Diversity of economic instruments to finance environmental service provision and sustainable land-uses: A transaction cost economics perspective

Raes, L. a,b & Le Coq, J.F. b,c

a Ghent University/Humboldt University
b Universidad Nacional de Costa Rica – CINPE
c CIRAD

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**Objective:** To obtain a classification of schemes that finance and/or incentivize the provision of ES without exclusions

**Overview:**

- Cases
- Direct classifications
- Transaction cost economics
- Link to nature related transaction
- Further steps
Schemes for the provision of hydrological services

• ESPH-PROCUCENAS, Costa Rica
• PES Pimampiro, Ecuador
• Regional Water Fund (FORAGUA), Ecuador
  – Municipality of Celica
  – Municipality of Loja
• RWA Los Negros, Bolivia
• Water Fund for Life and Sustainability, Colombia
• ...
ES provider based classification

- **Contracts** versus **land purchases**
- **PES and non-PES** or **PES-like**
  - Land purchases, investment in ES, not PES (Rojas and Aylward, 2003)
  - E.g. PES Pimampiro versus FORAGUA Loja
ES “Buyer” Based classification

- Municipalities and municipal water companies
  - FORAGUA Celica
  - Los Negros
- Private companies
  - ESPH-PROCUCUCAS
- Water user associations
  - Los Negros
  - Water Fund for Life and Sustainability, Colombia

- All use a type of environmental charge on water
The transaction ‘is the basic unit of analysis’ (Williamson, 1985)

• Institutions as rules

• Governance structures as the organizational solutions for making rules effective (North 1990)
Types of transaction costs
- Information;
- Decision making;
- Enforcement costs

Influenced by
- Asset specificity
- Uncertainty
- Frequency

Determine the governance form
- Markets, hybrids and hierarchies

Characterized by
- Contracts law
- Incentive intensity
- Administrative control
PES and land purchases in basic TCE

• PES Pimampiro
  • Water tariff fixed contractual payment
  • Contract between landholders and Pimampiro’s municipal water company
  • Monetary incentives
  • Providers monitored for compliance

• FORAGUA, Loja (land purchases)
  • Water tariff fixed contractual payment
  • External fund management
  • No contract
  • Incentive not external, except legal obligation to invest water fund
  • Watershed protection by municipal water company

• Pimampiro’s PES closer to markets and Loja’s land purchases closer to hierarchies (hybrids)

• Frequency: Daily water use/flow, number of water users
• Uncertainty: Trust in compliance by landholders
• Asset Specificity: No extra investment in water treatment plant
Nature related transactions

• “A transaction occurs when a good or service is transferred across a technologically separable interface. One stage of activity terminates and another begins” (Williamson 1985).

• Different Properties
  • Mobility
  • Separability
  • Complexity (knowledge problem)
  • Difficulties to standardise

(Hagedorn, 2008)

• Role of governments
Theoretical Options

• Revised TCE framework
• Public Private Partnership (e.g. Van Huylenbroeck et al., 2009)
  – Role of governance costs
• Integrative and segregative institutions (Hagedorn, 2005)
  – How consequences of decisions made by actors are dealt with under a set of rules
Concluding remarks

• TCE more appropriate to be able to compare instead of exclude different mechanisms
• Focus on all transactions: Human-nature related, financial and property right transactions
• Focus on providers and beneficiaries
• Power relations
• But...danger of becoming too situation specific
References


Thank you
Gracias