

Building local capacity for data collection and analysis to develop a river care programme

PRESA and its partners are working to convince public agencies to get involved in rewards for environmental services.

Members of an irrigation group at the Upper Tana catchment. (Photo \ S. Rakshi)

Mount Kenya forest contributes almost 49% of the water in Tana River, the country's biggest river. In turn, Tana River generates half of Kenya's electricity through a series of state-owned hydro electric power stations built along the river.

At the same time, the Tana supports irrigated agriculture, fisheries, livestock production and biodiversity conservation especially in the lower, drier parts of its basin. This makes the Tana a critical natural capital in Kenya's economic development.

The potential sellers of environmental services at the Upper Tana basin are land owners and farmers in the upper and middle catchment areas. Potential buyers include the Kenya Electricity

Generating Company (KenGen), and irrigation projects at the lower Tana River.

Initial results from studies conducted by PRESA partners are alarming; the Tana River is steadily losing its life supporting functions due to ecosystem degradation caused by human activities at the upper and middle catchment areas.

Activities

PRESA is fostering linkages between environmental service buyers and sellers through partnerships with the Mt Kenya East Pilot Project for Natural Resource management (MKEPP) and the World Soil Information Centre.

MKEPP is a joint initiative by the Government of Kenya, funded by the International Fund for

Agricultural Development (IFAD).

The World Soil Information Centre plans to implement a reward for environmental services scheme called Green Water Credits in cooperation with IFAD and the Swiss Agency for Development Cooperation.

Land use and land cover change analyses were carried out at the Kapingazi River Basin in 2009. PRESA has undertaken further assessment that sought to determine farmers' willingness to accept payments for conserving the catchment area.

The studies were on land use mapping, erosion risk assessment, socio-economic assessment, conjoint analysis and contingent valuation. In addition, PRESA has done a technology adoption assessment and inventory of

rewards for environmental service initiatives.

Soil erosion risk assessment was conducted by two student researchers from the Jomo Kenyatta University of Agriculture and Technology (JKUAT).

The PRESA core team with scientists from the Macaulay Land Use Research institute jointly undertook the valuation. The team obtained technical advice on experimental design from ICRAF's Research Methods team.

As part of these research activities, farmers, government technical officers as well as university students from the local community that participated in data collection were trained on the research methods used. The training was intended to help build local capacity.

Focus group discussions were held with farmer representatives and government officers on the causes of environmental problems. These sessions were useful as the community offered suggestions on how the survey could be done better.

PRESA has continued collaborating with Green Water Credits and MKEPP to convince public agencies to get involved in the design and implementation of rewards for environmental services. A description of existing technologies and land uses and identification of possible



land use options has been completed. Meanwhile, PRESA has continued to support MKEPP in the mapping of hotspots within the Kapingazi River Basin.

Opportunities

At the Upper Tana site, the design of a river care program will ensure sustainable use of river valleys. These are areas that have a critical influence on river flows.

The different land use options and scenarios that are currently being studied will assist local people in determining the best possible options that provide optimal benefits for their livelihoods and for the maintenance of environmental services. Since farmers will be working together, social capital will be enhanced and thereby promote collective action and learning.

PRESA – Pro-poor Rewards for Environmental Services in Africa is working at sites in Kenya, Tanzania, Uganda and Guinea to facilitate fair and effective agreements between stewards and beneficiaries of environmental services. Voluntary, conditional and negotiated agreements can reward poor farmers for good land use practices, while ensuring a clean and sustainable supply of environmental services for local and global communities.

This programme is implemented by the World Agroforestry Centre, with funding from the International Fund for Agricultural Development, the European Commission and the Government of Finland. The views expressed in this publication do not necessarily reflect the views of the funders.



World Agroforestry Centre
TRANSFORMING LIVES AND LANDSCAPES



MINISTRY FOR FOREIGN
AFFAIRS OF FINLAND



IFAD
Enabling poor rural people
to overcome poverty



Partners

- Mt. Kenya East Pilot Project for Natural Resource Management (MKEPP)
- World Soil Information Centre (ISRIC)
- International Fund for Agricultural Development (IFAD)

Stakeholders

- Hydroelectric power generators
- Tea and coffee factories
- Schools
- Water resource management authorities
- Highland and downstream farmers
- Irrigation and water project associations
- Kenya Agricultural Productivity Programme
- Kenya Agricultural Research Institute

Contact:

World Agroforestry Centre, United Nations Avenue, Gigiri
PO Box 30677-00100 Nairobi, Kenya
Tel: +254 20 7224000, Fax: +254 20 7224001
Email: presa@cgiar.org - <http://presa.worldagroforestry.org>