



Payments for environmental services (PES) in theory and practice: Lessons learned and way forward

Discussion No. 88 from 25 February to 18 March 2013

Dear Forum Members,

The concept of payments for environmental services (PES) has gained prominence as a tool for achieving ecosystem conservation and, at the same time, improving the livelihoods of farmers as environmental service providers. Since the UN Millennium Ecosystem Report, published in 2005, PES is increasingly discussed as a tool to remunerate farmers for the positive externalities they create through the adoption of sustainable agricultural practices.

Through a 3-year project on the “Remuneration of Positive Externalities (RPE)/Payments for Environmental Services (PES) in the Agriculture and Food Sector” initiated in June 2012, FAO would like to learn more about the opportunities and challenges encountered in ongoing and completed PES projects.

The theory and practice of PES

The provision of environmental services, such as preservation of biodiversity habitats, watershed protection, and carbon sequestration have the character of a public good. They benefit mankind at large but tend to be available at no charge. This situation leads to the unsustainable use of scarce natural resources because existing markets fail to value them properly. PES schemes aim to address this market failure by providing financial incentives and other types of rewards (such as capacity development, knowledge sharing, risk alleviation, etc.) to land users to maintain/improve the provision of valuable environmental services. For the scheme to work there must be a willing buyer of a particular environmental service who transfers a payment to a land-owning seller who is willing to adopt measures that ensure the sustainable provision of the particular service.

There are however many open questions with regard to the scope of PES, their cost-effectiveness in addressing the growing global challenges of climate change and food security, and the theoretical baseline assumptions, largely derived from neoclassical economics.

The answers to such questions can often be found in lessons learned from existing projects, and they have to be taken into account in future designs of PES schemes.

Independent of the particular context and the targeted ecosystem service(s), an effective PES project needs to be based on incentives that help to better align the private interests of the local actors with the general public interest of preserving the environment while increasing food security. This is often achieved through public private partnerships that result in innovative

practices, institutions and products that make PES schemes financially sustainable and generate positive externalities on their own. Yet, the impact of innovation on the design, implementation and sustainability of PES has so far hardly been addressed in the current academic literature.

The objective of the online discussion

In this online discussion we hope to find answers on how best to address the challenges and opportunities based on prior practical experience and research. We therefore invite practitioners, policy experts and scholars in the public and the private sector and other parties interested in PES to provide us with insights from particular PES projects in developing and developed countries and suggestions on how to make PES more effective as a tool to build up natural capital while also investing in human capital and poverty reduction.

Questions to be discussed in the FSN Forum:

1. What are the lessons learned from PES in developed and developing countries?

- a. What are the main challenges and opportunities with regard to PES projects in your particular country?
- b. Do you know of highly successful PES cases in your particular field of expertise (watershed management, biodiversity/wildlife conservation, carbon sequestration,...)? If so, what were the main factors that contributed to the success of the PES scheme?
- c. Do you know of PES projects that have failed to deliver despite substantial donor support? If so, what were the reasons that caused the failure?

2. PES can be conceived as a diverse set of policies, institutions and processes that mobilize funding from direct beneficiaries, taxpayers, consumers and other interested parties to reward/remunerate/pay providers of environmental services. Which type of PES-related policy instruments would you recommend for your own particular country and why?

- a. Are PES-related policy tools applied in affluent countries with lots of off-farm employment opportunities and low population growth rates also adequate for least developed countries where farm sizes often tend to get smaller due to lack of opportunities outside agriculture?
- b. What should be the role of the public sector in creating a regulatory/enabling environment for PES to deliver? Where is public sector assistance most needed (knowledge transfer, communal/private land rights, infrastructure, measurement of environmental quality changes, etc.)?
- c. To what extent is it justified to abandon the 'polluter pays' principle of PES to increase agricultural productivity and reduce poverty in developing countries? Or should we use other tools to tackle these objectives separately?

3. What should be the role of innovation and entrepreneurship in making PES work for sustainable development?

- a. In some cases, PES has become a vehicle for a market for environmental goods (e.g. farmers respond to a growing regional demand for trees by setting up their own tree nurseries). Do you know of other business opportunities for farmers that could arise from the implementation of a PES scheme?
- b. According to your practical experience with PES, where do we need innovation to make PES more effective and what type of reward system could create such innovation?

- c. Innovative landscape approaches focus on the improvement of environmental services on the landscape-level while the PES approach is focused on the remuneration of individual farmers on the field-level. How can the two approaches be reconciled?

We look forward to receiving your inputs.

Thank you very much

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Definition of Ecosystem Services:

The Millennium Ecosystem Assessment (MEA) has identified four main categories of services provided by ecosystems:

- Supporting services, necessary for the production of all ecosystem services, such as primary production (photosynthesis), nutrient cycling and soil formation;
- Provisioning services such as food, water, wood, fiber and fuel;
- Regulating services such as climate regulation, flood regulation, drought control, water purification, disease regulation, predation and pollination; and
- Cultural services related to the benefits arising from recreation, aesthetic experience, cognitive development, relaxation, and spiritual reflection.