The Environmental Services Payment Program: A success story of sustainable development implementation in Costa Rica

By: Carlos Manuel Rodríguez
Minister of Environment and Energy
Costa Rica

Features

- Area: 51,100 Km2
- Population: 4,4 millions
- High human development index (ranked 45 by UNDP)
- Medium Income country (GP = $4.180 per capita in 2004)

- 70 % of national lands are of forest capacity
- 26 % of the territory is protected by different management categories (National Parks, wildlife refuges, Forest Reserves)
- 9 % of private lands are under protection by ESP
- Tourism is currently the main income source
- Forest plantations and industrial related activities are privately managed.
- No forest concessions are allowed
A forestry-oriented country

- According to the land-use capacity 2/3 of the national territory should be forest covered.

- By the end of the 70’s some research studies showed national forestry reality (Silvander-1977 y Pérez y Protti-1978)

- The annual rate of deforestation was of 55,000 Ha/year

- Less than 1/3 of the national territory was the remaining forest (31,1 %)

- Historically, Costa Rica has been generating financial mechanisms for the forestry sector

- In 1979 the first forestry incentive was established

- In 1979 the First National Forest Development Plan was developed
1940 (Bosque 75%)
FOREST COVER
1950 (Bosque 72%)

FOREST COVER
1961 (Bosque 53%)

FOREST COVER
1983 (Bosque 26%)

FOREST COVER
1987 (Bosque 21%)

FOREST COVER
Evolution of forest cover 1940 - 1987

- 1995 General Environmental Law enacted
- 1996 New Forestry Law
- 1998 Biodiversity Law

- Sustainable development becomes a national goal by Law (Art. 50 National Constitution and Environmental law)
- Creation of the National System of Protected Areas to enhance integrated management of natural resources.
- Abolition of the change of use of forested lands
- FONAFIFO legally consolidated
- The Forest National Office was created as a dialogue mechanism among the private and public forest stakeholders
- Transformation of incentives into Environmental Services Payment as the main financial mechanism to promote forest protection and sustainable use
- Creation of a funding source for ESP (tax on fuels)
The Forestry Law states

“Forests, forest plantations and other ecosystems provide essential services to the people and economic activities, at the local, national and global levels”.

Protection of water resources for different uses

Mitigation of greenhouse effect gases and carbon fixation

Protection of biodiversity

Landscape/scenic beauty

Payment for environmental services is the mechanism implemented to pay the owners of land by the above mentioned services provided to the society.
RATIONALE OF THE ESPP
Ecomarket Project goals/targets

• Payments for contracted projects (+200,000 Has)

• Increase volume of existing contracts in 100,000 Has

• Increase by 30% participation of women in ESP

• Increase by 100% participation of indigenous peoples

• Strengthen FONAFIFO and SINAC institutional capacities
Ecomarkets project

- Need to increase forest conservation and forest cover recovering by enhancing the development of private markets for environmental services provided by forests such as biodiversity protection, greenhouse emissions reduction and water resources protection.

<table>
<thead>
<tr>
<th>Source of funding</th>
<th>$ US</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIRF 4557-CR</td>
<td>32,630,000</td>
</tr>
<tr>
<td>GEF 23681-CR</td>
<td>8,000,000</td>
</tr>
<tr>
<td>PJN 50508</td>
<td>302,250</td>
</tr>
<tr>
<td>Government</td>
<td>8,500,000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>49,432,250</strong></td>
</tr>
</tbody>
</table>
463.000 Has covered by ESP during 1997 - 2004

A growing partnership in action

- 85% Regular Budgets
- 8% Other sources
- 7% Local private sector

“As scientific understanding of ecological services improves, new financial opportunities emerge”

The Economist 04-05
New Has protected by ESP

Has Accumulated

Year

2001 2002 2003 2004 2005 Projected

Has Accumulated

Year

2001 2002 2003 2004 2005 Projected

ECOMARKET Target 100%
Participation of women
Participation of indigenous peoples

Has Accumulated

Year

2000 2001 2002 2003 2004

base 247% 342% 563% 788%

2000 2001 2002 2003 2004

Has Accumulated

25,000.00

20,000.00

15,000.00

10,000.00

5,000.00

-
THE ECOLOGY COST OF WATER
ADJUSTED IN THE WATER RIGHTS
DECREE: AUGUST 24th 2005
Pago por el agua diferenciado por uso turístico: 2,46 colones por metro cúbico anual.

 EVERY USER WILL PAY THE ECOLOGY COST OF WATER

Negociación para la viabilidad política del la propuesta del canon

Uso hidroeléctrico grande: 0,12 colones por metro cúbico anual en concesión

实施七年内

Consumo Humano: 1,46 colones por metro cúbico anual

En la inversión están involucrados todos los actores públicos y privados

El uso acuícola: 0,12 colones por metro cúbico anual

Plan de incentivos para los sectores productivos

Uso comercial e industrial: 3,25 colones por metro cúbico anual de agua subterránea

Pago por el agua diferenciado por uso turístico: 2,46 colones por metro cúbico anual

Implementación en siete años

Uso en Consumo Humano: 1,46 colones por metro cúbico anual

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PRESIDENT´S EXECUTIVE ORDER 035-MINAE (Minister of Environment)

All Public Institutions who use public water rights for a public service, will financially recognize the ecological cost of water.
### Actual Value of Water Rights

**Decree 26635-MINAE - Enero 1998**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Superficial</th>
<th>Subterráneo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doméstico</td>
<td>0.5177</td>
<td>0.7187</td>
</tr>
<tr>
<td>Poblacional</td>
<td>0.0088</td>
<td>0.0109</td>
</tr>
<tr>
<td>Hidroeléctrico (fuerza hidráulica)</td>
<td>0.0001</td>
<td>NA</td>
</tr>
<tr>
<td>Industrial</td>
<td>0.0252</td>
<td>0.1928</td>
</tr>
<tr>
<td>Riego</td>
<td>0.0169</td>
<td>0.1304</td>
</tr>
<tr>
<td>Otros usos</td>
<td>0.0075</td>
<td>0.3224</td>
</tr>
<tr>
<td>Promedio</td>
<td>0.0007</td>
<td>0.1128</td>
</tr>
</tbody>
</table>

### Proposed values of water rights

<table>
<thead>
<tr>
<th>(1) Uso</th>
<th>(2) Canon (colones por metro cúbico anual)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Agua Superficial</td>
</tr>
<tr>
<td>Consumo Humano</td>
<td>1.46</td>
</tr>
<tr>
<td>Industrial</td>
<td>2.64</td>
</tr>
<tr>
<td>Comercial</td>
<td>2.64</td>
</tr>
<tr>
<td>Agroindustrial</td>
<td>1.90</td>
</tr>
<tr>
<td>Turismo</td>
<td>2.64</td>
</tr>
<tr>
<td>Agropecuaria</td>
<td>1.29</td>
</tr>
<tr>
<td>Acuicultura</td>
<td>0.12</td>
</tr>
<tr>
<td>Fuerza Hidráulica</td>
<td>0.12</td>
</tr>
</tbody>
</table>
Need to invest in areas of importance for water conservation
Needs to invest: in monitoring and control insite for water rights and illegal uses.
Need to invest: in watershed management
Need to recognize:
the environmental service for ecosystems

*Forest Law*
Need to invest in restoration and good uses of land for water conservation
Costa Rica: Protected Areas
## RESULTS 2002

<table>
<thead>
<tr>
<th></th>
<th>P.N. Chirripó</th>
<th>P.N. Cahuita</th>
<th>P.N. Volcán Poás</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>$609,000</td>
<td>$4,900,000</td>
<td>$23,400,000</td>
</tr>
<tr>
<td><strong>Nacional</strong></td>
<td>46%</td>
<td>64%</td>
<td>59%</td>
</tr>
<tr>
<td><strong>Regional</strong></td>
<td>28%</td>
<td>3%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Local</strong></td>
<td>26%</td>
<td>33%</td>
<td>17%</td>
</tr>
</tbody>
</table>
APORTES ECONÓMICOS DE LOS PARQUES NACIONALES Y RESERVAS BIOLÓGICAS 2002

Total: $834,6 millones

- **Turismo Nacional (87,48%)**: Hospedaje, transporte, alimentación, culturales
- **Generación de electricidad (10,45%)**: Aproximación mediante SIG a las plantas cercanas a los P.N. y R.B.
- **Fondos para Conservación de ASP (1,10%)**
- **Otros (0,97%)**: Fondos para la investigación, visitación, empleo, PSA, compra de tierras.
### Aporte de los P.N. y R.B. al Producto Interno Bruto 2002

<table>
<thead>
<tr>
<th>Descripción</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aporte de los P.N. y R.B.</td>
<td>5,5</td>
</tr>
<tr>
<td>Agricultura, silvicultura y pesca</td>
<td>7,7</td>
</tr>
</tbody>
</table>

**Agricultura, silvicultura y pesca**
PRIORITY AREAS FOR THE PROGRAM
(Ecosystem approach)
ESP Projects Investments
Rural water supply system
Costa Rica.
Ubicación de Principales Acuíferos

Watersheds
Water Catchments

Costa Rica.
Ubicación de Pozos de agua.

SIM BIOLOGIA
- Cabecera provincial
- Carretera Interamericana
- Ubicación Pozos de agua

Fuente: Atlas 2004
Elaborado en FONAFIFO, A. Méndez, abril 2005
Costa Rica, Mapa Prioridades PSA Protección, 2005
Cantones con Índice de Desarrollo Social inferior a 40%

Low Social Development Index Populations (Less than 40%)
Lands with potential for The development of CDM Projects (Kyoto Lands)
Evolution of forest cover 1940 - 1987
1997 (Bosque 42%)
CONECTIVIDAD CON FINCAS PAGO SERVICIOS AMBIENTALES RESERVA FORESTAL GOLFO DULCE
Need for Scaling Up and Mainstreaming Environmental Services Payment Program in Costa Rica

The second generation of Environmental Services Payment
The ESPP have resulted in significant local, national and global benefits including:

(i) income generation to the rural poor
(ii) improvement of watersheds
(iii) contribution to carbon sequestration
(iv) conservation of biodiversity
(v) Other indirect benefits such as improved public health and infrastructure, increased demand for technical assistance for ESSP implementation
Key objectives - of the proposed project

- Fulfillment of the Millennium Development Goals (High level Political commitment)

- Increase the range of sources of funding for ESP activities aimed at local and global services (PARTNERSHIPS)

- Extend the scope of ESP activities to include degraded and fragile lands, water protection related forests and improve the efficiency of current activities

- Increase the contribution of ESP activities to poverty reduction

- Contribute to the international policy dialogue by promoting new financial mechanisms for sustainable development
• The project will support Costa Rican efforts to develop and implement a system of water charges, which is expected to become one of the major financing sources for the ESP.

• Use of carbon credits generated through the sequestration of carbon due to project-induced change in land use (an approach that has particular promise in financing reforestation in degraded areas)
The project will target ESP activities to areas of high density or incidence of poverty, and will study new ways to reduce poverty in rural areas

“If governments invest seriously in green data acquisition and Coordination, they will no longer be flying blind” The Economist
Criteria for Project Investments

FONAFIFO

Year 2000