



BUYERS, SELLERS, INTERMEDIARIES

USAID PES Brief 3.1

Authors

Rohit Jindal and John Kerr¹

Introduction

Most PES transactions involve three distinct stakeholder groups: buyers, sellers, and intermediaries. Each of these groups can consist of individuals, organizations, even governments. This brief summarizes important characteristics of these groups, including their motivations to enter into a PES transaction.

Service users or buyers

Historically, people have benefited from environmental services without making any payments for them. In many cases, however, there is now a well-identified set of people who not only benefit from an environmental service but are also willing to pay for it. These people include individuals (water users in a town), groups (farmer associations), local governments, utility companies, multinational corporations, private foundations, even national governments. In Ecuador, for example, the city of Quito pays upstream farmers to protect two watersheds that supply most of the city's water. Payments are made through an independent fund, FONAG, established by the municipal water company and other local utility companies. Similarly, under its Conservation Reserve Program, the U.S. Department of Agriculture makes regular payments to local farmers for taking environmentally sensitive land out of crop production and planting it with grasses, trees, and other cover crops. This helps reduce soil erosion and water pollution and generates several other valuable environmental services. Why are these organizations paying for environmental services?

One factor contributing to willingness to pay for environmental services is their perceived shortage. As ecosystems deteriorate, many valuable services are threatened. Various approaches are used to protect them – regulations on the use of natural resources, for example. But these approaches have had limited success. The newest idea is to directly pay people to protect valuable ecosystems. The Nature Conservancy, for example, pays local land users to protect valuable biodiversity in tropical forests. Also, several new regulations and institutional innovations at the international level (the Kyoto Protocol to curb carbon dioxide emissions) and nationally (the U.S. Clean Air Act) require companies to comply with strict environmental standards. A cap and trade mechanism enables participating companies to keep their compliance costs low by allowing them to pay another company to provide an environmental service on their behalf. In carbon markets, such a company also can claim credits by planting trees to sequester carbon, or by paying landowners elsewhere to sequester carbon on its behalf. Government regulations also stimulated the well-known case in which New York City invested in upstream communities to protect streams feeding its water supply. The alternative was to comply with an order

¹ Department of Community, Agriculture, Recreation, and Resource Studies, Michigan State University

by the U.S. Environmental Protection Agency to build a new water filtration plant. The PES arrangement saved the city billions of dollars.

Demand for environmental services is also generated by companies that wish to maintain goodwill among consumers. BP, the British oil giant, pays for carbon sequestration and other conservation projects to maintain its green image. Investing in carbon sequestration is also a way for managing risk and liability for many multinational corporations, especially since science has recently established links between major climatic disasters and global warming.

In fact, the role of science is crucial in defining what exactly the service users are buying. Protecting an upstream catchment could generate hydrological benefits in the form of reduced sediment flow and improvement in the groundwater table. A hydroelectric power company may be interested only in the former, while a municipal water utility may be willing to pay for the latter. Thus, depending on the value that an environmental service holds for a particular buyer, science can help in identifying appropriate land uses². A related point is that scientific advances increase the capability to trace environmental services, making the buyer of an environmental service more confident of getting what it pays for. Improvements in measuring and estimating carbon emissions and carbon sequestration have enhanced PES arrangements in these areas, and continued scientific advances could stimulate demand for other types of environmental services in the future.

The nature of an environmental service also determines the geographic extent of its demand. Watershed services will be bought primarily by downstream communities in the same basin, while carbon sequestration services can be bought by someone living far away from where they are produced. Demand for biodiversity and scenic beauty can extend potentially from the local level to global.

Service providers or sellers

Land users in a position to influence the quality or quantity of an environmental service through their conservation practices are potential service providers or sellers. Service providers can consist of individual farmers, community groups, government agencies, and even private companies that can ensure the availability of an environmental service in return for payments. In the example of Quito, upstream farmers in the two watersheds are the service providers. Similarly, private companies that raise plantations to generate carbon sequestration offsets are service providers for carbon investors. Some key issues related to service providers are:

- The new institutional and technical innovations that stimulate service users to purchase environmental services also create the incentive for land users to supply them.
- The nature of an environmental service determines its potential sellers. When a biodiversity hot spot is to be protected, all land users in the vicinity need to be involved in a PES program. On the other hand, a given quantity of carbon sequestration could be supplied jointly by a number of land users far away from each other.
- Local topography influences the cause-effect relationship between specific land-use practices and the environmental services they generate. People who are willing and able to adopt these practices on a voluntary basis can assume the role of service providers.

² However, not all environmental relationships are known with certainty. Therefore, creation of demand for environmental services is also contingent on the development of new scientific knowledge.

- Often, environmental services are produced by a group of land users adopting common practices. In such cases, apart from payments from service users, collective action will be required at the community level. For instance, in Sukhomajri, India, the entire village community eliminated open grazing in the upper watershed to protect the irrigation ponds downstream. Adoption of new land-use practices by only a few users on only a part of the catchment would not have helped save the irrigation ponds from silting.
- Property rights and norms in an area determine who can participate and who cannot. A PES program that pays local people to sequester carbon over a long time usually leaves out people who do not have land titles, because they may not be able to make long-term promises about land use. A community based project such as Nhambita Community Carbon Project in Mozambique includes all members of a particular community but leaves out others who are not members.

Intermediaries

Intermediaries are individuals, groups, NGOs, local governments, donors, or private companies that help service users and potential suppliers set up successful PES transactions. Intermediaries perform various roles, the common purpose being to reduce transaction costs. These roles range from linking the service users and suppliers to taking over the implementation of the PES program itself. In early stages of a PES program, buyers need credible information on potential suppliers, their location, and the kind of environmental services they can provide. Similarly, service providers are looking for potential buyers who are willing to pay for an environmental service. Intermediaries help to bring the parties together, conducting negotiations and finalizing mutually beneficial agreements. When an environmental service is provided by more than one supplier, intermediaries can help organize these multiple providers into groups. For example, the Iowa Farm Bureau aggregates carbon sequestration offsets from different farmers in the United States before selling them to the Chicago Climate Exchange (CCX). If these farmers were to sell carbon offsets on their own, the transaction costs associated with registering with the exchange and completing necessary formalities would consume most or all of their earnings. Instead, the Farm Bureau cuts down transaction costs by achieving economies of scale. Similarly, when multiple service users are involved, intermediaries can negotiate contracts with service providers on their behalf. This often happens for hydrological services when a municipal water company sets up watershed protection contracts on behalf of all the residents of a city.

Intermediaries can also buy environmental services from local land users before supplying them to end consumers. Costa Rica's FONAFIFO buys different environmental services as a bundle from local landowners before unbundling them and supplying them separately to a mix of national and international buyers. Similarly, the local subsidiaries of TIST in India, Uganda, and Tanzania buy carbon offsets from individual farmers and then supply these credits to international investors. As a result, local land users do not incur costs of looking for international buyers and of setting up contracts with them.

Intermediaries provide useful ancillary services such as third-party monitoring and verification of PES contracts. For instance, FORECON provides third-party verification of carbon stocks for land users in Michigan before they can sell carbon offsets on the CCX. This verification provides an assurance to CCX members that they are purchasing standardized carbon offsets, which can easily be traded with other kinds of emission offsets available on the exchange. International donors and multilateral organizations such as the Global Environment Facility also help to kick-start new PES programs by covering their setup costs. USAID and the Nature Conservancy helped to establish FONAG in Ecuador by providing it with seed money and covering some of the administrative costs. Similarly, the World Bank has formed four carbon funds that promote different kinds of emission reduction projects globally.

Finally, intermediaries play an important role in forming new policy. Agencies like ICRAF and CIFOR use their global mandate and experience from implementing various PES programs to frame laws that are effective in protecting the environment, apart from being pro-poor.

The document was prepared for USAID by the SANREM and BASIS CRSPs through the Global Assessment of Best Practices in Payments for Ecosystem Services Programs project. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the United States Government.

This work is intended to be a living document that will be periodically updated and edited. Updates will be available from the project website. For more information or to send suggestions for changes and additions, see <http://www.oired.vt.edu/sanremcrsp/pes> or contact Michael Colby, USAID/EGAT/NRM, mcolby@usaid.gov

October 2007