

## **Homespun strategy in paying for nature's services reveals shortcomings**

Mounting threats to the global ecosystem under pressures from population growth and commodity demands make economic incentives a vital component of environmental conservation.

One practice that has emerged over the past 20 years, Payments for Environmental Services (PES), involves assigning value through financial incentives paid to farmers and land owners for managing their land so that it provides an ecological service. Remunerated services typically include carbon sequestration, watershed management, or biodiversity protection.

New research from the Center for International Forestry Research (CIFOR) in partnership with the Alexander von Humboldt-professorship of Environmental Economics at the University of Osnabrueck and other partners suggests that due to shortcuts in design and execution, PES programs may, in practice, work less effectively than they could, lowering their capacity to provide the right incentives and restricting their impact on conservation efforts.

“Naturally enough, due to differences in contexts, priorities and goals, PES programs vary in design and execution,” said Stefanie Engel, Alexander von Humboldt-professor at the University of Osnabrueck. “While we recognize variations in strategy will always exist, we note that PES designers often take impractical shortcuts, oversimplifying circumstances, leading to deficiencies in execution, and thus probably in impact.”

The researchers discovered one shortcoming often relates to fears among PES regulation enforcers in applying fines and penalties for not meeting agreed goals.

“Less than a matter of problems with complex biophysical monitoring or prohibitive transaction costs, we believe enforcement is often a politically sensitive question,” said professor Roy Brouwer, co-author and executive director of the Canadian University of Waterloo's Water Institute.

To reach their conclusions, the scientists analyzed a new global dataset accrued from 70 PES projects over the past 20 years around the world. They coded design and implementation features from the case descriptions and their own field-based observations.

PES programs assessed included watersheds, forest carbon and biodiversity schemes from North America, South America, Asia, Australia, Africa and Europe.

The authors observed that PES programs are sometimes perceived by those involved as a silver bullet, leading to potentially misguided implementation when perhaps other policy programs would be better suited to a given scenario.

Difficulties arise when the environmental service provider offers less compensation than expected from the landholder, when the institutional framework for introducing and administering PES are lacking, when provider control over the environmental service is weak, and when payments are insufficient to incentivize further ecosystem services, the report said.

Globally, pressures are escalating to put conservation finance programs to more effective use. “If new environmental impact assessments continue to reveal inefficiencies in PES design and implementation, political pressures may eventually mount for more transparent and economically informed policy choices,” said lead author Sven Wunder from the Center for International Forestry Research. “This may hopefully also set the stage for better realizing the potential of PES to achieve efficient and equitable conservation impacts.”