## The effectiveness of the Environmental Reserve Quota (CRA) for



## on-farm forest conservation in Cotriguaçu, Mato Grosso, Brazil

6,	E Keywords c r	Brazil, Northwest Mato Grosso, Amazon, REDES, WP3, tradable development rights, private forests, effectiveness, land use policy, modelling,
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### Main research question

Could TDR with protected area caps on private lands be an effective instrument to keep Amazon forests standing?



## **Research finding in brief**

The Brazilian Forest Code requires that private landowners in the Amazon biome protect at least 80% of remaining forests. The same law was recently revised to permit landowners within the same biome and state to trade surplus or deficit reserves among themselves, through a TDR mechanism called Environmental Reserve Quotas (CRA). We found that surplus forests on lands held in Cotriguaçu, a municipality in Northwest Mato Grosso, were sufficient for all local landowners to achieve environmental compliance, thus facilitating local trades.

### **Policymix approach**

This study aims to provide information for landowners and policymakers, to better take into account the value of the standing forest, and to achieve local environmental compliance and reduce pressures for additional deforestation. Satellite imagery and property mapping were overlaid to identify forest reserve surplus and deficit at a property level in Cotriguaçu. The results indicate that landowners could engage in local trading, as permitted by the national Forest Code, to fully satisfy Legal Reserve requirements. However, the existence of an excess of surplus forests in this region indicates that such trades would occur at low forest prices. Only low opportunity cost land uses (e.g., livestock ranching) would be compensated at such price levels. But since the law provides for trading within a vast area replete with surplus forests, trades would be generally cheaper than if they were confined to local areas with high biodiversity value. Broader land use management strategies and policy instruments for biodiversity conservation were found to be complementary with trading.

#### **Reference:**

Andrade, J. et al., compensation for Legal Reserves in Northwest Mato Grosso: a policymix to reduce deforestation

## Website:

Forthcoming at <a href="http://policymix.nina.no/">http://policymix.nina.no/</a>

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## policymix.nina.no



## 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 <u>POLICYMIX TOOL</u> encompassing policy impact assessment guidelines, case stories and demonstrations of policy assessment methods is aimed at supporting dissemination and learning.





REDES

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) tradeoffs in design of a policy mix between economic, environmental and social impact criteria.

FundAg



**Duration**: 2010-2014

#### **Consortium:**

9 partners from 8 countries

**Project Coordinator:** Norwegian Institute for Nature Research (NINA) (Norway)

#### Project Web Site: http://policymix.pir

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 Agricola (FUNDAG), Brazil
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