



World Agroforestry Centre

TRANSFORMING LIVES AND LANDSCAPES

Medium-Term Plan 2004-2006

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INTERNATIONAL CENTRE FOR RESEARCH IN AGROFORESTRY ICRAF

Table of Contents

1	Introduction.....	1
	2002.....	1
2	Highlights for 2003.....	3
3	Highlights for 2004-2006.....	7
4	Measures of progress and achievements.....	7
5	Collaboration.....	7
6	Costing centre projects.....	8
7	Centre staffing.....	8
8	Centre financial indicators and capital.....	8
9	Annex 1 – Project portfolio.....	11
10	Annex 2 – Financial tables.....	63

1 Introduction

2002

Overview: The year 2002 was replete with important events and activities involving ICRAF that we should highlight here:

- In 2002 we gave considerable attention to refining and refreshing our Corporate Strategy 2001-2010. We are engaged in a very participatory process aimed at refocusing the ICRAF agenda around several crosscutting, problem-driven research and development themes. These themes will more clearly connect our work to the goals of the CGIAR and to the big emerging issues of the new millennium. The end result of this process will be a sharper focus to the ICRAF agenda, as well as a modified (and more streamlined) organizational structure (see 2003 Overview, page 3).
- In August 2002 we officially adopted a new brand name for ICRAF: the **World Agroforestry Centre**. While our legal name and acronym remain the same, this rebranding more accurately reflects our global reach and the balance we are striving for between excellence in agroforestry research and innovative development partnerships.
- In accordance with the corporate strategy for 2001 to 2010, we carried out the preparatory work needed to initiate a South Asia regional programme at the beginning of 2003. As part of this process, ICRAF convened a regional stakeholder workshop in late November 2002. The workshop was held in New Delhi, with the participation of over 80 key resource persons and institutional representatives from 6 South Asian countries. The consultation enabled us to: more sharply identify the areas of competence, experience and interest of South Asian institutions; elaborate on ICRAF's core competencies, experience and interests that are potentially relevant to the emerging priorities in South Asia; identify priority areas of collaboration where ICRAF can contribute by adding value to agroforestry research and development in South Asia; identify appropriate modes of collaboration that will most cost-effectively achieve the desired collaboration; and develop a resource mobilization strategy that will help ensure that the agreed agenda will be implemented.
- The South Asia regional agroforestry programme was established on January 1, 2003, with offices in New Delhi. We have begun a collaborative R&D programme with the countries of the subcontinent and are actively pursuing funding that will enable the regional initiative to thrive. We recruited a very experienced scientist to serve as our Regional Representative in South Asia, effective January 1, 2003. Dr. Virendra Pal Singh, an Indian national, agreed to take on the task of building the South Asia Regional Programme, in concert with many partners in the region.
- A new Regional Coordinator was recruited for Southeast Asia, following the move of the previous incumbent, Dennis Garrity, to the position of Director-General of ICRAF. The new coordinator, Dr. Meine van Noordwijk, is an ecologist with an in-depth professional experience on many aspects of agroforestry science in the South East Asian context.
- The IFAD supported program on rewarding poor upland farmers for the environmental services they provide to society for Southeast Asia – RUPES – which involves a consortium of partners in the region, was launched in the spring of 2002 under the leadership of our environmental economist, Dr. Marianne delos Angeles; in January 2003, Ms. Fiona Chandler joined the team as project leader.
- In 2002, the System-wide Alternatives to Slash and Burn Programme (ASB) was invited to become a member of the Millennium Ecosystem Assessment. This not only gives a much higher international visibility to ASB, but it also broadens the range of our international collaboration. In turn, this provides various additional mechanisms for effectively delivering international public goods from the ASB work to stakeholders throughout the developing world.
- Another high priority initiative in 2002 was to explore the potential for adapting the Landcare movement to sub-Saharan Africa. This community-based approach to integrated natural resource management has already been effectively introduced and adapted to small-scale upland farmers in the Philippines, where over 500 Landcare groups are currently contributing to sustainable upland development. The Italian Government was instrumental in providing support to this new initiative to develop the Landcare approach in three East African countries.
- Together with CIAT, CIFOR, IPGRI, Embrapa, and the countries of the Amazon basin, in December 2002 we launched a new model for collaboration to address the challenges of sustainable land use in the Amazon. The Intercentre Amazon Initiative (IAI) will be coordinated by a joint CIAT-ICRAF scientist

based with the CIFOR team at the EMBRAPA Amazon Centre in Belem. The IAI will consolidate and coordinate the various CG Centre programmes focusing on the Amazon. It will operate in the context of the Alternatives to Slash-and-Burn System-wide Programme.

- A hydrologist was recruited and based in Uganda to contribute to our work on land and water management for Agroforestry approaches to rehabilitate the watersheds composing the Lake Victoria Basin. He has brought valuable expertise in hydrology to an interdisciplinary team that includes many international and national social scientists and a range of natural and biophysical scientists. With a full complement of key disciplines represented, the team is now producing significant and innovative results on the technical, institutional, and policy fronts.
- In 2002, we formed a strategic alliance with the Tropical Soils Biology and Fertility (TSBF) Institute of CIAT. Together, we are focusing more resources on integrated soil fertility management in Africa, Latin America and South East Asia. Through the synergies we are realizing with this alliance, we are becoming more effective in addressing the complex soil fertility management and livelihood issues confronting farmers in the tropics and sub-tropics.
- In partnership with CIFOR, we commissioned a talented group of external experts to assess the potential future roles of ICRAF and CIFOR in biodiversity research, and to explore possible ways of developing a joint CIFOR-ICRAF programmatic agenda to address biodiversity issues related to trees, forests and livelihoods in a more effective manner. The team's report was published in October 2002 and both the CIFOR and ICRAF Boards accepted the recommendations for close cooperation between the two centres.
- We collaborated with UNEP in the development of an initiative to establish strong linkages between policy-makers and scientists to interject CGIAR science into the international policy fora on global issues related to climate change, biodiversity, and overcoming land degradation.
- Our growing emphasis on marketing and enterprise development was strengthened in 2002 through a strategic alliance with a South African consortium of universities. The focus of this alliance is the commercialization and value adding of miombo fruit products in Southern Africa. A further boost to our marketing

research work has been made possible through the recruitment of a Dutch JPO.

- The Farmers of the Future initiative held a stakeholder round-table in 2002. The round-table meeting enabled us to develop a series of new alliances and funding proposals with FAO and other organizations to move the initiative forward to establishing programmes to use agroforestry as a key entry point in the teaching of natural resource management in rural elementary schools in Africa and Southeast Asia.
- During 2002, we evaluated the potential of adapting and applying distance learning approaches to our training and education activities. While recognizing the technical challenges posed in applying this approach in many developing countries, we expect that on-line distance education will emerge as an important complement to traditional training and education approaches in the coming years. Collaboration with a number of advanced institutions with experience in this area is laying out the bounds of possibility in this domain.
- We were directly involved during the year in the development of five Challenge Programme pre-proposals: climate change, rainforest, sub-Saharan Africa, agrobiodiversity, and water. This involvement included participation in numerous planning and stakeholder meetings, which have all contributed to ensuring that our partnerships and alliances are of the most strategic nature possible, given our mandate and objectives.
- Finally, we completed the development of a new website to reflect our new corporate identity: World Agroforestry Centre. This website will undergo nearly continuous revision and evolution in 2003 and beyond.

Financial results: As shown in table A on the next page, ICRAF's 2002 funding level was 10 % lower than its September submission. This was primarily due to the late start of a number of projects. Even though there is an overall reduction in funding, there was no draw from the reserves; instead the center had a surplus of \$0.17.

Table A: Summary of overall results for 2002				
Item	2002		Difference	
	Sept est.	Actual	US\$m	%
Income				
Unrestricted grants	6.07	6.68	(0.61)	(9)
Restricted grants	17.73	14.81	2.92	20
Other income	0.50	0.61	(0.11)	(18)
Total income	24.30	22.10	2.20	10
Expenditure	24.87	21.93	2.91	13
Operating surplus for the year	(0.54)	0.17	(0.37)	(418)
Appropriation from the capital fund				
Transfer to the operating fund	(0.54)	0.17	(0.37)	

2003

Overview: The year has so far been a very active one, entailing a wide range of activities and events. The Centre's new theme-based structure was launched in February (see below). Changes in senior leadership responsibilities were occasioned by the restructuring process. The responsibilities of the Director of Research and Director of Development were reformulated into two new positions of Deputy Director-General for Programmes, and Director for Strategic Initiatives. Dr. Jan Larman was appointed as Deputy Director General – Programmes. Dr. Laarman brings to his challenging assignment distinguished experience in research leadership in forest and natural resource policy research and many years of development management expertise. Dr. Mohamed Bakarr was appointed as Director of Strategic Initiatives. Dr. Bakarr will be responsible for our science-policy linkages, building and strengthening partnerships and alliances, and strengthening our relationships and communications with investors and clients.

The search for and appointment of these two outstanding individuals was occasioned by fundamental changes in the Centre's organizational structure and mode of doing business.

In developing our new structure, we recognized the challenges of creating a unified research and development platform that brings together the distinct perspectives and cultures of both. For this reason, the principles that underpin our process of change aim to ensure that our new structure:

- Enables the Centre to address big, complex problems through greater integration and unification of research and development
- Moves us closer to being a more flexible, boundaryless organization
- Enables a structure with greater empowerment of professional staff
- Enables the centre to achieve greater impact at the cross-regional and global levels, and
- Enables continued strengthening of the regional programmes to provide solutions relevant to their diverse clients.

The refocusing of our activities has solidified our commitment to the mission of the Consultative Group on International Agriculture Research (CGIAR) and to contributing to the United Nations Millennium Goals. We identified seven major challenges for agroforestry research and development in the coming years:

- 1) Help eradicate hunger through basic, pro-poor food production systems in disadvantaged areas based on agroforestry methods of soil fertility and land regeneration
- 2) Lift more rural poor from poverty through market-driven, locally led tree cultivation systems that generate income and build assets
- 3) Advance the health and nutrition of the rural poor through agroforestry systems
- 4) Conserve biodiversity through integrated conservation-development solutions based on agroforestry technologies, innovative institutions, and better policies
- 5) Protect watershed services through agroforestry-based solutions that enable the poor to be rewarded for their provision of these services
- 6) Enable the rural poor to adapt to climate change, and to benefit from emerging carbon markets, through tree cultivation
- 7) Build human and institutional capacity in agroforestry research and development

Rationale for change

Since its inception 24 years ago, ICRAF has evolved in programme content and in structure in response to the needs of our clients, the poor farmers in the tropics. This change has been most dramatic over the last decade, during which the Centre has focused on becoming a global leader of excellence in the science of agroforestry. In the latter part of the 1990s, Centre leadership recognized that excellence in science, while essential, was not enough to achieve significant impact in farmers' fields through agroforestry and integrated natural resource management. Thus, the Centre shifted its emphasis to "science for development" and created a development division that, working in close collaboration with Centre researchers and numerous

external partners, was meant to help ensure that excellence in agroforestry science would lead to impact. Our approach was to have two divisions, one focused primarily on research and the other on development, with both operating along a research to development continuum and providing feedback one to the other regarding scientific validity and practical relevance.

We have come to realize, however, that research and development objectives are so closely intertwined that approaching them separately leads to missed opportunities and inefficiency, and that we need to fully integrate our work if we are to see new knowledge lead to positive changes in the lives of the rural poor. Our goal now is to build a truly integrated research–development agenda across all our activities.

To do this, we have dissolved the Centre's five research and development programmes and its two major divisions, and we are now rearticulating all our work in terms of four broad-based themes – coherent, significantly large bodies of work that address major problems of global significance. The content of these four themes encompasses our full portfolio of activities. Using themes to plan and implement our agenda is helping us to more fully integrate our work, guide further evolution of the agenda, and ensure impact on substantive problems.

ICRAF's themes at a glance

Our activities are now defined in the context of four major themes:

- 1) Land and People: Land productivity for sustainable livelihoods
- 2) Trees and Markets: Enhancing tree-based systems and markets
- 3) Environmental Services
- 4) Strengthening Institutions

The first three directly link with the goals of the CGIAR: food security, global poverty alleviation, and sustaining the environment and the natural resource base respectively. Embedded within the themes are social, biophysical and policy research activities that generate new knowledge and solutions to address problems faced by farmers, development specialists and policy makers. Each theme is broken down into specific problem areas to help sharpen the focus of our activities.

Land and People: Land productivity for sustainable livelihoods

This theme seeks to understand the basis for sound land management, and then quantify the long-term consequences of agroforestry practices on small-scale agriculture in order to devise locally relevant land management options.

Integrated soil fertility management for improving rural livelihoods – Activities under this focus area foster the use of agroforestry systems to improve soil fertility on smallholder farms.

Soil and water conservation for maintaining productive agricultural landscapes – The aim of this focus area is to identify the principles for integrating agroforestry into soil and water conservation strategies and practices.

Vegetation management for increased system productivity and reduced human vulnerability – This focus area identifies the principles for integrating agroforestry into agricultural systems for the benefits of microclimate regulation, forestalling of desertification, shade for crops, improved pest and disease management.

Land management interventions for reaching the poorest land users – This focus recognizes and highlights the difficulties that poor land users face in adopting improved land management practices, and develops participatory technology development processes so that pro-poor technologies can be more readily adopted.

Trees and Markets: Enhancing tree-based systems and markets

This theme delivers approaches, strategies and methods for product development, tree domestication, and diversification of cultivation systems in response to farmer needs. We develop models for germplasm management policies, as well as systems that conserve genetic resources, allow smallholder farmers to benefit from these resources and protect their property rights.

Enterprise development and enhancement of tree product marketing – Research and development in this focus area fosters tree product enterprises that favour small-scale farmers and entrepreneurs, and improves the functioning of and information on, tree product markets.

Sustainable seed systems and management of genetic resources of agroforestry trees – This work identifies and implements approaches that encourage sustainable tree seed and seedling systems, and wise conservation and use of agroforestry tree genetic resources.

Tree domestication with intensification of tree cultivation systems – This focus area aims to improve the productivity, management, profitability, stability and diversity of individual agroforestry tree species and tree cultivation systems.

Farmer-led development, testing and expansion of tree-based options – We are developing and facilitating wide-scale adoption of tree-based options, working with farmers and combining scientific knowledge with indigenous knowledge.

Environmental Services

Our activities within this theme concentrate on the role of agroforestry systems and landscape mosaics in generating environmental services, and the ways that institutions and incentive systems shape the streams of benefits and costs from alternative land uses.

Pro-poor strategies to enhance watershed functions – This work is refining tree management principles relating to species and their configuration in the landscape for different spatial scales and contexts, developing models to predict these effects, identifying best management practices, and assessing mechanisms for harmonizing individual rationality with social responsibility.

Use and conservation of biological diversity in working landscapes – This initiative aims to advance our understanding of and capacity to manage biodiversity in human-dominated landscape mosaics in the tropics for the benefit of the rural poor.

Climate change mitigation and adaptation for rural development – This research is clarifying the processes of 'adaptation' to climate change, and identifying incentives for smallholder farmers to adopt farming methods that contribute to climate change mitigation.

Strengthening Institutions

This theme aims to strengthen the capacity of institutions to participate effectively in generating and applying innovations in agroforestry, integrated natural resource management, and the environment for improved livelihoods.

Research systems and institutions – In this focus area we are striving to understand the bottlenecks faced by national institutions and to work out joint strategies and programmes to address them.

Development systems and institutions – We are working in partnership with organizations engaged in empowering farmers, disseminating agroforestry and land management options, marketing agroforestry products, and setting and implementing policies impacting on rural livelihoods to ensure the multidirectional flow of knowledge and skills emanating from research and from farmers' experiences.

Educational systems and institutions – In this focus area, we are working with policy makers, education managers and educators to incorporate multidisciplinary approaches to land management into curricula.

Inter-institutional collaboration and knowledge management – We are developing mechanisms that foster better sharing of knowledge and information, through internal knowledge

sharing and by linking with other CGIAR centres, advanced research institutions, and universities across the research-development-education continuum.

Regional programmes

The four themes above are built from – and contribute to – the development of regional strategies, and both regional and thematic strategies will continually evolve in ways that are mutually consistent and reinforcing.

We are continuing to work through regional programmes, which are the best suited to successfully implementing a coherent, integrated agenda across all our themes. In addition, the lessons we have learned from the way the regions apply integrated approaches to their key agroforestry related problems are being extended to our global, cross-regional efforts.

Presently, we are operating in seven regions, with work being conducted in 28 countries:

East and Central Africa – Uganda, Kenya, Ethiopia, parts of Tanzania, and Rwanda.

Southern Africa – Zimbabwe, Zambia, Malawi, and Mozambique, and parts of Tanzania.

The Sahel – Mali, Burkina Faso, Niger, and Senegal.

The African Humid Tropics – Cameroon, Gabon, parts of Nigeria, Ghana, Equatorial Guinea, and the Democratic Republic of Congo.

Southeast Asia – Indonesia, Thailand, the Philippines, southern China, Vietnam, and Laos.

Latin America – The Amazon Basin with staff based in Brazil and Peru

South Asia – India, Bangladesh, Nepal, Bhutan, and Sri Lanka

Leadership

Senior leadership responsibilities have been modified to be more effective in guiding the new more unified research and development structure. The director general will continue to provide overall strategic direction to ensure the Centre achieves its vision and mission. Reporting to the director general will be three directors: the deputy director general – programmes, the director of strategic initiatives, and the director of corporate services.

The deputy director general – programmes will coordinate and facilitate the integrated research and development agenda composed of the regions and themes and provide strategic direction to the integration of themes and regions in a unified frame.

The director of strategic initiatives will lead in enabling the Centre to achieve greater impact in linking our science with global policy fora, including the global conventions, the UN Millennium Goals, and in other key

areas of global debate; and with partners working on agricultural, natural resources and environmental issues.

The director of corporate services will be responsible for building and maintaining effective, high-quality, customer-oriented services throughout the Centre's operations, both at headquarters and globally, covering finance, human resources, and information technology.

Other significant changes/activities/events:

- A new head of our Information and Creative Services Unit arrived in January and we are completely reorganizing and revitalizing this aspect of our operations.
- Efforts to scale up the adoption and impact of agroforestry innovations in Southern Africa have been boosted by strong financial support from CIDA and USAID.
- We are establishing a country office in Ethiopia and exploring the potential for expanded efforts in DRC.
- We continued to contribute very significantly to the development of several challenge programmes dealing with climate change, rainforests, sub-Saharan Africa, agrobiodiversity, and water.
- The inter-centre, inter-disciplinary team addressing issues of productivity and environmental conservation in the Amazon became functional in 2003, and is beginning to play a key role in the implementation of a number of activities relating to rainforest conservation, agrobiodiversity preservation, and climate change.
- A number of changes are now underway in Corporate Services, including a complete, competency-based staff reclassification process for nationally and internationally recruited staff. As part of that initiative, the Centre is redesigning its performance management, staff development, and reward and incentive systems. We are also initiating a full upgrade of our human resources information system, which will serve as the cornerstone to an array of knowledge sharing systems that will be put in place in 2004 and beyond.
- And finally, in November of 2003 we will be observing ICRAF's 25th anniversary, immediately following the Annual General Meeting of the CGIAR in Nairobi. This will be a time for celebrating 25 years of solid research accomplishments and for reviewing and refining our new directions and theme-based agenda.

Budget 2003: The budget for the year 2003 is \$26.54m. This is 16.7% higher than the actual funding position for

2002. We are confident of meeting this projection in 2003.

2. Highlights for 2004

- In 2004, ICRAF will be launching a new corporate strategy, one aimed at more clearly identifying our deliverables and how we will achieve them. This new strategy will give considerable emphasis to how we will be aligning the business of integrated agroforestry research and development with the changing needs and expectations of our many stakeholders. The development of the new strategy document began in the fall of 2003 with a meeting of all regional coordinators, theme leaders and senior leadership. Input from a range of stakeholders will be gained during our 25th anniversary conference in November 2003. The draft strategy will be presented to the Board in April 2004, and become operational shortly thereafter.
- Also beginning in 2004, Swedish Sida's Regional Land Management Unit (RELMA), which has long operated as a hosted institution at ICRAF Headquarters in Nairobi, will become a Sida-funded project administered within the Centre's East and Central Africa region. The strong complementarities between the RELMA agenda – which emphasizes support for the development of better land management – and ICRAF's agenda of research for development, provides a strong rationale for this significant change. We believe the smallholders of the East and Central Africa region will greatly benefit from this strategic joining of research and development strengths in the domain of land management, and that both organizations will gain from the respective strengths and experience of the other.
- We anticipate rapid growth in our South Asia activities as our strategy for the region takes root and as funding for the initiative solidifies. India is proving to be an extremely gracious and forthcoming host, and is making major investments in agroforestry research and development that could contribute substantively to other countries efforts to strengthen Agroforestry R&D. ICRAF has much to gain from this strategic partnership, and together we plan to facilitate the "South-South" creation and transfer of global public goods in agroforestry.
- We see considerable promise for growth in support for our work in the Sahelian region, and for expansion in the African Humid Tropics, especially in the DRC.

- We anticipate further strengthening of our collaborative rainforest initiatives (with CIAT, CIFOR, IPGRI, Brazil, Peru, and the other countries of the Amazon basin), particularly in the context of the Alternatives to Slash and Burn System-Wide Programme.
- Finally, 2004 will witness a growing emphasis on the Centre's role in facilitating the establishment of effective research, development and educational networks related to trees on farms in the tropics, and
- We will be further decentralizing the Centre's R&D and Corporate Services support structure.

3 Highlights for 2004–2006

- Through our newly created Office of the Director of Strategic Initiatives, we will continue to strengthen our collaboration and partnership with NEPAD, the Forum for Agricultural Research in Africa (FARA) and the sub-regional organizations in Africa (ASARECA, CORAF and SACCAR/SADC). Our work on agroforestry research and development is highly supportive of NEPAD's agriculture priorities related to land and water management, market development, and capacity building.
- Our new Corporate Strategy, featuring our "unified frame" for undertaking agroforestry research, development and education, will serve to guide decisions leading to more effective pathways and partnerships, enabling the products of research to be developed more efficiently, and with greater convergence on development priorities.
- As a global research and development centre with ever stronger regional programmes, we will increase our efforts to catalyze cross-regional learning and impact. We are particularly excited about the cross-regional opportunities that may emerge with the development of a new South Asian regional programme vis-à-vis Africa and Southeast Asia.
- As noted in previous MTPs, we will aggressively explore the potential for better harnessing modern information and communication technologies in our training and education efforts. We anticipate greater use of the Internet as a platform for information sharing, as well as a new supplementary tool in training course delivery, over the coming years. We will be active participants in the recently initiated ICT/KM activities being guided by the CGIAR's Chief Information Officer.
- We are vigorously pursuing the development of practical performance measures that can be used

by investors to more clearly see the connections between their own development goals and objectives, and the work of the World Agroforestry Centre. These indicators will also help reveal the solid "value for money" of investments made in the Centre's work.

Comparisons among ICRAF's MTP budget projections are summarized in table B below. The differences between this submission and the previous MTP submission for 2003–2005 are minimal at this time.

Table B: Comparison of the 2003–2005 projections in the MTP 2003–2005 and the projections in MTP 2004–2006

Year	2002	2003	2004	2005	2006
Submission in the MTP 2003–2005 (\$m)	25.84	25.85	27.14	28.43	
% Growth over previous year		0	5	5	
This submission MTP 2004–2006 (\$m)	21.93	26.60	28.67	27.93	28.46
% Growth over previous year		21	8	(3)	2
Difference (\$m)	3.91	(0.75)	(1.53)	0.50	
% Difference	18	(3)	(5)	2	

4 Measures of progress and achievements

As noted above, ICRAF is in the process of developing practical measures of performance that will be reflected in its new Corporate Strategy. These measures will comprise a "nested" set of performance standards that will enable us to gauge the effectiveness and impact of agroforestry research and support for development, of individual scientists, of R&D project teams, and of the Centre at the regional and institutional levels. Monitoring and evaluation of our work in many dimensions is becoming a part of our corporate culture. We have adopted the CGIAR proposed log-frame for our project portfolio, as can be seen on pages 11 – 61.

5 Collaboration

As outlined above, we will continue to engage with a wide range of research and development partners. A major new partner will be NEPAD and its constituent bodies. Collaboration with and support to FARA and the SROs will be growing as we seek more coherent and cost-effective approaches to the conduct of agroforestry research and development. And, as mentioned several times above, ICRAF is moving forward on challenging new thematic and geographical frontiers (e.g., marketing

and enterprise development, basic education, and in South Asia). In all such cases, we will be forging new partnerships to help us achieve our objectives. We will be participating very actively in the Subsaharan Africa Challenge Programme and the Water and Food Challenge Programme. And we will continue to play a lead role in the further development of the pending proposals for the Rainforest, Climate Change, and Desertification Challenge Programmes.

6 Costing centre projects

Overheads: The share of the institutional overhead in the project portfolio is summarized in table C below.

Table C: Overheads 2002-2006, US\$m					
Item	2002	2003	2004	2005	2006
Direct project costs	17.19	20.75	22.27	21.51	22.01
Institutional overhead	4.74	5.85	6.40	6.42	6.45
	27.6	28.2	28.7	29.8	29.3

Non-financial contributions: In addition to the direct support received from various investors, ICRAF receives in-kind contributions in the following forms:

- Staff secondments from ORSTOM, CIRAD, WRI, VVOB, DANIDA, JIRCAS.
- Hosting arrangements with our NARS partners, as well as inputs from their scientists.
- Time contributed by NGOs, IARCs, ARIs and farmers.

Inflation: We have assumed an inflation rate of 5% in our submissions.

Joint ventures with other CGIAR centres:

Many of ICRAF's activities are conducted with other CGIAR research centres. ICRAF is the convening centre for the Alternatives to Slash-and-Burn Programme and the African Highlands Initiative. Collaboration in a range of other eco-regional and System-wide programmes, coordinated by other centres, includes:

- System-wide Livestock Programme (ILRI)
- System-wide Genetic Resources Programme (IPGRI)
- System-wide Information Network for Genetic Resources (IPGRI)
- Desert Margins Initiative (ICRISAT)
- CIFOR is providing the chair of the ASB Steering Committee

- Common Property Rights Initiative (IFPRI)
- Integrated Pest management Initiative (IITA)
- System-wide Water Initiative (SWIM)
- Ecoregional Initiative for the Humid and Sub-humid Tropics of Africa (IITA)
- System-wide program on gender and diversity.

We are very actively involved in the new Challenge Programmes on Sub-Saharan Africa, and Water and Food.

7 Centre staffing

ICRAF continues to be aware of the rapidly changing external environment and is embracing the need to be even more flexible than in the past in its staffing practices, while ensuring transparency and evenhandedness in the process. We are now filling senior international positions using shorter duration contracts. Three-to-five year contracts are the norm in going forward, with the potential for extending contracts beyond that timeframe as long as the work being done remains relevant to our agenda and the performance of the staff member meets the Centre's standards of excellence. An explicit review process concerning continued relevance is implemented, which is aligned with our evolving staff classification and performance management system. We believe this is a more effective approach to ensuring a healthy level of staff turnover and the flow of new ideas and perspectives into the Centre.

8 Centre financial indicators and capital investment

Operating fund: Per the guidelines of the CGIAR, ICRAF aims to eventually establish operating reserves equivalent to 90 days of operating expenses. The operating reserves are composed of cash and cash equivalents and certain receivables less certain liabilities, prepaid grant funds and contract funds received in advance. An intermediate target established by the Board of Trustees was to achieve an operating reserve equivalent to 60 days of operating expenses by the end of 2003.

The balance in the operating reserve as of 31 December 2002 which is presented as, unrestricted (unappropriated) net assets was \$2.34m. This reserve represents approximately 41 days of total 2002 expenses (excluding depreciation). Management is fully committed to building ICRAF's operating fund to an appropriate level, but also recognizes the need to strike an appropriate balance between the amount of core funds that are transferred into the fund and the need for core funds to provide essential flexibility in pursuing ICRAF's research and development priorities. As a result management has

revised the targets as shown in table D below. We now anticipate 50 days at the end of 2006.

Table D: Operating fund movement, US\$m

Year	Annual transfer to/(from) the operating fund	Total fund balance
1998	0.20	1.74
1999	(0.35)	1.39
2000	1.47	2.86
2001	(0.69)	2.17
2002	0.17	2.34
2003	0.40	2.74
2004	0.50	3.24
2005	0.50	3.74
2006	0.50	4.24

Capital investment requirements: We have no major planned capital asset requirements, beyond the normally planned renewal of existing or replacement assets and the acquisition of a few new capital assets required to maintain the momentum of ICRAF's programs.

Current ratios: ICRAF's current ratios from 1997 are summarised below in table E.

Table E: Current asset ratio, 1998-2006

Year	Current assets ratio
1998	1.72
1999	1.45
2000	2.00
2001	1.93
2002	1.79
2003	1.84
2004	1.90
2005	1.93
2006	1.97

The current asset ratio fell in the year 1999 due to the draw down from operating reserves in the year.

Cash flow: No major cash flow problems were encountered in 2002. We do not anticipate any serious cash flow problems through out the period of this MTP. However, we will continue to monitor our cash flow requirements very carefully.

Annex 1 – Project Portfolio

Theme LP: Land and People.....	12
Project LP1: Integrated soil health and fertility management.....	12
Project LP.2: Conservation and rehabilitation of agricultural landscape.....	15
Project LP.3: Vegetative management for improved agricultural productivity and resilience.....	18
Project LP.4: Land management interventions for reaching the poor.....	21
Theme TM: Trees and Markets.....	24
<i>Enhancing tree-based systems and markets.....</i>	24
Project TM.1: Market analysis and support to tree product enterprises.....	24
Project TM.2: Developing sustainable seed and seedling systems and sound management of genetic resources of Agroforestry trees.....	27
Project TM.3: Tree domestication with intensification and diversification of tree cultivation systems.....	30
Project TM.4: Farmer-led development, testing and scaling up of tree-based options.....	32
Theme ES: Environmental Services.....	34
<i>Pro-poor Agroforestry strategies for local benefits and global conservation.....</i>	34
Project ES.1: Enhancing watershed functions.....	34
Project ES.2: Enriching biodiversity in working landscapes.....	37
Project ES.3: Climate change mitigation and adaptation for rural development.....	39
Project ES.4: Harmonizing policy for environmental stewardship and rural development.....	41
Theme SI: Strengthening Institutions.....	43
<i>Improving capacities for effective research, development and education in Agroforestry.....</i>	43
Project SI.1: Strengthening agricultural research.....	43
Project SI.2: Development systems and institutions.....	45
Project SI.3: Educational systems and institutions.....	45
Project SI.4: Inter-institutional collaboration and knowledge management.....	48
ASM Systemwide Programme.....	49
African Highlands Ecoregional Programme.....	54
CGIAR Gender and Diversity Program.....	57

Theme LP: Land and People

Project LP.1 Integrated soil health and fertility management

Project goal	To identify the principles for using agroforestry systems in integrated soil fertility management strategies of smallholder farming systems	
Indicators	Agroforestry options for soil fertility management strategies will be widely available to and used by farmers in the developing world. Agroforestry options will be integrated into soil fertility management programmes of extension and development organizations throughout the developing world.	
Project purpose	Outputs	Activities
Purpose LP.1.1. To develop an understanding of the nature of soil fertility problems at different scales	<p>Output LP.1.1.1. Efficient methods developed for wide area assessment of a range of soil fertility parameters.</p> <p>Output LP.1.1.2. Tools for integration of local indigenous knowledge with researcher knowledge for improved local problem identification of soil constraints.</p> <p>Output LP.1.1.3. Empirical information generated on soil constraints and health, including physical, biological, and chemical attributes.</p>	<p>Activity LP.1.1.1. Develop analytical methods for predicting soil chemical, physical, and biological parameters from diffuse reflectance spectral data.</p> <p>Activity LP.1.1.2. Build up spectral libraries of soils.</p> <p>Activity LP.1.1.3. Compile and assess local indigenous knowledge of soil health parameters and synthesizing it with researcher knowledge.</p> <p>Activity LP.1.1.4. Analyze the spatial and temporal dimensions of soil fertility problems.</p> <p>Activity LP.1.1.5. Production of datasets, maps, policy briefs that articulate soil health problems.</p> <p>Activity A.1.1.6. Training of scientists in soil health problem diagnosis and analysis.</p>
Indicators: Policy makers, extension, and development organizations design policies and programmes that incorporate improved information on soil fertility problems.	Indicators: National agricultural research institutes acquire and use improved methods and tools for assessing soil health problems. Databases and maps depicting key soil health indicators are available for use by decision makers in soil fertility management. Scientific publications and presentations at major international fora.	Milestones: Soil spectral lab established for Kenya by 2004. Guidelines for assessing soil health parameters through spectral analysis completed by 2005. Methods for assessing within farm-soil fertility gradients identified by 2005. Maps and policy briefs on soil quality parameters for Kenya by 2004 and for Malawi in 2005. Scientists in national agricultural research institutes in Kenya and Uganda trained in spectral methods in 2004.
Purpose LP.1.2. To analyze impacts, synergies, and trade-offs of promising integrated soil fertility systems.	<p>Output LP.1.2.1. Resource requirements for alternative agroforestry based soil fertility options measured.</p> <p>Output LP.1.2.2. Effects of alternative agroforestry options on soil health, productivity, and profits under different natural and market conditions measured.</p> <p>Output LP.2.2.3. Principles for managing nutrient cycles under agroforestry and other land uses developed.</p>	<p>Activity LP.1.2.1. Assess labour, cash, and land requirements for fertilizer trees.</p> <p>Activity LP.1.2.2. Assess yields and profits from researcher and farmer managed trials conducted at a range of sites.</p> <p>Activity LP.1.2.3. Evaluate nutrient cycling processes under agroforestry systems and other land uses.</p>

	<p>Output LP.1.2.4. Best-bet soil fertility management practices identified for major agricultural systems.</p>	<p>Activity LP.1.2.4. Monitor soil fertility and productivity in selected sites over time.</p> <p>Activity LP.1.2.5. Formulate recommendation guidelines using scientific results and local expert opinion.</p>
<p>Indicators: A greater range and more effective agroforestry based soil fertility management options are available for use by extension, development organizations and farmers.</p>	<p>Indicators: Inputs to and effects of different agroforestry based soil fertility management options synthesized and disseminated in scientific and popular publications. Recommendation domains matching agroforestry interventions to specific soil health problems and contexts.</p>	<p>Milestones: Farmer resource requirements for agroforestry based soil fertility management practices compiled for all systems in eastern and southern Africa by 2004. Synthesis of yield and profit effects of improved fallows, biomass transfer, and intercrop systems for eastern and southern Africa completed by 2004. Synthesis of effects of improved fallow systems on nutrient cycling processes for Africa by 2004. Methodology for long-term monitoring of soil health for large areas completed by 2004. Baseline of soil health parameters for wide areas of Kenya by 2004 and for Uganda by 2005. Best-bet agroforestry-based soil fertility management practices delineated for major cereal production systems of eastern and southern Africa by 2005.</p>
<p>Purpose LP.1.3. To promote policy awareness of soil fertility problems, causes, and opportunities for solutions</p>	<p>Output LP.1.3.1. Synthesis of knowledge on soil health problems and causes.</p> <p>Output LP.1.3.2. Synthesis of knowledge on management principles for improved soil fertility management.</p> <p>Output LP.1.3.3. Major multi-partner research and development initiatives to address soil fertility problems.</p> <p>Output LP.1.3.4. Establishment and strengthening of global and regional networks to address issues of soil health.</p>	<p>Activity LP.1.3.1. Present data on soil fertility conditions, trends, and solutions at key international and national fora.</p> <p>Activity LP.1.3.2. Produce briefs on soil targeted towards policy makers and high-level decision makers.</p> <p>Activity LP.1.3.3. Proactively engage in major research and development initiatives where soil health issues are critical.</p> <p>Activity LP.1.3.4. Catalyze and support global and regional networks related to land and soil management.</p>
<p>Indicator: Soil fertility and integrated soil fertility management options are priority issues for agricultural development in global and national policy documents.</p>	<p>Indicator: Soil fertility problems are key driving forces of major research and development programmes such as the challenge programmes and regional research networks. Lessons learnt on soil health problems and solutions disseminated through global fora and through briefs.</p>	<p>Milestones: Major role in the challenge programme for sub-Saharan Africa in 2004. Advisory roles formalized with the soil fertility initiative and key international institutions dealing with Africa (NEPAD, World Bank, UN Hunger Task Force, UN-ECA) by 2004. Series of briefs on soil fertility problems and options for Africa launched in 2004. Establishment of a consortium for soil fertility research in southern Africa in 2004.</p>

Purpose LP.1.4. To facilitate dissemination and adoption of promising agroforestry systems to address soil infertility.

Output LP.1.4.1. Recommendation domains developed for application of management principles and specific technologies.

Activity LPA.1.4.1. Synthesize cross-site evidence of agroforestry system performances.

Output LP.1.4.2. Decision support tools and soil fertility management guidelines developed.

Activity LP.1.4.2. Build GIS databases of relevant descriptors of recommendation domains and delineating zones.

Output LP.1.4.3. Capacity built among development partners to enable the dissemination of soil fertility management principles and specific technologies.

Activity LP.1.4.3. Test dissemination methods and outputs to reach extension, development organizations and farmers.

Activity LP.1.4.4. Publication of extension materials.

Activity A.1.4.5. Training on principles and applications of agroforestry for soil fertility management for research, extension and development.

Activity LP.1.4.6. Formulate strategies for effective germplasm supply systems.

Indicator:

Farmers adopting agroforestry based soil fertility based options.

Indicator:

Number of organizations and individuals trained in soil fertility management and agroforestry options. Dissemination materials on soil management acquired and used by practitioners. Recommendation domains matching agroforestry interventions to specific soil fertility problems and contexts.

Milestones:

Strategies for germplasm supply systems for all fertilizer trees in Africa by 2004. GIS databases of key variables conditioning performance of trees for soils assembled for Kenya, Uganda, Malawi, Zambia, and Zimbabwe by 2005. Extension materials for agroforestry based soil fertility management systems in Kenya, Uganda, and Zambia by 2003. For Malawi and Zimbabwe by 2004. Synthesis of most effective dissemination methods for eastern and southern Africa by 2005. Training of all extension officers in most promising target zones for agroforestry based soil fertility management in eastern and southern Africa by 2005.

Project LP.2 Conservation and rehabilitation of agricultural landscapes

Project goal	To identify the principles for integrating agroforestry into soil and water conservation strategies. Agroforestry options for soil conservation and rehabilitation strategies will be widely available to and used by farmers in the developing world. Agroforestry options will be integrated into soil conservation and rehabilitation programmes of extension and development organizations throughout the developing world.	
Indicators		
Project purpose	Outputs	Activities
Purpose LP.2.1. To identify the nature of the land degradation and soil erosion problem in a landscape context.	<p>Output LP.2.1.1. Efficient methods developed for wide area assessment of severity of land degradation.</p> <p>Output LP.2.1.2. Tools for integration of local indigenous knowledge with researcher knowledge for improved local problem identification of land degradation processes.</p> <p>Output LP.2.1.3. Empirical information generated on land degradation processes and causes, such as land use change, and their relation to overall soil health.</p>	<p>Activity LP.2.1.1. Evaluating the capability of diffuse reflectance spectral data to predict soil degradation status and risks.</p> <p>Activity LP.2.1.2. Building up of a land degradation risk database.</p> <p>Activity LP.2.1.3. Compile and assessing local indigenous knowledge of soil degradation characteristics, dynamics, and causes.</p> <p>Activity LP.2.1.4. Analysis of driving factors of land use change in agroecosystems.</p> <p>Activity A.2.1.5. Production of datasets, maps, policy briefs that articulate soil degradation problems.</p>
Indicators: Policy makers, extension, and development organizations design policies and programmes that incorporate improved information on land degradation and soil erosion problems.	Indicators: National agricultural research institutes acquire and use improved methods and tools for assessing land degradation problems. Databases and maps depicting key land degradation problems and causes are available for use by decision makers in soil fertility management.	Milestones Maps and databases of land degradation risks for Kenya by 2004. Malawi for 2005. Methods for predicting future land degradation hot spots developed by 2004. Analysis of factors behind land use change completed in Kenya, Uganda, Malawi, Indonesia, and Thailand by 2004. Maps and policy brief on soil land degradation parameters for Kenya by 2004 and for Malawi in 2005.
Purpose LP.2.2. To analyze the impacts, synergies and tradeoffs of agroforestry systems on conservation, water use and productivity.	<p>Output LP.2.2.1 Water use efficiency of alternative agroforestry systems measured.</p> <p>Output LP.2.2.2. Effects of agroforestry systems on situ water conservation/infiltration measured.</p> <p>Output LP.2.2.3. Costs of land degradation and benefits of land rehabilitation assessed.</p>	<p>Activity LP.2.2.1. Analyze water use of alternative agroforestry systems and the economic returns per unit of water.</p> <p>Activity LP.2.2.2. Analyze water lateral and vertical flows at farm level of alternative agroforestry systems.</p> <p>Activity LP.2.2.3. Measure the costs of land degradation / benefits of improved land management at farm level.</p> <p>Activity LP.2.2.4. Monitor soil erosion / degradation in selected sites over time.</p> <p>Activity LP.2.2.5. Formulate recommendation guidelines using scientific results and local expert opinion.</p>

Indicators:

A greater range and more effective efficient agroforestry systems for soil and water conservation are available for use by extension, development organizations and farmers.

Purpose LP.2.3 To integrate farm scale soil and water conservation agroforestry options and rehabilitation strategies into watershed management strategies.

Indicator:

Agroforestry conservation and rehabilitation systems are incorporated into watershed management projects.

Purpose LP.2.4. To promote policy awareness and facilitate dissemination and adoption of promising agroforestry systems to address soil erosion / degradation.

Indicators:

Agroforestry Measurements of water use efficiency of key agroforestry systems and species across different ecozones.
Effects of different agroforestry systems and species on water flows disseminated in scientific and popular publications.
Guidelines for the role of agroforestry in conservation and rehabilitation across different land management situations.

Output LP.2.3.1. Lessons for effective community level management of soil and water conservation developed.

Output LP.2.3.2. Models developed to identify appropriate spatial configurations of agroforestry and other interventions for village level conservation strategies.

Indicator:

Guidelines for agroforestry based conservation and rehabilitation options used by watershed management projects.
Watershed intervention strategies based on use of ex ante impact assessment tools.

Output LP.2.4.1. Recommendation domains developed for application of management principles and specific technologies.

Output LP.2.4.2. Decision support tools and soil fertility management guidelines developed.

Output LP.2.4.3. Capacity built among development partners to enable the dissemination of soil conservation management principles and specific technologies.

Output LP.2.4.4. Synthesis of knowledge on management principles for soil and water conservation at farm and village levels.

Milestones:

Effects of improved fallows on water flows for Kenya and Zambia completed in 2004. For intercrop nutrient systems in Malawi in 2005.

Water use efficiency for smallholder timber systems assessed in Uganda and Kenya in 2006.

Costs of degraded land on smallholder crop production and income for Kenya by 2004.

Farmer resource requirements for conservation and rehabilitation practices compiled for eastern Africa by 2004.

Methodology for predicting land degradation hot spots by 2004.

Baseline land degradation parameters for wide areas of Kenya by 2004 and for Malawi by 2005.

Best-bet conservation and rehabilitation practices delineated for Kenya by 2004.

Activity LP.2.3.1. Analyze farmer preferences for using alternative SWC options on various farm niches.

Activity LP.2.3.2. Develop farm scale hydrological models for assessing in situ water use and external flows under different agroforestry systems.

Activity LP.2.3.3 Assess optimal farm level configurations of agroforestry and vegetative systems for reducing soil and water erosion.

Milestones:

Synthesis of farmer use of conservation practices for eastern and southern Africa by 2004. For Philippines and Indonesia by 2005.

Ex ante impacts of agroforestry systems on water use efficiency and flows for Kenya, Indonesia, Thailand, and the Philippines by 2005.

Activity LP.2.4.1. Synthesize cross-site evidence of agroforestry system performances.

Activity LP.2.4.2. Build up GIS databases of relevant descriptors of recommendation domains and delineating zones.

Activity LP.2.4.3. Test and develop communication tools to reach extension, development organizations and farmers.

Activity LP.2.4.4. Publication of extension publications and policy briefs.

Indicator:

Soil conservation and rehabilitation are priority issues for agricultural development in global and national policy documents.

Indicator:

Land degradation and rehabilitation problems are key driving forces of major research and development programmes such as the challenge programmes and regional research networks.

Lessons learnt on soil conservation and land rehabilitation problems and solutions disseminated through global fora and through briefs.

Activity LP.2.4.5. Training of research, extension and development organizations on best bet methods for improved soil and water management through agroforestry.

Activity LP.2.4.6. Formation of strategies for effective germplasm supply systems.

Activity LP.2.4.7. Dissemination of results and materials in various national and international venues.

Activity LP.2.4.8. Proactive engagement in major research and development initiatives where land degradation and rehabilitation issues are critical

Milestones:

Advisory roles formalized with key international institutions dealing with land degradation in Africa (NEPAD, World Bank, UN-ECA) by 2004. Series of briefs on land degradation and soil protection for Africa launched in 2004.

Increased role in the Conservation Tillage Network for Africa in 2004. Advisory role to UN-ECA on land tenure and land management in 2004.

Project LP.3 Vegetative management for improved agricultural productivity and resilience

Project goal	To identify the principles for managing agroforestry systems in order to enhance crop and livestock productivity and resilience.	
Indicator	Agroforestry management principles for supporting crop and livestock systems will be widely available to and applied by farmers in the developing world. Agroforestry management principles to support crop and livestock production systems will be integrated into programmes of extension and development organizations throughout the developing world.	
Project purpose	Outputs	Activities
Purpose LP.3.1. To identify major problems and prioritise the opportunities for improved crop and livestock production or buffering capacity through management of agroforestry systems.	Output LP.3.1.1 Factors contributing to increased incentives for the development of agroforestry for supporting crop and livestock systems identified.	Activity LP.3.1.1. Analyze market and cost benefit trends for emerging crop and livestock opportunities where agroforestry can play a role.
	Output LP.3.1.2. Models developed for predicting the emergence or intensification of agroforestry systems to support crop and livestock production.	Activity LP.3.1.2. Develop and disseminate ex ante impact assessment models to predict long-term system productivity and variation under alternative land use and management systems.
Indicator: The contribution of agroforestry as support to other farm production systems is acknowledged and valued in documents of policy, development, and research organizations.	Indicator: Agroforestry systems are integrated into emerging crop and livestock system policies, extensions messages and development guidelines.	Milestones: Training on agroforestry – soil –crop models for highland countries of East Africa by 2004. Priority target zones for fodder trees and live fences in Africa delineated by 2005. Database on smallholder agricultural production system trends developed for Kenya in 2004. For Uganda, Malawi, and Zambia in 2005.
Purpose LP.3.2 To understand trade-offs between productivity, resilience, and profits of integrated tree, crop, and livestock systems under alternative agroforestry management practices.	Output LP.3.2.1. Options for managing pests and diseases under alternative agroforestry systems and species evaluated.	Activity LP.3.2.1 Analyze plot, farm, and village level major changes in prevalence and populations of pests and disease with introduction or spread of agroforestry systems.
	Output LP.3.2.2. Assessment of resource efficiency, profitability, and system resilience of integrated tree, crop and livestock systems.	Activity LP.3.2.2 Develop options for management of pests and diseases in agroforestry systems.
	Output LP.3.2.3. Synthesize local knowledge on the management of agroforestry systems that support crop or livestock systems.	Activity LP.3.2.3. Evaluate effects of agroforestry management on crop and livestock systems.
	Output LP.3.2.4. Best-bet management principles of agroforestry systems in integrated tree, crop, and livestock systems identified.	Activity LP.3.2.4. Assess inputs, outputs and profits of agroforestry systems that support crop and livestock systems.
		Activity LP.3.2.5. Evaluate indigenous management of integrated tree, crop, and livestock systems.
		Activity LP.3.2.6. Formulate recommendation guidelines using scientific results and local expert opinion.

Indicator:

A greater range and more effective agroforestry management options for supporting crop and livestock systems are available for use by extension, development organizations and farmers.

Indicator:

Recommendation domains for managing pest and disease effects in integrated tree, crop and livestock systems.
Inputs into and effects of different agroforestry systems that support crop and livestock systems synthesized and disseminated in scientific and popular publications.
Recommendation domains for improved management practices include a range of locally developed innovations.
Recommendation domains matching agroforestry interventions to specific crop and livestock production opportunities.

Milestones:

Effects of improved fallow species on pests measured and synthesized for eastern and southern Africa by 2004.
Options for minimizing pest effects in improved fallow systems for eastern and southern Africa by 2004.
Options for improved coffee production and resilience in Kenya and Uganda by 2005.
Options for fodder trees tested and developed in Ethiopia by 2005.
Profitability analysis of fodder systems for Uganda, Ethiopia, Mali, and Malawi by 2004.
Profitability analysis of live fences for Sahelian countries by 2004.
Synthesis of local knowledge of integrated homegarden management for the highlands of east Africa and for India by 2005.

Purpose LP.3.3. To facilitate dissemination and adoption of agroforestry systems to improve crop and livestock systems.

Output LP.3.3.1. Tools developed to assist decision makers to identify and value tradeoffs from alternative management practices of highly integrated agroforestry systems.

Activity LP.3.3.1. Develop models and practical productivity and profitability assessment tools.

Output LP.3.3.2. Best practices for facilitating or strengthening village level mediation processes for resource or output conflicts identified

Activity LP.3.3.2. Develop ex ante tools for predicting possible conflicts over resources or outputs.

Output LP.3.3.3. Capacity built among development partners to enable the dissemination of information agroforestry systems that support crop and livestock systems.

Activity LP.3.3.3. Analyze long-term system productivity from alternative uses of resources and outputs.

Activity LP.3.3.4. Training or research, extension and development on improved agroforestry management practices that enhance crop and livestock systems.

Activity LP.3.3.5. Formulation of strategies for effective germplasm supply systems.

Indicator:

Farmers adopting agroforestry systems in support of crop and livestock systems.

Indicator:

Guidelines on how to evaluate the net benefits from using or integrating agroforestry into crop and livestock systems.

Number of organizations and individuals trained in agroforestry options for supporting crop and livestock systems.

Dissemination materials on agroforestry management in integrated tree, crop, and livestock systems acquired and used by practitioners.

Milestones:

Strategies for germplasm supply systems for fodder trees in Kenya and Uganda by 2005.

Strategies for germplasm supply systems for live fences in Mali and Burkina Faso by 2005.

GIS databases of key variables conditioning fodder tree performance assembled for Kenya and Uganda by 2004.

Extension materials for fodder tree systems translated into local languages and disseminated in Kenya and Uganda, and Zambia by 2005.

Training of all extension officers in most promising target zones for fodder trees in Kenya and Uganda by 2005.

Training of all extension officers in most promising target zones for live fences in Mali and Burkina Faso by 2005.

Project LP.4 Land management interventions for reaching the poor

Project goal	To mainstream a pro-poor research and development agenda into agroforestry innovations for improved land management		
Indicator	Agroforestry systems for improved land management will be available to and adopted by the rural poor.		
Project purpose	Outputs	Activities	
Purpose LP.4.1. To develop participatory technology development processes that promote uptake and adaptation by the poor.	Output LP.4.1.1. Evaluation of the implications of poverty on the capacity to invest in alternative land management principles.	Activity LP.4.1.1. Analyze land management practices of households differentiated according to social and economic class.	
	Output LP.4.1.2. Empirical assessment of the spatial patterns of poverty problems and implications for targeting of agroforestry research and development efforts.	Activity LP.4.1.2. Integrate poverty, gender, and human health problem assessment into the broader agroforestry research and development agenda.	
	Output LP.4.1.3. Methods to effectively involve the poor in existing dissemination approaches identified.	Activity LP.4.1.3. Analyze participation of the poor in various forms of collective action.	
	Output LP.4.1.4. Alternative methods for strengthening local innovation in agroforestry-based land management practices evaluated.	Activity LP.4.1.4. Identify effective ways to strengthen farmer and group experimentation with agroforestry systems.	
Indicator: The rural poor participate in research and training activities involving agroforestry systems.	Indicators: Agroforestry options identified for the poor and other vulnerable groups. Poverty reduction programmes incorporate spatial dimensions of poverty into strategies for intervention in agriculture and agroforestry. Attendance by the poor at interactions with research and development organizations. The number of poor participating in groups or other forms of collective action. Approaches for increasing local innovation in agroforestry used by extension and development organizations.	Milestones: Links between poverty and land management synthesized for eastern Africa by 2004 and for southern Africa by 2005. National agroforestry strategies for reaching the poor in Kenya, Uganda and Malawi by 2005. For all of eastern and southern Africa by 2006. Agroforestry networks in Kenya, Uganda, Rwanda, and Zambia include targets in reaching the poor by 2005. Landcare groups expand 6 districts in Uganda by 2005. Participation of the poor in common interest groups in Kenya by 2004 and in Uganda by 2005.	
Purpose LP.4.2. To improve systems for information flow to communities and to different social groupings within communities.	Output LP.4.2.1. Alternative methods for knowledge acquisition and dissemination on soil constraints and land management practices evaluated.	Activity LP.4.2.1. Analyze effectiveness of alternative types of information messages and media in reaching different types of smallholder farmers.	
	Output LP.4.2.2. Trained development and extension personnel in approaches to reach the poor and vulnerable with agroforestry options.	Activity LP.4.2.2. Test and develop innovative methods of training and information dissemination for reaching the poor, women, and other vulnerable groups.	
		Activity LP.4.2.3. Training of development and extension personal in approaches for reaching and impacting on the rural poor, women, and other vulnerable groups.	

Indicator:

The poor have equal access to information on agroforestry systems as do other members of the population.

Indicators:

Cost effective methods identified for reaching the poor with information for alternative agroforestry systems and management principles.
Use of best bet methods for reaching the poor by extension and development organizations.

Milestones:

Identification of cost effective methods for reaching the poor in Kenya by 2004 and Uganda by 2005.

Identification of HIV/AIDS priority target areas for Kenya, Malawi, Mozambique, and Zambia by 2005.

Training of extension agents in best bet methods for reaching the poor in Kenya and Uganda by 2005. In Malawi and Zambia by 2006.

Purpose LP.4.3. To promote policy change that will enhance incentives for improved land management by the poor.

Output LP.4.3.1. Synthesis of lessons on identifying and reaching the poor through agroforestry.

Activity LP.4.3.1 Analyze poverty, empowerment, gender, HIV/AIDS and other human health problems that affect agroforestry management.

Output LP.4.3.2. Synthesis of impacts of agroforestry on poverty.

Activity LP.4.3.2. Produce policy briefs on poverty / social problems and poverty reduction through agroforestry.

Output LP.4.3.3. Improved policies for enhancing investment in land management by the poor identified.

Activity LP.4.3.3. Disseminate results and materials in various national and international venues related to rural poverty.

Activity LP.4.3.4. Proactively engage in major policy, research and development initiatives where rural poverty / social issues are critical.

Indicator:

Policies enacted that remove constraints and disincentives for the poor or vulnerable to invest in agriculture and agroforestry.

Indicators:

Workshops, meetings and briefs to disseminate approaches for reaching the poor and other vulnerable groups with information and germplasm.
Workshops, meetings and briefs for policy makers to demonstrate the impacts of agroforestry on poverty.
Policy reforms for improving investment incentives for the poor and other vulnerable groups debated at national and local levels.

Milestones:

Policy and institutional options to promote agricultural and agroforestry investment by HIV/AIDS households in Kenya, Malawi, Mozambique, and Zambia by 2005.

Briefs on the nature of poverty and opportunities for agroforestry for Kenya, Uganda, and Malawi by 2004.
National stakeholder workshop on smallholder poverty in Kenya in 2004.
Presentation on poverty and land management for Uganda and Ethiopia in Japan 2004.

Participation in advisory group on land tenure for the UN-ECA 2004-05.

Key roles in the development of major projects with NEPAD for Africa by 2004.

Purpose LP.4.4. To conduct monitoring and impact assessment that will inform the pro-poor research and development agenda.

Output LP.4.4.1. Syntheses of knowledge on key constraints to adoption of improved land management practices at community and household levels.

Activity LP.4.4.1. Analyze farmer adoption / adaptation of agroforestry systems for land management according to social and economic distinctions between households.

Output LP.4.4.2. Syntheses of success factors in reaching the poor and vulnerable groups in pilot areas and scaling up approaches.

Activity LP.4.4.2. Analyze factors promoting effective scaling up and out from sites to impact on the poor throughout nations and regions.

Output LP.4.4.3. Assessment of feasibility, profitability, acceptability, and adoption patterns for agroforestry-based land management options.

Activity LP.4.4.3. Evaluate agroforestry system performance managed by households differentiated according to social and economic class.

Output LP.4.4.4. Assessment of the direct and indirect impacts of agroforestry-based land management options on households.

Activity LP.4.4.4. Monitor the impact of agroforestry based land management options on plot and household level social, economic, and environmental indicators over time.

Indicator:

The use and impact of agroforestry on poor households and communities is known and improves over time.

Indicators:

Reports and guidelines on the use and impacts of different agroforestry systems on the poor. Dissemination strategies promote best bet agroforestry systems for reaching the poor. Agroforestry research programmes investigate ways to better reach the poor through technology or institutional interventions.

Milestones:

Synthesis of adoption of agroforestry systems by the poor and other vulnerable groups in Kenya in 2004. Analysis of adoption of agricultural technologies and land management practices by the poor in Uganda, Kenya, and Ethiopia by 2004. Synthesis of use of agroforestry by women farmers in eastern and southern Africa by 2005. Baseline impact assessment of the impact of agroforestry and other agricultural technologies on the poor and other vulnerable groups in Uganda, Kenya, and Ethiopia by 2004.

Theme TM: Trees and Markets

Enhancing tree-based systems and markets

Project TM.1 Market analysis and support to tree product enterprises

Project goal	To increase the financial, social and natural capital of smallholder farmers through tree-based enterprises with strong market linkages	
Indicators	Existing tree product enterprises characterised and improved, and new tree products supported in at least 3 global regions by 2006	
Project purpose	Outputs	Activities
<p>Purpose TM.1.1 To understand the structure and performance of tree product markets including key policy bottlenecks.</p> <p>Indicators: Market analyses are used in project planning, research, extension and policymaking at national and regional levels, and CGIAT Challenge Programmes.</p> <p>Agroforestry tree product market knowledge widely available through literature and website sources by 2006</p> <p>Positive policy reform in forest and tree product sector by 2006.</p>	<p>Output TM.1.1 Market chain and policy analysis completed for key tree product subsectors (e.g., extractives, fodder, fruit, fuelwood, medicine, timber).</p> <p>Indicators: Analyses published in peer-reviewed journals.</p> <p>Policy workshops attract key policymakers and private sector.</p> <p>Farmers, traders and merchants benefit from improved policies, knowledge and consistent supply/quality of products.</p>	<p>Activity TM.1.1.1 Conduct subsector analyses of sourcing, prices, margins, flows, timing, actors and volumes of tree products.</p> <p>Milestones: At least ten analyses have been carried out of key tree products in at least four global regions by 2006, including but not limited to smallholder timber, fine coffees in east Africa (with CIRAD), AF products and NTFPs in Congo Basin (with CIFOR), shea products in Sahel, medicinals, fruits in Uganda and southern Africa.</p> <p>Activity TM.1.1.2 Convene policy workshops and produce policy briefs in collaboration with a range of partners.</p> <p>Milestones: Hold charcoal workshops (with RELMA) by 2004. Convene smallholder timber workshop by 2004. Identification of policy constraints for at least 3 tree product enterprises will be made by 2005. Work with high level and local policymakers on forest and tree policies in at least 2 global regions by 2005.</p>
<p>Purpose TM.1.2 To promote demand-based market approaches.</p>	<p>Output TM.1.2.1. Promising tree products prioritised by producers, consumers and merchants and new products identified for development with partners.</p>	<p>Activity TM 1.2.1. Assessment of market demand and potential for key tree products.</p>

Indicators:

Stakeholders and partners understand the principles of market demand and how it relates to all areas of AF research and development as reflected in publications and proposals.

Private sector actors are integrated into major activities while maintaining focus on the poor.

New partnerships formed with other actors in tree product marketing.

Indicators:

Subsector priorities validated and/or updated by major stakeholders.

At least four new products developed and linked to private sector actors in major consumer centres by 2006.

Milestones:

Prioritisation process undertaken within ICRAF and with key partners on product focus by 2004.

Advanced marketing trainings conducted in at least 2 global regions by 2004

Purpose TM.1.3. To reveal and create opportunities for marketing of new and existing tree products by small-scale farmers and entrepreneurs.

Indicators:

Farmer groups working with partners benefit from guidance on market and enterprise development (reduce risks and increase profits).

Increased knowledge of farmer enterprise models and farm-agribusiness linkages.

Market information system developed and implemented with focus on sustainability.

Output TM.1.3.1. Pro-poor and gender-sensitive tree product enterprises and extension approaches promoted.

Indicators:

At least 10 extension materials integrating market and enterprise information produced by 2006

Market information systems for AF products up and running on Web by 2005.

Activity TM.1.2.2 Co-development with key partners of products, networks and enterprise activities.

Milestones:

Strengthen collaborations with CPWild marketing consortium (southern Africa), shea products in Sahel with CECI and local partners, fine coffee with CIRAD, Technoserve Kenya (calliandra, dairy) and private sector in western Kenya.

New collaborations developed with medicinal plant sellers, timber merchants, fuelwood users, fruit processors, artisans and other actors.

Activity TM 1.3.1 1 Produce extension materials on processing and marketing of tree products.

Milestones:

Publication of market oriented AF by 2004. Work with RELMA on extension materials in marketing in 2004-6.

Existing AF extension materials adapted for market focus with RELMA and Training Unit.

Activity TM.1.3.2 Set up low-cost, farmer focused market intelligence systems

Milestones:

Community-based market information systems for key products such as seedlings (nurseries), fruit products, medicinals, fruit, timber and fuelwood piloted by 2005.

Web-based market information system tied to Agroforestry database on Trees and Markets website home page.

Activity TM.1.3.3. Investigate and build capacity in identification of barriers to market entry, winners and losers of commercialisation, registration options,

collective marketing approaches, incentives
and certification for smallholders

Milestones:

Publication of ICRAF/FAO farm-
agribusiness workshop proceedings by 2004.
Studies and recommendations on best
approaches to marketing and enterprise
development for farmer groups (with
RELMA)

Project TM.2 Developing sustainable seed and seedling systems and sound management of genetic resources of agroforestry trees

Project goal	To encourage sustainable tree seed and seedling systems and wise conservation and use of agroforestry tree genetic resources	
Indicators	Regional, national and on-farm utilisation and conservation approaches documented and implemented in at least 5 global regions by 2006.	
Project purpose	Outputs	Activities
Purpose TM.2.1. To understand the current seed and seedling production and supply systems and develop strategies for development of market based production and supply.	Output TM.2.1. Existing seed and seedling production and supply systems and policies documented and a range of options for developing market based production and supply systems defined.	Activity TM2.1.1. National profiles made of existing seed and nursery systems and policies, constraints and options for development defined at community, national and international levels.
Indicators: Well-described seed and seedling production scenarios for at least 6 countries by 2006.	Indicators: Sustainable seed supply systems for Africa devised by 2006.	Milestones: Tree seed sector analyses for Malawi, Uganda and Burkina Faso, and at least 3 other countries undertaken and published by 2004.
Integrated strategies produced, shared and implemented with a wide range of stakeholders.	General strategies for improved seed and seedling production in place in at least 4 global regions by 2006.	Strategies for National Tree Seed Centres in at least 6 countries formulated and published by 2004.
		Policy options that support development of decentralised seed production and distribution systems developed.
		Activity TM2.1.2. Formulation and promotion of implementation of strategies for seed supply systems.
		Milestones: National Stakeholder Workshops held in at least 6 countries by 2004.
		Activity TM.2.1.3. Develop general recommendation domains for species across regions and develop methods for tree seed demand forecasting
		Milestones Tree seed forecast tool produced by 2004.
		Digital vegetation maps made of East Africa by 2004.
Purpose TM.2.2. To facilitate development of efficient species specific production and distribution systems for quality agroforestry tree germplasm.	Output TM.2.2 .1. Approaches identified and tested to improve the quality, timeliness, amount and identity of the supply and access of tree germplasm with a range of partners.	Activity TM.2.2.1. Test approaches for integrating decentralized seed production and supply systems and policies at community, national and international levels.
Indicators: Seed production guidelines available for at least 20 species by 2006.	Indicators: Guidelines produced for seed production, distribution and forecasting by 2006.	Milestone: Proposals for pilot systems in specific areas in Burkina Faso, Kenya, Malawi and Uganda developed and funded by 2004.
Proposals to fund seed production and distribution completed for at least 3 global regions by 2006.	Seed stands for at least 20 species in at least 3 global regions established by 2006.	
		Activity TM.2.2.2. Criteria, training materials and documentation systems developed for high quality production and distribution processes.

Purpose TM.2.3. The role of nursery development understood in the context of delivering appropriate materials to farmers as part of sustainable seed and seedling production and supply.

Indicator:

Tree seed nursery plans featuring in local and national development strategies for organisation and government agencies.

Output TM.2.3.1 Existing nursery production and supply systems and policies understood and a range of options for developing market based production and supply systems defined and tried out.

Indicator:

Knowledge available on scope and scale of seedling production in at least 4 global regions by 2006.

Research underway on tree nursery constraints in at least 8 countries by 2006.

Nursery business skill training materials available by 2006.

Purpose TM.2.4. To make available germplasm and information of priority tree species for research, conservation and development activities and analyse intraspecific diversity using genecological surveys and molecular techniques

Output TM.2.4.1. Founder seed populations collected, procured, characterised, disseminated and conserved for priority tree species, and information on tree species and policies compiled and disseminated.

Milestones:

Guidelines for documentation systems for agroforestry seeds developed by end 2004.

Agroforestry seeds for farmers toolkit completed by 2004.

Activity TM.2.2.3 Facilitation of establishment of decentralised seed multiplication stands according to demand and capacity.

Milestone:

Stands and farmland seed sources established with partners in regions by end of 2006.

Activity TM.2.3.1. Carry out a baseline nursery surveys in the context of scaling up.

Milestone:

Nursery survey methodology produced by 2004.

Country level analyses completed for at least 4 global regions by 2005.

Activity TM2.3.2. Carry out investigations to identify constraints and options for development of better nursery systems.

Milestone:

Surveys complete in at least 6 countries by 2004.

Activity TM2.3.3. Plan and carry out market orientation training, and facilitate producer-dealer-user linkages.

Milestones:

Market orientation workshops conducted in at least 2 global regions by 2004.

Tree nursery networks established and functioning in at least 3 countries by 2004.

Kiswahili tree nursery manual produced and distributed in Kenya by 2004.

Activity TM 2.4.1. Explore, collect and assess quality of germplasm (seed and vegetative propagules) of priority tree species.

Indicators:

Access to tree germplasm and information by farmers, communities, private sector, research institutes and policy makers improved.

Conservation options for at least 10 key species highlighted.

Indicators:

Increased quantities of seed produced and available.

Tree genetic resource conservation promoted in all regions by 2006.

Milestones:

All existing collections documented for at least 30 species by 2004.

New collections carried out on needs basis by 2005.

Seed quality determinations routinely done by GRU for conserved and distributed tree seed.

Activity TM.2.4.2. Undertake genealogical surveys and molecular studies of variation within and between populations of priority species.

Milestones:

RAPD, AFLP and RFLP-PCR investigations carried out for at least 2 new species by 2004.

Correspondence of morphological diversity and molecular diversity made for at least 3 species by 2005.

Activity TM.2.4.3. Procure and test tree seed for partners and development projects

Milestone:

At least 3000 kg of germplasm sourced annually for research and pilot development projects

Activity TM.2.4.6. Compile information on tree seed and tree species and develop appropriate databases and publications.

Milestone:

Web-based versions of Agroforestry Database, Botanic Nomenclature and Tree Seed Suppliers Directory updated annually.

New CD-ROM versions of databases produced by 2005.

Tree selector software produced by 2005.

Project TM.3 Tree domestication with intensification and diversification of tree cultivation systems

Project goal	To improve the productivity, management, profitability and diversity of individual agroforestry tree species and tree cultivation systems including peri-urban systems	
Indicators	Tree and landscape domestication strategies formulated and their implementation underway with partners in at least 15 developing countries by 2006.	
Project purpose	Outputs	Activities
<p>Purpose TM.3.1. To investigate and remove constraints and improve approaches for tree propagation and management.</p> <p>Indicator: Farmers and other partners aware of constraints and options for better tree propagation and management.</p>	<p>Output TM.3.1.1. Appropriate tree propagation and management methods for on-farm cultivation determined.</p> <p>Indicator: Publications and manuals produced on tree propagation and management and available in 15 developing countries by 2006.</p>	<p>Activity TM 3.1.1. Test a range of vegetative and sexual propagation techniques for multiplication and capture of superior germplasm.</p> <p>Milestones: Protocols for vegetative propagation for 5 species produced by 2004, and 10 species by 2006. Recommendations on best nursery practices made for all regions by 2005.</p> <p>Activity TM 3.1.2. Elaborate appropriate arboricultural and horticultural management techniques and disseminate to a range of partners.</p> <p>Milestones: Research trials underway in 4 countries by 2004. At least 6 research publications produced by 2005. Extension materials produced by 2006.</p> <p>Activity TM 3.1.3 Facilitate dissemination of information and improved material provided by partners.</p> <p>Milestones: Tree producer associations formed in at least 3 global regions by 2005. Propagule exchange schemes set up in at least 2 global regions by 2005.</p> <p>Activity TM.3.2.1 Identify superior species and provenances with mass selection within those.</p> <p>Milestones: Species prioritisation updated in 4 global regions by 2004. Provenance trials established and maintained for at least 6 species by 2005. Existing provenance trials of at least 4 species thinned for quality seed production by 2004.</p> <p>Activity TM.3.2.2 Establish and maintain clonal and seedling seed orchards of elite materials.</p> <p>Milestones: Orchards of at least 3 new species set up by 2005. All existing and new orchards maintained to 2006.</p> <p>Activity TM.3.2.3 Capture putative clonal cultivars at high selection intensities and test on-station and on-farm.</p>
<p>Purpose TM.3.2. To carry out tree improvement research on priority species.</p> <p>Indicators: Tree improvement research included or increased in national partner strategies and work plans in at least 10 countries.</p>	<p>Output TM.3.2 .1. Tree species improvement undertaken for priority taxa as case study and model species, and to build capacity amongst partners.</p> <p>Indicators: Well-documented and shared tree improvement programmes underway for at least 5 existing species and 10 new species by 2006.</p>	

Purpose TM.3.3 To characterise and improve tree cultivation systems at farm and landscape scales.

Indicator:

Awareness of relative importance of small-scale tree-based systems increased at national, regional and international levels by 2006.

Output TM.3.3.1. Tree cultivation systems described, quantified and strategies formulated to intensify and diversify them.

Indicator:

Meta-analysis produced of small-scale tree cultivation systems in at least 5 global regions by 2006.

Milestones:

Field reconnaissance for superior clones for 5 species completed by 2004.

Propagules of superior selections established at secure locations for at least 3 species by 2005.

Activity TM.3.2.4. Develop tree suitability database to select suitable areas for species and suitable species for areas.

Milestones:

Database driven tree selection guide produced by 2004

Distribution of 2000 copies on CD-ROM by 2005

Activity TM 3.3.1. Typologies constructed and tree diversity inventoried for major tree cultivation systems.

Milestones:

Tree species frequency and abundance recorded in landscapes in at least 5 countries by 2004.

Analysis and graphic presentation complete for different farm types and landscapes for at least 5 countries by 2006.

Activity TM 3.3.2. Options developed and tested for diversification and intensification of tree cultivation systems

Milestones:

Species diversification trials underway in at least 5 countries by 2004.

Multistrata AF systems established on farms in at least 4 countries by 2005.

Project TM 4 Farmer-led development, testing and scaling up of tree-based options

Project goal	To develop agroforestry practices with farmers and facilitate their wide-scale adoption for improving rural livelihoods	
Indicators	Farmer experimentation and innovation documented and promoted, and a range of AF practices developed, disseminated and monitored in all global regions.	
Project purpose	Outputs	Activities
<p>Purpose TM.4.1 To develop new practices with farmers and other partners, and assess their feasibility, profitability, and acceptability. Identify policy options and institutional innovations for improving household welfare.</p> <p>Indicators: Participatory research underway to identify farmer innovations that are fed back to research and extension in all global regions by 2006.</p> <p>Monitoring and evaluation systems established.</p> <p>Policy options and institutional innovations for scaling up identified.</p>	<p>Output TM.4.1.1 New agroforestry practices and management options developed including appropriateness and adoption potential of practices for different target groups.</p> <p>Indicator: Information on new practices available to researchers and extension workers.</p>	<p>Activity TM.4.1.1.1 Participatory situation analyses to identify farmers' problems and opportunities; evaluate new practices, species and germplasm with farmers and other partners; assess policy environment and constraints and opportunities for changes.</p> <p>Milestones: Researcher-designed and farmer-designed trials implemented in all regions by 2005. Reports completed on adoption potential of new practices involving both farmer and researcher evaluations in 2004, 2005 and 2006.</p> <p>Activity TM.4.1.2 Determine and promote links of agroforestry to other rural development initiatives (e.g. health, education, infrastructure).</p> <p>Milestone: New partners from health, education, and infrastructure activities involved in evaluating and promoting agroforestry practices in at least 4 global regions by 2005.</p> <p>Activity TM.4.1.3. Identify agroforestry practices that are most suited to the poor, females, households with nutrition or HIV/AIDS-related problems, and other types of farmers.</p> <p>Milestone: Synthesis paper on adoption of new practices across sites completed by 2005.</p> <p>Activity TM.4.1.4 Mapping recommendation domains and ex ante impact assessment to show areas and types of farmers for which practices will be most suited.</p> <p>Milestones: Maps of recommendation domains, and impact assessments used to determine priority target sites for scaling up by 2005.</p> <p>Activity TM.4.2.1. Implement pilot development projects with partners that involve improved practices, institutional innovations and policies; assist partners to develop consortiums for scaling up</p>
<p>Purpose TM.4.2. To enable development partners to target, design, and implement successful dissemination projects that are cost-efficient and highly impactful.</p>	<p>Output TM.4.2.1. Agroforestry practices introduced to and used by targeted farmers on a wide scale, pathways for effective scaling up identified, innovative extension approaches, policy and institutional changes evaluated</p>	

Indicator:

Large numbers of partners successfully disseminating agroforestry practices. Development partners satisfied with the information obtained from ICRAF and able to provide evidence that it is improving the efficiency and effectiveness of their development programmes.

Indicator:

Greater adoption of agroforestry practices.

More effective research-extension-farmer linkages.

Consortiums and networks for scaling up are established and are functional.

Milestones:

Pilot development projects which are assisting farmers to adopt agroforestry practices and developing institutional innovations and policy options underway in at least 3 regions by 2005.

Activity TM.4.2.2 Evaluate farmer-to-farmer extension approaches, and build capacity amongst development partners to promote such approaches.

Milestones:

Training workshops held in at least 6 countries by 2004.

Studies published from at least 3 countries by 2005.

Activity TM.4.2.3. Devise and implement participatory and collaborative monitoring and evaluation systems to assess adoption of new and modified agroforestry options and provide feedback to researchers and extension providers.

Milestones:

Monitoring and Evaluation methods published by 2004.

Feedback documented and disseminated to partners in at least 10 countries by 2005.

Activity TM.4.2.4. Examine IPR and IKS issues and promote benefit sharing from innovation.

Milestones:

ICRAF IPR policies updated by 2004.

Guidelines for community contracts and negotiations produced by 2004.

IPR awareness sessions held in at least 3 regions by 2005.

Defensive publication of relevant IK with UNESCO annually.

Theme ES: Environmental Services

Pro-poor agroforestry strategies for local benefits and global conservation

Project ES.1 Enhancing watershed functions

Project goal	Enhance the positive contributions of agroforestry systems to watershed functions	
Indicator	The adoption and protection of agroforestry systems contributes to improvements in water quality, greater infiltration and reduced sedimentation in crucial watersheds.	
Project purpose	Outputs	Activities
<i>Purpose ES.1.1.</i> Identify and refine management principles for enhancing the contributions of agroforestry to watershed functions	<i>Output ES.1.1.1.</i> Validated management principles for planning and policy making	<i>Activity ES.1.1.1.</i> Meso-level analyses and synthesis of the overall relation between tree cover, land use, water quality and hydrologic function
Indicators: Simple and clearly stated management principles are disseminated and used by planners in Asia and Africa	Indicators: Synthesis papers and volumes published and disseminated; research and policy briefs published and disseminated	Milestones: Proceedings of the FAO / ICRAF workshop on the next generation of watershed management in Africa published in 2004. ASB pan-tropic analysis of where biodiversity, poverty and watershed issues coincide by 2004. ASB meso-level study of the relations between land use change, hydrologic function, and biodiversity completed by 2004. Study of the effects of land use on the hydrology of Lake Kyoga in Uganda completed by 2006. Contributions to concept papers for the Water and Food Challenge Programme. <i>Activity ES.1.1.2.</i> Catchment and basin-level studies in the Lake Victoria Basin, highlands of East Africa and SE Asia Milestones: Set of papers published on the relations between tree cover, land use and hydrologic function in the humid tropics of SE Asia in 2004. Methods for rapid assessment of soil hydrology using soil reflectance tested in additional sites and disseminated in 2004-6. Studies of the effects of agroforestry on catchment hydrology completed in watersheds in Western Kenya (2004), SW Uganda (2005), AHI sites in Ethiopia and Tanzania (2005), Vietnam (2004), Thailand (2004) and Indonesia (2006). <i>Activity ES.1.1.3.</i> Studies conducted of the effects of agroforestry on water balances in semi-arid areas and dambos in Southern Africa Milestones: Study of the effects of rotational woodlots on water balances completed by 2004. Study of the effects of fallows and biomass transfer on dambos initiated by 2004.
<i>Purpose ES.1.2.</i> Develop models to predict the effects of different landscape configurations on watershed function	<i>Output ES.1.2.1.</i> Models and negotiation support tools developed and calibrated for river basin, catchment and plot scales	<i>Activity ES.1.2.1:</i> Develop, refine and extend watershed simulation models relevant for different spatial scales

Indicators:

Models disseminated and used by researchers and planners working in SE Asia and East Africa.

Indicators:

Models and decision support tools developed, reviewed and applied in basins

Milestones:

SpatRain and GenRiver models developed by 2004, applied to representative watersheds in Thailand and Indonesia by 2005 and disseminated to key clients by 2006. Basin-level model calibrated for the Lake Kyoga basin by 2006.

Activity ES.1.2.2. Develop and disseminate animated videos to illustrate watershed configuration and scenario analysis among a variety of stakeholders

Milestones:

Animated videos prepared for the Nile and Mara river basins by 2005.

Purpose ES.1.3. Improve incentives and co-operation between upstream and downstream communities to implement land use strategies that protect water supplies while enhancing other ecosystem services.

Output ES.1.3.1 Institutional arrangements and incentive structures improved to promote land use strategies that enhance farmer income, while protecting water supplies and other ecosystem services.

Activity ES.1.3.1. Support to planning and negotiations about land use and watershed governance in priority areas

Indicator:

Functional watershed management institutions in place in priority river basins in South Asia, SE Asia and East Africa.

Indicator:

Economic and institutional arrangements developed for upstream and downstream communities for watershed management in northeast Thailand by 2005. New institutional arrangements for watershed management in place in Western Kenya by 2005.

Milestones:

Maps, computer-based decision support tools, and videos prepared to support watershed management in the Lake Victoria basin, Mara basin and Lake Kyoga basin in East Africa by 2006. Sustained input into the development of new institutional arrangements for watershed management in East Africa and SE Asia, 2003-2006. Input into the design of watershed management in South Asia by 2004.

Activity ES.1.3.2. Analysis of the effects of property rights to land and water on the efficiency and equity of resource use

Milestone:

Comprehensive Assessment study entitled "safeguarding rights to crucial and water resources in the Nyando basin" published in 2005.

Activity ES.1.3.3. Studies of the performance of multi-scale institutional arrangements for watershed management

Milestones:

CAPRI-sponsored study of multi-scale collective action completed in the Philippines and Thailand by 2004; Water and Food CP study of the Nile and Andean basins completed by 2006.

Purpose ES.1.4. Increase the number of national and regional partners with strong capacity to conduct watershed management research with real relevance for policy and planning.

Output ES.1.4.1. Critical mass of planners and researchers with skills to conduct multi-stakeholder and multi-scale assessments for watershed management

Activity ES.1.4.1. Prepare and disseminate synthesis and training materials through appropriate networks and collaborative programmes.

Indicators:

Number of national and regional partners using models and decision aids developed by ICRAF. References to ICRAF publications.

Indicator:

Number of priority watersheds / countries in which ICRAF has worked cooperatively or has trained at least 5 researchers and planners in watershed management

Milestones:

Contributions to the ASB lecture note series, AHI reports, Comprehensive Assessment Papers, CP Water and Food papers, and CAPRI papers

Activity ES.1.4.2 Group and individual training in watershed management in priority watersheds

Milestones:

At least 20 graduate students completed individual training by 2005; at least 40 partners and collaborators complete group training in watershed modeling by 2006.

Project ES.2 Enriching biodiversity in working landscapes

Project goal	Agroforestry systems contribute to the conservation and enrichment of biodiversity in landscape mosaics that integrate protected areas with agriculture and other resource uses	
Indicator	Landscape and farm-level biodiversity are simultaneously enriched in priority areas through the expansion of agroforestry systems in multi-functional landscape mosaics that integrate protected areas with agriculture and other resource uses	
Project purpose	Outputs	Activities
<p>Purpose ES.2.1. Identify and refine management principles for enhancing the contributions of agroforestry to the conservation and enrichment of biodiversity in working landscapes</p> <p>Indicator: Simple and clearly stated management principles are disseminated and used by planners in priority locations in all regions</p>	<p>Output ES.2.1.1. Validated management principles of use in planning and policy</p> <p>Indicator: Synthesis papers and volumes published and disseminated; research and policy briefs published and disseminated</p>	<p>Activity ES.2.1.1. Establish a joint biodiversity unit with CIFOR and working relations with other centres for excellence and national partners</p> <p>Milestones: Operational and finance plan for joint CIFOR / ICRAF unit by 2004; priorities set and joint activities initiated in 2004; unit fully operational by 2005. Continue to support the development of the Rainforest Challenge. Inter-centre Amazon Initiative functional by 2004. Continued support to the ASB working group on biodiversity. Host and co-organize the Ecoagriculture conference in 2004.</p> <p>Activity ES.2.1.2. Regional-level assessments and syntheses of the relationships between land use, biodiversity and other environmental services</p> <p>Milestones: ASB meso-level analysis of biodiversity, watershed services and poverty completed by 2004. ASB pan-tropical analysis of the spatial distribution of poverty, biodiversity and watershed issues completed by 2004. Edit and co-publish the proceedings of the Ecoagriculture conference in 2004 and 2005.</p> <p>Activity ES.2.1.3. Assessments of the relationships between agroforestry development, on-farm tree diversity and landscape-level bio-diversity conducted in priority locations.</p> <p>Milestones: Tree diversity assessments completed in the Sahel by 2005. Synthesis of biodiversity assessments in all ASB sites published in 2004. Assessments of the functional value of above and belowground biodiversity initiated at ASB benchmark sites in collaboration with TSBF / CIAT in 2004.</p>
<p>Purpose ES.2.2. Agroforestry research and development contribute to goals of increasing biodiversity in priority agroecosystems.</p> <p>Indicator: Agroforestry contributes to farm and landscape level biodiversity in priority agroecosystems.</p>	<p>Output ES.2.2.1. Successful pilot activities in priority agroecosystems.</p> <p>Indicator: Project plans and evaluations.</p>	<p>Activity ES.2.2.1. Collaborate in buffer zone agroforestry in conservation projects in high priority areas</p> <p>Milestones: At least four case studies on buffer zone agroforestry around key protected areas completed and synthesized in collaboration with Yale University by 2006. Project on buffer zone agroforestry around Mabira and Bwindi in Uganda completed by 2005. Plan for buffer zone agroforestry around Kitanglad in the Philippines updated in 2004 and 2005. Project on buffer zone</p>

agroforestry initiated in Mozambique in 2004.

Activity ES.2.2.2. Collaborate in projects designed to enhance landscape-level biodiversity in high priority areas.

Milestones:

Improved jungle rubber germplasm and information on management options disseminated to national partners, resulting in enhanced biodiversity and high productivity, by 2003. Major landscape projects in World Heritage Sites in Kenya and Uganda developed with stakeholders by 2004. Project on enhancing biodiversity in the Sahel parklands initiated with the DMI consortium in 2004.

Purpose ES.2.3. Forestry and conservation policies are modified to enhance the contribution of agroforestry to the conservation of biodiversity in working landscapes.

Output ES.2.3.1. Analysis and influence of policies affecting farmers' contributions to biodiversity conservation in working landscapes.

Activity ES.2.3.1. Cross-regional and global studies of factors affecting farmers' incentives and constraints to plant indigenous trees and the role of agroforestry groups in managing protected areas.

Indicator:

Demonstrated changes in forest and conservation policies in priority locations.

Indicator:

Research results are disseminated through syntheses and policy briefs.

Milestones:

Project proposals developed with partners in 2004 and research initiated in 2005 and 2006.

Purpose ES.2.4. Increase the number of national and regional partners with strong capacity to undertake relevant studies for biodiversity conservation in working landscapes.

Output ES.2.4. Critical mass of planners and researchers with skills in tree biodiversity management.

Activity ES.2.4.1. Prepare and disseminate synthesis and training materials through appropriate networks and collaborative programmes.

Indicator:

Number of priority landscapes in which ICRAF has worked cooperatively or has trained at least 5 researchers and planners in tree biodiversity management.

Milestones:

Workbook on community based conservation based on AAA "conservation and community" group in 2005. Refinement, expansion of and training in on-farm tree diversity software in every region by 2005.

Project ES.3. Climate Change Mitigation and Adaptation for Rural Development

Project goal	Agroforestry systems contribute simultaneously to buffering farmers against climate variability and changing climates, and to reducing atmospheric loads of greenhouse gases.	
Indicator	Farmers in priority areas suffer lower levels of weather related crop failure through the expansion of agroforestry systems in multi-functional landscape mosaics. Net greenhouse gas emissions from agroforestry systems are lower per unit of economic productivity than other agricultural intensification options.	
Project purpose	Outputs	Activities
Purpose ES.3.1. Identify and refine management principles for enhancing the contributions of agroforestry to buffering against climate variability.	Output ES.3.1. Validated management principles of use in planning and policy in priority areas.	Activity ES.3.1. Identify and refine management principles for enhancing the contributions of agroforestry to buffering against climate variability.
Indicator: Simple and clearly stated management principles are disseminated and used by planners in priority locations in all regions.	Indicator: Synthesis papers and volumes published and disseminated; research and policy briefs published and disseminated, results disseminated through workshops organized in collaboration with UNEP, IUCN, FAO and the UNFCCC.	Milestones: Assessment of the effects of rainfall variability on the performance of improved fallows systems in 2004 and 2005. Bioeconomic simulation models developed and disseminated by 2006. Regional analyses of the vulnerability of agroforestry and agricultural systems to current climate variability and changing climates by 2006.
Purpose ES.3.2. Identify and refine management principles for reducing the contributions of agriculture to atmospheric greenhouse gas loading.	Output ES.3.2.1. Validated estimates for on-farm emissions of greenhouse gases from agriculture under target intensification models for agricultural development.	Activity ES.3.2.1. Develop assessment tools for monitoring greenhouse gas emissions from agriculture at the field, farm and landscape scale.
Indicator: Greenhouse gas estimates and monitoring and evaluation tools are disseminated to policy makers through workshops organized in collaboration with UNEP, IUCN, FAO and the UNFCCC.	Indicator: Synthesis papers and volumes published and disseminated; research and policy briefs published and disseminated, results disseminated through workshops organized in collaboration with UNEP, IUCN, FAO and the UNFCCC.	Milestones: GIS based greenhouse gas monitoring systems developed and tested in target areas.
		Activity ES.3.2.2. Multi-disciplinary assessments of the greenhouse gas emissions in agroforestry technologies and competing models for agricultural intensification to meet growing food needs in target regions.
		Milestones: Greenhouse gas assessments completed and mechanistic models developed in target regions by 2005. Economic trade-off analysis completed for competing intensification models by 2006.
Purpose ES.3.3. Support the design and implementation of environmental service projects aiming to promote the dual goals of rural development and carbon sequestration.	Output ES.3.3. Successful environmental service projects in priority areas in all regions.	Activity ES.3.3.1. Apply greenhouse gas monitoring tools to determine baselines and establish monitoring and evaluation systems
	Indicator: Partnerships developed and scientists participating in the implementation of environmental service projects. Synthesis papers and volumes published and disseminated; research and policy briefs disseminated through global networks	Milestones: Improved GIS baseline methodologies and monitoring systems in place in target regions.
		Activity ES.3.3.2. Develop and apply modeling tools to evaluate tradeoffs between environmental

Purpose ES 3.4.

Enhance the ability of developing country nationals to plan effectively for climate change and to engage effectively in international mechanisms for emission reduction.

Indicator:

Explicit recognition and mention of agroforestry in scientific and policy documents related to climate change.

Output ES 3.4.

Capacity building in the areas of adaptation to climate change in the agricultural sector, national greenhouse gas inventories and implementation of greenhouse gas mitigation projects among NARS, ministries responsible for rural development, water resources, agriculture and forestry; and climate change negotiating teams from developing countries.

Indicator:

Policy makers using the results of scientific studies to support the development of adaptation policy and negotiation positions. Synthesis papers and volumes published and disseminated; research and policy briefs disseminated through global networks

services and agricultural productivity in environmental services project design.

Milestones:

Region-specific tradeoffs methodologies developed and analyses completed for target regions.

Activity ES.3.3.3. Engage in pilot projects to assess the viability of CDM-type mechanisms for rewarding farmers for producing certifiable reductions in greenhouse gas emissions through agroforestry.

Milestones:

Western Kenya ecosystems project initiated in Kenya in 2004. Miombo Community Land Use and Carbon Management Project initiated in Mozambique in 2004. CDM-type mechanisms evaluated within more than one RUPES pilot projects in SE and South Asia by 2004. Pilot projects designed for Senegal and Uganda by 2005.

Activity ES.3.4.1. Promote scientific collaboration in the area of climate change adaptation and mitigation between scientists of the CGIAR, ARIs, and NARS.

Milestones:

Convene and organize meetings of the CGIAR inter-centre working group on climate change (ICWG). Coordinate the response of the ICWG to the ISC review of the proposal for a Challenge Programme on Climate Change in 2004. Develop an alliance with key international NGOs concerned with smallholder CDM in 2004. Participate in 2-3 key scientific and policy meetings each year. Respond to requests from national agencies for specific scientific and policy expertise.

Activity ES.3.4.2. Promote exchanges among scientists and policy makers in the area of climate change adaptation and mitigation to enhance the information that policy makers use in their decision making and negotiations and to help scientists in the NARS develop more policy relevant research programs.

Milestones:

Meetings organized, collaborative projects funded.

Project ES.4 Harmonizing policy for environmental stewardship and rural development

Project goal	International, national and local policies are designed to better harmonize goals related to environmental stewardship and sustained and equitable rural development	
Project purpose	Outputs	Activities
<p>Purpose ES.4.1. A critical mass of national and regional expertise in multi-stakeholder assessment and negotiation support is created.</p> <p>Indicator: Methods for multi-stakeholder assessment and negotiation support are used in areas outside of ICRAF pilot sites.</p>	<p>Output C.4.1.1. Methods for assessing the knowledge and 'mental models' of different stakeholders are refined and disseminated.</p> <p>Indicator: Concept, case study and synthesis papers.</p>	<p>Activity C.4.1.1. Develop and disseminate more effective methods for multi-stakeholder assessment of knowledge and negotiation support.</p> <p>Milestones: By 2004, completed synthesis of work on damar agroforests and jungle rubber agroforests in Indonesia. Principles developed regarding the similarities and differences between farmers, researchers' and policy makers' knowledge of environment – land use – poverty interactions by 2006. Case study and synthesis papers on Negotiation Support Systems are produced by 2006.</p>
<p>Purpose ES.4.2. Vulnerable groups of indigenous people who rely on agroforestry are empowered by more secure property rights.</p> <p>Indicator: Evidence that millions of farmers in upland SE Asia perceive that they have more secure property rights.</p>	<p>Output ES.4.2.1. Evidence of tangible impact on land tenure policy in all regions where ICRAF works.</p> <p>Indicator: Evidence of ICRAF contributions to policy workshops and policy documents.</p>	<p>Activity ES.4.2.1. Identify, analyze and contribute to the reform of land tenure institutions that constrain the adoption and sustained utilization of agroforestry innovations.</p> <p>Milestone: ICRAF contributes to the implementation of "Adat" and HKM policies that better protect the rights of indigenous agroforestry communities throughout Indonesia by 2004. ICRAF contributes to the development of social forestry policies that provide a foundation for mutually beneficial agreements between local communities and government agencies throughout Indonesia by 2003.</p>

Purpose ES.4.3. Farmers have incentives to manage resources and technologies in ways that enhance farm incomes and generate environmental services of value to local and international populations.

Indicator:

Number of farmers involved in environmental reward schemes involving agroforestry.

Output C.4.3.1. Mechanisms designed for rewarding farmers for the environmental services they provide.

Indicator:

Case study and synthesis papers.

Activity C.4.3.1. Develop of concepts and collaborative projects for assessing environmental reward mechanisms.

Milestones:

Further development and coordination of the RUPES consortium in Asia, 2004-2006. Papers detailing RUPES concepts and methods by 2004.

Activity ES.4.3.2. Pilot environmental service payment projects in priority areas.

Milestones:

Experiments put in place to evaluate individual, collective or public approaches to environmental transfer payments in Kenya, Peru, Indonesia, the Philippines, Vietnam and Thailand by 2004 and in South Asia by 2005.

Purpose ES.4.4. Governments in priority countries enact changes in environmental governance that recognize the multi-functional nature of landscapes.

Indicators:

Reviews of national policies in case study countries.

Output C.4.4.1. Guidelines for the appropriate classification and governance of land in multi-functional landscapes.

Indicators:

Concept, case study and synthesis papers.

Activity C.4.4.1. Global and cross-regional project on the appropriate classification and governance of land use in multi-functional landscapes

Milestones:

Paper on "redressing forest hegemony" in SE Asia published in 2004. Paper on the role of local authorities in environmental governance in Kenya published in 2004. Proposal for a global project developed with partners in 2004 and research initiated in 2005 and 2006.

Theme SI: Strengthening Institutions

Improving capacities for effective research, development and education in agroforestry

Project SI.1 Strengthening agricultural research

Project goal	Enhanced partner capacity to carry out agroforestry and Integrated Natural Resource Management (INRM) research and to share results with stakeholders	
Indicator	<p>Number of institutions with quality (and operational) programmes, plus human and other resources to undertake agroforestry /INRM research</p> <p>Increased number of agroforestry and INRM research projects and programmes at national institutions</p> <p>Agroforestry and INRM institutionalized in national research institutes</p> <p>Number of scientists with agroforestry/INRM competence</p>	
Project purpose	Outputs	Activities
Purpose SI.1.1. To develop high quality and relevant research programmes based on good understanding of real needs of farmers	Output SI.1.1.1. An understanding of the agroforestry/INRM planning and programming needs of research institutions	Activity SI.1.1.1 Carrying out surveys to characterize and assess needs of partner institutions
	Output SI.1.1.2 Well designed and mainstreamed agroforestry /INRM research programmes at partner research institutions	<p>Activity SI.1.1.2 Advising on strategies to stem, cope with and/or mitigate capacity loss or immobilization</p> <p>Activity SI.1.1.3 Providing technical support to develop viable agroforestry /INRM research programmes</p> <p>Activity SI.1.1.4 Advising policy makers on agroforestry /INRM research</p>
Indicator: Number and quality of programmes developed by NARIs		Milestone: By 2005, twenty NARI programmes will be reviewed and improved
Purpose SI.1.2. To strengthen research management capacity - relating to institutional set up, processes, research leadership, and sharing of research findings	Output SI.1.2.1 Qualified human capital to design and manage agroforestry /INRM research programmes	Activity SI.1.2.1. Providing postgraduate and thesis research opportunities
	Output SI.1.2.2 Functioning intra-institutional mechanisms to coordinate research	<p>Activity SI.1.2.2 Mentoring promising scientists</p> <p>Activity SI.1.2.3 Facilitating inter-departmental interactions and capacity integration</p>
Indicator: Research management skills among managers of NARIs		Milestone: By 2005, thirty research managers and senior scientists trained/mentored
Purpose SI.1.3. To link institutions to opportunities for research resources	Output SI.1.3.1 Well-funded agroforestry /INRM research at national institutions	Activity SI.1.3.1 Training scientists in research proposal writing
		Activity D.1.3.2 Developing joint research proposals between ICRAF and partner institutions
Indicator: Quality research proposals properly targeted to donors		Milestone: Each year at least ten researchers mentored to develop proposals in agroforestry/INRM

Purpose SI.1.4. To facilitate linkages across the research, education and development continua

Output SI.1.4.1 Tangible increase in joint research activities within institutions, and good partnership with ICRAF; and
Improved coordination of agroforestry /INRM research

Activity SI.1.4.1 Facilitating the development of networking among researchers and institutions

Activity SI.1.4.2 Encouraging staff exchange arrangements among institutions

Indicator:

A methodology for supporting researchers to link up with institutions that manage research outputs/knowledge products

Milestone:

By 2005 at least one method/model will be developed and tested

Project SI.2 Development systems and institutions

Project goal	Improved adoption of agroforestry and INRM technologies	
Indicator	Functioning linkages among development and research institutions, supporting the free and multi-directional flow of knowledge and skills emanating from research and from farmers' experiences.	
Project purpose	Outputs	Activities
Purpose SI.2.1 To understand local and national development institutions and organizations and draw key principles	Output SI.2.1.1 Pathways and barriers for dissemination of innovations identified	Activity SI.2.1.1 Survey and review of country/local policies and institutions to draw global lessons/principles
	Output SI.2.1.2 Policy makers will have greater ability to make policy, govern, negotiate at all levels from local to international situations	Activity SI.2.1.2 Identifying barriers to adoption of AF/INRM programmes and innovations
		Activity SI.2.1.3. Supporting policy makers at all levels with tools, knowledge and skills Milestone: Each year partners in two ICRAF regions will be surveyed to establish their links to knowledge products
Purpose SI.2.2 To develop mechanisms that can accelerate the adoption of agroforestry/INRM innovations by linking research systems with development institutions and organizations	Output SI.2.2.1 Strategic alliances and plans with key institutions for scaling up innovations	Activity SI.2.2.1. Strategic management of the training of development workers and farmer
	Output SI.2.2.2 Improved flow of knowledge and skills to users	Activity SI.2.2.2 Assisting institutions to develop scaling up strategies
	Output SI.2.2.3 Methods and tools that can be applied at all levels to assess institutional innovations	Activity SI.2.2.3 Designing methods and tools for follow up and impact assessment on institutions Milestone: By 2005, two ICRAF regions will complete an assessment of research products capture processes.
Indicator: Survey reports and recommendations		
Indicator: A report on the functioning of farmer groups and organizations in capturing research products.		

Project SI.3 Educational systems and institutions

Project goal	Well prepared future farmers, policy makers, scientists, educators and development workers	
Indicator	Educational programmes have adequate agroforestry and INRM content that is also well delivered	
Project purpose	Outputs	Activities
Purpose SI.3.1 To mainstream inter- and multi-disciplinary land management approaches into tertiary education for improved productivity and conservation	Output SI.3.1.1 An understanding of tertiary education needs Output SI.3.1.2 Improved and integrated content and delivery of agric and NRM education Output SI.3.1.3 Ecoregionally and culturally relevant and up to date teaching materials; improved link between education and practice Output SI.3.1.4 Increased capacity to produce scientists (especially researchers and educators) in INRM	Activity SI.3.1.1 Surveying and monitoring policies, the content and delivery of agric and NRM in education systems Activity SI.3.1.2 Providing technical support to review curricula and develop inter- and multi-disciplinary approaches to education planning and delivery Activity SI.3.1.3 Supporting educators to develop own educational materials Activity SI.3.1.4 Supporting the development of Postgraduate education, with thesis research in AF and INRM
	Indicators: Adoption of improved curricula by universities and colleges Increasing graduate thesis research in agroforestry and INRM More educators trained in agroforestry/INRM Education policy changes	Milestones: At least five educational programmes reviewed per year At least fifteen new students each year supported to undertake thesis research in agroforestry/INRM At least twenty lecturers trained in agroforestry each year At least two training manuals on cutting edge research produced and widely shared each year.
Purpose SI.3.2 To prepare the youth completing basic education with life skills in farming and related enterprises	Output SI.3.2.1 Youth completing basic education are skilled in farming and related enterprises Output SI.3.2.2 Contextualized educational programmes available and delivered at schools Output SI.3.2.3 Mechanisms in place to link schools with rural communities for development	Activity SI.3.2.1 Exploring opportunities for teachers to learn and impart knowledge and skills in INRM Activity SI.3.2.2. Supporting the development of teaching materials for schools Activity SI.3.2.3. Developing tools and mechanisms for schools to link and work with local communities
	Indicators: An analysis/report of effectiveness of contextualized learning A report on school to community link mechanisms	Milestones: By 2005 twenty schools and communities will be linked and tested. Contextualized curricula will be evaluated independently.

Purpose SI.3.3 To enhance teaching methods and educational resources for agroforestry/INRM

Output SI.3.3.1 Tested methods and tools for building human resource capacity at all levels

Activity SI.3.3.1 Developing and supporting scaling up strategies for training

Output SI.3.3.2 Increased pool of human resources capable of doing high quality agroforestry /INRM training, research and development

Activity SI.3.3.2. Training of educators and trainers in Integrative teaching & learning approaches

Output SI.3.3.3 Viable, institutionalized partner capacity to strategize, plan and implement own capacity enhancement

Activity SI.3.3.3. Support planning and strategizing for capacity development

Indicators:

Number of teachers trained to a. contextualize learning; b. develop agroforestry/INRM learning resources and c. planning of learning.

Milestones:

Each year at least twenty school teachers will be trained
By 2005 prototype materials will be produced and shared.

Project SI.4 Inter-institutional collaboration and knowledge management

Project goal	To develop mechanisms that foster better sharing of knowledge and information, thereby rationalizing the utilization of available capacity	
Indicator	Working interactions among institutions, and knowledge products easily accessible	
Project purpose	Outputs	Activities
Purpose SI.4.1 Fostering collaboration and synergy among institutions	Output SI.4.1.1 Strategic positioning of capacity building as a global public good	Activity SI.4.1.1 Global synthesis and analysis of ICRAF's capacity building efforts
	Output SI.4.1.2 Strong and sustainable partner networks	Activity SI.4.1.2 Building/supporting networks that link institutions within and across the Research-Education – Development continuum
	Output SI.4.1.3 Improved flow and access to knowledge by stakeholders	Activity SI.4.1.3 Building the capacity of local institutions to take up and mainstream the management of agricultural/INRM knowledge
Indicators: ANAFE and SEANAFE networks will be stronger, managed largely by network members More networks established at the national level Roundtable workshops held for establishing networks in South Asia and Latin America		
Purpose SI.4.2 Improving ICRAF's quality of service and access to agroforestry/INRM knowledge and products	Output SI.4.2.1 A well-managed corporate system for mentoring institutions and individuals	Activity SI.4.2.1 Strengthen ICRAF's internal capacity, processes and coordination to facilitate better sharing of knowledge
	Output SI.4.2.2 Quality products (tools, methods, advice and educational resource materials) easily accessible	Activity SI.4.2.2 Building ICRAF's internal knowledge management capacity tools and methods
	Output SI.4.2.3 Knowledge sharing centres and mechanisms. "One-stop shops" for agroforestry and INRM knowledge at strategic locations	Activity SI.4.2.3 Organize available agroforestry /INRM knowledge into multi-media products for the various clients
	Output SI.4.2.4 Improved integrity and integration of knowledge systems and knowledge sharing	Activity SI.4.2.4 Developing strategies for knowledge management together with other CGIAR centres and partners
Indicators: Training materials developed and shared with partners Knowledge centres established to service partners		
		Milestones: Each year at least two training manuals on topics relevant to farmers will be published and shared By the end of 2005 at least four knowledge centres will be established and running A strategy for managing knowledge centres will be developed and shared An e-learning strategy and websites will be established

ASB Systemwide Programme

Programme goals	To identify, test, and implement combinations of policy, institutional and technological options that can raise productivity and income of rural households in the humid tropics without increasing deforestation or undermining essential environmental services.	
Indicators	Agricultural and forest productivity increases; smallholder incomes increase; deforestation slows; aggregate indicators of biodiversity richness stabilize and carbon stocks increase; indicators of sedimentation and hydrological functions show local environmental quality has improved; development goals and environmental concerns are jointly considered in policies and programmes regarding tropical forests; integrated, eco-regional approach to natural resource management securely integrated into the CGIAR agenda.	
Programme purposes	Outputs	Activities
Purpose ASB.1: ASB partners accelerate the participatory development, adaptation, and spread of technologies and land use practices that conserve biodiversity, store carbon, and maintain local environmental services, while providing attractive opportunities for poor rural households in the humid tropics to increase their income and food security.	<p>Output ASB.1.1 Training in innovative methods / measurement techniques that are reliable, cost-effective and readily adoptable by national partners and that produce empirical results that are comparable across the humid tropics.</p> <p>Output ASB.1.2 Expanded databases on the multiple impacts of deforestation and other land use/cover changes for the humid tropics.</p> <p>Output ASB.1.3 Landscape scale data gaps filled; methods for landscape-level assessment of trade-offs developed; and new implications identified from analysis at the watershed/landscape level.</p> <p>Output ASB.1.4 Extrapolation domains for technological, institutional, and policy innovations in the humid tropics.</p> <p>Output ASB.1.5 Scientific publications documenting tradeoffs between environmental concerns and development objectives within a local, national, or regional context.</p>	<p>Training to deepen capacity in existing partners and extend capacity to new partners in empirical assessment and monitoring of global environmental concerns, agronomic sustainability, household socio-economic concerns, national development objectives, institutional options and opportunities for policy reform.</p> <p>Development of replicable assessment techniques and policy-relevant databases on local environmental services, which underpin the sustainability, resilience and stability of rural production systems, in order to fill the gap in understanding and evidence on hydrological, ecological and other environmental services at the watershed/landscape scale.</p> <p>Spatially-explicit, empirically-based pantropic assessments of the biophysical, ecological, and human dimensions of the ASB problem domain.</p>

Indicator:

ASB outputs have a discernible influence on NARS research priorities. Current NARS partners continue to implement ASB-type research and become increasingly engaged in these activities.

New NARS partners adopt ASB methods and approaches.

Alternative land-use practices are adapted and spread at ASB sites and at other locations in the humid tropics.

Indicator:

ASB stakeholders understand and can monitor the multiple impacts (local, national and global) of alternative land uses and practices.

Workable and relevant combinations of policy, institutional, and technological options are identified through participatory research and policy consultations.

Milestones:

Study of spatial scale of impact on various hydrological functions completed in 2001. Landscape-scale modelling workshop in 2001.

Pantropic/meso scale analysis and synthesis and Micro/meso reconciliation of hydrological effects completed 2003.

Preliminary (coarse resolution) pantropic assessment of ASB problem domain completed in 2002.

Preliminary landscape typology developed in 2002.

Landscape typology validated with local groups in 2003.

Local research teams trained in ASB methodologies by 2002.

Crosscutting ecosystem assessment (at meso to fine scale) designed for the humid tropics in 2001; funding secured and research underway in 2002;

Millennium Ecosystem Sub-global Assessment contribution in 2003-2004.

Purpose ASB.2.1: Support ASB partners' efforts to **formulate and implement policy options and institutional innovations for integrated ecosystem management** that encourage the adoption and sustainable management of land use alternatives in the humid tropics that reduce poverty while conserving biodiversity, carbon stocks, and other environmental services.

Output ASB.2.1: Strategic insights regarding key stakeholders and the most effective and efficient means to secure their participation in natural resource management solutions when there are conflicting interests

Output ASB.2.2: Reliable and cost-effective methods validated for community-based environmental monitoring / impact assessment.

Output ASB.2.3: Negotiation support models to assist various stakeholders – including local people – in forming consistent visions of alternative futures with different mixes of environmental services and development options.

Output ASB.2.4: Innovative approaches to build capacities to manage inevitable conflicts among stakeholders at various scales.

Output ASB.2.5: Innovative mechanisms to create incentives for natural resource conservation and to compensate local people for foregone development opportunities, including institutional innovations for targeting environmental service payments to the rural poor

Strategy to involve wider representation of different groups within ASB countries (local community associations and conservation groups, local government and civic organizations, local and national NGOs, policymakers and officials at various levels

Work with stakeholders to devise methods they can use to monitor and understand impacts of ongoing change and to develop workable responses under dynamic and uncertain conditions.

Identify means to manage inevitable conflicts among stakeholders at various scales, including mechanisms to compensate local people for foregone opportunities.

Establish regional environmental services units in SEA, Amazon Basin, and Congo Basin.

Indicator:

Polymakers at various levels (from local to global) pay increasing attention to the research outputs of ASB and consult regularly with ASB researchers regarding land use change and environmental services.

Polymakers adapt policy options and experiment with institutional innovations identified and developed by ASB national consortia.

Forestry and tenure policies are reformed, thereby improving incentives for sustainable resource management. Landuse, commodity trade, and agricultural policies incorporate environmental concerns.

Smallholder households and/or local communities are compensated for additional environmental services.

Purpose ASB.3. Support ASB partners' efforts to **bring down costs of implementing carbon offset projects with farming communities.**

Indicator:

Expansion of partnerships to broaden active participation by local people and other key agencies, organizations and institutions in problem definition, negotiation regarding conflicting interests, identification and assessment of options, and design and implementation of interventions.

Effective participation of key stakeholders institutionalised within ASB national consortia.

A range of stakeholders, including local communities, farmers groups, NGOs, and other civil institutions, uses ASB methods and results of simulations and participatory assessments.

ASB national consortia become vehicles for participation by diverse groups within tropical countries.

Output ASB.3.1 Multidisciplinary studies of the direct opportunity costs to smallholders of shifting to or conserving land uses that store more C.

Output ASB.3.2 Methods to establish regional baselines for specific land use systems, thereby reducing monitoring costs, tested and verified.

Output ASB.3.3 Methods for projecting dynamic baselines—with and without project scenarios—that reflect economic and environmental shocks.

Output ASB.3.4 Assessments of the relative costs and effectiveness of alternative institutional arrangements.

Milestones:

Local and international partners with expertise in conflict management identified and collaborating with ASB by 2002.

Stakeholder analyses completed at each site by 2004.

Methodologies developed for local groups to monitor environmental functions.

Landscape-scale simulation techniques developed and adapted for use by various stakeholders.

Negotiation support tools and strategy to facilitate effective participation by and social interaction among different stakeholders developed and validated at ASB sites.

Pilot carbon offset projects with farming communities.

Development of cost-effective measurement techniques.

Development of models to simulate 'without project' baselines.

Comparative institutional and implementation studies, drawing on AIJ project experience and adding insights from strategic action experiments at ASB sites.

Cross-site synthesis to identify methods for accelerating the learning process to bring 'transactions costs' down in dealing with smallholder communities.

Workshops and policy seminars to convey these results to an international audience, including potential private sector investors.

Indicator:

Smallholder households and/or local communities in the humid tropics are compensated for additional carbon storage.

Indicator:

Policymakers, private investors, and carbon offset designers and managers use research outputs of ASB and consult regularly with ASB researchers regarding design and implementation of carbon offsets.

Milestones:

Action research protocol for pilot carbon offset projects with farming communities developed in 2001.

Funding for carbon offsets and associated action research secured from private sector investors and other funders in 2002.

Participatory design of pilot projects completed (after funding is secure).

At least one pilot carbon offset project with farming communities initiated in each of three regions spanning the tropics (e.g., Amazon, Congo Basin, and insular SE Asia) by 2003.

Purpose ASB.4. Build sustainable operational capacity in NARS, IARCs, and other institutions for work on integrated natural resource management.

Output ASB.4.1. Smooth, efficient, transparent management of the ASB systemwide programme.

Output ASB.4.2. A consistent flow of reliable, pertinent information to ASB partners and others regarding international public goods produced by ASB.

Output ASB.4.3. Scientific publications documenting tradeoffs between environmental concerns and development objectives within a pantropic / global context.

Output ASB.4.4. Focused input into international science and policy arenas, multilateral conventions and protocols.

Output ASB.4.5. Enhanced capacity of ASB partners (NARS, IARCs, and others) to implement integrated natural resource management.

Output ASB.4.6. ASB partners' awareness of and access to information on environmental concerns and development options enhanced.

Output ASB.4.7. ASB partners' awareness of and access to funding (especially new 'environmental' funds) enhanced.

ASB global coordination and governance.

ASB global synthesis of results.

Competitive grants program and other means to build ASB national partners' capacities for research and development with particular attention to natural resource management problem definition and proposal writing.

Indicator:

ASB viewed within the CGIAR as a successful eco-regional programme and as a model for integrated natural resource management research and action.

Other programmes and projects look to ASB for integrated natural resource management procedures, methods and tools, and begin to use them.

A wider range of environmental and social issues—spanning local, national, and global concerns—incorporated in analysis of and debate on agricultural development, land use, and natural resource management at various levels. ASB outputs have a discernible influence on international debate regarding appropriate balance between environmental concerns and development options in the humid tropics.

NARS, IARCs, and other partners in ASB enjoy stronger support from existing stakeholders and an expanding environmental constituency.

Indicator:

Necessary human and financial resources available for ASB's global, regional, national and local activities. Present and new NARS, IARC, and other partners become increasingly engaged in integrated natural resource management and confident of their abilities to undertake and sustain these activities.

Preparation of successful funding proposals by ASB national consortia. An expanding external audience among development agencies, environmental groups, ARIs active in international science and policy arenas, and multilateral conventions and protocols use and cite ASB results.

Milestones:

ASB Policybriefs Series initiated in 2001; at least four new ASB Policybriefs produced annually.

ASB website fully functional by 2001 and continuous updating of website institutionalised.

ASB-Global list server reactivated in 2001.

ASB Global Synthesis Report in 2004.

Impact assessments of a representative set of specific ASB activities in 2003.

ASB external review in 2003

Participatory development of ASB strategy for local and national capacity building, including action plans for fundraising; access to information / information technology; north-south and south-south exchange completed by early 2002.

Strategy and action plan for mass media outputs to raise public awareness completed by 2003, with production of mass media outputs to begin by 2004.

African Highlands Ecoregional Programme

Programme goal	Small-scale farmers and research and development agencies develop, adapt and integrate innovative technological, institutional and policy options to improve agricultural productivity while sustaining the natural resource base.	
Indicators	<p>Documented evidence of improved policy and social arrangements in selected target areas that successfully integrate development, equity and environmental protection goals</p> <p>Target community members have adapted and adopted integrated technologies and practices that improve their land management and increase income and food availability.</p> <p>Research and development partners have increased capacity to implement an integrated, participatory NRM approach. Partner organizational agendas and management changed to accommodate this approach.</p>	
Programme purpose	Outputs	Activities
<p>Purpose AHI.1. AHI partners develop and use an integrated, participatory NRM approach to develop and adapt practical technologies and practices that improve land use, increase returns to land and labour, arrest land and biodiversity degradation in the highlands and empower local communities to sustain these efforts.</p>	<p>Output AHI.1.1. An integrated set of relevant technical and management options are locally available, and the context of applicability documented by research partners.</p> <p>Output AHI.1.2 Methodological and technical data synthesized, organized and available to local, national, regional and global users.</p> <p>Output AHI.1.3. Local communities, stakeholder groups and service providers' innovativeness and organizational capacity enhanced to make better land use and NRM decisions.</p> <p>Output AHI.1.4. Trade-off analyses of different management and institutional arrangement scenarios improves decision making concerning land use and NRM at local, national and regional levels.</p> <p>Output AHI.1.5. Methods and techniques related to using an integrated, participatory NRM approach that increase the efficiency, relevance and speed uptake and promotion of better practices.</p>	<p>Develop, test and adapt technical and management options and participatory integrated NRM methods in highland catchment or micro-watershed areas that have unique and representative conditions. While using a case study and "action research" approach, monitor and document methods and contextualize results. Undertake specific studies to broaden the inference of these experiences. Synthetically combine data from the case study experiences and broader inference to produce useful guidelines and scientific papers for a variety of audiences.</p> <p>Develop a set of indicators, assessment tools and models that will provide useful information on trade-offs in productive and environmentally sound highland management for managers having different perspectives (environmental conditions, scales and user groups).</p> <p>Integrate local capacity enhancement into action research in case study areas. Monitor and document the impact on decision making, conflict resolution, innovativeness and other institutional arrangements regarding NRM and land use. Conduct specific studies to broaden inference. Combine information to produce guides and scientific papers.</p>
<p>Indicator:</p> <p>Alternative land use practices and strategies that increase income and decrease land and biodiversity degradation are developed, adapted and used.</p> <p>Communities are proactive in pursuing sustainable development.</p> <p>NARS, IARC and local partners are conversant with and utilize various aspects of participatory, integrated NRM approach in their work.</p>	<p>Indicators:</p> <p>Guidelines to track and monitor the effect of various management and institutional arrangement scenarios on production, equity and environment.</p> <p>Manuals or synthetic guidelines on integrated technical and management options for various biophysical and socio-economic circumstances.</p> <p>Scientific papers on technical and management options, trade-off analyses, syntheses, and associated developed INRM methods and techniques.</p> <p>Adoption and impact studies and surveys of community skill, adaptation and empowerment</p>	<p>Milestone:</p> <p>Action research case studies operational and producing technical & management options & contextual information 2003-2005</p> <p>Indicators, assessment tools and models developed 2003-2005. Preliminary results available by 2005.</p> <p>Participatory monitoring and evaluation guidelines published 2003.</p> <p>Landscape scale assessment methods developed underway for 3-4 typical highland scenarios in 2003.</p> <p>Two technical syntheses and/or decision guides produced per year.</p> <p>Training of communities ongoing.</p>

Purpose AHI.2 Support is provided by AHI partners to local policy makers and stakeholder groups to analyse, formulate and implement improved institutional arrangements and policies that reverse land and biodiversity degradation and improve livelihoods.

Indicator:

Local policy makers able to evaluate and renew local policies to improve livelihood for a variety of constituents and to incorporate environmental aspects.
Community members can understand the consequences of their actions, are more active in negotiation and in vocalizing their concerns to local government.
R&D organizations and service providers are able to work together to analyse highland NRM conflicts and to develop solutions using participatory methods.

Output AHI.2.1. Local policy makers and stakeholder groups are provided with information that will improve understanding of the multiple causes of degradation, the links between land management and sustainable livelihoods, and improve their priority setting and decision making.

Output AHI.2.2. Participatory methods and techniques facilitating conflict resolution and stakeholders with differing interests to evolve better resource sharing arrangements

Output AHI.2.3. Local leaders, service providers and constituents mobilized to envision and implement self-led development scenarios that improve livelihoods and provide incentives to maintain the resource base.

Output AHI.2.4. Implementation of and assessment of new or improved policies or arrangements enhanced by use of participatory monitoring and assessment methods.

Indicator:

Techniques that help to analyse the location of problem areas, links to livelihood scenarios, causes and effects of land and biodiversity degradation in highlands are used by local stakeholders to characterize, diagnose and find solutions to the key problems.
Methods and techniques regarding conflict resolution and improved resource sharing documented from case study work.
A more cohesive framework for enhanced coordination and broadened participation in development and improved environmental management shared and used by a range of local stakeholders.

Choose 3-4 common highland scenarios where resource sharing issues have been documented (e.g. management of soil and water on hillsides and valley bottoms; communal grazing and land use by livestock; burning). Using a case study action research approach derive facilitation, monitoring, diagnosis, priority setting and policy formation methods. Monitor, document and disseminate.

Foster joint district, service provider and constituent development and investment planning framework to build in incentives for better land management, development and better coordination of currently diverse, distinctive efforts. Provide necessary information to help in decision making and understanding trade-offs. Help to develop capacity of local leaders. Publish experiences.

Use visits and presentations of case study "trials" to provide insights to others in highlands and to national government policy makers.

Milestones:

Policy-maker case study to analyse local by-laws and arrangements started in 2001 in 1 location and 3 other case studies started in 3 more locations in 2003.
Techniques and methods to make NRM assessment and to monitor change developed between 2003-2004 and in use in pilot areas by 2004.
District framework piloted in 2 areas starting in 2002, adjusted and tested in 2 other areas in 2003-04.
Partnerships expanded to include greater range of expertise in conflict resolution, landscape and social analysis skills in 2002-3.

Purpose AHI.3 Strengthen the capacity of NARS, IARCs and other institutions to use integrated, participatory NRM approaches across the ecoregion ensuring that efforts to improve livelihoods and land management are sustainable.

Indicators:

ASARECA networks and NARS in the region are practising and actively advocating innovative approaches for INRM and incorporating environmental aspects in their research.

Multi-institutional inputs are better integrated, synergies more apparent, programs more efficiently managed and there is more coherent advocacy due to AHI.

AHI outputs positively influence policy makers, local communities, research & development organizations in terms of curbing land and biodiversity degradation and improving livelihoods in the highlands.

Output AHI.3.1. AHI partners have improved their ability to implement participatory INRM

Output AHI.3.2. AHI partners and others have access to and use information on NRM issues, technological and management solutions, and methods

Output AHI.3.3. AHI partners have shared information among themselves, and have provided information and advice using presentations, publications and participation in pertinent fora at local, national, regional and global levels

Output AHI.3.4. Management and coordination enhances multi-institutional efforts in AHI at regional and pilot site levels

Output AHI.3.5. Principles of institutional change understood and assist research organizations in the change and capacity building processes.

Indicators:

Coherent AHI strategy with meaningful outputs attracts partners and funding.

AHI partner institutions and other associated organizations use participatory, integrated NRM approach.

Institutional change occurs through adapting various methods, techniques and institutional aspects that support change

AHI partners are more knowledgeable and proactive in participating in NRM debates

Research efforts more efficient given enhanced sharing of results through AHI.

Capacity building in NARS at the pilot research sites will mainly occur through using action learning and mentoring processes. Use of study visits, seminars and occasional workshops will augment.

AHI will support data synthesis, publications, and innovative information sharing techniques, such as electronic networks, CD distribution, videos, and sponsorship of researchers to selected fora.

AHI regional and site coordination will include feedback, monitoring and evaluation of multi-institutional inputs.

Two case studies will be started to understand the principles and mechanisms of institutional change focusing on incorporation of participatory approaches used in INRM.

Milestones:

AHI revises Website up and running in 2003 and continually updated.

AHI monthly electronic newsletter started in 2003.

Annual regional fora or training workshops sponsored by AHI to aid in capacity building and synthesis of information.

Publication series maintained, concentrating on 2 syntheses per year.

1-2 guidelines on various aspects of participatory methods useful in INRM published annually.

Principles and methods of institutional change 2004.

Strategy for public awareness and dissemination of results to various types of users developed in 2003 and implemented thereafter.

CGIAR Gender and Diversity Program

We cannot achieve on the outside what we do not practice on the inside.

1. Background, Objectives and Organization/Financing¹

Background

The Future Harvest Centres of the CGIAR recognize that seeking, respecting and enhancing staff diversity goes to the very heart of the centres' role in a changing world.

During the Mid-Term Meeting of 1998, the Committee of Directors General elected to create the CGIAR Gender and Diversity Program (G&D) as a systemwide service to support centres' efforts in gender and diversity -- with knowledge and information, training and skills development, technical expertise and funds through small grants. Designed collaboratively with the centres, the program was launched in July 1999. The World Agroforestry Centre (ICRAF) in Nairobi, Kenya hosts the program.

G&D built upon the innovative work of the CGIAR's earlier Gender Staffing Program, which from 1991 assisted centres in their efforts to recruit, advance, and retain internationally recruited (IRS) women scientists and professionals. In response to the centres' requests, G&D broadened the previous agenda to include diversity issues and to include the nationally recruited staff (NRS) more explicitly.

Purpose and Objectives

The CGIAR's greatest resource is its nearly 8,000 scientists, technicians and managers, committed women and men from 100 countries offering a cornucopia of expertise and talents to the 16 Future Harvest Centers. The overriding purpose of the Gender and Diversity Program is to help the centers fully leverage their rich staff diversity to increase research and management excellence.

G&D provides services and resources to the centers focused on supporting an organizational culture of inclusion, dignity, well-being and opportunity, in both policy and practice. G&D promotes such activities as diversity-positive recruitment, international teamwork, cross-cultural communications and advancement for women, all essential activities for effective global organizations.

Our Vision

To cultivate standards of excellence for diversity in the workplace, equal to our standards for science, which empowers all staff to contribute their best to enrich future harvests.

Our Purpose

We are a global organization, born of a global community, diverse in professional discipline, nationality, gender, race, culture, ethnicity, language, age, religion and sexual orientation. We seek those differences and seize the opportunities our great diversity offers in the service of tropical agricultural research.

- Drafted by participants of G&D's 2001 Diversity in Action E-Conference for Directors General and Their Teams

The seven objectives that guide G&D were formulated during an Inter-Center Consultation hosted by ISNAR in 1998:

- (1) Diagnose staff diversity in the centers and develop a conceptual framework for employing diversity to enhance both equity and organizational effectiveness.
- (2) Provide encouragement and support to senior management for dealing with gender and diversity issues.
- (3) Strengthen knowledge and skills of center staff to manage diversity effectively.

¹ *Please note that the Gender and Diversity Program while hosted by ICRAF, is to become part of the systems office. For that reason, its business plan conforms to the guidelines provided by the Systems office rather than the MTP guidelines provided by the Secretariat.

- (4) Enhance centers' ability to attract high-quality staff from diverse identity groups.
- (5) Support women's career development and advancement.
- (6) Encourage changes in policies, formal systems and work norms and practices to ensure equal opportunities for leadership, career development and involvement in decision-making for women and men of diverse identity groups.
- (7) Support the Future Harvest Centers to institutionalize the policies, commitment, knowledge and skills for managing a diverse staff effectively.

2. Governance and Operations

The Business Case for G&D

The CGIAR has committed to reinventing itself over the next few years in order to serve better its global mandate. A new vision and new mechanisms of work (i.e. challenge programs) are currently the main topic of discussion among virtually every stakeholder in the CGIAR system. However, the system's "people processes" must be brought into alignment with these changes. The Gender and Diversity Program was created specifically to ensure that the full richness of the highly diversified staff in the Future Harvest Centers could be harnessed to generate relevant, innovative results for our partners and clients.

When staff diversity is sought, respected and enhanced, the centers have a greater ability to:

- Respond to changing workforce demographics, including greater participation by women and members of other historically under-represented social groups;
- Strengthen collaborative modes of work by accentuating interdependence, partnerships and alliances;
- Build innovation, creativity and problem solving through supporting multi-cultural, multi-disciplinary teams;
- Advance social justice and equality - a core value of Future Harvest Centers;
- Improve retention of highly qualified staff by offering progressive and satisfying work experiences;
- Excel in performance and reputation by modeling the workplace of the future; and
- Tap into new knowledge networks giving broader access to clients, beneficiaries and investors.

Funding

Funding for the Gender and Diversity Program is raised on an annual basis providing for all G&D costs, including personnel, office space and overhead, and the production of all services and resources.

A strategic alliance of internal and external investors supports G&D. Internal investors include the Committee of Directors General, the CGIAR Secretariat and IWMI. External investors include Denmark, Ford Foundation, Germany, IDRC, the Netherlands, Norway, and Switzerland.

Annual G&D Budget

Year	2000	2001	2002	2003
Budget	US\$478,849	US\$568,008	US\$427,094	US\$585,366

Services and Resources Provided by G&D

G&D works both at the center level and the system level, providing the following range of services and resources:

- Research - G&D conducts innovative research using an array of resources in order to explore international benchmarks and best practices, and make recommendations for their implementation in the centers. Its comprehensive review of organizational motives and methods for diversity work, "Working with Diversity: A Framework for Action" is a landmark in the field. G&D also monitors the CGIAR's progress on gender and diversity issues through biennial system-wide surveys.

- Policy models - G&D calls upon its research capabilities to make international human resource policy recommendations, including support for diversity-positive recruitment, spousal employment and anti-harassment measures. G&D also has taken the lead in developing policies and practices concerning HIV/AIDS in the CG workplace, working to prevent further infection among staff and their families, fostering a non-discriminatory workplace, and monitoring progress in implementation.
- Action and application - Through direct technical support and cost-sharing, G&D assists the Centers to conduct their own gender and diversity assessments, build internal capacity for change, promote women's leadership, develop in-house cultural orientation programs, strengthen recruitment practices, and implement other changes to ensure a strong, diverse and dynamic organization. During 2004-2006, G&D plans to extend its mentoring program to at least 10 centers (from the current 4).
- "Cast the Net Widely" Database - G&D created and maintains a global database, currently with 3134 women scientists and professionals as members, to help Centers recruit the most qualified person for each available position. Already this database has assisted the centers to widen their search during 175 recruitments. "Cast the Net Widely" also provides timely information to women worldwide about job opportunities, grants and fellowships.
- Conferences and workshops - G&D develops and leads system-wide conferences on gender and diversity topics, such as the "CG Centers Working with Diversity for Excellence and Impact" workshop held in 2000, and the annual "CGIAR Women's Leadership and Management Course". G&D also looks for cost- and time-efficient ways to bring people together, such as the "Diversity in Action E-conference for Directors General and their Teams" which allowed 90 participants throughout the system to work together without leaving their offices. G&D's newest offering is a web-based course designed especially for scientific research teams whose members and partners are distributed around the world. G&D will be leading bi-annual workshops on "Enhancing Leadership: Negotiation Skills for CGIAR Women" in 2004 and 2006. In 2005, G&D plans to hold a 10th Anniversary follow up course for the alumni of the annual "CGIAR Women's Leadership and Management" trainings.
- Publications - G&D produces a practical series of working papers and reports based on the results of its own research, as well as international experts commissioned to write on specific gender and diversity topics.

Governance and Consultation

As a systemwide service to the centers, the Gender and Diversity Program is organized for continuous consultation and communication with all key bodies of the organization. The Advisory Board that governs the Gender and Diversity Program consists of a cross-section of stakeholders, including the CDC, CDDC, CBC, Secretariat, Donors, NARs and both internationally- and nationally-recruited staff members. The G&D Advisory Board has overall responsibility for ensuring that the program is of high quality, responds to the needs and priorities of the Centers, builds on cutting-edge knowledge and experience, and is run efficiently and responsibly with a view to delivering maximum impact. The current Chair of the G&D Advisory Board is Dr. Frank Rijsberman, Director General of IWMI. Day-to-day management of the program is the responsibility of the Program Leader, Vicki Wilde.

Board members meet formally on an annual basis, usually a few days before the CGIAR Annual General Meeting (AGM). A key objective of this meeting is to finalize a G&D plan of work and budget for the following year. This plan is then shared during presentations to the CDDC (in turn consulting the CDC on G&D's behalf), the CBC, the Donors Group, and more recently the Executive Council too, soliciting both feedback and advice. Specific requests for G&D's services often arise during these consultations at AGM. With approval of the Advisory Board, the workplan is adjusted accordingly.

Electronic conferencing and communication are employed throughout the year to ensure timely consultation with the G&D Advisory Board, the CDC and others as G&D activities develop.

In addition, the Program has more than 70 G&D Focal Points, with representatives in all Centres. This system of focal points supports dialogue and active consultation between G&D and staff members from all categories, including senior managers, human resource managers and scientists, both internationally recruited and nationally recruited. The role of the G&D Focal Points is one of advocacy, information dissemination, communication and facilitation of centre-level gender and diversity activities. Focal Points also have priority to participate in G&D conferences and workshops, thus

building internal expertise and skill on gender and diversity work. Every two or three months all focal points receive the "G&D Update", an electronic newsletter about recent gender and diversity activities in the centres and at the system level, plus links to useful articles and other resources.

During 2003, the Gender and Diversity Program marked its first four years of work with an External Review, conducted by two external consultants and led by three members of the CG leadership (CBC, CDC, Secretariat). Review results are expected in October 2003.

Administration and Staff

With a view to ensuring that the Gender and Diversity Program works within the challenging realities of the Future Harvest Centres, it was decided that it must be hosted by a centre in a developing country. In 1998 several centres submitted proposals offering to host G&D, with ICRAF selected as the winner. ICRAF provides the legal and administrative home for G&D at its headquarters in Nairobi, providing office space, housing, transport, and use of centre facilities such as computer networking, personnel, accounting and financial services, travel services and more. All costs are reimbursed by G&D according to the terms of a Memorandum of Agreement with ICRAF. The staffing for G&D consists of one Program Leader (internationally recruited) and one Administrative Assistant (nationally recruited), both full-time. They enjoy the same status and benefits as regular ICRAF staff members.

3. Proposed Service Offerings and Budget 2004

The Gender and Diversity Program workplan and budget for 2004 is pending results of its External Review.

Meanwhile it is estimated that the program would have the same budget level as approved for 2003, a total of US\$600,000. It is also estimated that these funds would be allocated in approximately the same proportions as in 2003. Most of the proposed G&D services can be found under three main SO functions: Strategic Planning and Development, Monitoring and Evaluation, and Management Services.

4. Performance Assessment

G&D has the following forms of evaluation and feedback:

1. External Review of G&D in 2003;
2. G&D Advisory Board annual review of progress and expenditures;
3. Annual performance evaluation of the Program Leader by the Board Chair;
4. Annual expenditures audit by ICRAF's Finance Unit;
5. Workplan and progress review and feedback by the ExCo, CBC and CDDC in response to reports and presentations during AGM; and
6. Quarterly (qualitative) feedback from G&D Advisory Board members and G&D Focal Points systemwide in response to the "G&D Updates".

The performance indicators recommended for G&D in 2004 are largely quantitative and include the following²:

- Number of centers that implemented one or more G&D activity, e.g. spousal services center, cultural orientation, diversity diagnosis.
- Number of centers that adopted/adapted one or more workplace policy recommended by G&D, e.g. Hiv/Aids, flextime, anti-discrimination.
- Number of centers signing up to implement new G&D activities over 2004-2005.
- Number of scientists (IRS, NRS, NARS and partners) participating in G&D's online course for high performing cross-cultural teams.
- Number of senior managers and CG staff members participating in G&D's new e-conference.
- Number of managers and young scientists participating in G&D's pilot project on mentoring.
- Number of centers sponsoring women to participate in G&D's women's leadership or negotiation training.
- Women as percentage of IRS recruits and NRS recruits.

² Achievement depends on funding for the activities proposed.

- Women's retention rates as compared to men's.
- Women as percentage of senior management.
- Part II nationals as percentage of IRS recruits.
- Part II nationals as percentage of senior management.
- Number of vacancy announcements distributed through G&D's database of women scientists and professionals.
- Number of new G&D working papers produced and distributed.

Monitoring our Progress (updated biennially)

According to G&D's 2003 data, the 16 Future Harvest Centers have 7,651 staff members. 84% are employed on nationally recruited conditions, 3% on regionally recruited conditions, and 13% on internationally recruited conditions. CGIAR staff are drawn from over 100 countries. We are 73% male. Internationally recruited staff includes 50% percent from developing countries, an increase from 47.4percent in 1995, and 18.0 percent women, a significant increase from 14 percent in 1995. The majority of internationally recruited women hold junior level positions; 9 percent of management is female. Nationally recruited staff is 28 percent women up from 25 percent in 1995.

Annex 2 – Financial tables

Cost Allocation

Table 1	Financial Requirements by CGIAR Output 2004.....	64
Table 2	Allocation of Resources by CGIAR Output & Activity.....	65
Table 3	Project & Output Cost Summary.....	66
Table 4	Allocation of Project Costs to CGIAR Activities.....	67

Investments

Table 5	Investment by Production Sector, Commodity and Region.....	70
---------	--	----

Expenditure

Table 6	Object of Expenditure.....	71
Table 7	Capital Investments and Capital Fund Cash Reconciliation.....	72

Financing

Table 8	Unrestricted and Restricted Grants and Center Income.....	73
---------	---	----

Staff Composition

Table 9	Internationally and Nationally Recruited Staff by Function.....	75
---------	---	----

Financial Position

Table 10	Statement of Cash Flows, Prior year to Plan Year.....	76
Table 11	Currency Structure of Expenditures.....	77
Table 12	Assets, Liabilities and Net Assets.....	78

World Agroforestry Centre

Table 1: Cost Allocation: Financial Requirements by CGIAR Output 2004

Theme	Center Projects	\$ millions					
		Germ-plasm Improvement	Germ-plasm Collection	Sustainable Production	Policy	Enhancing NARS	Project Totals
LP1	Integrated soil fertility management for improving rural livelihoods	0.00	0.34	0.79	0.79	0.34	2.26
LP2	Soil and water conservation for maintaining productive agricultural landscapes	0.00	0.00	0.30	0.09	0.04	0.43
LP3	Vegetation management for increased system productivity and reduced human vulnerability	0.00	0.25	0.73	0.05	0.12	1.15
LP4	Land management interventions for reaching the poorest land users	0.00	0.34	0.67	0.50	0.17	1.68
TM1	Market analysis and support to tree product enterprises	0.00	0.00	0.24	0.19	0.06	0.49
TM2	Sustainable seed systems and management of genetic resources of agroforestry trees	1.27	0.82	0.64	0.00	1.00	3.73
TM3	Tree domestication with intensification of tree cultivation systems	0.26	0.00	0.80	0.02	0.21	1.29
TM4	Farmer-led development, testing and expansion of tree-based options	0.00	0.47	2.08	1.01	1.15	4.71
ES1	Strategies to enhance watershed functions	0.00	0.07	0.33	0.08	0.06	0.54
ES2	Wise use and conservation of biological diversity	0.00	0.40	0.80	0.08	0.32	1.60
ES3	Climate change mitigation and adaptation for rural development	0.00	0.23	0.94	0.03	0.05	1.25
ES4	Policies to harmonize rural development and environmental stewardship	0.00	0.06	0.32	1.72	0.44	2.54
SI1	Research systems and institutions	0.00	0.00	0.00	0.13	0.38	0.51
SI2	Development systems and institutions	0.00	0.00	0.00	0.11	0.32	0.43
SI3	Educational systems and institutions	0.00	0.00	0.00	0.47	1.40	1.87
SI4	Inter-institutional collaboration and knowledge management	0.00	0.00	0.00	0.10	0.30	0.40
SW1	Systemwide collaboration for alternatives to slash-and-burn	0.00	0.00	0.00	0.00	0.00	0.00
SW2	Ecoregional collaboration for the African highlands initiative	0.00	0.00	0.00	0.00	0.00	0.00
SW3	CGIAR Gender and Diversity Programme	0.00	0.00	0.00	0.57	0.04	0.61
	Output Totals	1.53	3.03	10.04	6.62	7.45	28.67

World Agroforestry Centre

Table 2: Cost Allocation: Allocation of Resources by CGIAR Output and Activity

Allocation of Resources by Outputs

Outputs:

		\$ millions				
		Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Germplasm Improvement		0.97	0.99	1.53	1.04	1.06
(Activity: Germplasm Enhancement & Breeding plus Networks as appropriate)						
Germplasm Collection		1.99	2.42	3.02	2.54	2.59
(Activity: Saving Biodiversity, plus Networks as appropriate)						
Policy		4.89	6.35	6.61	6.67	6.80
(Activity: Improving policies, plus Networks as appropriate)						
Sustainable Production		7.95	9.65	10.02	10.14	10.32
(Activity: Production System Dev & Mgmt Protecting the Environment plus Networks as appropriate)						
Enhancing NARS		6.13	7.19	7.47	7.54	7.69
(Activity: Strengthening NARS - the three sub-activities, plus Networks as appropriate)						
Total		21.93	26.60	28.65	27.93	28.46

Allocation of Resources by CGIAR Activity

		\$ millions				
		Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Increasing Productivity		4.52	5.08	5.79	5.34	5.44
of which:						
Germplasm Enhancement & Breeding		0.97	0.99	1.53	1.04	1.06
Production System Development & Management		3.55	4.09	4.26	4.30	4.38
Protecting the Environment		4.40	5.56	5.78	5.84	5.95
Saving Biodiversity		1.99	2.42	3.02	2.54	2.59
Improving Policies		4.89	6.35	6.61	6.67	6.80
Strengthening NARS		6.13	7.19	7.47	7.54	7.68
of which:						
Documentation, Publication, Info, Dissemination		2.05	2.62	2.72	2.74	2.80
Networks						
Organization & Management Counselling		0.63	0.71	0.74	0.75	0.76
Training & Professional Development		3.45	3.86	4.01	4.05	4.12
Total		21.93	26.60	28.67	27.93	28.46

World Agroforestry Centre

Table 3: Cost Allocation: Project & Output Cost Summary

Center Projects	\$ millions				
	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Integrated soil fertility management for improving rural livelihoods	1.39	2.18	2.26	2.29	2.33
Soil and water conservation for maintaining productive agricultural landscapes	0.34	0.41	0.43	0.43	0.44
Vegetation management for increased system productivity and reduced human vulnerability	0.91	1.11	1.15	1.16	1.19
Land management interventions for reaching the poorest land users	0.87	1.61	1.68	1.70	1.73
Market analysis and support to tree product enterprises	0.28	0.47	0.49	0.50	0.51
Sustainable seed systems and management of genetic resources of agroforestry trees	2.26	2.62	3.73	2.75	2.81
Tree domestication with intensification of tree cultivation systems	1.65	1.24	1.29	1.30	1.32
Farmer-led development, testing and expansion of tree-based options	4.04	4.53	4.71	4.76	4.84
Strategies to enhance watershed functions	0.43	0.52	0.54	0.55	0.56
Wise use and conservation of biological diversity	1.71	1.53	1.59	1.61	1.64
Climate change mitigation and adaptation for rural development	0.96	1.20	1.25	1.26	1.29
Policies to harmonize rural development and environmental stewardship	2.10	2.44	2.54	2.56	2.61
Research systems and institutions	0.35	0.49	0.50	0.51	0.52
Development systems and institutions	0.34	0.43	0.43	0.44	0.45
Educational systems and institutions	2.28	1.79	1.87	1.88	1.92
Inter-institutional collaboration and knowledge management	0.00	0.38	0.40	0.40	0.41
Systemwide collaboration for alternatives to slash-and-burn	0.56	1.49	1.55	1.56	1.59
Ecoregional collaboration for the African highlands initiative	1.03	1.57	1.63	1.65	1.68
CGIAR Gender and Diversity Programme	0.43	0.59	0.61	0.62	0.62
Total	21.93	26.60	28.65	27.93	28.46

Summary by CGIAR Output:

	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Germplasm Improvement	0.97	0.99	1.53	1.04	1.06
Germplasm Collection	1.99	2.42	3.02	2.54	2.59
Policy	4.89	6.35	6.61	6.67	6.80
Sustainable Production	7.95	9.65	10.02	10.14	10.32
Enhancing NARS	6.13	7.19	7.47	7.54	7.69
Total	21.93	26.60	28.65	27.93	28.46

World Agroforestry Centre

Table 4: Cost Allocation: Allocation of Project Costs to CGIAR Activities

		\$ millions				
Theme	Activity	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
LP1 Integrated soil fertility management for improving rural livelihoods						
	Documentation, Publication, Info, Dissemination	0.14	0.22	0.23	0.23	0.23
	Improving Policies	0.48	0.76	0.79	0.80	0.81
	Protecting the Environment	0.49	0.76	0.79	0.80	0.82
	Saving Biodiversity	0.21	0.33	0.34	0.35	0.35
	Training & Professional Development	0.07	0.11	0.11	0.11	0.12
LP2 Soil	Total	1.39	2.18	2.26	2.29	2.33
	Documentation, Publication, Info, Dissemination	0.03	0.04	0.04	0.04	0.04
	Improving Policies	0.07	0.08	0.09	0.09	0.09
	Production Systems Development - Trees	0.07	0.08	0.09	0.09	0.09
	Protecting the Environment	0.17	0.21	0.21	0.21	0.22
	Total	0.34	0.41	0.43	0.43	0.44
LP3 Vegetation management for increased system productivity and reduced human vulnerability						
	Documentation, Publication, Info, Dissemination	0.07	0.08	0.09	0.09	0.09
	Improving Policies	0.05	0.06	0.05	0.05	0.06
	Production Systems Development - Trees	0.19	0.22	0.23	0.23	0.24
	Protecting the Environment	0.39	0.48	0.50	0.51	0.51
	Saving Biodiversity	0.19	0.24	0.25	0.25	0.26
	Training & Professional Development	0.02	0.03	0.03	0.03	0.03
	Total	0.91	1.11	1.15	1.16	1.19
LP4 Land management interventions for reaching the poorest land users						
	Documentation, Publication, Info, Dissemination	0.09	0.16	0.17	0.17	0.17
	Improving Policies	0.26	0.48	0.50	0.51	0.52
	Production Systems Development - Trees	0.17	0.32	0.34	0.34	0.35
	Protecting the Environment	0.18	0.33	0.33	0.34	0.34
	Saving Biodiversity	0.17	0.32	0.34	0.34	0.35
	Total	0.87	1.61	1.68	1.70	1.73
TM1 Market analysis and support to tree product enterprises						
	Improving Policies	0.10	0.17	0.19	0.20	0.19
	Production Systems Development - Trees	0.07	0.12	0.12	0.12	0.13
	Protecting the Environment	0.08	0.12	0.12	0.12	0.13
	Training & Professional Development	0.03	0.06	0.06	0.06	0.06
	Total	0.28	0.47	0.49	0.50	0.51
TM2 Sustainable seed systems and management of genetic resources of agroforestry trees						
	Documentation, Publication, Info, Dissemination	0.34	0.39	0.41	0.41	0.42
	Germplasm Enhancement and Breeding	0.64	0.74	1.27	0.78	0.80
	Production Systems Development - Trees	0.43	0.50	0.52	0.52	0.53
	Protecting the Environment	0.10	0.11	0.12	0.12	0.12
	Saving Biodiversity	0.26	0.31	0.82	0.32	0.33
	Training & Professional Development	0.49	0.57	0.59	0.60	0.61
	Total	2.26	2.62	3.73	2.75	2.81
TM3 Tree domestication with intensification of tree cultivation systems						
	Germplasm Enhancement and Breeding	0.33	0.25	0.26	0.26	0.26
	Improving Policies	0.02	0.02	0.02	0.02	0.02
	Production Systems Development - Trees	0.58	0.43	0.45	0.45	0.46
	Protecting the Environment	0.45	0.33	0.35	0.35	0.36
	Training & Professional Development	0.28	0.21	0.21	0.22	0.22
	Total	1.66	1.24	1.29	1.30	1.32
TM4 Farmer-led development, testing and expansion of tree-based options						
	Documentation, Publication, Info, Dissemination	0.38	0.44	0.45	0.45	0.46
	Improving Policies	0.87	0.97	1.01	1.02	1.04
	Organization & Management Counselling	0.60	0.68	0.70	0.72	0.74
	Production Systems Development - Trees	1.01	1.13	1.18	1.19	1.21
	Protecting the Environment	0.77	0.86	0.90	0.90	0.92
	Saving Biodiversity	0.41	0.45	0.47	0.48	0.48
	Total	4.04	4.53	4.71	4.76	4.85

Table 4 contd.

		\$ millions				
Theme	Activity	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
ES1 Strategies to enhance watershed functions						
	Documentation, Publication, Info, Dissemination	0.04	0.05	0.05	0.05	0.06
	Improving Policies	0.06	0.07	0.08	0.08	0.08
	Production Systems Development - Trees	0.07	0.08	0.09	0.09	0.09
	Protecting the Environment	0.20	0.24	0.24	0.25	0.25
	Saving Biodiversity	0.05	0.07	0.07	0.07	0.07
	Training & Professional Development	0.01	0.01	0.01	0.01	0.01
	Total	0.43	0.52	0.54	0.55	0.56
ES2 Wise use and conservation of biological diversity						
	Documentation, Publication, Info, Dissemination	0.16	0.15	0.17	0.18	0.15
	Improving Policies	0.09	0.08	0.08	0.08	0.08
	Production Systems Development - Trees	0.34	0.31	0.32	0.32	0.33
	Protecting the Environment	0.51	0.46	0.48	0.48	0.49
	Saving Biodiversity	0.43	0.38	0.40	0.40	0.41
	Training & Professional Development	0.17	0.15	0.15	0.17	0.17
	Total	1.70	1.53	1.60	1.63	1.63
ES3 Climate change mitigation and adaptation for rural development						
	Documentation, Publication, Info, Dissemination	0.05	0.05	0.05	0.06	0.06
	Improving Policies	0.02	0.02	0.03	0.03	0.03
	Production Systems Development - Trees	0.27	0.34	0.35	0.35	0.36
	Protecting the Environment	0.45	0.57	0.59	0.59	0.61
	Saving Biodiversity	0.17	0.22	0.23	0.23	0.23
	Total	0.96	1.20	1.25	1.26	1.29
ES4 Policies to harmonize rural development and environmental stewardship						
	Documentation, Publication, Info, Dissemination	0.21	0.24	0.25	0.26	0.26
	Improving Policies	1.41	1.65	1.72	1.73	1.75
	Production Systems Development - Trees	0.10	0.12	0.13	0.13	0.13
	Protecting the Environment	0.17	0.18	0.19	0.19	0.20
	Saving Biodiversity	0.05	0.06	0.06	0.06	0.07
	Training & Professional Development	0.16	0.19	0.19	0.19	0.20
	Total	2.10	2.44	2.54	2.56	2.61
SI1 Research systems and institutions						
	Documentation, Publication, Info, Dissemination	0.00	0.00	0.00	0.00	0.00
	Documentation, Publication, Info, Dissemination	0.04	0.05	0.05	0.05	0.05
	Improving Policies	0.09	0.12	0.13	0.13	0.13
	Training & Professional Development	0.23	0.32	0.33	0.33	0.34
	Total	0.36	0.49	0.51	0.51	0.52
SI2 Development systems and institutions						
	Documentation, Publication, Info, Dissemination	0.03	0.04	0.04	0.04	0.04
	Improving Policies	0.08	0.10	0.11	0.11	0.11
	Training & Professional Development	0.22	0.27	0.28	0.28	0.29
	Total	0.33	0.41	0.43	0.43	0.44
SI3 Educational systems and institutions						
	Documentation, Publication, Info, Dissemination	0.23	0.18	0.19	0.19	0.19
	Improving Policies	0.57	0.45	0.47	0.47	0.48
	Training & Professional Development	1.48	1.17	1.21	1.22	1.25
	Total	2.28	1.80	1.87	1.88	1.92
SI4 Inter-institutional collaboration and knowledge management						
	Documentation, Publication, Info, Dissemination	0.00	0.04	0.04	0.04	0.04
	Improving Policies	0.00	0.10	0.10	0.10	0.10
	Training & Professional Development	0.00	0.25	0.26	0.26	0.27
	Total	0.00	0.39	0.40	0.40	0.41

Table 4 contd.

		\$ millions				
Theme	Activity	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
SW-1: Systemwide collaboration for alternatives to slash-and-burn						
	Documentation, Publication, Info, Dissemination	0.11	0.28	0.29	0.30	0.30
	Germplasm Enhancement and Breeding	0.00	0.00	0.00	0.00	0.00
	Improving Policies	0.15	0.39	0.40	0.41	0.41
	Networks					
	Organization & Management Counselling	0.00	0.00	0.00	0.00	0.00
	Production Systems Development - Trees	0.03	0.09	0.09	0.09	0.10
	Protecting the Environment	0.19	0.51	0.53	0.53	0.54
	Saving Biodiversity	0.00	0.00	0.00	0.00	0.00
	Training & Professional Development	0.08	0.22	0.24	0.23	0.24
	Total	0.56	1.49	1.55	1.56	1.59
SW-2: Ecoregional collaboration for the African highlands initiative						
	Documentation, Publication, Info, Dissemination	0.10	0.16	0.16	0.17	0.16
	Germplasm Enhancement and Breeding	0.00	0.00	0.00	0.00	0.00
	Improving Policies	0.18	0.27	0.28	0.28	0.29
	Networks	0.00	0.00	0.00	0.00	0.00
	Organization & Management Counselling	0.01	0.02	0.03	0.03	0.03
	Production Systems Development - Trees	0.23	0.35	0.36	0.36	0.37
	Protecting the Environment	0.27	0.41	0.42	0.43	0.44
	Saving Biodiversity	0.03	0.05	0.05	0.05	0.05
	Training & Professional Development	0.21	0.31	0.33	0.33	0.34
	Total	1.03	1.57	1.63	1.65	1.68
SW-3 CGIAR Gender and Diversity Programme						
	Documentation, Publication, Info, Dissemination	0.03	0.04	0.04	0.03	0.04
	Germplasm Enhancement and Breeding	0.00	0.00	0.00	0.00	0.00
	Improving Policies	0.40	0.55	0.57	0.58	0.59
	Organization & Management Counselling	0.00	0.00	0.00	0.00	0.00
	Production Systems Development - Trees	0.00	0.00	0.00	0.00	0.00
	Protecting the Environment	0.00	0.00	0.00	0.00	0.00
	Saving Biodiversity	0.00	0.00	0.00	0.00	0.00
	Training & Professional Development	0.00	0.00	0.00	0.00	0.00
	Total	0.43	0.59	0.61	0.61	0.63
Center Total		21.93	26.60	28.67	27.93	28.46

	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Summary by Undertaking:					
Saving Biodiversity	1.97	2.43	3.03	2.55	2.60
Increasing Productivity	4.53	5.08	5.80	5.32	5.45
Improving Policies	4.90	6.34	6.62	6.69	6.78
Protecting the Environment	4.42	5.57	5.77	5.82	5.95
Strengthening NARS	6.11	7.18	7.45	7.55	7.68
	21.93	26.60	28.67	27.93	28.46

	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Summary by Output:					
Sustainable Production	7.98	9.66	10.04	10.10	10.34
Germplasm Improvement	0.97	0.99	1.53	1.04	1.06
Policy	4.90	6.34	6.62	6.69	6.78
Germplasm Collection	1.97	2.43	3.03	2.55	2.60
Enhancing NARS	6.11	7.18	7.45	7.55	7.68
	21.93	26.60	28.67	27.93	28.46

World Agroforestry Centre
Table 5: Investments: Investment by Production Sector, Commodity and Region

		\$ millions				
		Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Production Sectors & Commodities						
<u>Germplasm Improvement</u>						
Trees		0.97	0.99	1.53	1.04	1.06
Total		0.97	0.99	1.53	1.04	1.06
<u>Sustainable Production</u>						
Trees		7.95	9.65	10.02	10.14	10.32
Total		7.95	9.65	10.02	10.14	10.32
<u>Total Research Agenda</u>						
Trees		21.93	26.60	28.65	27.93	28.46
Center Total		21.93	26.60	28.65	27.93	28.46

		\$ millions				
		Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
Developing Region						
Sub-Saharan Africa (SSA)		16.62	21.52	23.25	21.96	22.01
Asia		4.11	4.43	4.60	5.02	5.50
Latin America and Caribbean (LAC)		1.20	0.65	0.82	0.95	0.95
West Asia and North Africa (WANA)		0.00	0.00	0.00	0.00	0.00
Center Total		21.93	26.60	28.67	27.93	28.46

World Agroforestry Centre

Table 6: Expenditures: Object of Expenditure

		\$ millions				
OBJECT OF EXPENDITURE		Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
	Personnel	11.96	12.61	13.54	13.84	14.29
	Supplies and Services	6.59	10.02	11.02	10.15	10.18
	Operational Travel	2.37	2.51	2.71	2.64	2.69
	Depreciation	1.01	1.46	1.40	1.30	1.30
	Center Total	21.93	26.60	28.67	27.93	28.46

World Agroforestry Centre

Table 7: Expenditures: Capital Investments and Capital Fund Cash Reconciliation

\$ millions					
	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
CAPITAL INVESTMENTS					
Furnishing & Equipment					
Auxiliary Units					
Computers	0.28	0.38	0.42	0.40	0.45
Farming					
Housing					
Laboratory & Scientific	0.24	0.30	0.40	0.30	0.40
Office	0.08	0.05	0.10	0.10	0.10
Vehicles	0.24	0.16	0.32	0.40	0.30
Total	0.84	0.89	1.24	1.20	1.25
Infrastructure & Leasehold	0.00	0.78	0.78	0.00	0.00
Total	0.00	0.78	0.78	0.00	0.00
Physical Facilities					
Auxiliary Units					
Administration	0.00	0.00	0.20	0.00	0.00
Housing					
Research	0.00	0.02	0.02	0.02	0.02
Training					
Total	0.00	0.02	0.22	0.02	0.02
Total	0.84	1.69	2.24	1.22	1.27

\$ millions					
	Actual 2002	Estimate 2003	Proposed 2004	Plan 2005	Plan 2006
CAPITAL FUND CASH RECONCILIATION					
Balance, January 1	1.37	1.76	1.73	1.08	1.35
plus: Annual Depreciation charge	1.01	1.46	1.40	1.30	1.30
plus/ minus: Disposal Gains/(Losses)	0.08	0.05	0.04	0.04	0.00
plus/ minus: Other	0.14	0.15	0.15	0.15	0.15
minus: Asset Acquisition costs	(0.84)	(1.69)	(2.24)	(1.22)	(1.27)
equals: Balance, December 31	1.76	1.73	1.08	1.35	1.53

World Agroforestry Centre

Table 8: Financing: Unrestricted and Restricted Grants and Center Income

\$ millions and national currency					
Investor	Actual 2002	Estimate 2003		Proposed 2004	
Unrestricted Grants	(US\$)	(National currency)	(US\$)	(National currency)	(US\$)
Australia (AUD)	0.11	0.25	0.13	0.25	0.14
Belgium (BEF)	0.1	0.99	0.11	0.10	0.11
Canada (CAD)	0.37	0.59	1.43	2.06	1.52
Denmark (DKK)	0.66	5.00	0.44	3.09	0.35
Finland (FIM)	0.33	0.34	0.37	0.34	0.37
Germany (DEM)	0.19	0.20	0.22	0.20	0.22
Ireland (IEP)	0.46	0.47	0.64	0.60	0.64
Japan (JPY)	0.25	31.00	0.33	40.10	0.32
Netherlands (NLG)	0.58	0.64	0.70	0.64	0.69
Norway (NOK)	0.24	1.80	0.22	1.62	0.22
Sweden (SEK)	0.37	3.70	0.41	3.60	0.41
Switzerland (CHF)	0.29	0.50	0.36	0.50	0.36
Thailand	0.01	0.00	0.01	0.00	0.01
United States	0.6	0.00	0.55	0.00	0.51
World Bank	2.12	0.00	1.25	0.00	1.50
Subtotal	6.68		7.17		7.37

Restricted Grants	Actual (US\$) 2002	Estimate (US\$) 2003	Proposed (US\$) 2004
Australia	0.09	0.28	0.27
Belgium	0.00	0.16	0.16
Brazil	0.01	0.03	0.03
Canada	1.93	2.34	2.46
CARE	0.04	0.00	0.00
CFC	0.06	0.04	0.04
Chemonics	0.04	0.00	0.00
Cornell University	0.03	0.02	0.00
Denmark	0.29	0.51	0.52
EC	1.97	1.82	1.32
FAO	0.03	0.00	0.00
Finland	0.06	0.01	0.01
Ford Foundation	0.20	0.26	0.42
France	0.21	0.23	0.23
GEF	0.00	0.17	0.00
Germany	0.24	0.50	0.51
IFAD	0.60	1.04	1.06
Italy	0.12	0.29	0.29
ITTO	0.02	0.00	0.00
Japan	0.10	0.03	0.04
Kenya	0.02	0.02	0.00
Netherlands	0.89	1.64	1.61
New Zealand	0.16	0.15	0.15

Table 8 Contd.

Restricted Grants	Actual (US\$) 2002	Estimate (US\$) 2003	Proposed (US\$) 2004
Norway	0.24	0.17	0.00
NSF	0.00	0.10	0.10
Peru	0.05	0.10	0.00
Rockefeller Foundation	0.63	0.86	0.77
Spain	0.31	0.13	0.14
Sweden	2.38	4.45	4.83
Switzerland	0.29	0.33	0.35
TFF	0.01	0.09	0.04
UNEP	0.02	0.00	0.00
Unidentified	1.09	0.82	1.87
United Kingdom	1.05	1.09	1.13
United States	1.40	0.69	1.01
University of Wisconsin	0.03	0.00	0.00
VVOB	0.00	0.03	0.03
World Bank	0.17	0.50	1.37
WRI	0.03	0.03	0.04
Subtotal	2,016.81	2,021.93	2,024.80

	Actual 2002	Estimate 2003	Proposed 2004
Summary Statement of Activity			
Investor Grants	2,023.49	2,029.10	2,032.17
+ Center Income(other revenues)	0.61	0.50	0.50
= Total Revenues	2,024.10	2,029.60	2,032.67
Total Expenses	-21.93	-26.60	-28.67
Surplus (Deficit) of total revenues over total expenses	2,002.17	2,003.00	2,004.00
September 2003			

World Agroforestry Centre

Table 9: Staff Composition: Internationally and Nationally Recruited Staff by Function

		numbers									
		Actual 2002		Estimate 2003		Proposed 2004		Plan 2005		Plan 2006	
Hired By:		Center	Other	Center	Other	Center	Other	Center	Other	Center	Other
Internationally-Recruited Staff (IRS)											
Research and Research Support											
	Associate Professionals	0	0	0	0	0	0	0	0	0	0
	Post-doctoral Fellows	2	0	10	0	3	0	3	0	3	0
	Regular Appointments	25	13	21	2	23	2	24	2	24	2
	Total	27	13	31	2	26	2	27	2	27	2
Research Management											
	Associate Professionals	0	0	0	0	0	0	0	0	0	0
	Post-doctoral Fellows	0	0	0	0	0	0	0	0	0	0
	Regular Appointments	4	0	3	0	3	0	4	0	4	0
	Total	4	0	3	0	3	0	4	0	4	0
Training/ Communications											
	Associate Professionals	0	0	0	0	0	0	0	0	0	0
	Post-doctoral Fellows	5	0	13	0	8	0	3	0	3	0
	Regular Appointments	20	3	20	6	20	3	17	5	17	5
	Total	25	3	33	6	28	3	20	5	20	5
	Center Total	56	16	67	8	57	5	51	7	51	7
Nationally-Recruited Staff (NRS)											
	Center Total	267	0	286	0	260	0	260	0	260	0
	TOTAL STAFF	323	16	353	8	317	5	311	7	311	7

World Agroforestry Centre

Table 10: Financial Position: Statement of Cash Flows, Prior year to Plan Year

\$ millions

MONTHLY CASH FLOWS - 2001 [Prior Year]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Opening cash balance	7.54	7.14	5.54	5.81	5.84	6.33	7.73	9.15	8.40	7.77	7.75	7.79
Receipts:												
Grants												
Unrestricted	1.75	0.29	0.62	0.47	0.97	0.90	0.11	0.17	0.42	0.44	0.17	0.68
Restricted	0.10	0.28	1.93	1.55	1.43	2.34	2.93	1.07	1.03	1.33	2.12	1.88
Earned Income/others	0.05	0.02	0.05	0.01	0.02	0.02	0.07	0.09	0.08	0.03	0.02	0.07
subtotal	1.90	0.59	2.60	2.03	2.42	3.26	3.11	1.33	1.53	1.80	2.31	2.63
Disbursements:												
Operations	2.18	2.10	2.10	1.80	1.65	1.80	1.64	1.80	1.98	1.79	1.87	1.99
Capital Acquisition				0.24			0.23					
Others	0.12	0.09	0.23	0.20	0.04	0.06	0.05	0.05	0.18	0.03	0.40	0.09
subtotal	2.30	2.19	2.33	2.24	1.69	1.86	1.92	1.85	2.16	1.82	2.27	2.08
Net monthly movement	-0.40	-1.60	0.27	-0.21	0.73	1.40	1.19	-0.52	-0.63	-0.02	0.04	0.55
Ending Cash Balance	7.14	5.54	5.81	5.60	6.57	7.73	8.92	8.63	7.77	7.75	7.79	8.34

MONTHLY CASH FLOWS - 2003 [Current Year]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Opening cash balance	8.34	8.28	7.74	8.06	8.19	8.34	5.84	6.08	7.83	7.63	8.64	8.16
Receipts:												
Grants												
Unrestricted	1.74	0.37	0.11	0.97	0.80	0.14	0.59	0.36	0.36	0.48	0.33	0.75
Restricted	0.57	1.03	2.27	1.33	1.33	0.26	1.61	3.15	1.50	3.25	1.39	1.41
Earned Income/others	0.05	0.05	0.10	0.05	0.10	0.06	0.05	0.09	0.09			0.09
subtotal	2.36	1.45	2.48	2.35	2.23	0.46	2.25	3.60	1.95	3.73	1.72	2.25
Disbursements:												
Operations	2.31	1.88	1.93	2.04	1.82	2.90	1.97	1.62	1.98	2.70	2.02	1.90
Capital Acquisition				0.20			0.20					
Others	0.11	0.11	0.23	0.18	0.06	0.06	0.04	0.03	0.17	0.02	0.18	0.09
subtotal	2.42	1.99	2.16	2.42	1.88	2.96	2.21	1.65	2.15	2.72	2.20	1.99
Net monthly movement	-0.06	-0.54	0.32	-0.07	0.35	-2.50	0.04	1.95	-0.20	1.01	-0.48	0.26
Ending Cash Balance	8.28	7.74	8.06	7.99	8.54	5.84	5.88	8.03	7.63	8.64	8.16	8.42

MONTHLY CASH FLOWS - 2004 [Plan Year]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Opening cash balance	8.42	8.01	7.35	7.67	7.62	7.60	5.45	5.60	7.78	7.89	8.89	8.70
Receipts:												
Grants												
Unrestricted	1.57	0.33	0.10	0.87	0.72	0.13	0.53	0.68	0.73	0.43	0.70	0.67
Restricted	0.62	1.13	2.49	1.47	1.46	0.92	1.77	3.47	1.64	3.56	1.53	1.55
Earned Income/others	0.06	0.06	0.11	0.06	0.10	0.07	0.06	0.10	0.10			0.10
subtotal	2.25	1.52	2.70	2.40	2.28	1.12	2.36	4.25	2.47	3.99	2.23	2.32
Disbursements:												
Operations	2.54	2.07	2.12	2.24	2.00	3.18	2.16	1.78	2.18	2.96	2.22	2.08
Capital Acquisition				0.25			0.25					
Others	0.12	0.11	0.26	0.21	0.05	0.09	0.05	0.04	0.18	0.03	0.20	0.10
subtotal	2.66	2.18	2.38	2.70	2.05	3.27	2.46	1.82	2.36	2.99	2.42	2.18
Net monthly movement	-0.41	-0.66	0.32	-0.30	0.23	-2.15	-0.10	2.43	0.11	1.00	-0.19	0.14
Ending Cash Balance	8.01	7.35	7.67	7.37	7.85	5.45	5.35	8.03	7.89	8.89	8.70	8.84

World Agroforestry Centre

Table 11: Financial Position: Currency Structure of Expenditures

	\$ millions			\$ millions			\$ millions		
	Actual			Estimate			Proposal		
	2002			2003			2004		
Currency	Amount	\$ Value	% share	Amount	\$ Value	% share	Amount	\$ Value	% share
IDR	6,509,732,155.00	0.71	3	7,000,000,000.00	0.75	3	7,500,000,000.00	0.80	3
KES	367,564,163.00	4.70	21	400,000,000.00	5.30	20	420,000,000.00	5.60	20
Others	0.00	3.52	16	0.00	5.05	19	0.00	5.27	18
USD	0.00	13.00	59	0.00	15.50	58	0.00	17.00	59
TOTAL		21.93	100		26.60	100		28.67	100

World Agroforestry Centre

Table 12: Financial Position: Assets, Liabilities and Net Assets

\$ millions					
	Actual 2002	Estimate 2003	Proposal 2004	Plan 2005	Plan 2005
Assets					
Current Assets					
Cash & Cash Equivalents	2.72	3.13	3.29	3.35	3.44
Inventories	0.14	0.21	0.22	0.22	0.23
Prepaid Expenses	0.07	0.11	0.11	0.11	0.12
Other Current Assets	5.62	5.29	5.55	5.66	5.81
Accounts Receivable	8.16	10.26	10.77	10.97	11.29
Investors	5.21	6.60	6.93	7.06	7.26
Employees	0.10	0.15	0.16	0.16	0.17
Other	2.85	3.51	3.68	3.75	3.86
Total Current Assets	16.71	19.00	19.94	20.31	20.89
Fixed Assets					
Property, Plant & Equipment	12.29	12.35	12.98	13.23	13.60
Less: Accumulated Depreciation	(5.51)	(6.15)	(6.46)	(6.58)	(6.77)
Total Fixed Assets	6.78	6.20	6.52	6.65	6.83
Total Assets	23.49	25.20	26.46	26.96	27.72
Liabilities and Net Assets					
Current Liabilities					
Bank Indebtedness	0.00	0.00	0.00	0.00	0.00
In-Trust Accounts	0.00	0.00	0.00	0.00	0.00
Accruals and Provisions	1.30	1.40	1.47	1.50	1.54
Accounts Payable	8.05	8.93	8.98	9.01	9.09
Investors	6.52	7.76	7.76	7.76	7.81
Employees	0.28	0.16	0.16	0.17	0.17
Others	1.25	1.01	1.06	1.08	1.11
Total Current Liabilities	9.35	10.33	10.45	10.51	10.63
Long Term Liabilities					
Long Term Liabilities	3.25	4.09	4.66	4.92	5.22
Total Long Term Liabilities	3.25	4.09	4.66	4.92	5.22
Unrestricted Net Assets					
Appropriated	8.55	8.55	8.98	9.15	9.41
Unappropriated	2.34	2.23	2.35	2.38	2.46
Total Unrestricted Net Assets	10.89	10.78	11.33	11.53	11.87
Total Liabilities & Net Assets	23.49	25.20	26.44	26.96	27.72