



Science for Environment Policy

Payments for ecosystem services: lessons from around the world

'Payment for ecosystem services' (PES) has become a commonly used term in recent years, yet the concept is not well defined. A new study reviewing PES theory, concepts and practice from around the world provides a valuable overview, concluding that more can be done to share learning.

The Millennium Ecosystem Assessment¹ warns that degradation of ecosystem services is proceeding at an alarming rate. Though not without its critics, PES instruments are held by some to be a significant step towards recognising the [economic](#) benefits of ecosystem services in order to ensure their preservation.

Every published paper which has addressed the topic of 'PES' was reviewed by the researchers: 457 in all at the time of the analysis. They summarised the main approaches with discussion of differences between developed and developing nations. Studies were categorised according to two economic approaches: 'Coasean', in which there is a direct market arrangement between the 'buyer' and 'provider' of services; and the 'Pigouvian', in which governments provide the payments to reach specific policy objectives.

While the PES concept is most often defined in Coasean terms, the vast majority of PES schemes in practice involve the state acting as an intermediary between the provider (such as the landowner) and the beneficiaries (who may be the public at large rather than a specific community or company). However, even the Pigouvian concept is usually not applied in its purest sense, in which payments would equal the net benefit from the service. Most schemes follow an 'environmental services' model in which the government defines objectives and acceptable standards and establishes incentives to maintain them.

The majority of case studies (85%) concerned projects in developing countries, particularly in Latin America. However, the authors highlight that PES projects have a longer history in developed countries, dating back to [agri-environment schemes](#) with origins in the late 1960s and 1970s in the US, and early 1980s in the EU. A lack of research on transferable lessons between countries and continents was observed, particularly between developed and developing countries – probably due to historical, cultural, political and institutional differences.

Factors identified as important for success in protecting ecosystem services, include the clear definition of property rights for providers, low transaction costs, the need to ensure schemes genuinely preserve ecosystem services which would not otherwise have been preserved and 'spatial targeting' to ensure priority locations are addressed, such as where services are most at risk or most likely to improve. All these improve the efficiency and cost-effectiveness of PES schemes. Procedural developments to address these factors were reviewed, such as improving efficiency through payment by results and bidding auctions amongst potential service providers.

In the pursuit of maximum efficiency, however, difficult questions arise: the study observes that most PES schemes focus on the rural poor as service providers even when, on purely economic terms, they may not always be the most cost-efficient providers. However, it is the rural poor that depend on and utilise the ecosystem services, which has turned PES into a political and social instrument, rather than a purely economic one.

In support of the conceptual discussion, the paper also outlines a number of PES projects, providing a useful source of case studies. These range from a water company in France that pays dairy farmers for land management sympathetic to the production of spring water, to a Costa Rican scheme in which national forest protection is paid for by carbon taxes.



8 May 2013

Issue 327

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Source: Schomers, S. & Matzdorf, B. (2013). Payments for ecosystem services: a review and comparison of developing and industrialized countries. *Ecosystem Services*. DOI: 10.1016/j.ecoser.2013.01.002i.

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To cite this article/service: "[Science for Environment Policy](#)"; European Commission DG Environment News Alert Service, edited by SCU, The University of the West of England, Bristol.

1. <http://www.unep.org/maweb/en/index.aspx>