



Payment for Ecosystem Services (PES) and REDD+: A Synergy

Key messages

1. Payment for ecosystem services (PES) is an incentive based mechanism while REDD+ performance-based forest management. Both are based on the same principle for incentivizing improved management. Within the overall PES framework, REDD+ features as one PES scheme on carbon.
2. PES can play a role in reducing deforestation and forest degradation. This has already been demonstrated by PES schemes in many developing countries in the hydropower, water supply, and wildlife conservation and tourism sectors.
3. PES and REDD+ have similar goals to enhance ecosystem services by rewarding/incentivizing forest owners or managers. The design of the REDD+ implementation strategy can benefit from the existing experiences of PES schemes being implemented and legal frameworks in place that provided incentive for improving ecosystem services.
4. Countries can develop robust systems and procedures for linking international REDD payments with domestic PES payments.
5. Performance-based payments, such as PES, can be an important element of national and sub-national REDD mechanisms. However, certain economic, technical, institutional, cultural, and political conditions should be met for making PES an effective instrument for REDD+.

Background

Developing countries face harsh economic, social, and political constraints that impede creating more sustainable forest management. Due to a range of market, policy, and governance failures, deforestation and land degradation continue in many developing countries despite efforts and investment to stem these trends. Felled trees are generally more valuable than standing trees in the current manner of thinking.

Payment for ecosystem services (PES) is one promising economic tool to protect trees, forests, and ecosystems. The basic logic of PES is relatively simple: people and communities who provide ecosystem services by foregoing alternative uses of the land should be compensated by the beneficiaries of that service. In this way, PES addresses the 'market failure' problem for forests, that is, the lack of or weak markets for forest ecosystem services related to water, biodiversity, and, more recently, carbon benefits. PES is increasingly being applied in broader contexts beyond conservation, including the maintenance of cultivated landscapes, water supply, and climate change mitigation. PES initiatives can motivate communities to conserve catchment and protected areas with positive impact on carbon stocks or create incentives for reducing emissions from deforestation and degradation.

PES to REDD+

PES is used as an economic tool or approach to improve the delivery of ecosystem services. The concept has emerged in recent years as a potential financing mechanism for achieving ecosystem conservation and improving the livelihoods of communities. It has been implemented in many countries in Latin America, Europe, and Asia, as well as the United States, in the sectors of hydropower generation, water supply, tourism, and aquaculture. PES enables forest owners or managers to receive payments (cash or in-kind compensation) or financial incentives for their role in enhancing ecosystem services. A key feature of PES is “conditionality”, meaning that payments are performance based. Based on a review of 13 PES schemes Bond (2009) concluded that PES performance payments will be an important element of successful national and sub-national Reducing Emission from Deforestation and Forest Degradation (REDD) mechanisms.

The development and implementation of PES schemes provide the following lessons that are also relevant for REDD+:

1. Any PES scheme must start with identifying and quantifying the ecosystem service in demand.
2. Both providers and beneficiaries of the service and their roles must be clearly defined. Other stakeholders should be appropriately engaged in the development of PES schemes as well.
3. PES schemes should be designed in a way that the expected and actual benefits exceed the cost and inconveniences caused by the scheme.

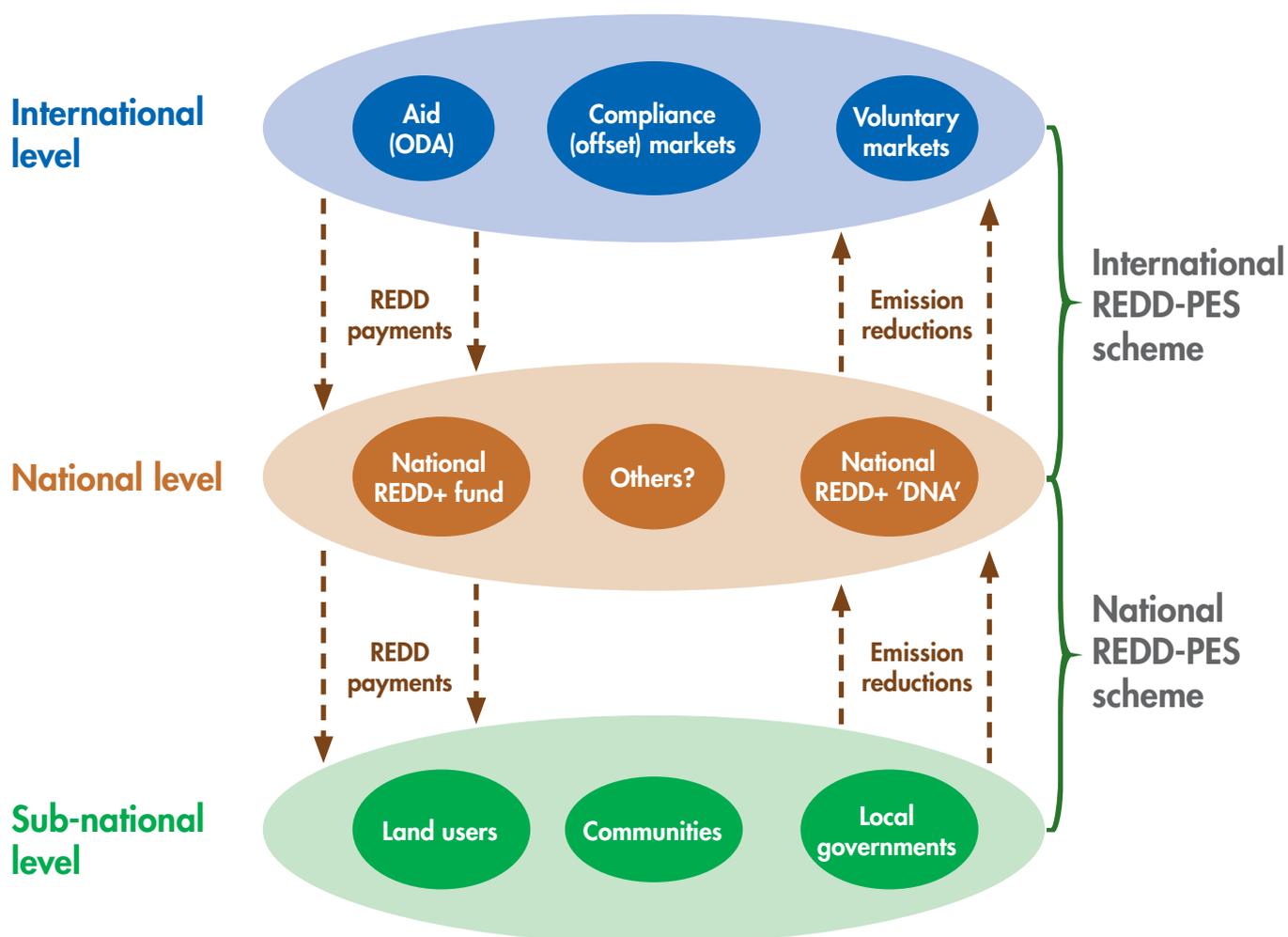
4. Net benefits to the paying party should exceed those benefits enjoyed before the scheme.
5. PES systems must be designed for a long-term sustainable system rather than a short-term project.
6. Regular monitoring is essential. The scheme should include provisions for corrective measures and renegotiation, if necessary.

PES schemes also face serious challenges and limitations. Poorly defined property and land rights often lead to failure in implementing PES schemes. Land tenure systems in and around protected areas, forest reserves, and communal land are complex and contested. Transaction costs, especially during the PES development stage, that include negotiation processes can be substantial for beneficiaries and providers of ecosystem services. Safeguards are necessary to avoid perverse incentives to land owners and mediators and to ensure poor and marginalised forest-dependent communities are not negatively affected (Peskett et al. 2008). For example, relying exclusively on private landholdings for PES and REDD+ as the basis for participation and benefits will inherently exclude the disadvantaged groups (UN-REDD, 2012).

REDD+ is an international mechanism designed to reward developing countries that reduce or halt carbon emissions caused by forest degradation and deforestation. A core issue in REDD+ is the creation of a multilevel (national and international) PES scheme (Figure 1) that will allow each country receiving the payments to implement REDD+ programs and policies. Measures can operate locally, such as a system of PES incentives to communities for exercising sustainable forest use. Or they can operate nationally, such as a set of government policies and actions to reduce deforestation and forest degradation.



Figure 1: **Conceptual model of multilevel REDD-PES scheme**



Source: Angelsen and Wertz-Kanounnikoff, 2008

REDD+ and PES aim to protect forest resources through performance-based finance. For PES, the buying and selling of ecosystem services operates within the country. Forest owners are paid either by the communities that benefit from the ecosystem services or by the national government on behalf of the beneficiary communities. There are different economic methods to value the ecosystem services and estimate actual payments. In contrast, REDD+ operates at the international level (between the developed and developing countries). Different monitoring tools and models are applied to calculate the total emission and total carbon storage for the entire project area. In principle, the developing countries must sustain the implementation of agreed measures and programs in forest protection/conservation and enhancement to continue receiving payments.

Countries can apply their experiences with PES to help design more effective REDD+ programs. While PES is an incentive-based mechanism and REDD+ focuses on performance-based forest management,

both schemes work on the same principle. Although REDD+ payments are designed to be paid to or through national governments, payments within the country to participating communities can follow the PES mechanism at local levels. REDD+ payment mechanisms in the country can be effectively and efficiently coupled with incentive-based PES mechanisms already in operation.

Successful design and implementation of successful PES and REDD+ projects, especially for forest-based communities, may confront several types of challenges:

1. High transaction costs;
2. Difficulty in determining the links between forest management and improved ecosystem services;
3. Collection of payment from those obligated to pay for ecosystem services;
4. Social and political resistance to implementing REDD+ ideas; and
5. Difficulty in determining the opportunity cost of land use for proper economic valuation.

While performance payments are an important element of national and sub-national REDD mechanisms, certain up-front economic, institutional, informational and cultural conditions should be considered for making PES an effective instrument for REDD+ (Wunder, 2008).

Conclusions

PES systems present both advantages and opportunities that make them a promising platform to initiate REDD+ schemes, wherein REDD+ stands as a unique PES scheme for carbon sequestration. PES schemes have evolved over several decades globally and the experience gained and methodological development in this time holds valuable lessons for developing REDD+ schemes to be successful. Many countries already have policies and legal frameworks in place to accommodate PES mechanisms. REDD+ can be an additional source of finance for PES schemes. Similarly, countries with an existing capacity for implementing PES at the sub-national level will be favourable to implementing REDD+ programmes and policies.

Countries can develop robust systems and procedures for linking international REDD+ payments with domestic PES payments by taking into account that opportunity costs that reflect possible changes in

future. These payments should match with estimates of avoided emission as well as carbon enhancement. Developing appropriate policies for implementing PES and additional programs to address deforestation and degradation can provide a good basis for an efficient REDD+ programme.

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