

REWARDING THE SERVICE PROVIDERS

A POLICY BRIEF



R. Carrillo/ITTO

Compensating tropical forest dwellers, owners and managers for the environmental services their forests provide will enhance livelihoods and improve forest management



WHAT POLICYMAKERS NEED TO KNOW AND DO

What they need to know

- Tropical forests provide critical environmental services. They protect vital water catchments and biodiversity, help regulate regional climates, and are giant carbon dioxide “vacuum cleaners” and manufacturers of renewable biomass.
- Currently, however, most people and companies benefiting from tropical forest environmental services pay little or nothing for them.
- By providing tropical forest owners and managers with income and increasing the economic competitiveness of sustainable forest management (SFM), payments for environmental services (PES) schemes can help:
 - Alleviate rural poverty.
 - Reduce tropical deforestation.
 - Stimulate the rehabilitation of degraded forestlands.
 - Increase the uptake of SFM.
- There are many successful examples of PES schemes in the tropics. Overall, however, PES schemes are not having the desired impact on reducing deforestation and forest degradation and are benefiting relatively few forest owners and managers. Action is needed, therefore, to expand PES schemes to more tropical forests.



PES schemes should protect the rights of indigenous peoples, local communities and vulnerable groups

What they need to do

- Strengthen PES schemes in tropical forests by:
 - Raising awareness of the importance and value of tropical forest environmental services.
 - Developing policies to increase market demand for the environmental services provided by tropical forests.
- Ensuring that PES schemes protect the rights of indigenous peoples, local communities and vulnerable groups.
- Strengthening governance and institutions to enable the effective implementation of PES schemes.

Aim of this brief

The aim of this policy brief is to increase awareness among policymakers and the general public about the vital role of tropical forests in providing environmental services and the increasing need for beneficiaries to compensate forest owners or managers for those services. The brief builds on the insights gained at the International Forum on Payments for Environmental Services of Tropical Forests, which was held in San José, Costa Rica, in April 2014. It sets out the rationale for, and the constraints faced by, PES schemes, and key recommendations for scaling them up.

THE NEED TO COMPENSATE FOR TROPICAL FOREST ENVIRONMENTAL SERVICES

Tropical forests provide many critical environmental services, especially by protecting water catchments, sequestering carbon and harbouring biodiversity. But many people who benefit considerably from tropical forest environmental services—such as urban dwellers, big industry and developed countries—pay little or nothing for them, with the result that tropical forests are often undervalued compared with alternative land uses, leading to forest degradation and deforestation.

PES schemes attempt to correct this market failure by creating economic incentives that enable the transfer of financial resources from the beneficiaries of environmental services (the “users”) to those who provide the services by, for example, engaging in SFM. The underlying principle is to internalize environmental benefits and costs that otherwise are not included in economic accounts, with the aims of reducing and reversing forest degradation and deforestation and rewarding forest owners and managers for good forest stewardship.

Not all compensation for environmental services is financial. Some environmental service providers may obtain greater benefits from increased tenure security, for example, or from in-kind compensation such as support to increase food security. PES also offers opportunities for positive “branding” that might have sufficient value for a company or a country to justify long-term investment in PES schemes.

What are forest environmental services?

The environmental services (also called ecosystem services) of forests are the benefits people obtain from forest ecosystems. They include provisioning services, such as food and water; regulating services, such as the regulation of floods, droughts, land degradation and disease; supporting services, such as soil formation and nutrient cycling; and cultural services, such as recreational, spiritual, religious and other nonmaterial benefits. Forest environmental services perform a range of functions, such as: moderating weather extremes and their impacts; dispersing seeds; mitigating drought and floods; cycling and moving nutrients; protecting stream and river channels and coastal shores from erosion; detoxifying and decomposing wastes; controlling agricultural pests; maintaining biodiversity; generating and preserving soils and renewing their fertility; contributing to climate stability; purifying air and water; and pollinating crops and natural vegetation. Tropical forests provide all these services and are often particularly important for carbon sequestration, biodiversity conservation, the protection of watersheds and the regulation of regional climates.

Sources: Ecological Society of America undated. Ecosystem services. Fact sheet. Washington, DC, USA; Hassan, R., Scholes, R. & Ash, N. 2005. Ecosystems and human well-being: current state and trends. Millennium Assessment. Island Press, Washington, DC, USA.

There are already many functioning PES schemes in tropical forests, including some national schemes. Costa Rica’s scheme arose after catastrophic deforestation had reduced forest cover to 21% of the national land area. The introduction of a PES scheme in 1997, in which landholders receive compensation for retaining forests for their environmental services, contributed to an increase in forest to the current 52.4% of the land area. In China, the state has paid more than 32 million farmer households over 7000 yuan (US\$1150) each to establish or restore forests (including a small area in the tropics), with the aim of reducing desertification, soil erosion, sedimentation and flooding. PES schemes also exist at various levels of implementation in several other tropical countries.



Tropical forest environmental services help control agricultural pests and ensure crop pollination

Overall, however, PES schemes are still mostly at a relatively small scale. Globally, the value of PES is dwarfed by the income generated by timber and agricultural products.



R. Carrillo/ITTO

Tropical forests maintain rich biodiversity, an important environmental service

PES for SFM

There is often a large gap between the income that can be earned from SFM—through, for example, the sustainable harvesting of wood and non-wood products—and what can be earned from agricultural land uses, such as oil-palm plantations and soybean crops. This gap, known as the opportunity cost, is made wider by subsidies for agricultural production. Forests, especially natural tropical forests, on the other hand, provide a broader range of environmental services and in greater quantities than agriculture or possibly any other land use.

Forests need not be “locked away” to provide environmental services. There is convincing evidence, for example, that selective wood harvesting in tropical forests applied using SFM principles causes a relatively small loss of carbon compared with deforestation and “conventional” logging, especially when the wood is used for long-term purposes, and that the lost carbon is quickly reabsorbed by the regrowing forest, indicating a sustainable system of carbon storage. There is also strong evidence that the harvesting of wood and non-wood products applied under SFM conserves most forest biodiversity and protects watersheds. Properly developed forest management plans can be effective mechanisms for SFM, and their implementation in tropical forests can help ensure the maintenance of environmental services.

PES schemes can help reduce the opportunity cost of SFM compared with other land uses by compensating forest owners and managers for the provision of environmental services. PES can thus help increase the economic competitiveness of SFM by assigning a financial value to the previously unmarketed environmental benefits provided by forests and trees.

Forest management certification aims to promote SFM, reduce tropical deforestation and reassure consumers that forest products are not environmentally destructive. It implies that the forests from which certified products are obtained are being managed in such a way that

the environmental services they provide are being well maintained. But there is substantial evidence that most consumers are unwilling to pay a significant premium for certified timber, placing such timber at a disadvantage compared with cheaper timber obtained from forests that are not being sustainably managed (and where environmental services are likely to be declining due to poor management).

PES schemes are a potential way of providing additional revenue streams for certified (or otherwise sustainably managed) forests to help cover the costs of maintaining environmental services. Forest management certification can complement PES schemes by providing a third-party assessment of forest management and thereby reassuring PES customers that the environmental services they are paying for are being delivered.

In countries where PES schemes are already important policy tools for implementing SFM, there is evidence that such schemes are producing significant socioeconomic outcomes. For example, they provide “bridge financing” to enable communities to pursue other income-generating activities.



J. Malleux/ITTO

Knowledge gaps on the interplay of biophysical and socioeconomic parameters hinder PES scheme implementation

CONSTRAINTS

Even though there are many successful PES schemes, they are not having the desired impacts in the vast majority of tropical forests that are vulnerable to deforestation and degradation. Most existing schemes operate only at a relatively local level, and, overall, they are benefiting only a few of the many millions of tropical forest dwellers, owners and managers. The following key constraints are holding back the potential of PES schemes.

Lack of markets

The underlying cause of a lack of adequate markets for tropical forest environmental services is a lack of awareness among beneficiaries of the need to pay, or, if such awareness exists, a lack of a willingness to pay. Dealing with “free riders”—beneficiaries of environmental services who do not pay for their use but cannot be excluded from such use—is a substantial

challenge. Poor coordination among the various land-use and other relevant sectors also constrains the development of effective PES markets. Many countries do not have a supportive policy environment for the successful development of markets for environmental services.

Insufficient data and knowledge

There are few robust studies on the effectiveness of PES schemes in achieving conservation outcomes, or on the effectiveness and costs of different institutional arrangements for PES. There are also knowledge gaps on the interplay of biophysical and socioeconomic parameters, which can make it difficult to establish a clear cause-and-effect relationship between forest management interventions and the delivery of environmental services. Difficulties in quantifying the environmental services being rendered by a given management regime or

area of tropical forest can constrain the development and implementation of PES schemes.

The risk of marginalizing forest peoples

There is a risk that poorly conceived or implemented PES schemes, especially top-down schemes, will violate the rights of indigenous peoples and local communities. A lack of clarity on tenure is a major constraint for PES schemes because, in many cases, it is unclear who



A. Freitas

Top-down PES schemes could violate the rights of indigenous peoples and local communities



Tropical forests help purify the air and store vast quantities of carbon

is legally providing a given environmental service and who should be compensated for it. Overlaps between statutory and traditional land tenure, which are common in tropical forests, create confusion and increase the risk of inequities in the distribution of benefits from PES schemes. Even where tenure is clear, a risk remains that marginalized people in local communities, including women and youth, will receive few of the benefits of PES schemes.

For many tropical forest communities, the risk of marginalization and rights violations is increased by a lack of understanding of the concept of PES, a lack of technical capacity, and a lack of organization.

Weak governance and institutional arrangements

Establishing and managing viable, long-term PES schemes requires a robust governance structure and strong institutional support, but these are lacking in many tropical countries. Key enabling institutional elements include: well-defined property rights; codes, standards and other legal structures that reduce risk and uncertainty; inclusive policies; and appropriate multistakeholder platforms and institutional structures that allow PES to be mainstreamed in national planning and financial decision-making. In many tropical countries, forest laws are inadequate or unenforced, forest tenure is contested, forest agencies lack capacity, intersectoral coordination is poor, and legal frameworks impede or fail to enable the development

of PES schemes. In the case of payments for the climate-related services of tropical forests, international arrangements are still uncertain and the mechanisms for transferring payments are yet to be fully developed.

In general, knowledge is incomplete on the effectiveness of different institutional arrangements at various scales, and their costs. Many governments are centralizing tenure and control over environmental services, especially greenhouse gas emission reductions, but this has potentially serious implications for social cohesion, equity and the effectiveness of interventions.

POLICY RECOMMENDATIONS FOR BOOSTING PES SCHEMES

Given continued deforestation and forest degradation in the tropics, in large measure because of the unremunerated opportunity costs of maintaining forest cover, there is an urgent need to establish new—and scale up existing—PES schemes. Doing so requires several enabling factors, especially the following:

- Increased awareness of the importance of tropical forest environmental services.
- Strong demand for environmental services and a willingness of beneficiaries to pay for them.
- Mechanisms to ensure the equitable distribution of PES among forest owners and managers.
- An enabling institutional and governance framework.

Policy options for achieving these enabling factors are presented below.

1 Raise awareness of the importance of environmental services

Policy options

- Increase awareness of the importance of environmental services, the role of tropical forests in the provision of such services, and the need for compensation. Important messages to convey include:
 - Tropical forests safeguard vital water resources and biodiversity and regulate regional climates.
 - Tropical forests can manufacture vast

amounts of renewable biomass, absorbing huge quantities of greenhouse gases as they do so.

- Tropical forests are life-support systems for present and future generations.
 - SFM is a means of ensuring the long-term maintenance and enhancement of environmental services in tropical forests.
- Support scientifically sound studies to assess the:
 - Quantity and value of the environmental services provided by tropical forests.
 - Conservation and sustainable-development outcomes of PES schemes.
 - Effectiveness and cost of different institutional arrangements for PES.
 - Promote collaboration and exchanges on PES experiences and options, especially south–south cooperation.

2 Develop policies to increase market demand for the environmental services provided by tropical forests

Policy options

- Develop a regulatory environment that encourages or compels “free riders” to become buyers of environmental services.
- Promote the development of equitable markets for tropical forest environmental services, including markets for forest carbon.

- Work with the private sector to encourage PES as a means of achieving corporate social responsibility objectives.
- Promote policies in other economic sectors to internalize the costs of environmental services with the aim of increasing the size of PES markets.
- Encourage innovative approaches to the marketing of environmental services, for example in “bundles” of services, with the aims of increasing revenues and reducing or optimizing transaction costs.
- Incorporate PES schemes within a sustainable-development model that integrates ecological, poverty-reduction and economic objectives across sectors and value chains.

3 Ensure that PES schemes protect the rights of indigenous peoples, local communities and vulnerable groups

Policy options

- Transparently and fairly resolve overlaps between statutory and traditional tenure of land and forests.
- Build safeguards such as the right to free, prior and informed consent into PES schemes and honour them, including by applying the Voluntary Guidelines for the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security.¹
- Involve indigenous peoples, local communities and other forest owners in

¹ www.fao.org/nr/tenure/voluntary-guidelines

PES schemes as resource owners, rightsholders and entrepreneurs and promote gender equality, including in property rights.

- Build capacity in tropical forest communities to implement PES schemes.
- Facilitate the efforts of indigenous peoples and local communities to form producer organizations and other mechanisms to market their environmental services more effectively.
- Assist indigenous peoples, local communities and other tropical forest owners and managers to develop and implement forest management plans to maintain forest environmental services.

4 Strengthen governance and institutions to enable the effective implementation of PES schemes

Policy options

- Devolve the tenure of tropical forest environmental services with the aim of achieving win-win outcomes for governments, communities and the private sector.
- Ensure the development of appropriate multistakeholder platforms and institutional structures that allow PES schemes

to be mainstreamed in national planning and financial decision-making.

- Create a supportive legal framework for the establishment of PES schemes by removing legislative and regulatory barriers, providing clear legal recognition of the economic role of tropical forest environmental services, and minimizing the opportunities for environmental-service free riders.
- Promote the synergies between PES schemes and forest certification in contributing to SFM and assuring buyers and regulators that forest owners and managers are maintaining or increasing the provision of environmental services.
- Insist on measures to assess the effectiveness of PES in the design of PES projects.
- Assist the development of diverse financing mechanisms for PES schemes with clear rules, transparent oversight and political legitimacy.
- Encourage intersectoral interaction and cooperation in the development of broad, flexible PES schemes that encompass



Tropical forest communities require capacity-building to implement PES schemes

the environmental services provided by tropical forests.

- Improve the business climate for PES schemes by:
 - Reducing transaction costs.
 - Ensuring that payments are made in a timely manner.
 - Promoting entrepreneurship along the value chain.
 - Providing appropriate incentives for private-sector investment and participation in PES schemes.
 - Continually providing information to society with the aim of increasing payments for forest environmental services.

The International Forum on Payments for Environmental Services of Tropical Forests was co-organized by the International Tropical Timber Organization (ITTO), the Food and Agriculture Organization of the United Nations (FAO), and Costa Rica's National Fund for Forest Finance (FONAFIFO) and hosted by the Government of Costa Rica in San José, Costa Rica, on 7–10 April 2014. The forum explored how payments for the environmental services provided by tropical forests can support forest owners and managers to improve incomes and support SFM. More than 150 people from 60 countries attended from governments, regional and international development partners, civil-society organizations and the private sector.

Presentations, background information and the Forum summary can be found at: www.fao.org/forestry/84884.

