Pro-poor Rewards for Environmental Services in Africa (PRESA)

IFAD Grant No. 953

Annual Project Progress Report

January 1-December 31st, 2010

March 31, 2011

1. Introduction and grant background

The four-year programme for *'Pro-poor Rewards for Environmental Services in Africa (PRESA)'* seeks to facilitate '*hundreds of thousands of smallholder farmers and residents living in the highlands of East and West Africa benefit from fair and effective agreements between stewards and beneficiaries of ecosystem services'*. The three specific project objectives and expected outputs are:

Objective 1: Landscape-level engagement (L). Foster the development, implementation and assessment of workable environmental service agreements in three core landscapes and four associate landscapes in the highlands of East and West Africa.
Expected outcome 1: A set of landscapes in the highlands of East and West Africa have workable environmental service agreements providing fair rewards to ecosystem stewards.

Objective 2: Private sector and policy engagement (P). Catalyze policy support and private-sector participation in environmental service agreements in Kenya, Tanzania, Uganda and Guinea.
Expected outcome 2: Private companies become increasingly involved in a range of initiatives for ecosystem management in the highlands of Kenya, Tanzania, Uganda and Guinea, including policy dialog with public agencies and fair contracts for ecosystem management.

Objective 3: Community of practice (C). Provide proactive and responsive support to the **dissemination** and application of assessment tools, negotiation methodologies, prototype payment mechanisms and monitoring tools among a PRESA community of practice, including other IFAD projects, regional and national Katoomba networks, NGOs and national organizations active in the innovation of new approaches to pro-poor rewards for environmental services in the highlands of East and West Africa.
Expected outcome 3: Improved quality and increased number of environmental service reward mechanisms in place and operational in the highlands of East and West Africa.

PRESA operates in the following core landscapes:
C1: Mount Kenya East/upper Tana River catchment in Central Kenya;
C2: Ulugurus Mountains in the Eastern Arc of Tanzania
C3: Fouta Djallon upper catchment area in Guinea

Also in the following associate landscapes:
A1: Usambaras Mountains in Tanzania (Rather than focus only on the West Usambaras, East Usambaras was included as per recommendation of the 3rd meeting of the International Advisory Committee (IAC));
A2: Upper Aberdares catchments in Central Kenya that provide water to Nairobi City;
A3: Nyando and Yala River basins in Western Kenya; and
A4: South western highlands that includes Bushenyi District of Uganda.

PRESA seeks to generate evidence and facilitate mechanisms that enable rewarding of environmental service providers for engaging in sustainable landuse practices. These are often small-scale, resource-poor farmers living within or along margins of important ecosystems whose income options are often restrained due to the perceived potential consequences that downstream stakeholders may experience. PRESA uses scientific evidence to examine the extent to which such restraints often embedded in policy are called for, recommends effective landuse practices and seeks for fair ways of rewarding or compensating the upstream stakeholders in order to achieve sustained landscape management. It seeks for partnership avenues to work with farmers, policy makers and the private sector to enhance management of ecosystems in a landscape by promoting fair and evidence-based reward mechanisms for environmental services.

2. Progress and Performance

A. Strengthening the PRESA core team

PRESA activities were coordinated by Thomas Yatich between January and July 2010 and by Sara Namirembe between October and December 2010. The program is supported with scientific advice and supervision by Meine van-Noordwijk, Fergus Sinclair and Delia Catacutan. Other PRESA core team members are Heini Vehimaki, Miika Makela (Associates from Finland), Godfrey Mwaloma (communications assistant), Jaffer Wakhayanga (Research assistant), Catherine Kimengu and Joyce Kasyoki (administrators). Dr. John Gathenya from JKUAT also joined the PRESA team on a sabbatical contract with ICRAF, to lead hydrological assessments.

B. Summary of key accomplishments achieved during 2010

(1) Baseline and characterization of PRESA sites

1.1 Sasumua-Aberdares, Kenya:

- Socio-economic surveys were conducted linked to communities sampled for conservation auctions and Willingness to Accept (WTA) studies – see below.
  Findings: High population, approx. 3,700 households or 17,500 people growing at 3.5%; intensive agriculture of horticultural crops and dairy farming; average farm size 2.86 acres
- Land cover change and soil erosion were analysed.
  Findings: Reserve land, wetlands and drainage waterways were allocated and are used for cultivation; Dry season flows have reduced, surface runoff during wet season has increased; quality of raw water is low due to high sediment load, chemical (Pb and Cr) biological (Coliform bacteria) pollutants. Land management practices such as grass strips, contour farming and terraces can greatly reduce sediment yield but not water yield.
- Cost-benefit analysis of sustainable land management practices was conducted.
  Findings: Unit cost of chemicals for water treatment in Sasumua is Ksh. 2.10/m^3, or KSh 15 M/year. A grassed waterway on a total of 15 acres (lease rate of KSh 15,000/acre/year) affecting about 500 households costs about KSh 225,000/= per year, but reduces sediment yield by 20%, potentially saving Ksh 2 M per year in terms of water treatment.

1.2 Upper Tana, Kapingazi, Kenya

- Land degradation analysis from the RUSLE model was ground-truthed and improved with a new land cover dataset produced from Quickbird satellite imagery. The analysis showed that the Kapingazi catchment is well managed and can be used as a model case for other areas in the Upper Tana region. An adjacent degraded site, Saba Saba was delineated for future comparative studies.
- Participatory GIS methods were used with and focus group discussions held with catchment residents to identify socioeconomic hotspots on PGIS maps.
- Socio-economic surveys were conducted within the communities sampled for conservation auctions and WTA studies.
- A Kenya-wide population dataset is in production to make a good estimate of the population in Upper Tana using a GIS dataset and figures from all census years (1979, 1989, 1999, 2009). The aim is to better understand socioeconomic drivers. A formal request has been made to the Kenya National Bureau of Statistics for GIS-shape files of the sub-locations in Upper Tana and the population statistics.
- A survey of 100 households distributed over five Focal Development Areas (FDAs) was made to identify the drivers of land use change for purposes of making scenarios of future land use. Data entry has been completed and analysis in on-going. This is to be complemented by the on-going study of the interrelationship between land use change and watershed services using the GenRiver hydrological model. The study will be completed in April/March 2011.

1.3 Basins of River Nyando and River Yala, Kenya:

- A consortium of stakeholders was formed. PRESA will contribute to the Action Planning Meeting of the consortium especially looking for avenues to access public funding for setting up a rewards-based sustainable management scheme among up-stream land owners.

1.4 Fouta Djallon highlands, Guinea:

- A geodatabase for Guinea was updated. Coyah catchment (about 25.8 km^2 and with potential for payments for water services) was delineated using the GPS recordings and a digital elevation model. A GIS expert from CERE is documenting results in French using MapInfo (most available software). First drafts of a detailed land cover assessments have been produced. This work will be continued in February and March 2011.
- In-depth landscape studies were done using RaHA (rapid hydrological assessment based on local ecological knowledge). Data analysis is on-going.

1.5 Uluguru Mountain, Kinole sub-catchment, Tanzania:

- Socio-economic surveys were conducted within the communities sampled for conservation auctions and WTA studies.
- In-depth landscape studies were done using RaHA (rapid hydrological assessment based on local ecological knowledge).

1.6 Usambara Mountain, Tanzania

- The findings of the landscape mosaics project were reviewed to determine opportunities for PES. Biodiversity and carbon were identified as key Environmental services.
- From the Landscape Mosaics project, the profitability of common agricultural land uses in and biodiversity values of village landscapes are known
- Studies of the following aspects of REDD feasibility have been initiated: Landuse trade-offs; benefit sharing and institutional analysis for REDD payments; and assessing sub-national delineation of REDD interventions.

1.7. Albertine Rift

- PRESA partnered with Nature Harness Initiative (NAHI) to:
  - Identify potential incentives for increasing value accruing to farmers from riverine forests along Wambabya River basin. Potential enterprises identified included charcoal woodlots, bee keeping and bamboo production. As part of its social cooperate responsibility, the British American Tobacco company expressed willingness to support bamboo production (tobacco production is one of the major causes of riverine forest degradation).
  - Initiate the process of landscape management planning by creating awareness about PES and facilitating management planning on forest patches that are owned individually. These will be incorporated into a landscape management plan to be implemented in partnership with the National Environment Management Authority (NEMA). NAHI has also initiated the contract structuring process through consultations with land owners

*__Means of verification__: Study reports are either in draft or in final form, and are accessible through the PRESA website.

(2) Conservation auctions, conjoint analysis and contingent valuation (WTA) as tools to determine farmer/seller behaviour towards PES contracts, willingness to participate in PES contracts

2.1. Sasumua site, Aberdares Highlands

- A willingness to pay (WTP) survey was conducted among 200 heterogeneous samples of Nairobi water users receiving water from Sasumua Reservoir. A GIS-based sampling strategy was used. The study found that water users were willing to pay higher tariffs for increased quantity of water. So far there is a mismatch because research evidence shows that sustainable landuse practices are more likely to affect water quality than quantity.
- A similar sampling methodology was used in the willingness to accept (WTA) survey, and was presented in detail in a journal article.

2.2. Usambaras Mountain
Research on developing payment schemes for biodiversity conservation as an environmental service was is on-going by a MSc student David Kaczan. Research title: 'Designing an incentive scheme to promote biodiversity conservation in the East Usambara Mountains, Tanzania'

2.3 Mt. Kenya East
Surveys were conducted to find out Willingness to Accept ES payments by land owners. Information is being synthesised.

2.4 Uluguru Mountains
PRESA conducted a Willingness to Accept auction among farmers in the Kinole watershed (PhD by a student called Rohit). This resulted in development of contracts with 100 farmers for growing indigenous trees (provided free of charge) for providing watershed services.

2.5 Nyando-western Kenya - On-going
A study on willingness to accept ES payments by land owners was initiated through an auctions study, this is to be completed by farm experiments to be conducted in 2011 by a PhD student.

***Means of verification**: Technical report and journal article for the Mt. Kenya East study has been submitted, and accessible at the PRESA website; draft PhD thesis submitted for the Uluguru study.

(3) Prototype development and farmer level capacity building

3.1 Albertine Rift, Uganda
PRESA partnered with Ecotrust to:

- Generate carbon payments from the voluntary carbon markets as incentives for farmers to implement agroforestry practices based on technical specifications along River Mubuku watershed . As result, 17 new farmers (generating a total of 5735.88 t CO2) are already eligible for the first payment.
- Explore the potential of generating incentives for sustainable land management through eco-labeling of honey. This activity is still in its infancy as the label and standards are yet to be developed and farmers are yet to be trained in business management and hygienic production methods. Potential markets for the eco-labelled honey were identified as Rwenzori Eco-lodges and Uganda Beekeepers' Association.

3.2. Uluguru mountains
One hundred farmers in two villages participating in tree farming contracts were given first conditional payment by PRESA, based on surviving tree seedlings in November. Key questions

- If tree survival is related to farmers continued willingness to accept
- Challenges farmers face in maintaining the trees
- Relating tree survival to profiles of farmers – land tenure, gender, size of farm etc

***Means of verification:** Farmers MOU with PRESA and farmers logbook in Swahili; Eco-Trust training report and site-activity reports

(4) Public-private engagement

4.1. Sasumua
Based on the scientific evidence, negotiations were conducted via a roundtable discussion and technical presentation with Nairobi City Water and Sewerage Cooperation (NCWSC) - potential beneficiaries of improved watershed management - to show the business case for a rewards-based approach. It was noted that as required by the Water Act 2002, NCWS makes substantial annual remits (KSh 12 M) to the Water Resource Management Authority (WRMA), which is charged with watershed management. The WRMA has a Water Conservation Trust Fund (WCTF) and supports Water Resource Users' Associations (WRUAs) to manage watersheds.

Way forward: PRESA is planning a meeting with the leaders of these institutions to discuss ways of introducing a rewards approach to enhance the performance of the WRUAs in watershed management. Other landscape stakeholders PRESA will target for dialogue are: Athi Water Services Board, National

Environment Management Authority (NEMA, Water Services Regulatory Board, Water Service Providers Association (WSPA), Ministry of Water, local governments and other players,

4.2 Fouta Djallon, Guinea
Dialogue was initiated with a water company to conserve Coyah watershed.
A workshop was held with public and private sector players in Guinea to introduce the concept of PES and identify potential ecosystem services. Water and carbon were ranked highest, followed by biodiversity. Guinea Water Company (CEG) and the Agricultural and Mining Development Bank (BADAM) expressed commitment to collaborate with PRESA and CERE in testing the payment options.

4.3. Albertine Rift
Buyer dialogue was concluded with voluntary carbon credit buyers through Plan Vivo, and farmers are due to receive payments. Discussions on-going informally with the Bunyaruguru Beekeepers' Association and Rwenzori Eco Lodges for potential outlets for eco-labelled honey.

The British American Tobacco company expressed willingness to support bamboo production. Also discussions were held with a tea company, McLeod Russel Uganda Limited for potential payments for conservation of Wambabya river watershed and the Rushebeya-Kanyabaha wetland.

***Means of verification:** Report/minutes of meeting submitted by PRESA site leader in Fouta Djallon; site reports from Eco-Trust

(5) Community of Practice

5.1 A communication strategy was developed and is being implemented
5.2 The PRESA website has been regularly updated with articles, events and pictures. Social media (Facebook and blogs) have also been used for knowledge sharing.
5.3 The spatial database was regularly updated with new information and the access processes simplified
5.4 The PRESA brochure was translated into Swahili and uploaded on the website for mainly the Tanzanian audience. No responses about it have been received.
http://presa.worldagroforestry.org//WP CONTENT/UPLOADS//2008/09/presa_brochure_swahili.pdf
5.5 A PRESA matrix was developed to give a quick overview of site activities and was uploaded on the website.
5.6 A second edition on PRESA site briefs was developed and uploaded on the PRESA website
5.7 New media contacts were developed for dissemination of PRESA research outputs: e.g., Ochieng Ogodo, Nairobi reporter for Scidev.net (a science journal) and Caroline Ford, BBC
5.8 PRESA stories are regularly uploaded on the website. Recent highlights: PRESA surveys Nairobi water users (November 9, 2010); Building local capacity for data collection and analysis to develop a river care programme (Upper Tana site, October 8th, 2010); Joining hands for the Uluguru watershed (September 20th, 2010); Advocating policy actions for the Fouta Djallon ecosystem (Jul 31st, 2010).
5.9 Quarterly newsletter produced and disseminated
5.10 A brochure and three posters showing potential for products and services of the Rushebeya-Kanyabaha landscape were produced through NAHI. Two of the posters are in Rukiga (local language)
5.11. Farmers' logbook in Swahili language.
5.12. A poster was produced on Pro-poor Rewards for Environmental Services in Africa: Some perspectives from Uluguru Mountains, Tanzania.

(6) Publications

6.1 Balana B., et al. 2010. 'Assessing landholder preferences for alternative land management schemes and willingness to accept rewards for watershed services provision: the case of Kapingazi River basin, Mt. Kenya East'. A working paper to be developed into a journal article.
6.2 John Kimani Mwangi, Mwangi Gathenya and Hosea Mwangi. 'Ensuring reliable water supply through partnerships with ecosystem stewards.' Policy Brief in process.
6.3 Miika Makella. A GIS/GPS manual. In progress.

C. Building Links and Partnerships:

During 2010, PRESA conducted its activities both directly and through site-level partners. North-south collaboration continued through the BESSA project with Macauley Institute, Aberdeen University and many other universities abroad. In response to the 2010 NERC-DFID ESPA call, the PRESA-BESSA team developed a research proposal to deepen the scientific inquiry of PRESA. Partnerships are operationalised in three ways: i) through knowledge sharing typically with partners that have similar initiatives such as WWF, CARE, MKEPP, GWC, Katoomba Group and others; ii) co-investments in PRESA site research, facilitating stakeholder dialogues and farmer trainings, with ECOTRUST, NAHI, SARI, JKUAT, Maseno University, Macauley Institute, and Conakry University, etc. and iii) co-investments in graduate research with Bonn University, Alberta University, Supa-Agro Montpellier, and JKUAT etc.

PRESA also continued with its partnerships with the Mt. Kenya East Pilot Project, which is also under the IFAD loan Portfolio. A meeting was held with Green Water Credits (GWC) and an outline of the farming guides developed. This activity has been merged with the Technology Targeting Tool development. Literature Review has been conducted and existing information extracted from past publications mainly from RELMA. Next meeting with GWC is in February 2011. Some of the partnerships that PRESA continue to benefit from are as summarized in Table 1.

Table 1: Outstanding linkages developed since 2009

Universities and research institutions	Government Departments	Non-governmental organizations	Donors	International Organizations and Initiatives
Guinea Conakry University Kenya Jomo Kenyatta University of Agric and Technology; Maseno University; Kenyatta University South Africa University of Pretoria Tanzania Sokoine University Uganda Makerere University UK York University; Aberdeen University; Macaulay Institute USA Harvard University, Sustainability Science; Michigan State University	Guinea: Forestry Department Kenya: National Environmental Management Authority; Water Resource Management Authority; Ministry of Water; Ministry of Agriculture Tanzania: Forestry and Bee Keeping Division, Ministry of Natural Resources Uganda: National Environment Management Authority	Kenya: Care Tanzania: Care/WWF Uganda: Nature Harness Initiatives; Ecotrust	DFID – Support for ecosystem services capacity building and formation of a collaborative arrangement with UK and African institutions through the BESSA project EU – Research on international policy; Finland - Associate expert in spatial analysis World Bank - Sasumua project UNEP -- Lake Victoria project USAID- linkage funds to support graduate students from US universities; supported Katoomba training of PRESA partners Interest expressed: Lake Victoria Basin Commission of the East Africa Community FAO IDRC	Katoomba Group / Forest Trends Eco-agriculture Partners World Bank FAO RUPES-TULSEA ISRIC – Green water Credits project International Association of Ecological Economics FLEG process in Kenya African Highlands Initiative; COMESA

Linkages with universities and national-level partners has led to capacity building and research opportunities for graduate students whose research activities have been matched with those of the PRESA project. To ensure that the right research questions are being answered and that important gaps are filled, the PRESA core team has formulated 5 clusters of hypotheses (dubbed the pentagon of hypotheses) on effectiveness, efficiency, acceptability, sustainability and poverty. The pentagon of hypotheses guides the project's research and is linked to the project's objectives.

At the local level in the Uluguru landscape, partnerships were developed with

- WCST - Wildlife Conservation Society of Tanzania, which has secured funding for implementation of a PES related project in the Uluguru Mountains;
- Eastern Arc Mountains Conservation Endowment Fund, which gives financial assistance to conservation activities in the Eastern Arc Mountains.

PRESA provided technical advice and synthesized technical information for the articulation and harmonization of policies toward Reduced Emissions from Deforestation and forest Degradation (REDD) and Agriculture, forestry and other land uses (AFOLU) across Africa, including in the 3 East African countries covered by PRESA. Much of this activity is supported by a new partnership between ICRAF and COMESA, under the banner of the Africa Bio-carbon Initiative.

D. Capacity Building Activities: ICRAF has contributed to or led/organized capacity building initiatives on several topics related to rewards for environmental services. These are summarized as:

i. Two trainings on market-based incentives to promote conservation of natural resources in Albertine Rift held on August 2-3, 2010 for the Ruboni Community and Mobuku Integrated Farmers Association in Kasese District.
ii. Training-workshop on outcome mapping for 27 participants, PRESA staff and partners in March 2010.
iii. The participants identified landscape boundary partner Progress Markers (PMs) to be used as indicators to monitoring progress. Support activities (Strategy Maps/Matrices) were also identified.
iv. Ulugurus: Two village training workshops organized at Kinole on 13th and 15th Nov 2010 (see attached workshop report)
v. Outcome mapping workshop among PRESA staff and partners was also held in March 2010 to develop a shared vision and commitment of what needs to done and to self monitor progress.
vi. A workshop was held on 23rd September 2010 to share information generated from baseline assessments of the Rushebeya-Kanyabaha wetland landscape. Participants: Kabale district local government, sub county leaders, National Environmental Management Authority (NEMA), leading NGOs operating in the landscape, Kisiizi Power Ltd, the central wetland management committee, chairpersons of each of the 7 parish wetland management committees and leaders of local community groups involved in wetland based enterprises.

Research partnerships

<u>1. Finalized/almost completed graduate research</u>

Clementine Remy, Montpellier Supagro, France

MSc Thesis: *"Possibility of integration of additional water buyers in the actual Payment for environmental services (PES) scheme, taking into account their interests and the benefits they could bring to the scheme."*

<u>2. Continuing Graduate students (from 2009)</u>

i) John Kimani Mwangi, JKUAT, Kenya
PhD Thesis: *Trade-off analysis among ecosystem services using the Soil and Water Assessment Tool (SWAT) model in Upper Aberdares*

ii) Rohit Jindal, Indian national, Michigan State University , USA
PhD, Agric. Economics: *Design of conservation contracts at the Ulugurus site in Tanzania* and currently writing up his thesis

iii) Mamta Vardhan, Indian national, Michigan State University, USA
PhD, Rural Sociology: *Alternative institutions for land and forest management at the Ulugurus site in Tanzania* and currently writing up her thesis

iv) Hosea Mwangi, JKUAT, Kenya
MSc thesis: *Evaluation of the Impact of Conservation Practices On Ecosystem Services In Sasumua Watershed, Kenya*, using SWAT model

v) Isabel van de Sand, University of Oldenburg
PhD thesis: Integrating natural resource management and adaptation to climate change: The case of payments for ecosystem services"

3. New Graduate students (2010)

i) Lucie Andeltova, Bonn University Germany
PhD Thesis: *The Role of Risk and Trust in Conservation Auctions for Performance Based Payments for Environmental Services and the Cost Effectiveness Implications: Experiments in Rural Kenya*

ii) David Kaczan, University of Alberta Canada
MSc Thesis: *'Designing an incentive scheme to promote biodiversity conservation' in Usambaras*

F. Joint PRESA-GWC MTR held in July-August 2010 highlighted both the success and weaknesses of PRESA and prompted generation of new ways of working, including adjustment of the 2010 work plan and identification of joint activities with GWC.

G. PRESA IAC meeting: PRESA IAC meeting was held on March 4, 2010. The meeting was conducted in conjunction with the PRESA outcome mapping.

H. Contracts: Contracts were given to the following partners:

1. Nature Harness Initiatives (Uganda) to develop linkages and initiate interest for structuring performance-based contracts between farmers and local private sector buyers based on baseline information on River Wambabya and Rushebeya-Kanyabaha landscapes in Albertine Rift, Uganda.
2. Ecotrust to generate carbon payments for farmers managing River Mubuku watershed in the Albertine Rift, Uganda
3. Selian Agricultural Research Institute (Arusha,Tanzania) to implement activities in Usambaras
4. ICRAF-Tanzania to implement PRESA project activities in Uluguru
5. ICRAF-Cameroon to implement PRESA project activities in Fouta Djallon Highlands
6. Bedru Balana (Macauley Institute) for WTP studies in Kenya

Conclusion

The PRESA goal is: *hundreds of thousands of smallholder farmers and residents living in the highlands of East and West Africa benefit from fair and effective agreements between stewards and beneficiaries of ecosystem services.* PRESA is making progress towards achieving this goal as detailed above. This is being enhanced by external factors including:

- The increased momentum of PES among government players and willingness to learn from pilot sites including those operated by PRESA;
- Continued operationalisation of decentralized governance of natural resources and devolved authority for utilities such as water and electricity
- Expansion in the number, reach and participation in eco-labelling and fair trading schemes for sustainably produced coffee and tea in East Africa
- Expansion in the number and participation in community-based ecotourism projects in East Africa

External factors hampering the achievement of this goal include:

- The pressing demand for tree and land resources to satisfy food, fibre and fuel needs
- Food and financial crises with implications on willingness to pay for eco-labelled commodities and eco-tourism;

The following is the objective-by-objective summary of progress made towards realizing the project goal.

Objective 1: Foster the development, implementation and assessment of workable environmental service agreements in three core landscapes and four associate landscapes in the highlands of East and West Africa.

Expected outcome 1: *A set of landscapes in the highlands of East and West Africa have workable environmental service agreements providing fair rewards to ecosystem stewards.*

The degree to which this objective has been achieved, varies across the different sites, partnerships built, existence of previous or ongoing PES work by other PES innovators, policy and institutional terrain etc. In the Albertine Rift, carbon agreements have been developed with farmers through partnership with Ecotrust. In the Ulugurus, a prototype mechanism for rewarding watershed farmers for tree planting is being tested. In Sasumua and Kapingazi, much of 2010 has been spent on generating research evidence on land cover- change and water balance analysis to build land use scenarios for PES. In Fouta Djallon baseline work has been generated to initiate the process while in Nyando-Yala river basins, the potential to achieve these agreements via a consortium of partners is being explored.

Objective 2: Catalyze policy support and private-sector participation in environmental service agreements in Kenya, Tanzania, Uganda and Guinea.

Expected outcome 2: *Private companies become increasingly involved in a range of initiatives for ecosystem management in the highlands of Kenya, Tanzania, Uganda and Guinea, including policy dialogue with public agencies and fair contracts for ecosystem management.*

Dialogues have been conducted with private sector and policy makers in Kenya Uganda and Guinea. In Kenya, dialogues have been conducted with the Nairobi Water and Sewerage Cooperation as the potential buyer for watershed services from Sasumua. A draft policy brief was developed. In the Albertine Rift, Uganda, Ecotrust engaged with carbon buyers and managed to generate commitment for payment of some farmers to commence in 2011. NAHI also in the Albertine Rift, engaged British American Tobacco, a tea company, McLeod Limited and Kisiizi mini-hydro dam as potential PES buyers. In Fouta Djallon, Guinea, PRESA engaged policy makers and private sector stakeholders including Mining companies and a Coyah Water Bottling Company.

Objective 3: Provide proactive and responsive support to the dissemination and application of assessment tools, negotiation methodologies, prototype mechanisms and monitoring tools among a PRESA community of practice, including other IFAD projects, regional and national Katoomba networks, NGOs and national organizations active in the innovation of new approaches to pro-poor rewards for environmental services in the highlands of East and West Africa.

Expected outcome 3: *Improved quality and increased number of environmental service reward mechanisms in place and operational in the highlands of East and West Africa.*

PRESA continued to share its PES information widely, attracting graduate student researchers and lecturers. Engagement with Green Water Credits (IFAD partner) was strengthened. PRESA strengthened its communications with site-level partners and other PES innovators and supported production of necessary information materials. The web site (http//: presa/worldagroforestry.org) was regularly updated. The quarterly e-news continues to inform our stakeholders on ongoing project activities.

Appendix: Site-by-site and component-by-component achievements in 2010

Outputs	Activities	Detail	Site						
			Ulugurus Tanzania	Mt Kenya East, Kenya	Fouta Djallon, Guinea	Usambaras, Tanzania	Upper Aberdare, Kenya	Nyando / Yala basins, Kenya	Albertine Rift, Uganda
Core or associate site			Core	Core	Core	Associate	Associate	Associate	Associate
Priority			High	High	Moderate	Moderate	Moderate	High	Moderate
Site-by-site highlights			- Tree planting contracts developed; -Expansion opportunities of 'input-based' contracts explored to better attract ES buyers	Building on partnerships with MKEPP and GWC, joint development of farming guides initiated with GWC.	Building on ICRAF-LAMIL project, potential of bundling water and biodiversity services in Fouta Djallon highlands assessed.	Building on ICRAF-CIFOR Landscape Mosaic Project and ASB, biodiversity and carbon as key ES analysed	WTA and WTP studies implemented to determine the transactional relations between ES sellers and buyers	Building on pre-existing partnerships in Nyando, building a PES case via a consortium is being explored	Support provided via partners to generate carbon benefits and explore other incentive opportunities for watershed management.
L1. Baseline reports for all of the core and associate landscapes.	L11. Compile an inventory of baseline information, design and monitoring methods, and institutional innovation in all landscapes. Identify gaps in the information base and priorities.	Synthesis of baseline studies is under-way to build the business case of PES and or any type of ES investment.	Rapid hydrological appraisal through local ecological knowledge done – analysis on-going	On-going: water balance study; Analysis of landuse scenarios for PES case Done: Community validation of hotspots; Compilation of existing materials on soil and water conservation	On-going :Synthesis of ES characterization, particularly biodiversity; Rapid hydrological appraisal through local ecological knowledge	ES scoping in west Usambaras done – REDD feasibility studies on-going	Completed WTA study to understand farmer behaviours towards PES	On-going conservation auction experiments in upper Nyando basin to determine risk attitudes and level of trust towards PES intervention	Completed baseline study
L2. Project teams in all landscapes are introduced to and supported in the application of a toolkit of methods for scoping, negotiation support and assessment.	L21. Compile a set of scoping, negotiation support and prototype payment tools from RUPES, other PES projects, land degradation and poverty assessment methods from ICRAF in Kenya, and other tools used in PRESA landscapes.	RUPES and TULSEA tools are made available at the PRESA website.	The RUPES appraisal and negotiation tools from RUPES-TULSEA website are linked to the PRESA website. The plan is to consolidate these tools into a compendium of appraisal and negotiation tools including those championed by other PRESA partners in early 2011.						

	L22. Conduct training in the PRESA assessment, negotiation support, and prototype payment tools for project teams in all PRESA landscapes	Needs-based training on RUPES tools carried out.	Dr. John Gathenya from JKUAT University, currently on sabbatical at ICRAF has received further training on GenRiver modeling from RUPES-TULSEA projects in Indonesia, for application in the PRESA sites—the application of GenRiver is presently carried out in Sasumua and Mt. Kenya East, and potentially in Uluguru and Fouta Djallon.						
	L23. Support partners to use PRESA assessment and negotiation tools to fill in key knowledge gaps and frame dialog among stakeholders.	Same as above.	Ongoing support to spatial analysis in the Uluguru site and capacity building for partners Rapid Hydrological Assessment (RAHA) tool applied	Completed validation of environmental hotspots vis a vis social hotspots	Completed spatial/land cover change analysis in Fouta Djallon Rapid Hydrological Assessment (RAHA) tool applied		Support to PhD student for soil erosion risk assessments, CBA of water treatment costs versus investments in good land use to reduce sedimentation	Support to PhD student for conservation auction experiments - behavioural response towards PES interventions.	
L3. Technology targeting tool developed	L31. Review literature and interview experts to establish a portfolio of candidate land use options for the highlands of East and West Africa.	Continued in 2010. **1**. Review existing technologies, land uses landscape-by-landscape; identify candidate options for promotion. **2**. Analyze economic, ecological implications of candidate land uses **3**. Compile GIS and land cover data.	• Development of generic technology targeting tool ongoing. • Aide Memoir signed by PRESA, GWC, IFAD - GWC and PRESA to jointly develop a set of "Farming Guides" on SLM that provide green water yield. These two activities will be merged						

L4. Prototype reward mechanisms developed and tested with at least 100 farmers in every core landscape.	L41. Conjoint analysis and experimental economics studies of farmers' preferences for the various elements of ES contracts.	Auctions experiment and WTA-WTP studies almost completed.	Tree planting contracts developed with 100 farmers – first payments made	Conjoint analysis and WTA studies completed – to be developed into journal publication.	-	REDD feasibility study initiated - candidate PES scheme for institutionally well defined forests.	Completed: WTP study; WTA study on farmer willingness to participate in PES	Auctions experiment is implemented.	
L5. Workable reward mechanisms operational in at least 4 of the project landscapes, with at least one ES demander, one intermediary and 300 households involved in each landscape.	L51. Engage with public agencies concerned with environmental services in the project landscapes.	Identify and engage with public agencies regarding interests and policy opportunities for environmental reward mechanisms.		Dialogue on-going with WRMA	PES workshop conducted with private and public stakeholders	-	Dialogue on-going with WRMA	Not applicable yet.	Incentives for watershed management identified: 17 farmers (generating 5735.88 t CO2) are eligible for first payment Potential for eco-labelling of honey explored
	L52. Engage with utilities, private firms and industry groups with interests in ecosystem services in the target landscapes	Understanding the buyers' side and ongoing discussions with potential ES buyers	Engagement with water users is being led by Care.	Initial discussion with KenGen WTA-WTP land cover, hydrology and land use studies getting synthesised into a business case for negotiation.	Meeting held and interest generated with Coyah Bottling Company.		Dialogue on-going with Nairobi Water Company WTA-WTP land cover, hydrology and land use studies getting synthesised into a business case for negotiation.	Not applicable yet	Dialogue with British American Tobacco, McLeod Limited, Kisiizi mini-hydro dam company, Rwenzori Eco-lodges and carbon credit buyers
	L53. Support collective action and awareness raising among community groups	Support and facilitate awareness raising to promote collective learning and action among community groups		Initial interaction with WRUAs has taken place – PRESA's attempt to contribute to WRUA plans overtaken by WRUA events.	Deferred to 2011	-	Initial interaction with WRUA has taken place.	-	40 farmers trained carbon trading. Community training materials developed

	L54. Identify and mobilize changes in institutions or regulations (statutory or bi-laws) necessary to support the establishment of mechanisms.	In some sites, work will begin to identify specific regulations or bylaws that affect the establishment and operations of specific reward mechanisms. This will include, for example, an analysis of how property rights to land, trees, forests and carbon affect the potential for voluntary carbon contracts.		For Kenya, a national policy analysis on PES with links to local sites is currently ongoing			For Kenya, a national policy analysis on PES with links to local sites is currently ongoing		PhD student thesis from the Univ. of East Anglia is finalized.
	L55. Support consultations, negotiations and agreements among stakeholders and the establishment of workable mechanisms	PRESA's involvement in the negotiations, will vary from landscape to landscape depending on the state of reward schemes for environmental services.	Ongoing, led by CARE.	Initiated	Conducted the 2nd multi-stakeholders Policy workshop in Conakry, Guinea	Initiated		-	Community and government stakeholders' workshop held to share PES potential.