

Joining hands to save the Uluguru watershed

PRESA is supporting two international organizations that are setting up payments for watershed services programme.

The Ruvu River. Photo \ V. Meadu

The Uluguru Mountains are a chain of cool, wet, highland forests in central Tanzania that have attracted human settlement for hundreds of years.

The mountains are the source of the Ruvu River, which sustains 2.8 million people in Tanzania's capital city, Dar es Salaam. With the Uluguru population currently standing at over 100,000 people, pressure from farming and logging activities has significantly reduced forest cover. This has negatively affected water quantity and quality of River Ruvu.

In recent years, several conservation projects have been initiated that aim to restore the natural resource base of the Ulugurus. However, not all have been equally successful. So the

focus has shifted from subsidy-based approaches for conservation activities to more direct payments for environmental services under which farmers receive economic incentives for providing watershed services through their conservation efforts.

Activities

The PRESA (Pro-poor Rewards for Environmental Services in Africa) project is working together with the Worldwide Fund for Nature (WWF) and CARE Tanzania in improving the bases for environmental service payments that are already in place through their project called Equitable Payments for Watershed Services (EPWS).

EPWS is working to provide local farmers with a menu of options for

sustainable agriculture. Progress towards implementing a working mechanism of payment for watershed services is relatively far advanced compared to other PRESA sites.

PRESA's initial focus was the Kibungo sub-catchment, where a physical assessment of land use and land degradation was done. PRESA later extended its work to the Kinole sub-catchment, with an environmental economics survey.

At Kinole, a conservation auction study was conducted where more than 300 households participated in submitting bids for tree planting contracts. The farmers were asked to calculate the costs of changing their land use from seasonal crops to woodlots with trees such as *Khaya anotheca* (an indigenous timber tree), *Tectona grandis* (teak,

a slow growing tree that is popular among local farmers for its valuable timber), and *Acacia albida* (an indigenous tree that improves soil fertility and provides firewood) which can provide multiple environmental services such as carbon sequestration and reduction in silt flow into the rivers.

In the same experiment, 268 households submitted bids for adopting tree woodlots. The bids were then used to sort out farmers with lower bids from those who had higher bids. The process helped to get a very good estimate of the opportunity cost that different farmers face in adopting conservation practices and how much a conservation agency would need to pay them if a certain proportion of the local area was to be contracted under a payments for environmental service project. At the end of the auction, 32 successful bidders received tree seedlings with payments for taking up new woodlots while the rest received tree seedlings as an incentive to continue their efforts of conserving the local landscape.

The choice of tree species was based on consultation with the Tanzania Forestry Research Institute (TAFORI). Tree survival and mortality are monitored to ensure that farmers comply with their contracts.

The results from the survey and the auction experiment are now being shared with local stakeholders to plan and follow-up payments for

environmental service activities in the area. At the very least, the project has been successful in demonstrating that local farmers are keenly interested in protecting and conserving the valuable landscape of the Uluguru Mountains.

PRESA will explore linkages between farmers and the carbon market based on experiences from Albertine Rift where Ecotrust Uganda is implementing the Trees for Global Benefits project. PRESA continues to support ongoing engagement between CARE Tanzania and water users, such as the Dar es Salaam Water and Sewerage Company (DAWASCO).

Opportunities

An opportunity for payments for environmental service exists in the form of observable upstream-downstream linkages: River Ruvu originates in the Ulugurus and drains into the Indian Ocean just 200 km away. Local farmers are concerned about the falling productivity of bananas and pineapples, the two most important cash crops in the area. Many local communities are well integrated with the cash economy as they routinely sell their products in the local markets. Therefore, the idea of payments for environmental services – whereby they receive cash incentives in return for their land investments – may not seem as alien to them as to some other remotely located communities that do not interact much with the market.



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.

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- Worldwide Fund for Nature (WWF)
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Stakeholders

- Dar es Salaam Water and Sewerage Company (DAWASCO), is co-operating in the EPWS programme through the provision of startup finance;
- Dar es Salaam Coca-Cola bottling plant, another major water consumer, has expressed positive interest in EPWS;
- Local community and farmer groups.

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