

CASE STUDY

Payments for Hydrologic Services (PSA-H), MEXICO

In 2003, Mexico instituted the Program for Hydrologic-Environmental Services (PSA-H), which is national in scope. Managed by the Ministry of the Environment and the National Forestry Commission (CONAFOR), the program seeks to conserve threatened natural forests to maintain downstream flows and water quality. In Mexico, agricultural land is generally privately owned and titled, but forest lands are predominately common property. The majority of users live in poverty, and deforestation is believed to exacerbate poverty.

Funding for the PSA-H program comes from a 2.5% federal fee on water users, but with expenditures capped each year: US\$18 million in 2003 and US\$30 million in 2004. Payments are disbursed to individual and collective landowners possessing natural forests that serve watershed functions. Payments to preserve existing forests are \$400 pesos/ha/yr (US\$ 36.60) for cloud forests and \$300 pesos/hectare/year (US\$27.45) for other forests. Contracts are for 5 years, with annual payments contingent on maintaining the forest cover.

Compliance-monitoring is the responsibility of CONAFOR, which analyzes satellite imagery and carries out random and occasional field visits to detect changes from forest-cover baselines. If some but not all of a landowner's holdings are deforested due to the action of a third party (e.g., forest fires), then payments for that sub-area come to an end. But if a landowner deliberately clears any part of his enrolled holdings, then the contract is rendered null and void and payments for all enrolled land cease.

The 2003 budget allowed for the enrollment of 126,000 hectares, although offers were received for 560,000 hectares. In response to the gap between the budgeted area and applications, CONAFOR has worked with the National Water Commission (CNA) to target forested lands that are important in terms of watershed protection or aquifer recharge and that are upstream from at least 5,000 water consumers. Prioritization also takes into account preserving natural forests of good quality, areas where commercial logging is not viable, as well as biodiversity. In addition, areas where the threat of deforestation is high and zones with an elevated incidence of poverty are given priority. In 2004, a survey showed that 31% of PSA-H sellers were below the poverty line, although the poorest of the poor were under-represented. For impoverished households, PSA participation could raise incomes by up to 10%. For community-owned forests, PSA-H payments were often utilized to invest in village-level infrastructure.

The PSA-H is intended only to provide a temporary incentive for conservation with a transition to self-sustaining commercial forestry or to conservation paid for by direct beneficiaries within the watershed.

Case Study Questions:

1. Is the Mexican PSA-H program a "true PES" program? Why or why not?
2. Who are environmental service Sellers in the PSA-H program?
3. Who are environmental service Buyers in the PSA-H program? Beneficiaries?
4. What other related environmental services might have buyers, and who would they be?
5. How is delivery of the environmental service determined (conditionality)?
6. What problems would you anticipate from the description provided?
7. Is the PSA-H program pro-poor? Why or why not? How could it be improved?
8. Do you think the goal to be a 5-year transitional program to a system financed by local beneficiaries of the forests is achievable? Why/not?

This case study was adapted in large part from:

Southgate, D. and S. Wunder. 2007. [Paying for Watershed Services in Latin America: A Review of Current Initiatives](#). SANREM CRSP Working Paper No. 07-07. OIRED, Virginia Tech, Blacksburg.

For more detailed info on the Mexico PSA-H program, please see:

Carlos Muñoz, Alejandro Guevara, José Manuel Bulas, Juan Manuel Torres and Josefina Braña. 2005. Paying for the Hydrological Services of Mexico's Forests. Paper presented at the PES - ZEF - CIFOR Workshop, June 15-18, 2005, Titisee, Germany. 23 p. Available at: http://www.cifor.cgiar.org/pes/publications/pdf_files/Mexico_paper.pdf.