



## Full Reports for the CGIAR Performance Measurement

### W. Agroforest Outputs - 2007

Percent of output targets achieved: **92.21 %**

#### **Project 01**

##### **LP.1: Land and Soil Health**

###### Output 01.01

LP.1.1: Land and soil degradation assessment methods and empirical results generated

Target 01.01.01                      Other kinds of knowledge                       Achieved

Electronic atlas and database of land degradation domains, land degradation trends and analysis of risk factors affecting land degradation in several sub-Saharan African countries, including Kenya and Mali.

Target 01.01.02                      Capacity strengthening                       Achieved

Technical backstopping and capacity building on land degradation surveillance to CGIAR projects, including under the Sub-Saharan Challenge Programme; TerrAfrica, UNDP development programmes in Africa; and national research institutions in India, Kenya, Uganda, Mali, Mozambique.

###### Output 01.02

LP.1.2: Principles and options for Agroforestry based sustainable land management developed.

Target 01.02.01                      Practices                       Achieved

Monitoring, evaluation and impact assessment methods for sustainable land management interventions developed

Target 01.02.02                      Other kinds of knowledge                       Achieved

Cross country comparisons of alternative Agroforestry technologies and farmer innovations for soil fertility management in maize systems

#### **Project 02**

##### **LP.2: Smallholder production systems**

###### Output 02.01

LP.2.1: Smallholder farmer constraints and opportunities analyzed and potential Agroforestry interventions identified

Target 02.01.01                      Practices                       Achieved

Fully functional economic decision OLYMPE models made available through ICRAF Web

Target 02.01.02                      Other kinds of knowledge                       Achieved

Analysis of household resources and poverty and implications for Agroforestry and NRM for several major farming systems of Africa and South Asia.

###### Output 02.02

LP.2.2: Principles and options for improved Agroforestry management on smallholder farms developed.

<u>Target 02.02.01</u>	<u>Practices</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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Models developed for prediction of pest problems in Agroforestry and tested in southern Africa

<u>Target 02.02.02</u>	<u>Other kinds of knowledge</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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Synthesis of use, adoption, and impact of Agroforestry in southern Africa, on impact of shade on coffee systems in East Africa, and on smallholder dairy farmers in East Africa.

#### **Output 02.03**

LP.2.3: Principles and options for more effectively integrating Agroforestry with water management at the farm scale developed and disseminated

<u>Target 02.03.01</u>	<u>Policy strategies</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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Policy Guidelines for watershed based rainwater harvesting within IWRM developed and mainstreamed in at least 5 African countries

<u>Target 02.03.02</u>	<u>Other kinds of knowledge</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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Water use of Eucalyptus spp. in different systems and environments assessed.

### **Project 03**

#### **LP.3: Institutions and Incentives for Agroforestry**

#### **Output 03.01**

LP.3.1: Options for improved collective action and other institutional mechanisms that promote smallholder Agroforestry analyzed and developed

<u>Target 03.01.01</u>	<u>Practices</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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Guidelines and decision support tools on scaling up AF practices, innovations, and policies developed.

<u>Target 03.01.02</u>	<u>Capacity strengthening</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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Analysis of the effectiveness of different scaling up approaches in east Africa, southern Africa, and Southeast Asia.

<u>Target 03.01.03</u>	<u>Please select...</u>	<input type="checkbox"/> <u>Achieved</u>
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Partner organizations trained in implementing relevant scaling up approaches in southern Africa

#### **Output 03.02**

LP.3.2: Options for improved policies and other incentive mechanisms that promote smallholder Agroforestry analyzed and developed

<u>Target 03.02.01</u>	<u>Policy strategies</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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Policy options for increasing smallholder Agroforestry disseminated to policy makers in southern Africa.

<u>Target 03.02.02</u>	<u>Other kinds of knowledge</u>	<input checked="" type="checkbox"/> <u>Achieved</u>
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The effect of property rights arrangements on management of resources at farm and landscape scales analyzed for east Africa

### **Project 04**

#### **TM.1: Agroforestree Germplasm**

#### Output 04.01

##### TM.1.1: Tree Genetic Resources and Information

Target 04.01.01                      Materials                       Achieved

Germplasm explored and collected for at least 10 tree species

Target 04.01.02                      Materials                       Achieved

At least 3000 tree germplasm accessions conserved in long-term storage

Target 04.01.03                      Capacity strengthening                       Achieved

Agroforestry germplasm networks established in at least 3 regions

#### Output 04.02

##### TM.1.2: Seed and Seedling Systems

Target 04.02.01                      Other kinds of knowledge                       Achieved

Gaps/constraints to high quality planting material identified and interventions for improvement suggested

Target 04.02.02                      Capacity strengthening                       Achieved

Two thousand five hundred farmers trained in managing tree nurseries to research seedling supply

#### Output 04.03

##### TM.1.3: On-farm management of tree genetic diversity

Target 04.03.01                      Practices                       Achieved

Training manual for tree diversity assessment produced

Target 04.03.02                      Other kinds of knowledge                       Achieved

Journal article on tree diversity richness of Sahelian parklands published

Target 04.03.03                      Practices                       Achieved

Management guidelines for genetic diversity of tree species adjacent to biodiversity hotspots in Africa developed

Target 04.03.04                      Practices                       Achieved

Extension publication prepared on farmer management of genetic diversity

### **Project 05**

#### **TM.2: Tree Domestication**

#### Output 05.01

##### TM.2.1: Participatory evaluation and analysis

Target 05.01.01                      Materials                       Achieved

Domestication demonstration trials established in at least three regions

Target 05.01.02                      Practices                       Achieved

Tree-integration guidelines produced for diversification of cocoa farms

Target 05.01.03                      Other kinds of knowledge                       Achieved

Farmer assessment manual produced

#### Output 05.02

## TM.2.2: Tree improvement and management

Target 05.02.01                      Materials                       Achieved

Three new progeny trials established

Target 05.02.02                      Materials                       Achieved

Superior clones of at least three fruit species available for mass multiplication

Target 05.02.03                      Practices                       Achieved

Propagation protocols published for at least three tree species

Target 05.02.04                      Policy strategies                       Achieved

Policy for East Africa regional introduction of elite exotic fruit tree germplasm written

### Output 05.03

#### TM.2.3: Improving dissemination and scaling up

Target 05.03.01                      Practices                       Achieved

Approaches for backstopping farmer nurseries published

Target 05.03.02                      Other kinds of knowledge                       Achieved

Geo-spatial tree adoption maps produced in at least 2 regions

Target 05.03.03                      Capacity strengthening                       Achieved

Farmer exchange visits organized in at least 3 regions

## **Project 06**

### TM.3: Marketing of Agroforestry Tree Products (AFTPs)

#### Output 06.01

##### TM.3.1: Market Research

Target 06.01.01                      Practices                       Achieved

Guidelines developed for rapid market/value chain analyses and tree product prioritization

Target 06.01.02                      Other kinds of knowledge                       Achieved

Demand determined for tree products in at least two contrasting regions

Target 06.01.03                      Capacity strengthening                       Achieved

Marketing Information System implemented for humid West Africa

#### Output 06.02

##### TM.3.2: Tree Product Development

Target 06.02.01                      Practices                       Achieved

Recommendations for small-holder timber production published

Target 06.02.02                      Practices                       Achieved

Certification and labeling guidelines developed for medicinal tree products

Target 06.02.03                      Other kinds of knowledge                       Achieved

Product quality analyses published for fruit trees

## **Project 07**

## ES.1: Landscape interactions: Enhancing Agroforestry contributions to sustainable landscape management

### Output 07.01

#### ES.1.1: Watershed management:

Target 07.01.01                      Practices     Achieved

Journal articles, synthesis volume and training manual produced on rapid hydrological assessment in the context of Environmental Service recognition and reward.

Target 07.01.02                      Other kinds of knowledge     Achieved

Pan-tropical review of watershed management practices and recommendations published in an Occasional Paper and refereed journal. Two journal articles or book chapters on the dynamics of poverty and property rights in the Nyando basin of Western Kenya.

Target 07.01.03                      Capacity strengthening     Achieved

Methods for rapid hydrological function assessment in the context of environmental service recognition and rewards are disseminated to partner organizations through training workshops in SE Asia and East Africa.

### Output 07.02

#### ES.1.2: Joint CIFOR / ICRAF Biodiversity conservation

Target 07.02.01                      Practices     Achieved

Rapid (agro)biodiversity assessment in the context of ES recognition & rewards (RABAES), defined and compared to the CIFOR multi-stakeholder landscape assessment (MLA) approach in two sites in SE Asia.

Target 07.02.02                      Capacity strengthening     Achieved

Training of in the use of Agroforestry as a strategy for managing conservation landscapes conducted in at least 2 countries in SE Asia, one country in East Africa, and one country in the Upper Guinea Forest of West Africa.

### Output 07.03

#### ES.1.3: Trees in multifunctional landscapes

Target 07.03.01                      Policy strategies     Achieved

Synthesis and case study papers on principles integrating Agroforestry into management of conservation landscapes.

## Project 08

### ES.2: Climate Change: Fostering smallholder Agroforestry as a pro-poor strategy for adaptation and mitigation of climate change

#### Output 08.01

##### ES.2.1: Climate change mitigation

Target 08.01.01                      Practices     Achieved

Searchable databases of the production characteristics, economic value and carbon sequestration potential of indigenous trees assembled for Africa.

Target 08.01.02                      Other kinds of knowledge     Achieved

Analyses of the vulnerability of Agroforestry and agricultural systems to climate variability and changing climates in Africa.

#### Output 08.02

ES.2.2: Climate change adaptation:

Target 08.02.01                      Practices     Achieved

Validated practices for baseline assessment and monitoring in CDM pilot projects are disseminated to environmental agencies across the developing world

Target 08.02.02                      Other kinds of knowledge     Achieved

Peer-reviewed publication on the nitrous oxide emission from Agroforestry systems using legume tree biomass as surface mulch

#### **Project 09**

ES.3: Environmental policy: Harmonizing policy for environmental stewardship and rural development

#### Output 09.01

ES.3.1: Harmonizing policy for environment and poverty goals:

Target 09.01.01                      Practices     Achieved

Refine, test and disseminate Rapid Tenure Assessment (RATA) tool for conflict resolution in Agroforestry areas in Southeast Asia

Target 09.01.02                      Policy strategies     Achieved

Refereed paper on the application of Negotiation Support tools for improved watershed management in Indonesia

Target 09.01.03                      Other kinds of knowledge     Achieved

Special issue or edited book on the links between bi-laws, Agroforestry and natural resource management, drawing from ICRAF work in the Sahel, East Africa, and Southern Africa. Asia Regional overview book on Forest Ownership

#### Output 09.02

ES.3.2: Rewards for environmental services:

Target 09.02.01                      Practices     Achieved

Mechanisms for rewarding the provision of environmental service operational in at least 2 additional sites in Asia and at least one additional site in Africa.

Target 09.02.02                      Other kinds of knowledge     Achieved

A set of papers summarizing the results of the pan-tropical scoping study of compensation for ecosystem services. Lessons learned from RUPES sites in Indonesia and the Philippines are published and used to support training and additional cases in Southeast Asia.

#### Output 09.03

ES.3.3: Agroforestry in international policy:

Target 09.03.01                      Policy strategies     Achieved

Inventory of natural resource use policies for six countries of the Amazon basin.

#### **Project 10**

## SI.1: To strengthening the capacity for Agroforestry and NRM science at national institutions and systems

### Output 10.01

#### SI.1.1: Understanding AF/NRM science and technology policies

Target 10.01.01 Practices  Achieved

A guide for Agroforestry learning programmes in ECA region, joint research design developed by 3 pairs of research and education institutions in Latin America and an international workshop on improving forestry education hosted at ICRAF.

Target 10.01.02 Policy strategies  Achieved

Policy briefs on institutionalizing Agroforestry and NRM at academic and research institutions and at least 2 strategic plans by universities/NARIs in Africa.

### Output 10.02

#### SI.1.2: Agroforestry research and teaching capacity

Target 10.02.01 Capacity strengthening  Achieved

Ten graduate students complete their thesis research at ICRAF, 20 researchers from partner institutions in Southern Africa trained in Agroforestry research methods, 30 faculties trained in Africa and Southeast Asia and 30 lecturers mentored on production of learning materials on landscape Agroforestry in SEA.

Target 10.02.02 Practices  Achieved

A manual/guide on landscape Agroforestry for SEA region.

### Output 10.03

#### SI.1.3: Institutionalization of Agroforestry and NRM

Target 10.03.01 Policy strategies  Achieved

Policy tools strategies for incorporating Agroforestry into Poverty Reduction Strategy Papers (PRSPs) in African countries (ECA and AHT regions), two forums on rainwater harvesting held for policy makers in the ECA region

Target 10.03.02 Practices  Achieved

Three pairs of institutions (research + education) assisted to develop joint research and education programmes in L. America and two colleges assisted to generate own learning materials

Target 10.03.03 Capacity strengthening  Achieved

ANAFE registered as an international NGO supporting agric and NRM education, five colleges in Southern Africa assisted to mainstream AF into teaching programmes and four NAFTs receive grants and manage own programmes

## Project 11

### SI.2: To enhancing capacity for sharing Agroforestry and NRM innovations to leverage scaling up

#### Output 11.01

##### SI.2.1 Characterization of and partnering with development institutions

Target 11.01.01 Practices  Achieved

Principles in the development of learning programmes developed jointly with national institutions in Bhutan, Sri Lanka and India, an Agroforestry research training guide produced and shared (HQ and ECA region), training guides for development workers developed for South Asia and Sahel. A complete database on Agroforestry capacity needs for 4 Sahelian countries compiled

Target 11.01.02 Capacity strengthening  Achieved

Twenty South Asian policy makers exposed to AF innovations and opportunities through visits to research sites and four specialized training courses designed and implemented to benefit 80 scientists, complemented by 10 small grants.

Target 11.01.03 Policy strategies  Achieved

An analysis of capacity needs and best-bet tools and approaches for integrating natural resource management into schools and non-formal education programmes, based on results of studies in 3 sub-Saharan Africa countries. An article on school links with rural communities for development and an appraisal of partnerships published.

#### Output 11.02

##### SI.2.2 : Collaboration and Networking

Target 11.02.01 Practices  Achieved

A guide on on-line learning opportunities and challenges in Agroforestry; and a synthesis of case studies on farmer linking institutions and mechanisms

Target 11.02.02 Policy strategies  Achieved

Briefs to policy makers (in Ethiopia, Kenya, India, Sri Lanka and Bangladesh) on Agroforestry policies; a synthesis on effective partnership approaches.

Target 11.02.03 Capacity strengthening  Achieved

Four Agroforestry learning resource centers established with local development organizations in Africa and three National Agricultural Forums for Training (NAFTs) established in Africa.

### **Project 12**

#### **AHI.1: INRM Innovations in Pilot Sites**

##### Output 12.01

##### AHI.1.1: Pilot Implementation of Integrated Watershed R&D Interventions

Target 12.01.01 Materials  Achieved

Lessons and impacts consolidated and published on: (i) Phase 2 and Phase 3 work; (ii) collective action processes; and (iii) systems intensification work in the perennial-based systems of Ethiopia.

##### Output 12.02

##### AHI.1.2 Pilot Implementation of District Institutional Innovations for INRM

Target 12.02.01 Capacity strengthening  Achieved

In-field mentoring of trainees in new sites / countries fosters more coordinated efforts by district-level actors; enhances synergies among system components and land users; enables improved use of limited on-farm resources through identification of “win-win” land management practices; improves environmental governance; facilitates community-based NRM; and enhances integration of AHI project portfolio.

## **Project 13**

### **AHI.2: Scaling Up and Institutionalization of INRM Methods Tested in Pilot Sites**

#### Output 13.01

##### **AHI 2.1: Institutional Change in Support of INRM**

Target 13.01.01                      Capacity strengthening                       Achieved

Capacity building and technical backstopping on the use of INRM methods developed in benchmark sites is conducted in new sites and countries

Target 13.01.02                      Capacity strengthening                       Achieved

INRM partnerships and/or consortia to research diverse institutional models for institutionalizing INRM in 3 countries formed.

#### Output 13.02

##### **AHI 2.2: Knowledge Management**

Target 13.02.01                      Materials     Achieved

At least 30 final knowledge and training products produced for identified target groups (farmers, research and development practitioners, policy makers) finalized by site and regional team members under IDRC Knowledge Management grant; products to include peer-reviewed papers, AHI Methods Guides, AHI Briefs, leaflets, posters and online library.

## **Project 14**

### **ASB: Alternatives to Slash-and-Burn (ASB)**

#### Output 14.01

##### **ASB.1: Knowledge on development-conservation tradeoffs in the tropical forest margins**

Target 14.01.01                      Other kinds of knowledge                       Achieved

A comprehensive, targeted dissemination strategy including communication of knowledge, shaping policies and other outcomes, and enhanced visibility of ASB.

#### Output 14.02

##### **ASB.2: Global network for the tropical forest margins**

Target 14.02.01                      Capacity strengthening                       Achieved

Complete renaming and rebranding ASB. Comprehensive fundraising strategy, clarification of roles of the actors operating at different levels within the programme in conjunction with improved institutional incentives; external advisory committee terms of reference. External advisory committee appointed. Develop and implement monitoring and evaluation systems for ASB inputs, outputs and their uptake.

#### Output 14.03

##### **ASB.3: Enhanced capacity of partners to generate knowledge and develop workable interventions**

Target 14.03.01                      Capacity strengthening                       Achieved

Strategy for bringing young scientists along and into leadership positions within the network.

## W. Agroforest Outcomes - 2007

### **Outcome 1**

**Outcome Statement:** Development organizations and policy makers in Eastern and Southern Africa use principles and techniques for improved water management to enhance water use efficiency of trees in agroforestry development.

#### **What output/output target resulted in the outcome?**

The main output was a GIS tool for the mapping and analysis of rainwater harvesting potentials that was developed by ICRAF with support by UNEP in 2005. Since then, the tool has been applied in 12 African countries and 10 cities. The technical manual and atlas underpinning this tool was printed and circulated widely in 2007. Other outputs were:

- i) A training curriculum and technical manual
- ii) An assessment report and poster for Zanzibar
- iii) An assessment report and poster for Somalia

**In which MTP was the output/output target first identified?** MTP 2004 - 2006

#### **Who used/adopted, or was influenced by the output?**

The governments of Rwanda, Zanzibar, and Somalia, FAO, various NGOs and development organizations.

#### **How was the output used or adopted?**

In Rwanda, Zanzibar and Somalia, the results have been used to prepare major new investment programmes on rainwater harvesting. In the case of Rwanda, the ICRAF outputs were used to design and test technological options ranging from agroforestry, runoff collection ponds with supplementary irrigation, and conservation agriculture in the three districts of Bugesera, Ruhango and Nyanza covering 2,700 households. In Zanzibar, the tool was used to assess rainwater harvesting potential and to prepare an investment plan worth US\$6.8 million. The study was conducted at the request of the President of Zanzibar, H.E. Abeid Karume, and done in collaboration with the MDG Centre at ICRAF and UNDP Tanzania. A pilot project is currently being developed using the results of this assessment. In Somalia, FAO requested ICRAF to develop a framework for the design and implementation of rainwater harvesting using the mapping tool results. More refined studies are currently being developed for the pastoralists in the North Eastern region of Somalia by Horn Relief. ICRAF has signed an MOU with UNEP to develop a framework for conducting cost-benefit analysis studies on rainwater management for agricultural and environmental use. This framework will be used to generate the data required by donors who want to invest in this area. The tool shall also be used for designing cost-effective programs and projects around the world.

#### **What is the evidence for this outcome?**

Increased budgetary allocation by Government of Rwanda (US\$ 1.3 million in 2007) to support further scaling-up of water harvesting and agroforestry. Moreover, the Rwandese government has prepared a long term investment plan worth US\$100 million.

## **Outcome 2**

**Outcome statement:** Indonesia's Ministry of Forestry (MoF) presents plans for implementation of REDD (Reducing Emissions from Deforestation and Degradation) mechanisms at the 13th Conference of Parties in the UN Framework Convention on Climate Change (UNFCCC) in Bali in December 2007.

**What outputs / output targets resulted in the outcome?** The roots of this outcome go back to the RUPES project and its pioneering efforts in Asia to explore pro-poor reward mechanisms for environmental service functions in landscape mosaics with forest patches and trees. Subsequent analysis led to the identification of principles, criteria and indicators, which allowed rapid progress in the specific context of the REDD discussion. ICRAF's involvement in carbon stock measurements in Indonesia as part of the ASB SWEF has provided a foundation for much of the current quantification of the issue and discussion of possible solutions.

**In which MTP was the output/output target first identified?** MTP 2004 to 2006

**Who used, adopted, or was influenced by the output(s)?**

Presentations were made at the COP by staff from the Ministry of Forestry, reflecting substantial discussions within the Ministry after prior inputs from the international members of IFCA. The presentations included analysis of the value chain of CREDD production and an initial estimate of a fair and efficient share for the various stakeholders using information derived from ICRAF's prior work as part of the Indonesia Forest Climate Alliance (IFCA).

**How was the output used or adopted?**

In line with the sensitivities of attribution that one may expect, the direct link between the outcome and the underlying ICRAF outputs is not publicly acknowledged, however it can be assessed by comparison between the ICRAF/ASB policy briefs and the Ministry's presentation. The outcome is significant, as the debate on 'who owns the forest' and 'who deserves to be paid in the emerging carbon market' is politically loaded, but important for the rural poor who may well find themselves excluded from forest benefits unless their roles are acknowledged in international discussions on benefit sharing for emissions reductions. Indonesia is possibly the third highest emitter of greenhouse gasses (after the USA and China), with per capita emissions some 30% above those of Europe. Emission reductions from forest conversion is therefore of direct international significance, and the position Indonesia takes in the REDD debate can 'make or break' international agreements.

**What is the evidence for this outcome?**

MoF presentation; REDD submission of Indonesia; ASB policy briefs nos. 5 & 6; IFCA study by CIFOR and ICRAF; Jakarta Post article of 7 January 2008.

Evidence: Outcome 2 Evidence.zip

## **Outcome 3**

**Outcome statement:** Wider planting of improved accessions of ber (*Ziziphus mauritiana*) for food security and income generation

**What outputs resulted in the outcome?** Successful introduction and testing of highly productive accessions of ber; seedling production and grafting techniques developed; partnerships established with development agencies, national research and training institutions; capacity building of individual farmers, extension agents, students, communities and national institutions (including farmer-based institutions) in tree domestication techniques with special emphasis on ber cultivation; establishment and support of agroforestry research and development consortia (AC) as a platform of collaboration and information exchange between stakeholders; presentations at conferences and seminars; local radio broadcastings, extension leaflets developed.

**In which MTP was the output first identified?** MTP 2003 to 2005

**Who used, adopted, or was influenced by the output(s)?** Cultivation of ber (*Ziziphus mauritiana*) is extensive by individuals and institutions in the Sahel. In Mali, individual farmers, communities and institutions are actively cultivating improved accessions of ber on their farms for their own consumption and for sale. FAO, NGOs and schools are promoting the planting of ber through training of trainers, private nurseries agents and farmers on the grafting and tree management techniques; universities and technical schools (e.g. Institut Polytechnique Rural of Katibougou, Ecole Technique de Tabakoro) have been training their students on ber cultivation and management through study tours and internships, lectures and demonstrations plots.

**How was the output used or adopted?** In Mali, smallholder farmers and NGOs are actively planting the improved ber accessions on private farms and community land with the aim of enhancing local livelihoods. Support to extension institutions, NGOs and individual farmers and farmers' groups provided with high quality germplasm, and scions for propagation. Conservation plots with improved accessions were also established with farmers, private and institutional nurseries for demonstrations and planting materials production. Farmers and NGOs are mostly independent in their germplasm production, by establishing their own hedge plants on their own fields and on-farms. There was also networking with development partners, national research and education institutions through the ACs; dissemination of scientific and extension material and; attendance of farmers at the open days and agricultural shows.

**What is the evidence for this outcome?** Evidence on outcomes has been reported in scientific publications (e.g., Kalinganire *et al.* 2007; Ouedraogo *et al.* 2006; Teklehaimanot 2007); and technical reports. Moreover, there is an observed increase in improved ber fruit sale on major markets of Bamako and Ségou, Mali. Ber planting has been reported by the 'Fonds pour l'environnement mondial & UNDP', Mali (PMF/FEM –Mali report, 2006) as one of the successful technologies contributing to the food security and income generation to rural communities in Mali. Several local radios broadcasts in Mali (Bamako, Ségou and Banamba to cite a few areas) and a local newspaper (e.g. Bamako Times dated 28 November 2006) highlighted the technology as successful in their respective areas.

Evidence: Outcome 3 Evidence - ImpactSahel 1.pdf

## **Outcome 4**

**Outcome statement:** The potential and constraints of agroforestry for mitigation and adaptation to climate change is increasingly recognized by the international community.

**What outputs / output targets resulted in this outcome?**

The main outputs were a series of publications that featured soil-atmosphere gas exchanges under land use change, the assessment of opportunities and strategies for climate change adaptation of agriculture in various regions of Africa, contributions to the debates about country-level decisions on the specification of tree crown cover, and the analysis of the impact of forest definition on the land area eligible for afforestation and reforestation within the CDM. Some of these publications have been cited in the various IPCC reports, others have been subject of dialogue and debate. Taken together, they have given ICRAF a voice in the international deliberations and raised attention to the crucial importance that trees in farming landscapes have with regard to adaptation and mitigation.

**In which MTP was the output / output target first identified?** MTP 2006-2008

**Who used, adopted, or was influenced by the outputs?**

The various assessments and reports of the International Panel on Climate Change (IPCC) and the United Nations Framework Convention on Climate Change (UNFCCC).

**How was the output used or adopted?**

Over the years, ICRAF scientists have contributed to the activities of the IPCC in a number of capacities. Several ICRAF scientists served as authors of the various assessments and special reports of the IPCC. ICRAF scientists gave presentations and chaired sessions in the international meetings of the UNFCCC SBSTA and COP. ICRAF was invited by the UNFCCC Secretariat to provide a background paper on the opportunities for climate change mitigation in agriculture, and the investment requirements to take advantage of these opportunities.

([http://unfccc.int/files/cooperation\\_and\\_support/financial\\_mechanism/application/pdf/verchot.pdf](http://unfccc.int/files/cooperation_and_support/financial_mechanism/application/pdf/verchot.pdf)).

**What is the evidence for this outcome?**

The content of the key chapters of the Fourth Assessment report of the IPCC shows at least eight papers by ICRAF scientists that were influential in the assessment. At least seven papers by ICRAF scientists were cited in the New National Greenhouse Gas Accounting Guidelines. These guidelines serve as the basis for national greenhouse gas accounting for every country that reports to the UNFCCC.

IPCC Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Chapter 11: Mitigation from a cross-sectoral perspective, IPCC 2006. Guidelines for National Greenhouse Gas Inventories. Chapter 5: Cropland.

Evidence: Outcome 4 Evidence.zip

**Outcome 5**

**Outcome statement:** Wider use of participatory domestication of high-value indigenous fruit trees and medicinal plants in the humid tropics of West and Central Africa

**Outputs resulting in outcome:** Methods for prioritizing tree species; protocols for fruit characterization; tree propagation packages for priority tree species; decision-support tools for tree integration in farming systems; approaches to strengthen farmers' marketing skills for tree products. Farmers, extension agents, students, scientists and lecturers trained in participatory tree domestication techniques. Publications in journals; presentations at conferences; lecture notes, extension leaflets; interviews on radio and television; organization of open days; publication and distribution of policy briefs.

**First identified:** In MTP 1998

**Who used, adopted, or was influenced by the output(s)?** In Cameroon, Nigeria and DRC, farmer groups are actively applying tree domestication techniques to species of their choice and integrate improved planting material on their farms. NGOs and development projects (e.g. Heifer International in Cameroon, Salvation Army in DRC and Agricultural Development Programme in Nigeria) are spreading participatory tree domestication to their target groups. The universities of Dschang and Yaounde, the Forestry School Mbalmayo, the Agricultural college Bambili have built up their knowledge base on tree domestication through internship of students, training of lecturers and Agroforestry curriculum development. In Gabon and Equatorial Guinea, staff of national forestry and agricultural research institutions (IRAF and INDEFOR resp.) have been trained on participatory tree domestication. In Ghana and Nigeria, the tree domestication approach is used to promote cultivation of an oil-rich species (*Allanblackia*) in a public-private partnership with Unilever.

**Output use or adoption:** Uptake of outputs through joint testing of tree domestication techniques with farmer groups and NGOs; training of stakeholders at various levels in participatory tree domestication techniques; networking with development partners, national research and education institutions; dissemination of scientific publications and training and extension material; attendance at conferences and meetings. The integrated use of trees (their propagation, cultivation and marketing) for livelihood and biodiversity purposes has been the basis of a USDA-funded project in the Western highlands of Cameroon, to be executed from 2007-2009. There has been further recognition of the utility of this integrated agroforestry approach to improve the livelihoods of people living near protected areas. Recent examples of expanded interest include: Maringa-Lopori-Wamba (led by AWF) in DRC, AGEFO (led by Belgian Technical Cooperation), Kudu Zombo (led by WWF), Livelihoods programme in TNS (led by IUCN) and ATEMs (RRI).

**Evidence:** Evidence has been reported in a number of scientific publications and external evaluation reports (IFAD, Belgian Directorate General for Development Cooperation). The participatory tree domestication approach has been publicly presented by IFAD as a highly successful case study of their investments.

Evidence: Outcome 5 Evidence.pdf

**3A: SC/SPIA rating of commitment to documenting impacts and building impact assessment culture**

**3A: I. Criterion 1: epIA studies/Advancement of epIA methods (70%)**

A) Please provide the full citation of all epIA studies published in 2007 that attempt to assess major impacts attributed to your Center's work and provide summary information describing the main results/indicator(s) of impact.

1. Ajayi, O.C.; Place, F.; Kwesiga, F.; Magongoya, P. World Agroforestry Centre (ICRAF), Lilongwe (Malawi) 2007. World Agroforestry Centre: impacts of improved tree fallow technology in Zambia. In: Waibel, H. and Zilberman, D. (eds). International research on Natural Resource Management: advances in impact assessment: CABI UK and Science Council/CGIAR, Rome p. 147-168. [2007209] ICRAFP

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This is an impact study on improved fallows using trees to replenish soil fertility – a natural resource management technology, the development of which was led by ICRAF. The work synthesizes a number of studies that were carried out in Zambia to describe the technology, provide historical information on its development, discuss patterns of its adoption, evaluate its impact to improve the life of resource-poor smallholder farmers, and identify the positive effects of the technology on the environment.

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under each component (check the appropriate item)

**1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)
- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

**2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

**3. EpIA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

**4. Distance down the impact pathway covered by the study**

- Uptake/adoption (field surveys)
- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)

- Ultimate impact (poverty, food security, environment)

#### **5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

#### **6. Advances in new methods/models for eplA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

2. Kiptot, E.; Hebinck, P.; Franzel, S.; Richards, P. 2007. Adopters, testers, or pseudo-adopters? Dynamics of the use of improved tree fallows by farmers in Western Kenya. *Agricultural Systems* 94:509-519

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This is a study of the dynamics of improved tree fallow use by farmers in Siaya and Vihiga districts of western Kenya over a period of eight years. It uses both qualitative and quantitative data to critically discuss the motivation of adopters, testers/rejecters and re-adopters. The results show that the process of adoption is highly dynamic and variable with farmers planting improved fallows and discontinuing or re-adopting them due to a whole range of factors, of which soil fertility improvement is just one. .

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under each component (check the appropriate item)

#### **1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)
- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

#### **2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

#### **3. EplA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

#### **4. Distance down the impact pathway covered by the study**

Uptake/adoption (field surveys)

- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)
- Ultimate impact (poverty, food security, environment)

**5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

**6. Advances in new methods/models for eplA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

3. Ajayi, O. 2007. User acceptability of sustainable soil fertility technologies: Lessons from farmers' knowledge, attitude and practice in Southern Africa. *Journal of Sustainable Agriculture* 30(3): 21-40/

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This study analyzes farmers' knowledge, attitudes and perceptions of soil fertility and food security, highlighting implications for the development of sustainable soil fertility management technologies and user acceptability of these technologies. .

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under each component (check the appropriate item)

**1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)
- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

**2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

**3. EplA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

#### **4. Distance down the impact pathway covered by the study**

- Uptake/adoption (field surveys)
- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)
- Ultimate impact (poverty, food security, environment)

#### **5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

#### **6. Advances in new methods/models for ePIA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

#### **4. Hamer, A.; Franzel, S.; Mounkoro, B. 2007. Using farmers' criteria to assess profitability of fodder shrubs in the desert margins of West Africa. Land degradation & Development (in press)**

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This paper presents the results of a study carried out in the Segou, Northern Mali to analyse the use of fodder shrubs. The farmer-level fodder banks consisted of three perennial legumes (*Gliricidia sepium*, *Pterocarpus erinaceus* and *Pterocarpus lucens*). Smallholder profitability of the new fodder type was measured by increases in income or productivity of labour spent on feeding livestock. Profitability was dependent on the use pattern of fodder shrubs. In reality no user group gained concrete financial benefits. The several scenarios in which other use modalities were modeled, showed gains of using fodder shrubs, but only where alternatives were expensive.

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under each component (check the appropriate item)

#### **1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)
- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

#### **2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

### **3. EPIA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

### **4. Distance down the impact pathway covered by the study**

- Uptake/adoption (field surveys)
- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)
- Ultimate impact (poverty, food security, environment)

### **5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

### **6. Advances in new methods/models for ePIA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

5. Chakeredza, S.; Hove, L.; Akinnifesi, F.; Franzel, S.; Ajayi, O.; Sileshi, G. 2007. Managing fodder trees as a solution to human-livestock food conflicts and their contribution to income generation for smallholder farmers in Southern Africa. Natural Resources Forum 31:286-296

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This is a review that synthesizes work carried out by ICRAF in Tanzania, Malawi, and Zimbabwe on crop-livestock production systems based on fodder bank innovations. Case studies are taken to review evidence on how the fodder tree technology has impacted on smallholder dairy production, human food production and smallholder incomes. A synopsis of the effectiveness and efficiency of different scaling up pathways is presented. .

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under each component (check the appropriate item)

### **1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)
- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

### **2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

### **3. EplA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

### **4. Distance down the impact pathway covered by the study**

- Uptake/adoption (field surveys)
- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)
- Ultimate impact (poverty, food security, environment)

### **5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

### **6. Advances in new methods/models for eplA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

6. Ajayi, O.: Akinnifesi, F.; Sileshi, G.: Chakeredza, S. 2007. Adoption of renewable soil fertility replenishment technologies in the Southern Africa Region: Lessons learnt and the way forward. Natural Resources Forum 31:306-317

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This paper describes the major renewable soil fertility replenishment (RSFR) technologies that have been promoted in the region. It synthesizes available information regarding their adoption by farmers and identifies the challenges, key lessons learnt for upscaling RSFR technologies in the region.

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under each component (check the appropriate item)

### **1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)

- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

**2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

**3. EpIA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

**4. Distance down the impact pathway covered by the study**

- Uptake/adoption (field surveys)
- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)
- Ultimate impact (poverty, food security, environment)

**5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

**6. Advances in new methods/models for epIA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

**7. Cramb, R. Catacutan, D.; Culasero-Arellano, Z.; Mariano, K. 2007. The "Landcare" approach to soil conservation in the Philippines: An assessment of farm-level impacts. Australian Journal of Experimental Agriculture 47:721-726.**

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This paper presents a case study of the Landcare program in Lantapan in the southern Philippines. The authors estimate the influence of Landcare on the likelihood of adoption of Natural Vegetative Strips (NVS) and assess the impact of adoption on soil erosion, crop production, and income. The reduction of annual soil loss under NVS is estimated with a bio-economic model. The NVS system is compared with open field farming and net present values are presented.

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under

each component (check the appropriate item)

**1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)
- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

**2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

**3. EPIA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

**4. Distance down the impact pathway covered by the study**

- Uptake/adoption (field surveys)
- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)
- Ultimate impact (poverty, food security, environment)

**5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

**6. Advances in new methods/models for ePIA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

**8. Zomer, R.; Bossio, D.; Trabucco, A.; Yanjie, L.; Gupta, D.; Singh, P. 2007. Trees and Water: Small Holder Agroforestry on Irrigated Lands in Northern India**

Main result/indicators of impact reported by the study (i.e., adoption, estimates of income effect, other effects, poverty impacts, environmental impacts, IRR, etc.)

This study investigates the importance and role of poplar trees within the agricultural landscape and estimates their water use. The study assesses the hydrological impacts of Agroforestry in irrigated areas. Increased vapor flow across the region resulting from the

adoption of Agroforestry is estimated to be minimal. The regional increase in irrigation requirements is estimated to be 14 mm or just 1.6 % compared to a landscape without Agroforestry. These results indicate that the widespread adoption of poplar Agroforestry has improved water productivity of this region.

B) For each completed ex-post IA study listed in I.A above, please provide the relevant information under each component (check the appropriate item)

**1. Publication venue**

- Refereed journal
- Book chapter
- Conference paper (includes proceedings)
- In-house publication (reviewed externally)
- In-house publication (not reviewed externally)

**2. (Co-) authorship**

- With other CG Center scientists
- With NARS scientists
- With ARI scientists
- Center only scientists

**3. EplA coverage**

- Commodity improvement
- NRM related
- Policy related
- Biodiversity related
- Training/Capacity building related
- Other

**4. Distance down the impact pathway covered by the study**

- Uptake/adoption (field surveys)
- Influence (bibliometric/citation analysis, key informant surveys, etc.)
- Intermediate impacts (improved yield/quality, lower risk, higher income, conserve resources, increase market access/efficiency, develop human capacity)
- Ultimate impact (poverty, food security, environment)

**5. Geographical breadth of impacts assessed by the study**

- Single location within single country assessment
- Multi-locations (regions) within single country assessment
- Multiple countries (~ 2-5) assessment
- Global assessment (i.e., spread over several continents)

**6. Advances in new methods/models for eplA embodied in the study**

- Addresses non-economic impacts
- Addresses differential effects (different target groups)
- Addresses positive and negative effects
- Addresses multiplier effects (other sectors)
- Employs novel methods (combines quantitative & qualitative, participatory approaches, etc.)
- Other methodological advances ...

C) Please provide an estimate of the number of full time equivalent staff devoted to eplA work in your Center in 2007:

1.00

**3A: II. Criterion 2: Building an IA culture at the Center (Indicate "Not applicable" if there is nothing to report under a particular heading) (20%)**

A) Please provide a list of internal workshops convened by the Center's impact assessment unit/specialists within the past year to help assess the expected impacts of planned and ongoing research of the Center (for each, describe the theme and number of Center participants)

Workshops List:

B) Please provide 2 examples of systematic evaluation of user relevance of Center research outputs produced within the past year such as early adoption/influence studies (max of 100 words for describing data collection, analysis, and major finding for each example)

1.

A detailed study into the dynamics of adoption of improved tree fallows in Western Kenya has shown that technically promising and profitable technologies are not being adopted if the wider socio-economic, political and institutional setting in which farmers are embedded is not conducive to innovation (Kiptot et al. 2007). The study also showed that the concept of adoption in itself is very problematic since farmers often tested the new technology but discontinued later, while other farmers re-adopted when their socio-economic conditions changed.

2. ICRAF's methods in landscape-level land and soil surveillance methods are continuously being discussed with current and potential users as to their relevance. The methods have been used by other CGIAR partners in research projects. They have also been reviewed by and discussed with many other prospective users including UNDP, GEF, World Bank, and WWF. ICRAF continues to work on enhancing the methods to cater for different sized project areas and to handle new areas of interest such as above and below ground carbon. Land surveillance methods have been integrated into various projects such as:

- UNEP project on West Africa Drylands
- World Bank project on lake Victoria and a World Bank Source Book on Sustainable Land Management

C) Please provide specific examples of how empirical ex-post impact assessment findings have been applied as a basis for quantitative ex-ante impact projections that contribute to the Center's priority-setting procedures, or have been used to validate earlier ex-ante work

ICRAF helped to conceptualize an impact assessment of the African Highlands Initiative (AHI), which was commissioned in 2007. This study was conducted by CIMMYT scientists and its preliminary results have already been instrumental in orienting AHI's future activities.

D) Please provide specific examples of establishment of baseline studies to provide counterfactuals for future epIA

ICRAF has established baselines in many of its project sites. Key examples are in the land degradation and rehabilitation projects in Kenya (the Western Kenya Integrated Ecosystem Management project), the Malian drylands land rehabilitation project, and the collaborative project with the Foundation for Ecological Security in four sites across India. Those baselines focus on an array of environmental indicators at large scale. We have new socioeconomic baselines in 100s of communities in east Africa, adoption baselines in 5 countries in southern Africa, and have helped the Millennium Villages project to establish multi-sectoral baselines in 10 African countries.

### **3A: III. Criterion 3: Communication/dissemination and capacity enhancement (10%)**

A) Please specify how the findings of ePIAs have been disseminated in 2007 (Indicate "Not applicable" if there is nothing to report under a particular heading):

1. Number of ePIA briefs published(not general M&E briefs): 0
2. Dissemination of ePIA findings in popular media (number of stories published): 0
3. Any other method of dissemination of ePIA findings used in 2007:

Through peer-reviewed journal and book publications, and informally, through meetings with policy makers, with development partners and with donors.

B) Please specify your Center's efforts in building capacity in IA in 2007 (Indicate "Not applicable" if there is nothing to report under a particular heading)

1. Number of IA related conferences/workshops conducted for external audiences in 2007 (e.g., NARS scientists): 0

List of events:

2. Number of IA related training materials developed: 0

List:

3. Number of IA visiting specialists from a NARS hosted: 0
4. Any other IA related capacity building efforts in 2007:

### **3A: IV. Other**

Please list/describe any other impact-related activity or outcome of 2007 that you believe warrants consideration in this exercise but is not covered in any previous criteria/questions .. (Modifier to overall score)

ICRAF's Programme Committee met in April 2007 in a session aimed at raising centre-wide awareness of the approaches and utility of impact assessment in Agroforestry R&D, and to build internal capacity to formulate and monitor impact pathways. Senior and middle management reviewed various impact assessment methodologies and the Science Council's assessment of ICRAF's impact statements in its current MTP. The Committee developed recommendations on better ways to incorporate impact assessment in project proposals and budgets. The session produced a greater degree of commitment to actively pursue impact assessment, both ex-ante and ex-post as a fundamental way of doing business.

### **3B: SC/SPIA rating of two Center impact studies carried out in the period 2003-05 for rigor**

Impact Study 1: Q3b1\_Place\_et\_al\_IFPRI\_RR142.pdf

## **Results for the CGIAR Performance Measurement**

### W. Agroforest Quality and Relevance of Current Research - 2007

4A: Number of externally peer-reviewed publications per scientist in 2007 (excluding articles published in journals listed in the Thomson Scientific/ ISI):

- number of externally peer-reviewed publications per scientist in externally published journals and books: **1.84** papers per scientist
- number of externally peer-reviewed publications per scientist in Center-produced book/research report series or journals: **0.47** papers per scientist
- Total number of externally peer-reviewed publications per scientist: **2.31** papers per scientist

List of publications: Indicator 4A.rtf

List of scientists: World Agroforestry Scientists as at 31-Dec-07 (Revised 13-Mar-2008).xls

4B: Number of peer-reviewed publications per scientist in 2007 that are published in journals listed in Thomson Scientific/ISI: **0.94** papers per scientist

List of publications: Indicator 4B.doc

List of scientists: World Agroforestry Scientists as at 31-Dec-07 (Revised 13-Mar-2008).xls

4C: Percentage of scientific papers that are published with developing country partners in refereed journals, conference and workshop proceedings in 2007: **39.50** % of scientific papers

List of publications: Indicator 4C.rtf

### W. Agroforest Institutional Health - 2007

#### **5A: GOVERNANCE**

##### Composition and Structure (as of December 31, 2007)

5A.1) What is the percentage of Board leadership (Chair, Vice Chair and Standing Committee Chairs) with developing country origin?

- 0%  1-20%  21-40%  41-60%  Over 60%

5A.2) What percentage of Board membership positions are occupied by women?

- 0%  1-20%  21-40%  41-60%  Over 60%

5A.3) What percentage of Board membership positions are occupied by individuals whose organizations are either direct recipients of Center funds OR whose organization are contributors to the CGIAR (and the Board member is in direct line responsibility of CGIAR funds)?

- 0-10%  11-20%  21-30%  31-40%  Over 51%

5A.4) How many Board members have professional qualification in financial management?

- 0  1  2  3 or more

5A.5) How many Board members have professional expertise in corporate, non-profit or public governance?

- 0-1  2-3  4-5  6 or more

5A.6) Is the Center Director General a member of the Nominating Committee?

- Yes  No

##### Board Practice

5A.7) Have all new Board members (who started their terms in 2006 or earlier)

attended a CGIAR Board Orientation Program?

Yes  No

attended a comprehensive center-specific orientation program?

Yes  No

5A.8) Has the Board conducted a self-assessment in 2007?

Yes  No

5A.9) Was the full Board engaged in the annual performance assessment of the Board Chair?

Yes, the full Board  Yes, less than the full Board  No

5A.10) Was a formal evaluation of board members conducted before reappointment?

Yes  No  NO Renewed board members in 2007

5A.11) How often did the full Board and the Executive Committee meet in 2007 (including virtual meetings)?

No. of meetings of full board **2**

No. of meeting of Executive Committee: **2**

5A.12) Has the Center completed a Board commissioned CCER on Center governance and management during 2005-2007?

Yes  No

5A.13) Does the Board have a clear and updated plan for communicating with stakeholders (including CGIAR Members, other Centers, and Partners)?

Yes  No

#### Determining the Center's mission and strategy

5A.14) In 2007, has the entire Board been engaged in reviewing, approving and guiding the, Medium Term Plans (MTP)?

Yes - Fully  Yes - Partially  No

#### Program Oversight

5A.15) In 2007, did the Board discuss and act on any significant deviations from previously announced targets and strategic goals for 2006 as defined in the MTP?

Yes - Fully  Yes - Partially  No  No Deviations

5A.16) Does the Board have an approved schedule for CCERs on program matters?

Yes  No

5A.17) In 2007, did the Board monitor actions taken in response to CCERs and EPMRs?

Yes - both  Yes - only EMPRS  Yes only CCERs  No - both

#### Financial Oversight

5A.18) Is there, in Board-approved documents, a clear policy on the delegations of authority from the Board to the Director General which indicates those financial transactions for which the approval of the Board is necessary, and those for which decision is delegated to the Director General?

Yes  No

5A.19) Is there a Board approved investment policy in place?

Yes  No

5A.20) Has the Board rotated external auditors in line with the CGIAR policy?

Yes  No

5A.21) How often the full Board receive information on key financial indicators?

Monthly  Quarterly  Annually

5A.22) In 2007, did the Board discuss and act on any significant deviations (more than 10 percent) from the budget planned for 2006?

Yes  No  No deviations

#### Setting and reinforcing ethical standards, values and policies

5A.23) Is it Board practice to have each Board member declare potential conflicts of interest at the start of each meeting?

Yes  No

5A.24) Has the Board discussed/ reviewed the Center's human resource policies during 2006-2007?

Yes  No

5A.25) In 2007, has the Board received and reviewed Center staffing numbers and trends (including consultants and gender and diversity information)?

Yes  No

5A.26) Has the Board reviewed the adequacy of the Center's risk management and internal control mechanisms as an explicit Board meeting agenda item during 2006-2007?

Yes  No

5A.27) Is there a board approved grievance policy?

Yes  No

5A.28) Is there a board approved whistle blowing policy?

Yes  No

#### Ensuring strong and continuous leadership of Centers

5A.29) Do Board members other than the Board Chair participate in the annual performance appraisal of the DG, including decisions on compensation?

Yes, fully  Yes, partially  No

5A.30) Is there a current succession plan for senior management?

Yes  No

#### Disclosure, Transparency and Accountability

5A.31) Is the following Center information publicly available on the Center external website?

- The Center's current Medium-Term-Plan

Yes  No

- Financial performance of the Center (i.e. as disclosed in the Center Annual Report)

Yes  No

- Staff compensation structure (i.e. salary scales for different grades of staff)

Yes  No

- The latest Center External Programme and Management Review (including Center response)

Yes  No

- Minutes of the Center Board Meetings (concerning non-confidential agenda items)

Yes  No

5A.32) Does the Center have a formal code of conduct / ethical principles (including conflict of interest rules) for staff, managers and board members?

Yes, fully enforced  Yes, but not enforced  No

5A.33) Are your procurement policies and their implementation fully consistent with the CGIAR Guidelines on Procurement of Goods, Works and Services (FG 6)?

Yes, fully enforced  Yes, partially enforced  Yes, but not enforced  No

## **5B: Assessment of Board statements**

### **Actions to Improve Board Oversight**

#### **OVERSIGHT OF THE CENTRE STRATEGY**

There has been intense Board oversight on the development and implementation of the new Strategy. This involved face-to-face meetings, teleconferences and email correspondence. The full board convened a special retreat to discuss every aspect of the centre's strategy in April of 2007. The board requested better articulation of the Global Projects. The key focus was on consolidation of the global projects and the strengthening of science quality within the 2008-1015 centre strategy document. The board was emphatic on the need to ensure better synergies between the global projects across the regions, and better contextualization of the agenda within the various eco-regions where the centre works.

The board again discussed progress on the finalization of the strategy during a board teleconference in August of 2007. The Board Programmes Committee Chair participated in the meeting of the Centre's science leaders in September 2007, on behalf of the full board. The full board then reviewed the revised draft that came out of the Programmes Committee meeting. The document was revised and the updated draft reviewed intensively by the Board Executive Committee during its meeting in December of 2007.

During 2007, the Board Chair held weekly telephone conversations with the Director General to discuss various aspects of centre management. They discussed developments in the strategy process, and reviewed the centre's financial health, resource mobilization efforts, risk management, and other important aspects of management effectiveness.

#### **OVERSIGHT OF CENTRE FINANCIALS**

There was intensive Board oversight and involvement on various aspects of centre finances during 2007.

#### **Full Cost Accounting and Small Grants Management**

Internal audit had signaled that many grants did not fully cover overheads, indirect costs, or in some cases full direct costs. The Board had also observed that the centre was accepting too many

small grants on average, which absorb too much time to administer relative to their size. It was also observed that small grants are more likely to pay direct operational expenses while leaving out overhead and indirect costs.

The Board requested management to develop stronger policies on the acceptance of small grants, overhead recovery through grants, and on the full costing of all projects in the Centre's portfolio. The new full-cost accounting policy was approved in 2007. It ensures that all grants are fully costed, and that small grants will only be accepted if very specific criteria are met. Exceptions must be approved by the Director General. Furthermore, the Board now reviews a quarterly report from the Director General on new all grants approved that contains data on the degree of full costing and overheads obtained for every grant. The Board is now also provided with a periodic scenario analysis report of how trends in grant-full costing will affect the centre's future financial viability.

Evidence material: Board Statement Evidence.zip

## **5C: CULTURE OF LEARNING AND CHANGE**

### 5C.1) Staff surveys

a. Has the Center conducted a staff satisfaction and/or attitude survey of ALL staff in 2006 or 2007, where the results were shared with staff?

Yes  No

b. If yes, did the survey result in specific action plans to improve staff satisfaction and /or attitudes?

Yes  No

### 5C.2) Leadership development program

a. Does the Center have an active leadership development program covering current and prospective staff in managerial positions?

Yes, for current AND prospective staff  Yes, for current staff  Yes, for prospective staff  No

### 5C.3) Individual Learning plans

a. Does the staff appraisal system include the development and follow-up of annual individual learning plans?

Yes  No

b. Does the Center have a mentoring program for young scientists?

Yes  No

### 5C.4) Staff development activities

a. What percentage of the overall 2007 budget was spent for attendance at international conferences or professional society meetings, or for a short sabbatical at a university, etc?

0- 0.5%  0.51-1.0%  1.1%-2.0%  2.1%-3%  More than 3%

b. What percentage of the overall 2007 budget was spent on staff training (e.g. computer, language, project management, leadership training etc.)?

0-0.5%  0.51-1.0%  1.1%-2.0%  2.1%-3%  More than 3%

c. Considering staff training only (question 5C-4b), what is the total number of training days in 2007 for all IRS staff, divided by the total number of IRS staff?

Less than 1  1-2.5  2.6-4.5  4.6-6.5  6.6-8  More than 8

d. Considering staff training only, what is the total number of training days in 2007 for all NRS staff, divided by the total number of NRS staff?

Less than 1  1-2.5  2.6-4.5  4.6-6.5  6.6-8  More than 8

5C.5) On average, how many days did an IRS staff spend in 2007 on program planning and review?

0-2.0  2.1-3.0  3.1-4.0  4.1-5.0  More than 5

5C.6) Completed CCERs in 2005-2007

a. How many Board commissioned CCERs on program-related matters were completed in 2005-07?

0  1  2  3  4 or more

b. What is the percentage of your program budget (average for 2005-2007) that has been covered by CCERs completed in 2005-07?

0%-30%  31%-50%  51%-70%  71%-90%  Over 90%

5C.7) Partnerships

a. How many SWEPS/CPs was the Center actively engaged in as a partner during 2007?

Less than 3  3-6  7-10  More than 11

b. How many new and substantive partnerships did the Center establish with external partners (e.g. National Agricultural Research Institutes, Civil Society Organizations) in 2007? **6** (No. of NEW partnerships)

5C.8) Do you systematically preserve research project data (primary and secondary data sets), including documentation on the data and project?

Yes, we have a comprehensive (meta) database for primary and secondary research data that is fully available for internal use  Yes, we have some, but not all, of the research project data preserved and these are internally available  No, we do not have at all a (meta) database preserving research data systematically

## DIVERSITY

5D) Gender diversity goals: Does your Center have Board-approved gender diversity goals?

Yes  No

5E) Percentage of women in management (Percent of management positions, either research or non-research, occupied by women as of 31. December 2007). **25.00** %

List of staff members: Indicator 5E - Women in Management.xls

5F) IRS Nationality concentration:

Percentage of internationally-recruited staff that comes from the top two countries represented in the IRS staff nationality list for the Center (as of December 31, 2007). Please also indicate the Nationality.

First nationality: **14.00** % - Nationality: **U.S.A.**

Second nationality: **10.00** % - Nationality: **Belgium**

List of IRS staff: Indicator 5F - IRS Nationality Concentration.xls

5G) Diversity in recency of PhDs:

Percentage of scientists receiving their Ph.D. during the last five years (2003-2007). **11.00** %

List of scientists: Indicator 5G - Diversity in Recency of PhDs.xls

## W. Agroforest Financial Health - 2007

6A) Short term solvency (liquidity): **0**

6B) Long-term financial stability (adequacy of reserves): 0

6C) Efficiency of Operations (indirect cost ratio): 0.00

6D) Cash Management on Restricted Operations: 0.00

6E) Audit Opinion: No answer

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