Emergence and evolution of the Payment for environmental Services program in Costa Rica: Insight from an Advocacy Coalition Framework perspective

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Presentation in the Workshop on Policy Analysis, 20-24th of April 2015, UNAM Mexico
Context

• General
  – ES develop as a new concept to link Ecosystem and human well being (Pesche et al, 2013; MEA 2005)
  – Payment for Environmental Services (PES) as a « new » instrument for conservation (Landell-Mills and Porras, 2002; Wunder et al, 2008,...)

• Costa Rica PES program
  – A pioneer effective national program (Pagiola, 2008)
  – Diversity of interpretation of the emergence and evolution regarding nature and reason of change
    • Change / Continuity (Pagiola, 2008; Daniels, 2010)
    • Evolution toward hybrid (Brockett and Gottfried, 2002), maintain state subsidies (Fletcher and Breitling, 2012), evolution toward neoliberalism (Matulis, 2013)

⇒ Few interpretation of the reasons of the emergence or evolution
  ⇒ A social and institutional innovation (Camacho et al, 2000; Segura, 2003)
  ⇒ A policy windows (Le Coq et al, 2012)
Objective and Research question

• Objective
  – Understand and explain emergence and evolution of an policy instrument (PESP) – its long and short term continuity and inflexion

• Research questions
  – Why PES Program has been adopted ?
  – Why PES Program experienced changes over time ?
Concept

- **Advocacy Coalition Framework** (Sabatier and Jenkins-Smith, 1993; Sabatier, 2007)
- Policy change as results of interaction competition between coalition
- Coalition as groups of actors that share common believes system (deep normative core, near policy core, secondary aspects)
  - Inside coalition, actors don’t share necessary share all the element of believe system
  - Diversity of actors (civil servant, organization leaders, researcher,...)
  - Have resources (legal authority, public opinion, information, financial resources, mobilizable mass, leaders..)
- “Policy brokers” play a role of mediators between the different coalition
- Policy subsystem is affected
  - Long term variable that affect the opportunity structure of the system
  - Short term variable that affect distribution of resources and short term
Parámetros relativamente estables
1: Características básicas del problema
2: Distribución básica de los recursos naturales
3: Valores socio-culturales fundamentales y estructura social
4: Estructura básica constitucional

Estructuras para las oportunidades de las coaliciones (largo tiempo)
1: grado de consenso necesario para los mayor cambios de política
2: abertura del sistema política

Eventos externo al sistema
1: cambios de las condiciones socio-económica
2: cambios en la opinión publica
3: cambios en al sistémica gobernantes coalición
4: decisión de política de otros subsistemas y su impacto

Restricciones y recursos de corto plazo para los actores del subsistema:

SUBSISTEMA DE POLÍTICA
Coalición A
a. Creencia
b. Recursos
Estrategia A1
Decisiones por las autoridades del gobierno
Reglas institucionales, recursos, asignación, nombramiento
“Policy outputs”
Impactos de la política

Coalición B
a. Creencia
b. Recursos
Estrategia B1

Policy broker
Method

- Direct interviews to stakeholders involved in PESP adoption and evolution, and social actors of the Forest management in Costa Rica (civil servants, deputy, researcher, organization leaders,...)
  - How do they participate to process?
  - What do they think about changes?
  - What should be done?
    ➔ Characterize belief system, strategic positions, resources, and learning process

- Revision of materials (laws, decree, procedure manual, debates minutes, grey literature)
  ➔ identifying policy change (emergence of PESP and PESP changes as policy output), cross-checking resources endowment, strategies
Evolution of forest policy and forest cover (long term perspective)

- **1969**: First forest law - Incentive to reforest (79: tax exoneration, 86: credit for reforestation + 92: management + 96: protection)
- **1996**: 4th forest law - PES program (3 modalities)
- **2014**: PES program (5 modalities)

No forest policies

- **1940-1950**: “Forest as a vacuum”
- **1950-1960**: “Unproductive land”
- **1960-1970**: “Forest as a productive area”

1996: 4th forest law

- **1990-2010**: “Forest as productive area and service provider”

Graph showing forest cover (%):

- **1940**: 70%
- **1950**: 50%
- **1960**: 30%
- **1970**: 20%
- **1980**: 20%
- **1990**: 30%
- **2000**: 50%
- **2010**: 70%
Four Forest ES recognized: Carbon Sequestration, Hydrologic services, Biodiversity conservation, Scenic beauty.

Five main types of PES contracts (modalities):
- Protection
- Reforestation
- Sustainable Forest Management
- Tree plantation in Agro forestry System (2003) and Regeneration (2007),
- Payment according to area, per trees

Central intermediary Public bodies
- 3 MINAE, MAG, Bank
- 2 Representative of forestry private sector

Part of Fuel tax
International donation / grants
Private contribution

Funding system
Management system
Payment system

Costa Rican PES
## Forest area management coalitions: belief system

<table>
<thead>
<tr>
<th>Coalitions</th>
<th>Agricultural</th>
<th>Forestry</th>
<th>Conservationist</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forest vision</strong></td>
<td><em>Forest as a non productive land</em></td>
<td><em>Forest as a productive area (wood)</em></td>
<td><em>Forest as an ecosystem, an habitat for biodiversity</em></td>
</tr>
<tr>
<td><strong>Nature of the problem (Deforestation)</strong></td>
<td>Not a problem</td>
<td>Reduction of availability of the raw material</td>
<td>Loss of biodiversity</td>
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<tr>
<td><strong>Cause of the problem</strong></td>
<td>-</td>
<td>Agricultural extension</td>
<td>Forest management (extraction) practices</td>
</tr>
<tr>
<td><strong>Policy preferences</strong></td>
<td>- No regulation on forest land</td>
<td>- Support to reforestation (productive species) - Reduction of limitation on wood extraction and trade (or sustainable extraction practices)</td>
<td>- Support restoration of forest (native species,…) - Ban of forest extraction</td>
</tr>
<tr>
<td><strong>Main actors</strong></td>
<td>Agricultural syndicate (camara, corporation), Civil servant and technical staff of MAG, agronomist (50s) Agricultural economist</td>
<td>Reforestation and wood industry Forestry engineers Forest economist</td>
<td>Conservations Association and ONG Biologist, ecologist Ecological / environmental economist</td>
</tr>
</tbody>
</table>
## Outcomes 2a: Main objectives and positions of main interest’s groups related to forestry issues in the 1995

<table>
<thead>
<tr>
<th>Coalitions</th>
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<tbody>
<tr>
<td><strong>Interests groups</strong></td>
<td>Large agric.</td>
<td>Small fore.</td>
<td>Large forestry</td>
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<td></td>
<td>(business)</td>
<td>farmer</td>
<td>entrepreneurs &amp;</td>
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<td>farmers</td>
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<td>wood industrial</td>
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<td>Small holder</td>
<td>Sustain forestry</td>
<td>Maintain biodiversity and natural ecosystem</td>
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<td>(peasant)</td>
<td>activity</td>
<td>and ecologists</td>
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<td>for community management for income generation</td>
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<tr>
<td><strong>Main objectives</strong></td>
<td>Maintain land use extension for agricultural purpose</td>
<td>Sustain forestry activity for local income generation and diversification</td>
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<tr>
<td>(related with forestry issues)</td>
<td>Develop agriculture and forestry (agro forestry) for local income generation and diversification</td>
<td>Sustain forestry activity (wood production for industry)</td>
<td></td>
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<tr>
<td><strong>Position according to key change in the 4th law</strong></td>
<td>Prohibition land use change</td>
<td>Not favourable</td>
<td>Not favourable/ but accept if compensation</td>
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<td></td>
<td>ES provision by forest</td>
<td>Favourable</td>
<td>Favourable</td>
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<td>PES mechanism</td>
<td>Favourable</td>
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<td></td>
<td>PES modalities</td>
<td>favourable to PES management and reforestation and AgroForestry</td>
<td>favourable to management and reforestation</td>
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Sources: authors based on stakeholders’ interviews (2008-2010)
## Resources and alliances of the advocacy coalitions and their interests groups in 1995-1996

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<td><strong>Interests groups</strong></td>
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<tr>
<td>Large agricultural farmers</td>
<td>small holder farmers (peasant)</td>
<td>Small forestry farmer</td>
<td>Large forestry entrepreneurs, wood industrial</td>
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<td><strong>Institutional resources</strong></td>
<td>Strong alliance with MAG</td>
<td>Low conflict with MAG</td>
<td>Conflicting alliance with Ministry of Environment (MIRENEM)</td>
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<td><strong>Organizational resources</strong></td>
<td>Strong but low mobilization</td>
<td>Fair (atomization movement)</td>
<td>Strong national representation incl. local organization (CCF)</td>
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<tr>
<td><strong>Political resources</strong></td>
<td>Strong</td>
<td>Low</td>
<td>Strong (Majority fraction of PLN)</td>
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<td><strong>Technical resources</strong></td>
<td>Good (but agronomists)</td>
<td>Limited</td>
<td>Strong Academic support (Ecol. Economics) Agronomist college (incl. forest engineer)</td>
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<td><strong>Public opinion</strong></td>
<td>Not favourable</td>
<td>Favourable</td>
<td>Favourable</td>
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<tr>
<td><strong>Financial resources</strong></td>
<td>Important (but not on theme)</td>
<td>Limited (NGO)</td>
<td>Limited (NGO)</td>
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</tbody>
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Sources: authors based on stakeholders’ interviews (2008-2010)
Consolidated forestry coalition

Low mobilization of Agricultural and conservationist coalition

**External factors**

- International Convention CC et Biodiv. -1992 (opportunity)
- WTO, suppression of subsidies -1995 (constraints)

**Internal factors**

- Existing Institutions
  - Creation of MIRENEM, DGF
  - Existing forestry incentives instruments

- Ideas / learning process inside forestry coalition
  - Necessity of changing instrument
  - Evaluation of Ecol/Evir Economics
  - Local experiences

**Year 1996**

Use of the ES concept to justify new form of support to forestry sector

Adoption of the 4th forestry law (institutionalization ES and PES principles)

**1994: Political change**

- New government and ministry

80s-90s Prior to PESP

**Existing Institutions**

- Creation of MIRENEM, DGF
- Existing forestry incentives instruments

**Internal factors**

**Consolidated forestry coalition**
Evolution of the payment system of PESP and equilibrium between coalitions

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<td>Plantation</td>
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<td>Agro forestry system</td>
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<td>Regeneration with productive potential / natural regeneration</td>
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Key elements affecting coalition balance:

- Reduction of strength of CCF (separation of Junaforca, reduction of financial and technical resources)
- Limited leadership of ONF (lack of fund and technician)
- Difficulty of local forestry organization
- Entry of international donors focusing poverty and environment objectives
- Raise citizen environmental consciousness
- Lack of available national wood production; raise of imports
- Change of government more CC oriented; REDD Perspective

1998: change of government
1998: analysis of impact of management plan in OSA
2002: change of ministry of environment
Development of research on ES measurement, impact on poverty, efficiency
Contribution of AFS to ES provision
Mobilization of cafe sector
Interest, perspectives and limits

• On ACF perspective
  – Long term and more short term changes
  – Explain some changes (payment system) and continuity
    (still on forest area, still payment by area not by ES)
  – Resources:
    • Role of national / international
    • Different type of resources (including information)

• Complement
  – MSF
  – 3 I

• Limits
  – Not able to explain all the dimension of complex change of the program (funding, management)
Conclusion

• PESP emergence is embedded in a long term shift of vision of forest, but is a limited change in practices

• ACF enable to understand long term and short term evolution of programs as the results of
  – Change in equilibrium regarding coalition resources
  – And some learning process

• Some Key variables
  – International direct and indirect influence
  – National politics changes

• Perspectives
  – Compare between other PES program to compare coalition to understand priorities setting and PES design
### PESP changes from 1997-2014

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<tbody>
<tr>
<td>payment system</td>
<td>3 PES modalities:  - Forest protection,  - reforestation,  - Forest management</td>
<td>- Suppression of Forest management PES modality  - Creation of PES for Agroforestry System</td>
<td>10 PES modalities enabling differentiation of payment according to ES importance (PES conservation in Biodiversity spot, or Water services; PES for pasture regeneration in Kyoto lands);  - Reintroduction of PES for forest management (2010)</td>
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<td>Revalorisation of Reforestation PES amount</td>
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<td>Priorization of payment according to localization of plots (biologic corridor and low development index) enabling some degree of payment targeting creation of indigenous PES</td>
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<tr>
<td>management system</td>
<td>Shared between Fonafifo (fund raising and administration) and SINAC (priority and beneficiary selection)</td>
<td>operational management concentrated in Fonafifo in charge of promotion, beneficiary selection, fund administration + regionalisation of Fonafifo office</td>
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<td>development of GIS control and monitoring</td>
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<td>Simplification of payment procedure (bank transfer) creation of quota</td>
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<tr>
<td>funding system</td>
<td>100 % public funding through oil tax</td>
<td>Oil tax + public loans (and international donation)</td>
<td>Oil tax + loans and donation + private contribution + water tax</td>
</tr>
</tbody>
</table>