



Supported by the International Institute for Environment and Development (IIED)
and the World Bank, Bank-Netherlands Watershed Partnership Program

Review: Payments for watershed services and the costs of change

Matching the opportunity costs of forgoing alternative land uses is not always a sufficient incentive for land users to adopt practices to protect watershed services. Property rights are a key element of payments for watershed services because they define who has land and access to its benefits, and who is liable for the costs of adopting new management practices – providing that they are enforced.

Enforcement also has a cost. Many forms of enforcement costs are normally incurred by governments. Without an appropriate enforcement system, there would be no incentive to produce goods and services of any kind, and markets would not exist, even for a loaf of bread. However, trends towards decentralization have often had the effect of reducing government capacity to carry out this responsibility, particularly in remote rural areas. Consequently, these costs often fall on communities themselves. Furthermore, watershed services are very different in character to a loaf of bread, which implies the need to develop new kinds of institutions, regardless of who assumes the responsibility. When there is little or no confidence that rights will be enforced, the poor may prefer to take the money and run. In other words, depending on the rules of the game, smaller short-term gains may be preferable to the promise of greater gains in the long term. For example, in Indonesia, decentralization reforms took place after the fall of the Suharto regime, leading to recognition of the rights of forest communities (at least on paper). In practice, these communities have often had to enforce their own rights, by blockading illegal loggers from forests. Given this cost and the uncertainty of their rights (in practice), many communities have begun trading their logging rights for more immediate and secure benefits - sometimes for as little as a satellite dish. Under these circumstances, payments for environmental services need to factor in the costs of enforcement, as well as the value of the forest to the community, in comparison to the short-term gains expected from logging and discount rates (Palmer and Engels, 2005).

On the other hand, participation in payment schemes can be a mechanism through which stakeholders strengthen land claims in forested areas. For example, in Bolivia – as well as in many other places, clearance of forested land has been necessary to demonstrate that it is being actively used and is therefore owned. Farmers in the Los Negros watershed were initially reluctant to participate in an in-kind payment scheme. This changed on reflection that being paid to protect a particular forested area would imply “use” and thus increase the perceived security of tenure – even if this issue was not explicitly addressed by the payment scheme. Maps also helped to clarify rights, but, at the same time, created conflict with those who did not own land, and who had an interest in maintaining open access to forested areas (Robertson and Wunder, 2005).

In sum, strong and defined rights do not insure appropriate land uses but can make it possible and more likely, and are an important condition for payment arrangements.

It is important to keep in mind that there are different kinds of property arrangements, both formal and informal, which create different kinds of land use incentives. Although private land owners may prefer short term gains that can be invested elsewhere and that degrade watershed services – they can at least be negotiated with. Payments can also provide the necessary motivation to

overcome inertia to change the rules, and begin the long-term process of institutional change to support the stewardship of watershed services. An important rule of thumb is that benefits should exceed the cost of change.

References and further information

Arifin, B. (2005). [Institutional constraints and oppotunities in developign environmental service markets: Lessons from Institutional Studies on RUPES in Indonesia](#) (pdf). Bogor, Indonesia, World Agroforestry Centre (ICRAF), Program for Developing Mechanisms for Rewarding the Upland Poor in Asia for Environmental Services they Provide (RUPES).

Bruns, B. R., C. Ringler and R. Meinzen-Dick (2005). [Water Rights Reform: Lessons for Institutional Design](#). Washington, DC, International Food Policy Research Institute.

Engel, S. and C. Palmer (2005). Payments for environmental services as an alternative to logging under weak property rights: The case of Indonesia. ZEF-CIFOR workshop on Payments for Environmental Services: Methods and Design in Developing and Developed Countries, Titisee, Germany. Available on request from cpalmer@uni-bonn.de or kirchoff@uni-bonn.de

North, D. C. (1990). Institutions, institutional change and economic performance. Cambridge, Cambridge University Press.

Ostrom, E. (1990). Governing the Commons. The Evolution of Institutions for Collective Action. Cambridge, Cambridge University Press.

Robertson, N. and Wunder.S. 2005. [Fresh Track in the Forest: Assessing Incipient Payments for Environmental Services Initiatives in Bolivia](#). CIFOR. Bogor Barat Indonesia.

Swallow B., Meinzen-Dick R., and van Noordwijk M. 2005. [Localizing demand and supply of environmental services: interactions with property rights, collective action and the welfare of the poor](#). CAPRI Working Paper #42, International Food Policy Research Institute, Washington, DC.

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If you have a good rule-of-thumb, or other comments, please send them to comments@flowsonline.net for inclusion in the next bulletin. We also welcome input and references for forthcoming bulletins.

New Resources:

Shed Loads – paying to protect watersheds. An Earth Report for BBC World TV by IIED and TVE. A short documentary that looks at the potential and problems for payments for watershed services in Africa, Asia and the Americas, based on case studies from the United States, South Africa, Bolivia, Jamaica, India, Indonesia and the Caribbean (the latter two were not included in the original BBC broadcast due to time constraints). Available on DVD from IIED in English, Spanish and Indonesia. To obtain a copy, please contact Nicole.armitage@iied.org.

About the Flows Bulletin

The Flows Bulletin is produced by Sylvia Tognetti, an independent consultant on environmental science and policy, with the collaboration and support of IIED project on Policy Learning in Action: Developing Markets for Watershed Protection Services and Improved Livelihoods, and the World Bank, through the Bank-Netherlands Watershed Partnership Program.

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