, or US\$ 27.6 million in current values. Together with complementary funds projected at US\$ 16.8 million, IRRI's total funding in 1994 would amount to US\$ 44.4 million.

IRRI: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					% centers' allocation in 1998
	1990 <--- actual	1991 actual	1992 ---	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars :	29.8	29.8	28.6	25.6	11.1%	27.6	29.8	32.1	34.5	37.2	
1992 dollars :			28.6	24.6		25.5	26.5	27.4	28.4	29.4	11.4%
% Unrestricted :	84%	85%	86%								
Balancing Funds :	11%	10%	9%	4%							
Core Donors:											
Number	25	26	26	24							
% funding, top 3	53%	52%	54%	61%							
% funding, top 5	67%	67%	67%	72%							
% funding, top 10	85%	84%	85%	88%							
b) Complementary											
Current dollars:	9.6	8.3	12.9			16.8				12.4	
1992 dollars:			12.9			15.5				9.8	11%
c) Total											
Current dollars:	39.4	38.1	41.5			44.4				49.6	
1992 dollars:			41.5			41.0				39.2	11%

1998 funding guideline (Chap. 14), in 1992 \$:	25.8
TAC recommendation, as % of guideline :	114%
TAC recommendation, as % of 1992 :	103%
TAC recommendation, as % of 1993 :	119%

II. EXPENDITURE :		1992		1998 Projected	
		(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity					
1. Conservation/Management of Natural Resources		28%	21%	27%	11%
2. Germplasm Enhancement & Breeding		28%	23%	34%	0%
3. Production Systems Development & Management		18%	9%	15%	10%
4. Socio-Econ / Public Pol / Pub Mgmt Research		9%	5%	8%	1%
5. Institution Building		18%	42%	17%	78%
b) By Commodity (details of #2 & #3 above)					
Rice		46%	32%	49%	10%
c) By Region					
Africa		4%		5%	
Asia		91%		91%	
LAC		3%		3%	
WANA		2%		1%	
d) By Object of Expenditure					
Personnel		50%		48%	
Supplies/Services		38%		39%	
Travel		6%		6%	
Depreciation		6%		8%	
Other		0%		0%	
e) By Cost Center					
Research		42% 1/		57%	
Research Support		8%		8%	
Training and Information		25%		12%	
Management and Administration		25%		25%	

1/ Refers to 1991 data

III. STAFFING :		1990	1991	1992	1998	% Change from 1992
International Staff (#)						
Core		67	61	69	76	10%
Complementary		12	16	22	23	5%
Supervisory Staff (#)		475	502	545	443	-19%
Support Staff (#)		1,206	1,188	1,120	787	-30%

IV. FINANCE :		1990	1991	1992	1998	% Change from 1992
Supplemental core revenue :						
(Investment, overhead recovery and other earned income)		2.0	3.1	1.3	1.9	44%
Operating Fund, (Days Operations)		25	14	23	21	-9%
Fixed Assets Value, yr end (\$)		21.8	20.9	25.8	29.8	16%
Capital Fund Balance, yr end (\$)		0.0	1.8	5.0	8.0	61%

For explanation of table content, see section 4.2

4.19. ISNAR

4.19.1. Summary of the MTP Proposal

ISNAR concentrates on strengthening public-sector national agricultural research in developing countries through impartial advice at the request of national governments. The service function is supported by research and training.

ISNAR has broadened its definition of a national programme to include public sector agricultural research institutions, universities and non-governmental and private sector organizations. The revised strategy for the 1990s - 'Service through Partnership' - describes the continuing evolution of its service to national programmes and provides the contextual framework for the MTP proposal. ISNAR will concentrate on three major strategic issues during the MTP period namely: institutional sustainability; assessment of institutional performance; and, institutional implications of increasing research on natural resources management.

ISNAR will seek to multiply the impact of its work through partnerships with other organizations. These links will facilitate the development and dissemination of improved management approaches that can be used to support national systems. ISNAR's strategy foresees an allocation of core resources by 1998 as follows: 40% to sub-Saharan Africa; 30% to Asia; 20% to Latin America; and 10% to WANA.

During the MTP period, ISNAR will focus on three types of research-based service: comprehensive, long-term advice and support to strengthen the overall national agricultural research system for a few selected national programmes (30%); focused short-term support to strengthen specific policy and management components for many national programmes (42%); and research to generate up-to-date knowledge on national systems, research policy issues, research management, and institutional development for all national programmes (28%). ISNAR is planning to operate through a nexus of three administrative programmes and two services: research policies and system strategies programme; research programme design and management; management of organizations and resources programme; collaborative services and training; and information management services.

ISNAR has presented its primary MTP proposal at the 110% of the base resource envelope recommended by TAC, with a detailed breakdown of resources by programme and service, and by category of activity. A breakdown of senior staff years (SSY) was also provided at the base resource envelope. ISNAR has made available to TAC supplementary information on the programmatic implications of funding at 90% of the base resource envelope, as well as additional activities that would be undertaken if an extra US\$ 2 million recommended by the 1991 External Review were to be provided.

4.19.2. Interim Commentary and Programmatic Issues

TAC highlighted a number of issues arising from its initial consideration of the MTP proposal for further elaboration by ISNAR and, where appropriate, comments from the CGIAR. These included: internal priority setting; classification of core and complementary activities; criteria for country selection in respect of comprehensive long-term associations and the duration of such partnerships; criteria for deciding who pays for, and who receives free, services from ISNAR; and, the proportion of research in each of ISNAR's programmes and services.

4.19.3. Centre Response

ISNAR considers all activities it undertakes to fall squarely within its mandate and priorities. It uses the general principle that the closer an activity is to a service benefiting only one individual country the better a candidate it should be for funding by a national system or its donors, either as complementary activities or as reimbursable services. The more an activity serves a general audience, the more likely it will require core funding because of lack of special interest among ISNAR's donors or partners. In practice, however, ISNAR also provides core-funded services to individual national programmes for reasons of equity, regional balance, thematic development, and opportunity for impact.

The nature of ISNAR's mission and goals as a service organization has made it necessary for it to have a good match between in-house skills and likely requests for expertise. To achieve this critical mass, ISNAR must hire and retain staff in anticipation of the demand for services. The principle of 'first come, first served' is applied in this regard to ensure that staff are used most efficiently to address the portfolio of problems presented to ISNAR, at any moment in time. To maintain its critical mass ISNAR requires more resources than would normally be available through core funding. Consequently ISNAR covers the extra cost by selling its services to some national programmes or their donors, following the principle that those who are able, should pay for the services they receive.

With regard to a sunset clause for long-term partnerships, ISNAR plans to conduct periodic joint reviews in order to determine criteria and modalities of continuation, new forms of collaboration or termination.

ISNAR conducts most of its research and development activities in the course of its service work with national programmes. The degree to which such activities can contribute to the creation of knowledge affects the willingness of ISNAR to engage core funds in the activity, and determines the proportion of research in the programme or service. With the help of tables included in the MTP proposal, ISNAR attempts to provide some insight in the scope of research in the various programmes and services.

4.19.4. Evaluation

The MTP proposal outlines the evolution of programme priorities and resource allocations consistent with current and projected financial constraints and the main strategic directions of ISNAR. On the basis of the additional information provided by ISNAR in response to the interim commentary on the MTP proposal and to comments from the CGIAR, TAC considers that the MTP proposal adequately reflects ISNAR's strategy for the 1990s and the recommendations of the 1991 External Review. The priorities among programmes and services, as well as the relative allocation of resources by region, appear to be appropriate.

The allocation of resources among programmes reflect ISNAR's desired strategic balance between work on research policy and systems structure, scientific programme management, and management of the institutional environment. TAC notes that at the 110% budget level, ISNAR has projected an increase in the share of resources allocated for research policy, which it could not do at the 100% scenario without reducing resources below critical mass in other areas.

Most of ISNAR's work is geared towards the production of international public goods. In this regard, TAC commends ISNAR's successful track record in securing complementary funds for core activities. TAC notes and concurs with the rationale used by ISNAR for classifying all of its activities as core, given the nature of ISNAR's mandate as a research-based service, while securing complementary funding to contribute to their implementation.

TAC considers that the priority to be assigned to institution building activities had already been adequately reflected in the tentative planning envelope assigned to ISNAR. ISNAR is institutionally healthy and has excellent collaborative arrangements with national programmes, CGIAR centres, and other relevant partner institutes.

4.19.5. Recommendations

TAC recommends that, for 1998, ISNAR be assigned core resources in the amount of US\$ 6.8 million (in 1992 dollars), equivalent to 100% of the indicative base envelope. TAC saw no compelling reasons for revising ISNAR's resource envelope at the US\$ 270 million vector. TAC recognizes that strengthening of national programmes remains a high priority. It sees an urgent need for a strong research base at ISNAR to facilitate a better understanding of the total context in which agricultural research operates, to support the services provided by ISNAR, to evaluate the impact of ISNAR's services, and to develop and refine new concepts and methodologies aimed at enhancing the quality of judgement by research managers. Therefore, at the US\$ 280 million vector, TAC recommends an increase of US\$ 1.0 million in ISNAR's core funding to enable the Centre to develop a more comprehensive research programme. Research should be strengthened on the strategic aspects of ISNAR's institutional building activities, particularly the role of national programmes in national government policy formulation and decision making for agricultural research and development. This would complement ISNAR's existing research on the operational aspects of the organization and management of national programmes.

For 1998, ISNAR projects complementary funding of US\$ 3.1 million (in 1992 dollars), representing 46% of its recommended core funding at the US\$ 270 million vector.

For 1994, TAC recommends core funds for ISNAR of US\$ 6.1 million in 1992 dollars, or US\$ 6.6 million in current values. Together with complementary funds projected at US\$ 3.4 million, ISNAR's total funding in 1994 would amount to US\$ 9.9 million.

ISNAR: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:						TAC Recommended					% , centers' allocation in 1998	
Actual/ Estimated					% of system total (1993)	1994	1995	1996	1997	1998		
1990 < ---	1991 actual	1992 --->	1993 (est)									
a) Core												
Current dollars :	7.0	7.6	7.0	6.2	2.7%	6.6	7.0	7.5	8.1	8.6		
1992 dollars :			7.0	5.9		6.1	6.3	6.4	6.6	6.8	2.6%	
% Unrestricted :	93%	96%	93%									
Balancing Funds :	26%	14%	19%	23%								
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:						6.8
Number	17	20	18	17		TAC recommendation, as % of guideline :						100%
% funding, top 3	49%	39%	46%	53%		TAC recommendation, as % of 1992 :						97%
% funding, top 5	63%	54%	63%	69%		TAC recommendation, as % of 1993 :						115%
% funding, top 10	90%	81%	90%	94%								
b) Complementary												
Current dollars:	3.0	2.7	3.6			3.4				3.9		
1992 dollars:			3.6			3.1				3.1	3%	
c) Total												
Current dollars:	10.0	10.3	10.6			9.9				12.5		
1992 dollars:			10.6			9.2				9.9	3%	

II. EXPENDITURE :						1992		1998 Projected	
a) By Category of Activity		(Core)		(Comp)		(Core)		(Comp)	
1. Conservation/Management of Natural Resources		0%		0%		0%		0%	
2. Germplasm Enhancement & Breeding		0%		0%		0%		0%	
3. Production Systems Development & Management		0%		0%		0%		0%	
4. Socio-Econ / Public Pol / Pub Mgmt Research		6%		6%		9%		20%	
5. Institution Building		94%		94%		91%		80%	
b) By Commodity (details of #2 & #3 above)									
c) By Region									
Africa		40%				40%			
Asia		30%				30%			
LAC		20%				20%			
WANA		10%				10%			
d) By Object of Expenditure									
Personnel		66%				68%			
Supplies/Services		19%				17%			
Travel		11%				10%			
Depreciation		4%				5%			
Other		0%				0%			
e) By Cost Center									
Research		11%				17%			
Advisory Services		15%				14%			
Institution Building		62%				53%			
Management and Administration		12%				16%			

III. STAFFING :						% Change from 1992	
	1990	1991	1992		1998		
International Staff (#)							
Core	33	34	34		38	12%	
Complementary	10	9	7		15	114%	
Supervisory Staff (#)	0	0	0		0		
Support Staff (#)	48	50	46		50	9%	

IV. FINANCE :						% Change from 1992	
	1990	1991	1992		1998		
Supplemental core revenue :							
(Investment, overhead recovery and other earned income)	1.7	1.2	0.3		0.2	-38%	
Operating Fund, (Days Operations)	62	64	60		51	-15%	
Fixed Assets Value, yr end (\$)	0.5	0.7	0.5		0.5	0%	
Capital Fund Balance, yr end (\$)	0.0	-0.2	0.1		0.0	-100%	

For explanation of table content, see section 4.2

4.20. WARDA

4.20.1. Summary of the MTP Proposal

WARDA's MTP proposal responded to three major challenges facing West Africa: the growing imbalance between regional production and consumption for rice; the increasing degradation of the agricultural resource base as agriculture production in general and rice in particular shifts from extensive to intensive land-use systems; and the future well-being of women, who are heavily involved in rice farming. The MTP proposal built on five elements of WARDA's strategy which define the key ecoregional aspects of its research approach: the environmental orientation of WARDA's operational mandate with a focus on agroecological zones at the institutional level, and agroecosystems at the project level; the focus on resource and crop management; sustainable production systems; the farming systems perspective; and partnership.

The proposed plan presented three scenarios for 1998 at different resource levels: the indicative base resource envelope (US\$ 5.8 million), calling for 16 senior staff years (SSY); at 110% of the indicative resource base (US\$ 6.4 million), calling for 17 SSY; and, at 130% of the indicative base (US\$ 7.6 million), calling for 21 SSY and which WARDA feels is necessary for a viable programme. Under the 110% scenario, there would be a reduction of four SSYs from the 130% level, affecting the Continuum Programme, the Sahel Programme and the Training Programme; the policy analysis work would be conducted through a centre-based collaborating scientist. Under the indicative base scenario, there would be a further reduction in SSY from the Continuum Programme. WARDA also presented a 90% scenario and its implications for programmes and activities.

The plan focused on expanding research activities and achieving a balance between productivity and sustainability goals of the two primary Programmes: the Continuum and the Sahel, and on strengthening the network activities within the Mangrove Swamp Programme. In the continuum ecosystems, WARDA's programme will increasingly address a diverse range of crops, especially in the inland valleys. The Plan allocates 75% of the resources to support core activities in the Continuum, and 25% in the Sahel.

The goal of the Continuum Programme is to develop technology options that will enable resource poor farmers to reduce pressure on uplands and shift towards intensified cultivation of high potential land types. The plan places increased emphasis on research to develop more productive and sustainable cropping systems for inland valley ecosystems within which rice has a strong advantage. The goal of the Sahel Programme is to enable farmers in more favourable irrigated environments to move towards sustainable and economic intensification through double cropping of rice. For less favourable irrigated environments, research will focus on a crop diversification strategy.

Through a new open-centre concept, WARDA will provide an institutional framework within which teams of collaborators including national programmes and advanced institutions, will work together in an integrated regional rice research programme. Through the regional task force mechanism, WARDA will achieve a

complementary and effective sharing of research tasks based on relative advantage, and maximize research spillover.

4.20.2. Interim Commentary and Programmatic Issues

TAC commended WARDA for the transparent and well-structured proposal. TAC requested clarification on why the greater emphasis on the conservation and management of natural resources in WARDA's institutional goal and programmes was not explicitly reflected in the allocation of resources by category of activity. Also, TAC requested information on the extent to which WARDA could use partnerships with advanced institutions to address effectively priority research areas under current funding constraints.

TAC sought an elaboration on what opportunities existed for an integrated programme of research with IITA on rice based cropping systems in the continuum/inland valley ecosystems, as suggested by both the Inter-Centre Rice Review and the WARDA External Review Panel. TAC requested further information on arrangements that are being negotiated for collaboration with IITA and other partners in the Continuum programme, and with IIMI in the Sahel programme. Also, it was not clear to TAC what was being proposed for INGER-Africa, and what the agreement reached by WARDA and IIRI implied for its future.

The financial support expected by WARDA from its Member States during the period of the MTP is relatively small. The capacity of West African national programmes for rice research that could complement WARDA's work is limited. In the light of this, TAC agreed with the recommendation of the External Review Panel that WARDA Member States take steps to bring their contributions to the WARDA budget up to the target level of 5% of the Centre's operating requirements.

4.20.3. Centre Response

WARDA's greater emphasis on the conservation and management of natural resources (category of activity 1) is more accurately reflected under category 3 (production systems improvement), because the focus of research to conserve and manage natural resources is through the vehicle of improved rice-based cropping systems. The proposed increase in the allocation of core resources to category 3 is from 29% in 1992 to 33% in 1998, with allocations to category 1 remaining constant at 11% at the 110% funding scenario.

WARDA will seek collaboration, through its open centre concept, to complement research of its core staff within the objectives and priorities set out in the MTP proposal. In most instances, staff from advanced research institutions will be based at WARDA locations for varying periods of time.

As a basis for the development of an integrated research programme with IITA on rice-based cropping systems in the continuum/inland valley ecosystems, WARDA and IITA have begun a joint collaborative research activity, aimed at characterizing continuum environments. This is now being followed-up with an expanded research project into technology development across West Africa through a consortium mechanism, allowing

other, new collaborators, such as CIRAD and IIMI, to participate. Discussions are also under way with IIMI to establish a collaborative research project in the Sahel.

WARDA agrees that INGER-Africa be maintained as a unique network for the whole of sub-Saharan Africa, sponsored and managed jointly by WARDA and IRRI. Within this strategy, the IRRI liaison scientist, who currently serves as the INGER-Africa Coordinator, will be shifted from IITA to WARDA's headquarters once adequate facilities are available to ensure the continuing stability and effectiveness of INGER. The transfer will take place in agreement with IRRI, and discussions are under way to work out the details of these arrangements.

4.20.4. Evaluation

WARDA's MTP proposal was transparent and well structured, responding innovatively to the major challenges against a background of severe financial difficulties. WARDA incorporated sustainability concerns into its current strategy, and adopted a farming systems approach to research with a strong ecosystem focus. Thus, the priority given to research in the Continuum and in the Sahel was based on the needs and opportunities for increased productivity and sustainability of its cropping systems, and not for rice only.

TAC considered that WARDA's programme is forward looking and innovative. The programme is pragmatic in its mode of operation, given the severe financial difficulties faced by the Centre. WARDA's programme holds out prospects of a significant impact within a reasonable time horizon.

WARDA has an effective partnership with national programmes through an innovative model based on regional working groups and task forces. It has also developed an 'open centre' concept of cooperation with other international organizations and advanced institutions. The two mechanisms are capable of amplifying the scope of WARDA's programmes and maximizing the effectiveness of its resources. The location of WARDA at M'be allows the Centre to serve effectively both the francophone and the anglophone nations, and provide access to a range of rice growing environments.

On the basis of the recent Strategy Statement on Rice Research in the CGIAR, TAC considered that the tentative envelope assigned to WARDA should remain unchanged. While this level of funding could not be justified on the basis of rice research alone, it takes into account the minimum level of resources required for a viable institution. It also recognizes the importance of research on rice-based farming systems in West Africa, and would allow WARDA to continue to play a major role in conducting research on the sustainability of important rice-based farming systems. Both TAC and WARDA have responded to the Group's wish to help WARDA to transform itself into a well-managed institute doing research of high quality. The report of the External Review Panel confirmed that this has been achieved.

4.20.5. Recommendations

TAC recommends that WARDA be assigned in 1998 core resources in the amount of US\$ 5.8 million (in 1992 values), which is equivalent to 100% of the tentative envelope. TAC expects WARDA to play a major role in conducting research on the sustainability of important rice-based farming systems in West Africa. TAC would also encourage WARDA to seek a greater share of its funds from member states.

TAC considers that the complementarities between WARDA and IITA in their work on inland valleys be enhanced through the Systemwide ecoregional programme for the warm humid and sub-humid tropics for sub-Saharan Africa for which IITA has been identified as the convening centre. In this Systemwide initiative, WARDA would have a lead role in the inland valley component within the framework of a consortium arrangement with IITA. Within the US\$ 270 million vector, TAC recommends that US\$ 500,000 be made available for planning and organizing a Systemwide ecoregional programme for the warm humid and sub-humid tropics in sub-Saharan Africa of which an appropriate portion should be assigned to WARDA within the context of the consortium arrangement on inland valleys.

Under the US\$ 280 million vector, WARDA would benefit from funds recommended for the proposed Systemwide fisheries initiative which will allow the integration of fisheries research into ecoregional initiatives, with particular reference to the inland valleys of West Africa.

For 1998, WARDA projects complementary funding of US\$ 3.6 million (in 1992 values), representing 62% of its recommended core funding for that year.

For 1994, TAC recommends core funds for WARDA of US\$ 5.1 million in 1992 dollars, or US\$ 5.5 million in current values. Together with complementary funds projected at US\$ 4.8 million, WARDA's total funding in 1994 would amount to US\$ 10.2 million.

WARDA: FINANCIAL HIGHLIGHTS (US\$ million & percentages)

I. FUNDING:	Actual/ Estimated				% of system total (1993)	TAC Recommended					%, centers' allocation in 1998
	1990 <---<	1991 actual	1992 --->	1993 (est)		1994	1995	1996	1997	1998	
a) Core											
Current dollars:	6.2	6.7	5.8	5.1	2.2%	5.5	5.9	6.3	6.8	7.3	
1992 dollars:			5.8	4.9		5.1	5.2	5.4	5.6	5.8	2.2%
% Unrestricted:	73%	77%	81%								
Balancing Funds:	25%	24%	26%	25%							
Core Donors:						1998 funding guideline (Chap. 14), in 1992 \$:					5.8
Number	15	17	14	12		TAC recommendation, as % of guideline:					100%
% funding, top 3	43%	45%	53%	65%		TAC recommendation, as % of 1992:					100%
% funding, top 5	61%	62%	73%	86%		TAC recommendation, as % of 1993:					118%
% funding, top 10	87%	90%	94%	100%							
b) Complementary											
Current dollars:	1.7	7.6	3.8			4.8				4.6	
1992 dollars:			3.8			4.4				3.6	4%
c) Total											
Current dollars:	8.0	14.3	9.6			10.2				11.9	
1992 dollars:			9.6			9.5				9.4	3%

II. EXPENDITURE:		1992		1998 Projected	
		(Core)	(Comp)	(Core)	(Comp)
a) By Category of Activity					
1. Conservation/Management of Natural Resources		10%	3%	13%	9%
2. Germplasm Enhancement & Breeding		24%	14%	27%	19%
3. Production Systems Development & Management		29%	11%	36%	26%
4. Socio-Econ / Public Pol / Pub Mgmt Research		4%	0%	6%	5%
5. Institution Building		33%	75%	18%	41%
b) By Commodity (details of #2 & #3 above)					
Rice		48%	25%	63%	45%
c) By Region					
Africa		100%		100%	
Asia		0%		0%	
LAC		0%		0%	
WANA		0%		0%	
d) By Object of Expenditure					
Personnel		57%		60%	
Supplies/Services		34%		30%	
Travel		4%		4%	
Depreciation		4%		6%	
Other		0%		0%	
e) By Cost Center					
Research		44%		44%	
Research Support		10%		12%	
Training and Information		21%		13%	
Management and Administration		25%		31%	

III. STAFFING:	1990	1991	1992	1998	% Change from 1992
International Staff (#)					
Core	23	19	19	16	-16%
Complementary	1	1	2	19	850%
Supervisory Staff (#)	9	10	6	8	33%
Support Staff (#)	136	140	197	187	-5%

IV. FINANCE:	1990	1991	1992	1998	% Change from 1992
Supplemental core revenue:					
(Investment, overhead recovery and other earned income)	0.2	0.1	0.3	0.9	174%
Operating Fund, (Days Operations)	21	52	49	30	-39%
Fixed Assets Value, yr end (\$)	3.2	9.6	12.5	10.6	-15%
Capital Fund Balance, yr end (\$)	1.5	-2.6	-4.0	0.0	-100%

For explanation of table content, see section 4.2

