

## Keywords

**Mato Grosso**, Amazon, Brazil, REDES, WP7, deforestation, **policy instruments**, **ecological fiscal transfers**, **agro-environmental measures(AEM)**, **tradable development rights**, **protected areas**



## Main research question

How effective have economic instruments been in combating deforestation in the context of command and control policies in the Brazilian Amazon?

## Research finding in brief

The Brazilian Forest Code (FC) requires that private landowners in the Amazon biome protect at least 80% of remaining forests, but until recently the Code was poorly enforced and widely disrespected. Mato Grosso is the state which has historically led the Amazon region both in terms of the relative rate and absolute area deforested. It is also Brazil's principal soybean, cotton and beef producer, and is hence an appropriate object for policy development aimed to slow the pace of forest destruction. Deforestation has been dramatically reduced over the past decade through a combination of regulatory norms and market mechanisms, but the most effective instrument mix is as yet unknown. Mato Grosso led initiatives in the Amazon for environmental licensing and state ecological-economic zoning based on the FC, but now finds itself at a crossroads due both to uncertainty over the underlying regulation and stakeholders' demands for flexibility in land use control to permit further agribusiness expansion into fragile areas. Municipal governments are demonstrating capacity to exercise commitments to meet deforestation reduction targets, through improvements in governance and adoption of better production practices at different scales, including agrarian settlements, colonist estates and medium-large scale ranches as well as Indigenous reserves.

## Policy mix approach

We conducted a coarse grain analysis of a mix of public policies operating at the federal and state levels in the Brazilian Amazon and in Mato Grosso in particular aimed to reduce deforestation and promote conservation of remaining biodiversity. The study traces the evolution of national and state policy frameworks toward governance over land use change, in the light of past experience and current efforts to alter the requirements of the FC. The study focuses attention on both existing instruments (such as the ICMS-Ecológico, zoning and licensing, agro-environmental measures and certification) and an emerging policy mix built upon compensation for forest protection under the FC, allocation of value added revenues based on both protected areas and private land use, and other positive incentives to good forest stewardship. Trial simulations of these measures are identified and presented, as a basis for more in depth fine grain assessment in a series of policy relevant research outputs with a focus on Northwest Mato Grosso.

## Reference:

[May, P.H., Andrade, J., Vivan, J.L., Kaechele, K., Gebara, M.F., Abad, R. Assessment of the role of economic and regulatory instruments in the conservation policy mix for the Brazilian Amazon – a coarse grain study.](#)

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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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