

## COSTA RICA

### Payments for environmental services

The PSA (Pago por Servicios Ambientales) programme in Costa Rica is a national payment programme for carbon storage, hydrological services, and the protection of biodiversity and landscapes. This scheme has been credited with reducing the rate of deforestation in Costa Rica from one of the world's highest to net negative deforestation by the start of the 2000s. Between 1997 and 2004, approx. US\$ 200 million was invested in PES to protect over 460,000 hectares of forests, to establish forestry plantations and to provide additional income to more than 8,000 forest owners (TEEB 2009). PSA is managed by FONAFIFO, a semi-autonomous agency.

PES have been predominantly financed by receiving 3.5 percent of revenues from a sales tax on fossil fuels, but the objective is that all beneficiaries of environmental services eventually pay for the services they receive. While there has been some success charging water users for upstream watershed management services, there has been more limited success charging for biodiversity and carbon. The proportion of the programme's costs financed with direct payments will increase as a new water tariff is implemented.

*Water service payments.* PSA intended that payments from hydroelectric power producers and other water users would at least partly finance PES. However, as there is no legal requirement, FONAFIFO negotiates with water users and has reached a number of agreements. While the start was slow, the process has been streamlined based on environmental services certificates (standardised instruments that pay for conservation of a hectare of forest in a particular area). Both the number of agreements and the amounts paid has risen sharply. In the past, water users paid only one quarter of conservation costs (based on the idea that watershed management is one of four ecosystem services provided by forests), but recent agreements pay the full cost of conservation in addition to FONAFIFO's administrative costs.

*Biodiversity payments.* Biodiversity payments have been predominantly financed by the Global Environment Facility (GEF). In contrast to agreements with water users, financing for biodiversity is not renewable. Efforts to make it sustainable by generating financing from local tourism industry have not been successful. This situation is acceptable in areas where financing based on carbon or water management is possible, but there is a large area (roughly 900,000 hectares) which has been identified as priority area for biodiversity conservation, but which lies outside protected areas and does not have the potential for either water or carbon financing. An endowment fund is being created as a partial solution.

*Carbon payments.* While use of the fuel tax revenue can be considered to be a payment from carbon users to carbon suppliers, because the tax is mandatory and because the revenue is used for payments to a range of environmental services, the link is weak. Since its inception, PSA has sought to sell carbon emission reduction credits. PSA contracts clearly state that FONAFIFO owns the right to emissions reductions. FONAFIFO developed the Certifiable Tradable Offset (CTO) equal to an externally certified one ton net reduction in carbon emissions. The programme successfully sold 200,000 CTOs for US\$ 2 million to the Norwegian government and a consortium of Norwegian power producers. However, no additional sales of CTOs have been made as emissions reductions are predominantly based on avoided deforestation and only reforestation and afforestation are considered eligible under the Kyoto Protocol's Clean Development Mechanism (CDM). Costa Rica has since sold 0.61 million tons of CO<sub>2</sub>e to the World Bank BioCarbon Fund, based on a mix of planting trees in agroforestry systems, natural

regeneration and commercial plantations. In order to better deliver Kyoto-eligible carbon emission reductions, PSA is introducing a new type of contract based on assisted natural regeneration.

*Landscape payments.* The Forest Law which provides the legal basis for the PSA scheme mentions scenic beauty as an environmental service provided by forests. While there have been negotiations with hotels and a rafting company for payments for scenic beauty, no agreements have been reached. Users of landscape services are numerous and fragmented, and problems of collective action make implementing PES for landscape beauty difficult.

### **Impact on biodiversity**

Despite the difficulty in charging for biodiversity services, because biodiversity is “bundled” with other ecosystem services, there are significant biodiversity benefits associated with forest conservation for watershed management. The PES scheme has helped slow deforestation, added monetary value to forests and biodiversity, and increased understanding of the economic and social contribution of natural ecosystems.

Identifying the specific results of PES schemes can be tricky when a number of policy changes are introduced simultaneously and it has proven difficult to determine precisely the extent to which the PSA programme has generated ecosystem services. While studies have found that PSA recipients had a higher proportion of forest on their land than non-recipients, other research had questioned additionality, that is, it suggested that participants would have protected their forest even in the absence of the PSA programme.

### **Replicability**

The number of PES schemes in Latin America is growing, suggesting good scope for replicability when there are clearly identifiable suppliers and intermediary institutions to facilitate payment. Costa Rica’s PSA scheme has been much studied and imitated. Many countries already have similar schemes in place, and these have often been used following policy reform including a shift from subsidies to PES.

### **Lessons learned**

PES schemes are easier to introduce if they build upon existing systems of payments. In fact, Costa Rica’s PSA was based on a reform of an existing forest subsidy programme. In the 1970s Costa Rica had begun to provide incentives for timber plantations through tax rebates, due to concerns over shrinking timber supplies. The Forest Credit Certificate expanded the programme which continued to evolve to support forest conservation as well as timber production. When introduced, the PSA programme built on the base of this payment scheme, with two major changes:

- payments were to be based on the provision of environmental services instead of timber, and
- financing would change from the government budget to an earmarked tax and payments from beneficiaries.

While PES schemes are proliferating in Central and Latin America, it is proving more difficult to implement user-financed PES schemes than government financed schemes. This limits the sustainability of these schemes.

It is easier to implement PES schemes for watershed management than for biodiversity (difficult to measure) and for carbon (difficult to identify beneficiaries).

Effective targeting and differentiated payments are important to allow for differences in the level of and the opportunity cost of service provision.

PES schemes need to monitor and document how activities are generating environmental services. This is particularly important for carbon sequestration projects intending to sell carbon offsets in the emerging global carbon market.

Due to the new and innovative nature of PES, schemes need to be flexible and need to adapt to lessons learned and constantly changing circumstances. Costa Rica's experience was broadly positive, yet PSA was (and is) evolving and improving in response to experience and feedback.

*Sources:* Pagiola (2008); TEEB (2009).