

Costa Rica- Energía Global

Energía Global payments, Central Plateau - watershed protection contracts

SUMMARY

Agreement between hydroelectric company (HEP) and the National Fund for Forestry Financing (FONAFIFO), to channel payments to neighbouring landowners in order to regulate water flows and reduce sediment load. Initially Energía Global placed emphasis on trying to increase water quantity, but when it began to renew contracts it shifted the focus to water quality (contracts renewed in 2003, for another 5 years). Monitoring of land use shows an increase of 217 ha of forests. The company claims that with the PES they can guarantee the required flows for hydropower production, and are willing to pay for that, although there is no data to support improvements in the water services.

MATURITY OF THE INITIATIVE

Ongoing since 1997 - renewed in April 2003 for another 5 years.

DRIVER

Hydropower companies are interested in regulating flows (i.e. controlling runoff) and reducing sedimentation. Initially Energía Global placed emphasis on trying to increase the water quantity, but when it began to renew contracts it shifted its focus to water quality (Edgar Ortiz, FONAFIFO, personal communication 2005).

STAKEHOLDERS

Supply

Private landowners (sellers) in areas neighbouring the HEP generators in the watersheds of the rivers San Fernando and Volcán, in Sarapiquí- central volcanic range. Until 2005, more than 1,400ha [the original target was for over 4,000 ha] were receiving payments (31 households).

Demand

Private corporate (buyer): Energía Global, an HEP company, is interested in protecting the basins that drain into the San Fernando and Volcan rivers, which feed their plants. Two run-of-the-river electricity generators are involved: (1) PH Don Pedro, a 12 MW project using water from the San Fernando River, and (2) PH Rio Volcan, a 17 MW project which uses water from a small dam along the Rio Volcan River. The HEP companies supply electricity to 40,000 users. The replenishment of aquifers is of particular importance to ensure water flow in dry season when prices for electricity production are highest. The company is interested in protecting 1,818ha in San Fernando and 2,493 ha around the Rio Volcan.

Intermediary

FONAFIFO is the national intermediary.

The local forestry NGO FUNDECOR assists landowners with applications to submit to FONAFIFO and provides technical assistance. For this, the NGO charges approximately 15% of the payment attributed to landowners. In most cases, annual payments from FONAFIFO reach farmers through FUNDECOR who then retains its share.

FUNDECOR, is responsible for monitoring and is the organism responsible for upholding the contract with FONAFIFO. (Like in the case of Platanar (see case in this review), FUNDECOR has signed the contract with FONAFIFO on behalf of this private agreement)

Services Provided by FUNDECOR

Assistance in clarifying the applicant's land tenure status (when the situation is not contentious)

Preparation of the paperwork for the application to FONAFIFO: legal paperwork and management plan- 95% of FUNDECOR's applications are approved. (Note: The reason is that FUNDECOR only gets its intermediary fee (costs



of application process) if and when the project is accepted, therefore FUNDECOR does not pursue the application of cases that do not have enough chance of being approved by FONAFIFO, otherwise they wouldn't recover their investment in their application process.

Intermediation with other statutory bodies, such as the Ministry of Environment (if there is need for forestry permits, for example in the case of applications to the forest management modality)

Certification: FUNDECOR provides supervision, control and monitoring

Financial schemes: timber auctions, future markets (purchase of timber in advance).

Source: Porras et al. 2006

Facilitators

National System of Conservation Areas (SINAC), a statutory body part of the Ministry of Environment, SINAC must be consulted regarding management options in areas designated as biological corridors.

MARKET DESIGN

Service

Flow regulation and sedimentation reduction. The company is interested in reducing runoff and raise water quality (less siltation) associated with deforestation that affects the efficiency of electricity generation.

Commodity

Conservation and protection of existing ecosystems through strict protection;
Improved management practices that include sustainable forest management and agroforestry;
Reforestation for commercial purposes
Rehabilitation of riverbanks and steep slopes.

Payment mechanism

Intermediary-based: Energía Global channels \$12/ha/yr to FONAFIFO, who then tops it up with funds from the national PES programme. To cover additional administration costs FONAFIFO charges a 5% overhead on the funds provided by Energía Global.

Terms of payment

Energía Global transfers PES contribution to FONAFIFO to cover continuous cash payments to landowners. Contracts have been renewed once already and prices renegotiated: since 2003, the buyer has been paying an additional US\$2/ha/year.

Funds involved

US\$ 400,000 (US\$ 200, 000 each 5-year contract) (FONAFIFO, 2005)

ANALYSIS OF COSTS AND BENEFITS

Economic

It is expected that the company and in turn, electricity users benefit from more stable and efficient electricity supplies but there is no empirical evidence of this. The willingness to renew contracts suggests that both the farmers and the company perceive net benefits from the PES arrangement.

Environmental

To date, payments have been made for 833 ha in San Fernando and 568 ha in Rio Volcán. Monitoring of land use shows an increase of 217 ha of forests.



Expected benefits include reduced erosion and sedimentation in streams, leading to improved water quality, which is critical for drinking water, HEP plants and fisheries. The company claims that with the PES they can guarantee the required flows for the HEP operation, including in the dry season, and are willing to pay for that, although there is no data to support these claims of improvements in the water services.

Social

FUNDECOR has helped clarify property rights for landowners through the registration of land in the National Property Registry.

POVERTY IMPACTS. Most of the social benefits are felt by the poorest, especially the awarding of land titles. In general FUNDECOR has organised 371 households (not necessarily in the Energía Global interest area) many with less than 5 ha plantations, with 22,000 ha in the government's Payments for Environmental Services scheme. FUNDECOR has provided technical assistance to 500 small forest dwellers. Since this payment is embedded within the broader system, it's unclear which local benefits to attribute to this transaction.

Improved environmental awareness due to environmental education scheme funded by FUNDECOR.

Other expected benefits include: improved electricity supplies, although the price of electricity is not controlled by the hydroelectric company and improved health associated with better water quality. However there is little empirical evidence on this.

LEGISLATION ISSUES

The scheme is embedded in the government payment scheme. Payments are channelled through the national payments for environmental service scheme.

MONITORING

Participants *feel* that the system helps maintain water quality and quantity (Rosa 2003), but there are no systems in place to monitor the changes in water quality and quantity.

MAIN CONSTRAINTS

No information available.

MAIN POLICY LESSONS

It is uncertain whether the payments are actually resulting in improved delivery of the environmental services. However, the renewal of the contracts by the company suggests that at least their perception is that the programme is working and they are willing to continue it. No monitoring of changes in water quality or quantity has been put in place. In this particular case, the benefits from improved public relations in the area might be enough to justify the company's investment in PES, but it is still a weak argument for extrapolating to other places or countries.

OTHER INFORMATION

CONTACT

Follow up with Agustin Fallas (afallas@fundecor.or.cr or afallas@alum.mit.edu)

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FONAFIFO (2005) The environmental Services Program: A success story of sustainable development implementation in Costa Rica. FONAFIFO, Over a Decade of Action. Edited by Rodríguez, J.M. Costa Rica National Forestry Fund (FONAFIFO). San José

Gonzalez, P. (2006) Presentation by the Pedro Gonzalez, forestry engineer with the Costa Rican NGO FUNDECOR, during IIED Technical Trip: Active Learning from Costa Rica's Payment For Environmental Services, 5-12 February, 2006.



Heindrichs, T. 2004. Pagos por Servicios Ambientales (PSA) en PROCARYN - *Concertar Fondos Nacionales e Internacionales para la Conservación de los Recursos Hídricos de la República Dominicana*. Foro Electronico Latinoamericano, FAO- Oficina Regional para América Latina y el Caribe (RLC). *Sistemas de Pago por Servicios Ambientales en el Ambito de Cuencas Hidrograficas*.
<http://www.rlc.fao.org/foro/psa/pdf/heindrichs2.pdf>

Porras, I. Neves N. and Miranda M. 2006. Developing Markets for Watershed Protection Services and Improved Livelihoods. Technical Trip: Active Learning from Costa Rica's Payment For Environmental Services, 5-12 February, 2006. IIED.

Information on FONAFIFO's website:

http://www.fonafifo.com/paginas_espanol/proyectos/e_pr_convenios.htm

<http://www.fonafifo.com/paginas/EneGlobal.Htm>

Information on FUNDECOR website:

<http://www.fundecor.org/transferecia/financieras.shtml>

<http://www.fundecor.org/index.php?module=ContentExpress&func=display&ceid=41&meid=-1>

LINKS

www.fundecor.org

www.fonafifo.com