

the katoomba group

CURRENT 'STATE OF PLAY' OF CARBON, WATER, AND BIODIVERSITY MARKETS

Background

Forest Trends commissioned country-level inventories of payments for ecosystem services (PES) in select East and Southern African nations in order to “take stock” of the current status of ecosystem service payments, markets and capacity, while also highlighting the gaps and needs that exist to expand PES in the region. The resulting inventories provide baseline data that can inform strategies to expand payments and markets related to ecosystem services. (The full text of the inventories can be found at: <http://www.katoombagroup.org/africa/pes.htm>)

Findings

Ecosystem service payments and markets are currently operating in Kenya, Tanzania, Uganda, and South Africa, including:

- Carbon Projects – 17 projects
- Biodiversity Projects – 18 projects
- Water Projects – 10 projects

Projects where money has exchanged hands include:

- Carbon Projects – 5 out of 17 projects (3 in Uganda)
- Biodiversity Projects – 2 out of 18 projects
- Water Projects – 2 out of 10 projects (all in South Africa)

In addition, there are several projects that offer of non-monetary compensation especially around biodiversity conservation. A country by country summary of current markets and payments for ecosystem services is presented in table 1 and key elements of policy contexts are laid out in table 2. Specific examples from each country are offered in tables 3 and 4.

**Table 1:
Current PES Projects in Focal East & Southern African Countries**

Projects in Development	UGANDA	KENYA	SOUTH AFRICA	TANZANIA
Carbon	5 projects	4 projects	5 projects	3 projects
Biodiversity	6 projects	8 projects	3 projects	1 project
Water	1 potential project	1 project	7 projects	2 projects
Bundled	None	None	1 project (<i>fire</i>)	1 project
Projects under Implementation (e.g., money exchanging hands)	UGANDA	KENYA	SOUTH AFRICA	TANZANIA
Carbon	3 projects	None	2 projects	None
Biodiversity	1 project	1 project	None	None

Water Bundled	None None	None None	2 projects 1 project (<i>fire</i>)	None None
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Table 2:
Country-Level Legal, Regulatory, & Administrative Context
for Ecosystem Service Payments

	UGANDA	KENYA	SOUTH AFRICA	TANZANIA
LAWS	Forestry Policy (2001) makes provisions for sustainable management of forests including private investments mechanisms, such as CDM projects.	None	National Water Act (Act No 36 of 1998) makes provision for the use of economic instruments in water management.	National Forest Program (2001) seeks to increase revenues through the sale of carbon sequestration credits, while recognizing the need to develop mechanisms to operationalize such revenues (section 8.2, Expansion of Forest Revenue base)
PES MARKET RULES <i>(Standards & Guidelines)</i>	During the CDM capacity building process (2002-2003), guidelines were set for investments from the: - forest sector, - transport sector, and - energy sector.	Environmental Impact Assessment	Invasive alien vegetation clearing standards and the National Water Act (Act No.36 of 1998)	None identified
PES SUPPORT SERVICES	Government: 4 identified Private: 2 identified NGO: 1 identified	Government: 5 identified Research: 4 identified NGO: 6 identified	Government: 5 identified NGO: 2 identified	Government: 1 identified NGO: 4 identified

Table 3:
Select Examples of Ecosystem Service Payments, Markets, and Mechanisms

	UGANDA	KENYA	SOUTH AFRICA	TANZANIA
ORGANIZATION	ECOTRUST's Trees for Global Benefits Program	The Wildlife Conservation Lease Program	The Government of South Africa's Working for Water	Joint Forest Management Agreements (JFM) between Government's Local Forest Reserve Authorities and adjacent villages
ECOSYSTEM SERVICE	Carbon	Biodiversity	Water	<i>Bundled:</i> Water, Carbon, Biodiversity
BUYER	Tetra Pak (through intermediary: Future Forests)	- Friends of Nairobi National Park - Wildlife Foundation - Kenya Wildlife Service	- Bulk water users (domestic and industrial); - Agricultural water users; and Forestry water users	Government of Tanzania's Ministry of Natural Resources and Tourism, Forestry and Beekeeping Division <i>(Note: Payments are non-monetary)</i>
SELLER	Individual smallholder farmers	Local landowners	Private contractors	Village Governments, through Environmental Committees (sometimes called Forest Village or Natural Resource Management Committee)
REQUIRED ACTIONS	Planting of indigenous tree species	No fencing, quarrying, cultivation or subdivision as well as sustainably managing the land for wildlife and grazing	Removal of alien invasive plant species that are large water users	Village management activities include patrolling the forest, ensuring that users comply with the Management Plan stipulations, reporting and sanctioning illegal activities (including fining and arresting perpetrators), and monitoring the status of forest natural resources, mostly in terms of observed disturbances.
STATUS	Some payments made	Operational	Implemented	Operational - planning to scale up

**Table 4:
Select Examples of Country-Level Legal, Regulatory, & Administrative Context
for Ecosystem Service Payments**

	UGANDA	KENYA	SOUTH AFRICA	TANZANIA
EXAMPLE	ECOTRUST is a fund manager and provides technical support for projects in western Uganda that are trying to integrate CDM for local community groups	East Africa Wildlife Services	Working for Water and Wetlands Office managed by the Government of South Africa's Department of Water Affairs and Forestry	Some NGOs (e.g. the Tanzania Forest Conservation Group, CARE, WWF and IUCN), which have long acted as "ecosystem service modifiers," are beginning to act as "ecosystem service intermediaries" within the context of particular projects. However, there are no institutions which specialize in this role and can be approached by "ecosystem service sellers/modifiers" or "buyers/beneficiaries" to help develop deals.
LOCAL REPRESENTATION	In 5 out of 9 projects	In 7 out of 13 projects	In 14 out of 15 projects	In 5 out of 8 projects
POTENTIAL PES SITE ASSESSMENTS?	Some for carbon	None	On-going	On-going
BUYERS ASSESSMENTS?	None	None	None	None
PES TRAINING?	Department of Meteorology, Forestry Research Institute, Makerere University, IUCN, Uganda Wildlife Authority	None	Working for Water & Working for Wetlands offer training	PEMA
POTENTIAL SOURCES OF FINANCE	World Bank Community Development Carbon Fund	UNDP/UNEP, World Bank (PCF)	- World Bank - Government subsidies	- World Bank - Government subsidies
RISK MANAGEMENT SERVICES?	None	None	None	None

Barriers

The PES inventories conducted in select East and Southern African countries identified barriers that exist, including:

Informational Barriers

Current information available in most countries is too global and generic and often not sufficiently detailed on a national or even a regional scale. Most local sellers, for example, do not understand the Kyoto Protocol's Clean Development Mechanism (CDM) guidelines and whether or not they would qualify.

Potential buyers of ecosystem services (consumers, businesses, utilities, government agencies at all levels, and even conservation NGOs) are often unaware of their dependence on ecosystem services. In addition, potential sellers are not aware of ecosystem service payments and markets and few know how to find potential buyers. Further compounding the situation, few policymakers and regulators are knowledgeable about the policy requirements and implications of payments for ecosystem services. Finally, there is a shortage of service providers and project developers to assist with nascent PES deals.

As a result of these information gaps, most of the projects in the countries inventoried are *ad hoc*, decentralized and do not follow any uniform guidelines. There is a clear need for designated national, and/or regional, institutions that can serve as a repository of information on "how to" guidelines, regulations, national priorities, and other key issues.

Technical Barriers

Most countries inventoried lack individuals and organisations with the requisite knowledge to organize, design and implement payments for ecosystem services (PES) effectively. Even where sellers and buyers may be aware of the ecosystem services, the technical skills needed for PES are seldom readily available, such as experience with methods for calculating the financial value of these services and assessing the price that buyers could be willing to pay and sellers willing to receive. In addition, "best practices" have not yet been established through extensive on-the-ground experience and examples in the region. This gap increases the risks for buyers, both in terms of reputation and return on investment.

For prospective sellers—including land and resource owners as well as environmental stewards—the technical barriers are significant. Few have access to the specialized skills needed to assess the market potential of their resources and the potential resource management options that would focus on restoring and maintaining ecosystem services. Also, PES models that clearly work for low-income communities are few and often unproven. And if low income community members wish to go beyond carbon or water deals, particularly to consider multiple ecosystem services "bundled," they find that robust and proven models for biodiversity payments are especially weak.

Within government, policymakers and regulators often have inadequate understanding of PES to determine where, when and in what forms these market-based mechanisms are appropriate, particularly in relation to national or sub-national strategic priorities for conservation and development. Many prospective PES service providers and project developers lack the technical and business skills and knowledge specific to PES, including: market analysis, enterprise analysis, contract familiarity, project design, implementation as well as measurement and monitoring.

To address these barriers, most of the inventories recommended increased capacity building of buyers, seller service providers, and policy makers.

Policy and Regulatory Barriers

Unsupportive policy frameworks were identified as a principal barrier to expansion of effective PES throughout the region. For example, Tanzania cited one promising carbon project that has stalled due to lack of enabling policy support. In many cases, there is confusion about appropriate government roles in the development and operation of specific types of PES. In some cases, problems have arisen from an insistence by government officials that flows of funds should go through particular agencies. More fundamentally, there are conflicts between delivery of ecosystem services as “private goods” versus “public goods;” over existing rights to ecosystem services and the flow of benefits from their sale; and related to equity issues for low-income buyers or sellers of ecosystem services. Policy confusion also exists related to whether ecosystem service payments should be ‘bundled’ so as to ensure that the full set of ecosystem objectives are met, or whether payment or market systems should focus on particular ecosystem services valued by interested buyers.

Nonetheless the inventories showed that, in most of the countries, policies establishing rights to buy and sell ecosystem stewardship services have not been essential for pilot activity in PES. The lack of policy support is felt more at the expansion stage as well as, in some cases, reducing the prices buyers are willing to pay. That is, without policy and regulatory arrangements, potential PES buyers hesitate as the legal standing for purchases and the enforceability of contracts is unclear. Private sector buyers may also be unsure about the political and public acceptability of their role in PES. In addition, both buyers and sellers may be uncertain about underlying tenure rights for land and resources, thereby increasing the risks of long-term ecosystem service agreements.

Addressing all of these policy and regulatory issues would require the establishment of “pro-poor” PES legislative and regulatory frameworks that take all the above issues in consideration including policies/regulations for the establishment, or certification of service providers for PES.

Institutional Barriers

Most countries cited lack of necessary institutions—such as certification bodies; financial intermediaries; national registries for ecosystem services; and so on—across the value chain from seller to buyer that increase current PES transaction costs. In most of the CDM projects for example, to actually achieve ecosystem service benefits requires effort over a larger area than a single company may be willing to focus upon. PES-friendly institutional mechanisms are therefore essential to provide economies of scale and scope in finding and negotiating with buyers, bundling multiple ecosystem services for different markets, and achieving efficiencies in management, monitoring and certification.

The inventories also highlighted inadequate institutional support for PES-related technical or business services. Currently, most PES support in the countries inventoried is provided by international public sector or by conservation NGOs still in the early stages of the PES learning curve, rather than by business leaders or seasoned leaders in PES development.

Overall, the inventories therefore highlighted the need for establishing PES enterprise support centers for advisory and capacity-building services. There is also a need for community level institutions to engage and train prospective sellers, as well as financial institutions at the community level for efficient delivery of

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payments. Finally, public private partnerships are important to develop to encourage an enabling environment for PES deals.
