Costa Rica's experience with Payments for Environmental Services

Stefano Pagiola
Economics Unit, Sustainable Development Department,
Latin America and Caribbean Region
World Bank

Summary

Recent years have seen considerable interest in using Payments for Environmental Services (PES) to finance conservation in developing countries. Latin America has been particularly receptive to the PES approach. PES programs are in operation in most countries at a wide variety of scales. National-scale programs have been established in Costa Rica, Mexico, Ecuador, and several Brazilian states. Watershed-scale programs are found throughout the hemisphere, again at a wide variety of scales. Programs based on the sale of carbon sequestration services are also becoming common.

Among these, Costa Rica's *Pagos por Servicios Ambientales* (PSA) Program was the pioneer. Although there had been earlier initiatives, notably in Colombia's Cauca Valley, Costa Rica was the first to attempt to implement the PES approach on a large scale, making the country the leading exponent of the government-financed PES approach. In addition, there have also been several stand-alone user-financed PES mechanisms, as well as hybrid cases in which user financing was channeled through the national program.

Costa Rica's PES program was established under Forestry Law No.7575, enacted in 1996. The law explicitly recognizes four environmental services provided by forest ecosystems: (1) mitigation of greenhouse gas emissions; (2) hydrological services, including provision of water for human consumption, irrigation, and energy production; (3) biodiversity conservation; and (4) provision of scenic beauty for recreation and ecotourism. The law provides the regulatory basis for the government to contract landowners for the services provided by their lands, and establishes a financing mechanism for this purpose, the National Fund for Forest Financing (FONAFIFO).

Since then, the PSA Program has grown substantially. At the end of 2009, it covered about 284,000 ha, or over 10% of the country's forest area – an area comparable in scale to the country's protected area system. Forest conservation has consistently been the most popular contract, accounting for over 90% of the area receiving payments at any time. Under this contract, landholders receive US$64/ha/yr once it has been verified that forests on their land remain intact. The conservation contract is for 5 years, and is renewable. Forest plantations account for most of the rest of the enrolled area, with small areas under agroforestry and regeneration contracts.

The bulk of financing for the PSA program comes from an earmarked portion of the fuel tax; the PSA program is also receiving a portion of revenues from a newly instituted water tariff. Donors have also, at various times, contributed financing to the PSA program. A program of agreements with individual service users, who pay to conserve individual watersheds or to obtain carbon sequestration credits, has provided additional financing.

The availability of significant government financing has allowed the PSA program to grow quickly and cover a large area, but it has also insulated it from needing to demonstrate its effectiveness. As a result, the program has made few efforts to document its effectiveness in reaching its objectives. Pressure from donors, however, has led to a gradual process of improvement in the program, by introducing and then gradually improving targeting criteria, and by introducing more diversified contracts better suited to the diversity of local conditions.

The PSA program has been partly credited for helping the country, once known as having one of the world's highest deforestation rates, to achieve negative net deforestation in the early 2000s. As the program was introduced at the same time as other measures (for example, Forestry Law No.7575 also banned deforestation) and as several other instruments

have also been in widespread use, it is difficult to separate the specific contribution made by the PSA program from that of other tools.

In addition to the national program, there have also been several stand-alone user-financed PES programs at a local scale. The most important of these has been a program by the town of Heredia to pay forest owners to protect the watershed from which it draws its water. The watershed is currently in good condition, providing the town with potable water year-round without the need of treatment. The program aims to preserve this situation. In a separate initiative, hydropower producer La Manguera SA is paying the Monteverde Conservation League to maintain under forest cover the watershed from which its plant draws its water.

Most notably, however, there have also been many agreements between FONAFIFO and individual water users such as hydroelectric power producers in which the water users pay to conserve the watershed from which they obtain water. (The newly-instituted water tariff includes a provision allowing water users to deduct such payments from what they owe under the tariff, thus avoiding having them pay twice for conservation.) These agreements generate an additional US$0.5 million annually, and conserve about 18,000 ha. FONAFIFO also sells carbon sequestration credits to both the voluntary market and the Clean Development Mechanism (CDM) market. These agreements with service buyers are all conditional, thus imposing much greater burdens on FONAFIFO to demonstrate their effectiveness. It is noteworthy that the water service contracts that have come up for renewal to date have been renewed. That private companies, after five years of experience paying to protect their watersheds, have chosen to continue the arrangement indicates that they, at least, perceive the program as working.

The Global Environment Facility (GEF) provided direct financing for conservation payments from 2001 to 2006. As such financing is not sustainable, however, a different approach has now been adopted, in which GEF financing is placed in an endowment fund, the Fund for Sustainable Biodiversity. The interests generated by this Fund will provide a sustainable long-term funding stream for areas of globally-significant biodiversity where other funding is insufficient.

As the first effort to develop a large-scale PES program in a developing country, it was inevitable that there would be mistakes in Costa Rica's PSA program. There was no instruction manual, and many of the issues involved were only dimly perceived. The program has continuously adapted itself, however. Perhaps the most important lesson that might be learned from the Costa Rica experience is the need to be flexible and to adapt to lessons learned and to changing circumstances.

The country is planning to make the PSA program a centerpiece of its strategy for Reduced Emissions from Deforestation and forest Degradation (REDD), which could lead to further expansion in the years ahead.

Several other countries in the region have been watching Costa Rica's experience closely, and many are developing similar programs.

The World Bank is supporting the implementation or design of PES mechanisms in several Latin American countries, including Brazil, Colombia, Costa Rica, Mexico, and Nicaragua, as well as others through its BioCarbon Fund and Forest Carbon Partnership Facility (FCPF). The World Bank supported Costa Rica's PES program first through the Ecomarkets Project, which was implemented from 2001 to 2006, and currently supporting it through the Mainstreaming Market-based Instruments for Environmental Management ("Ecomarkets II") project. Both projects also received co-financing from the Global Environment Facility (GEF). The World Bank's BioCarbon Fund has also helped FONAFIFO develop a CDM project, and the Forest Carbon Partnership Facility is supporting the country's development of a REDD strategy.

Key recommendations

- Costa Rica rich experience provides a variety of lessons for PES programs, including lessons to follow and errors to avoid. Countries looking to establish their own PES programs need to be careful to learn from mistakes as well as successes, and not to simply copy what others have done.
- Even once programs have been established, there needs to be a constant program of adapting to lessons learned and to changing circumstances.
- More efficient user-financed PES programs can co-exist with larger, less efficient government-financed PES programs if the incentives are designed carefully.

Key words

Deforestation; Forest conservation; Payments for environmental services (PES); Costa Rica.

Further reading

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