

### Keywords

Costa Rica, biodiversity and ecosystem impact, greenhouse gas balance, PES, cattle ranching

### Main research question

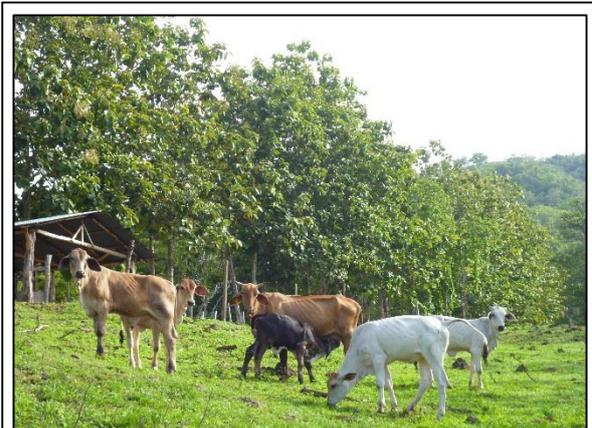
Does the PES program contribute to the neutral balances of greenhouse gases in Costa Ricans' cattle farms?

### Research finding in brief

Farms with PSA had positive greenhouse balances. However, the result cannot be fully attributed to PES participation. There are other economic, political, cultural and social factors that together with the adoption of the PES policy favor the neutral carbon.

### Policymix approach

Based on the Costa Rica national goal of carbon neutrality by 2021, we investigated if cattle farms participating in the PES program are more carbon neutral compared with farms without PES. With the use of Costa Rica greenhouse gases (GHG) methodologies and the carbon fixation rates of the land uses of farms, GHG balance was performed with a scope of one (farm level). Also other factors, such as socioeconomic and related to the policymix, linked to ecosystem services and the GHG mitigation in livestock landscapes were analyzed.



Source: Jose Cárdenas. Programa GAMMA/CATIE

### Reference:

Cárdenas et al. 2014. Costa Rica: Effectivity of PES carbon balance in livestock systems in Nicoya peninsula, Costa Rica

### Website:

Forthcoming at <http://policymix.nina.no/>

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## ASSESSING THE ROLE OF ECONOMIC INSTRUMENTS IN POLICYMIXES FOR BIODIVERSITY CONSERVATION AND ECOSYSTEM SERVICES PROVISION



### Project objectives

POLICYMIX has developed an integrated evaluation framework for assessing economic instruments that considers multiple policy assessment criteria – biodiversity and ecosystem service provision indicators; valuation of their economic benefit and policy implementation costs; social and distributional impacts; and legal and institutional constraints – at different levels of government.



### Methodology

POLICYMIX focuses on the role of economic instruments for biodiversity conservation and ecosystem services provided by forest ecosystems. The cost-effectiveness and benefits of a range of economic versus regulatory instruments are being evaluated in selected POLICYMIX case studies in Norway, Finland, Germany, Portugal, Brazil and Costa Rica. Comparative analysis evaluates the possibilities for transfer of policy success stories between Europe and Latin America, and promoting learning from policy failures.



### Training and dissemination

POLICYMIX actively used advisory boards including land users, local managers and national policy-makers, who collaborated with our researchers in the feasibility assessments of economic instruments. A web-based [POLICYMIX TOOL](#) encompassing policy impact assessment guidelines, case stories and demonstrations of policy assessment methods is aimed at supporting dissemination and learning.



### Results

POLICYMIX research discusses improvements in the design, targeting and implementation of economic instruments for biodiversity conservation through better understanding of (i) the linkages and complementarities between impact assessment tools, (ii) complementarities between different policy instruments in a policy mix, and (iii) trade-offs in design of a policy mix between economic, environmental and social impact criteria.

### EC Contribution:

3 458 312 €

### Duration:

2010-2014

### Consortium:

9 partners from 8 countries

### Project Coordinator:

Norwegian Institute for Nature Research (NINA) (Norway)

### Project Web Site:

<http://policymix.nina.no>

### Key Words:

Biodiversity, ecosystem services, policy mix, social ecological systems, economic instruments, payments for environmental services, ecological fiscal transfers

### Partners:

- Norwegian Institute for Nature Research (NINA), Norway
- Helmholtz Centre for Environmental Research (UFZ), Germany
- Foundation of the Faculty of Sciences and Technology, New University of Lisbon (FFCT-UNL CENSE), Portugal
- Institute for Environmental Studies, Vrije Universiteit Amsterdam (IVM), Netherlands
- International Institute for Environment and Development (IIED), UK
- Finnish Environment Institute (SYKE), Finland
- Rede de Desenvolvimento, Ensino e Sociedade (REDES), Brazil
- Fundação de Apoio a Pesquisa Agrícola (FUNDAG), Brazil
- Tropical Agricultural Research and Higher Education Center (CATIE), Costa Rica

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