

# Social and Environmental Impacts of Two National Payment for Environmental Service Programs in Mexico

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# Where Are We Going?

- The Mexican National PES Programs
- Framework for determining the social and environmental sustainability of community-based PES
- Lessons that can be generalized

# Mexican National PES

- Two programs: PSA-H & PSA-CABSA
- Funding from federal tax on industrial water use
- Implemented by the National Forestry Commission
- Primarily situated on communally held forest land

# Mexican National PES

## PSA-H (2003)

- Top-down design process
- Payment for hydrological services

## PSA-CABSA (2004)

- Inclusive design process
- Payments for carbon sequestration, biodiversity conservation & agroforestry

# Mexican National PES

Last year accepted World Bank/GEF funding:

- Expand program with increased funding
- Combine programs into one, minus agroforestry systems

# Research Methods

- Nine months in Mexico
- Semi-structured interviews with primary leaders of program design & implementation
- Case studies in 21 communities Oaxaca, Guerrero & Jalisco

# PES & Poverty Alleviation

A common theme in the discourse surrounding international payment for ecosystem services (PES) is that can achieve both conservation AND poverty alleviation

# PES & Poverty Alleviation

“Sustainable markets represent some of the most significant financial opportunities of the next decade - for large and small business alike. Indeed they provide as many opportunities for low-income entrepreneurs in emerging markets as they do for the traditional commercial giants of international business.”

~ Sir Win Bischoff, Chairman of Citigroup, Europe at the opening of the Ecosystem Marketplace (March 31, 2005)

# PES & Poverty Alleviation

Mexico 2006 - Attracted by claim that PES will reduce poverty AND conserve, President Fox lists PES in top 10 policy goals of his new presidency

Often times the focus of design & evaluation of PES programs is on their ability of create a “market” for environmental services, but...

Need greater emphasis on ensuring the social & environmental sustainability of PES, particularly when community or small holder-based.

# Components of Sustainable Community-Based PES

1. Technical assistance
2. Education
3. Active management
4. Equitable distribution of benefits
5. Secure property rights
6. Multiple services
7. Limit transaction costs
8. Adaptable to variance

# Technical Assistance

Marginalized communities and smallholders often need assistance:

- Creating links with markets
- Improving ecosystem management techniques
- Learning monitoring techniques

# Technical Assistance

## Mexico:

- PSA-H = no funding for technical assistance -> significant problems with compliance and continuance.
- PSA-CABSA = funding for technical assistance -> higher compliance, but some problems with corruption on part of assistance providers

# Technical Assistance

## Solutions:

- Allow for enough time and provide enough funding so that communities can contract technical assistance.
- Collaborate with and support existing extension service or civil society network.

# Education

Commoditizing environmental services often very foreign concept to regional environmental service providers AND users

# Education

## Mexico:

- Farmers want to know how sequestered “carbon” will be harvested
- Misconception that deer are being conserved for later trophy hunting
- Little willingness to pay on part of urban water users

# Education

## Solution:

Allow for time and funding for education of both buyers & sellers

# Active Management

Rural communities are often still dependent on resources of ecosystem being conserved

In many cases have pre-existing management strategies in place

# Active Management

## Mexico:

- PSA-H began with a no-touch policy for forest management -> increased forest fire threat and free-rider issues
- PSA-CABSA required communities to submit management plan to apply -> contractual obligation to manage

# Active Management

## Solutions:

- Require active management plan as part of PES contract
- Build flexibility into policy to account for variation in management regimes
- Provide funding and allow time to develop management plan

# Equitable Distribution of Benefits

- Communities have specific barriers for entry into market (i.e. transaction costs, imperfect knowledge, etc.)
- Communities are not homogenous -> benefits captured by elites
- When markets increase - potential for benefit capture by outside actors with greater economic power.

# Equitable Distribution of Benefits

Mexico:

- Case of San Felipe del Agua - urban growth has weakened power structure & property rights - internal corruption rampant
- Benefits still too small to attract outside capture, but concern for future

# Equitable Distribution of Benefits

## Solutions:

- Preferential selection of marginalized communities/smallholders
- Evaluation of community structure before implementation
- Some guidelines and accounting for funding

# Secure Property Rights

- Legal property rights over environmental services mostly tenuous and/or unformed.
- Communally held/managed land often has insecure legal standing

# Secure Property Rights

## Mexico:

- Difficulties in forming individual community-based PES schemes for hydrological services because “water has no owner”
- Many cases of expropriation of land for conservation -> communities wary of entering PES programs
- PSA programs will not work in communities with boundary conflicts

# Secure Property Rights

Solutions:

Resolution of property rights over  
environmental services produced

Evaluation of how introduction of PES will  
affect local property rights

# Multiple Services

- Makes good ecological sense to manage for multiple aspects
- Rural communities/smallholders tend to be risk averse - diversify income stream
- Value of single service is currently NOT sufficient to compete with true opportunity costs of alternate uses.

# Multiple Services

## Mexico:

- Currently communities limited to one type PSA project, but considering multiple payments for new program
- Successful PSA project sites where also receiving income stream from sustainable forestry or from outside labor

# Multiple Services

## Solutions:

- Bundle payments for multiple services
- Chose sites that provide multiple environmental services

# Limit Transaction Costs

Multiple smallholders, or even multiple small communities, have significant barriers (i.e. economies of scale, incomplete knowledge, etc.) to collectively manage and market their ecosystem services

# Limit Transaction Costs

Mexico:

- Case of agroforestry systems = multiple, small coffee farmers -> PSA-CABSA program limited to cooperatives
- Many cases of NGOs serving as intermediaries
- Majority of existing grassroots PES programs are water related

# Limit Transaction Costs

## Solutions:

- Provide support for development of collective management & marketing groups and/or “neutral” third party intermediaries
- Target already organized community-based groups
- Account for issues of scale = water vs. carbon

# Adaptable to Variance

- Great variance between communities in ability to act collectively and technical capacity
- Great variance between ecosystems in appropriate level and type of active management

# Adaptable to Variance

## Mexico:

- Little support for community capacity building
- Some discretion in management guidelines by regional offices of forest department -> they have good local knowledge

# Adaptable to Variance

## Solutions:

- Provide support for capacity building, both technical and organizational
- Make guidelines flexible enough to adapt to local conditions

# Components of Sustainable Community-Based PES

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# Conclusions

If we want PES programs that promote both conservation AND poverty alleviation ...

# Conclusions

We need a greater emphasis on ensuring the social & environmental sustainability of PES, particularly when community or small holder-based, and...

# Conclusions

We should take account of lessons learned from other forms of community-based conservation when designing and evaluating these types of PES programs

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Current Highlights

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## Kyoto Carbon Markets Bring New Value to the Green Slopes of New Zealand

The government of New Zealand is hoping carbon markets can help tackle a number of environmental problems affecting the green islands' mountainous terrain. The **Ecosystem Marketplace** discovers how the Permanent Forest Sink Initiative is introducing "carbon farming" to rural land management.

> Go to Article



### Features



#### What Can We Learn From Community-Based Conservation?

The **Ecosystem Marketplace** investigates a community-based conservation program in Namibia for lessons about what makes conservation payment schemes work in Southern Africa.

[Kyoto Carbon Markets Bring New Value to the Green Slopes of New Zealand](#)

[EM Dialogue: The Question of Statewide Mitigation Programs](#)

### Editorials



#### Manna From Heaven

In order to prepare a possible emissions trading scheme for California, the state government has created a "Market Advisory Committee." This committee is currently in the process of hearing testimony from a variety of sources. Below the **Ecosystem Marketplace** publishes the text of upcoming testimony by Peter Barnes, author of *Capitalism 3.0*.

[Can Payments for Ecosystem Services Contribute to the Improvement of Rural Livelihoods?](#)

[Lessons Learned from the \*Working for Water\* Programme](#)

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The End

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# Prerequisites of PES

- Minimize transaction costs
- Link buyers and sellers
- Establish property rights over environmental services vs. goods
- Adequate and transparent monitoring
- Ensure ecological AND social sustainability

# Ecological Sustainability

- Recognition of the importance of active management for ecosystem health
- Management for general ecosystem health vs. production of discrete env. Services
- Adequate and transparent monitoring
- Flexibility to react to variations in management needs by ecotype
- Learn from previous +/- or related programs

# Social Sustainability

- Ensure equitable distribution of benefits
- Secure property rights to avoid appropriation of benefits by more powerful actors
- Avoidance or offset of loss of access
- Recognition of cultural importance of resources involved

# Social Sustainability

- Active linking of buyers and sellers
- Discrete, well-organized buyers & sellers to lower transaction costs
- Education
- Flexibility to react to local variability in potential for collective action
- Learn from previous +/- or related programs