## **Payments for Environmental Services**

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Environmental services provide mankind with economic, financial, ecological and cultural benefits, which more often than not are taken for granted. The hydrological services provided by forests, such as clean and regulated water flow, and reduced sedimentation, for example, are typically only noted when natural disasters, flooding, siltation of reservoirs and scarcity of water occur as a result of the removal of forest cover. That such services should be lost despite their value is easy to understand: Land users typically receive no compensation for the services their land generates for others, and so do not take them into account in making land use decisions.

Recognition of this problem and of the failure of previous approaches in dealing with it has led to efforts to develop systems in which land users are compensated for the environmental services they generate. Several countries are already experimenting with such systems (see Box)—especially in Central and South America, where the effects of Hurricane Mitch have made the need to protect environmental services clear. The World Bank is assisting several countries in developing systems of payments for environmental services, with the Latin America and Caribbean region taking the operational lead and the Environment Department providing technical support.

The Bank is quite concerned that the systems developed work. Environmental service payments will only have the desired effect if they reach the land users in ways that motivates them to change their land use decisions. In general, several principles are clear: make payments on-going; target payments; and avoid perverse incentives. Equally important is to secure the sources of financing and to deal realistically with the institutional and political economic issues.

The Bank is also aware of the need for capacity building and training and has developed a training course for senior level technical staff on environmental services. The course, now in its fourth edition has met with a strong demand. and the organizers are coordinating with other institutions undertaking similar activities in order to maximize the dollar invested.

## Box: Environmental service payments: National initiatives and World Bank support

- Costa Rica has the most advanced system of payments for environmental services. Land users who protect natural forests or reforest their land receive payments of about US\$50/ha/year, financed from energy taxes, the sale of Carbon offsets, and international donations for biodiversity conservation. This program is now supported by the World Bank and the GEF through the **Ecomarkets** project.
- In **Ecuador**, the municipal water authorities in Quito and Cuenca are allocating part of their revenues to financing protection activities in the watersheds from which they receive the bulk

- of their water. The World Bank is assisting the Government in preparing a project on payments for environmental services from private lands.
- In **Colombia**, many water user groups pay for watershed service—sometimes by buying the entire upper watershed. Power companies must by law pay a percentage of their revenues from HEP to the regional corporations that are responsible for watershed management.
- In **El Salvador**, the World Bank is assisting the Government to develop the Natural Environmental Management Project, which will use payment mechanisms to obtain environmental services in this instance, watershed protection (primarily for flood control/disaster prevention) and the creation of biodiversity corridors to link the country's protected areas.

Work on payments for environmental services is undertaken by the World Bank Environment Department's **Policy**, **Economics**, **and Pollution** Team, in collaboration with LCR, RDV, DEC, and other Bank units. A website has been established to share information and best practices in this field: http://www-esd.worldbank.org/eei, under "Payments for Ecological Services". For more information, contact Stefano Pagiola (spagiola@worldbank.org) or Gunars Platais (gplatais@worldbank.org).