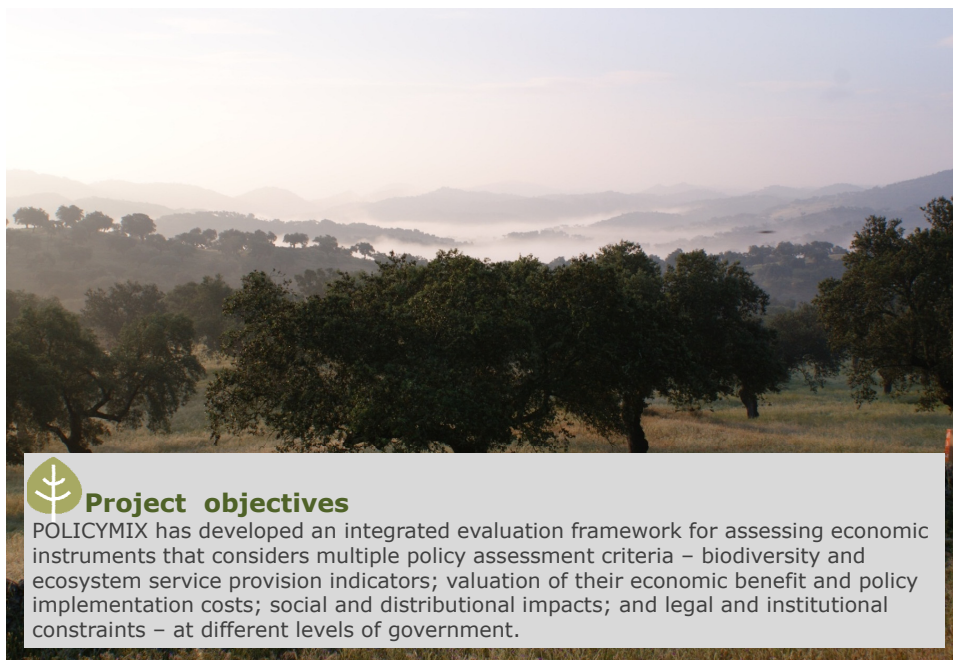




## ASSESSING THE ROLE OF ECONOMIC INSTRUMENTS IN POLICYMIXES FOR BIODIVERSITY CONSERVATION AND ECOSYSTEM SERVICES PROVISION



### 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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### Keywords

Brazil, São Paulo, FUNDAG, WP7 - case study, Scenario analysis (Step 3b), biodiversity and ecosystem impact, ecosystem service values, modelling, policy instruments, Final outcomes, Tradable development rights (TDR), Infer, test.

### Main research question

The Brazilian environmental legislation requires 20% of natural vegetation on each rural property (forest reserve) and implies high opportunity costs for farmers in Brazil.

Are tradable development rights (TDR) combined with regulation more cost-effective for forest biodiversity conservation than a pure command and control regulation?

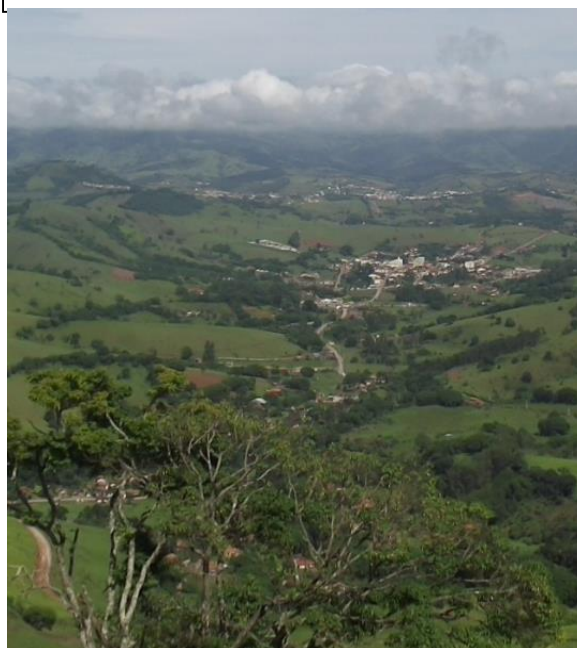
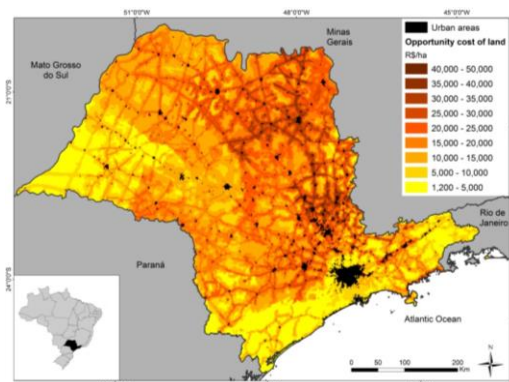
### Research finding in brief

The simulations using Marxan showed a clear potential of the combination of TDR and C&C to both reduce compliance costs and improve ecological effectiveness depending on different market restrictions on allocation of forest reserves in Sao Paulo state.

### Policymix approach

The combination of the regulation (establishing the cap) with the economic instrument allowing trades (reducing opportunity costs) can be a good answer to address the challenges of conservation in private areas in regions with heterogeneous opportunity costs.

### Opportunity cost heterogeneity in Sao Paulo



### Reference:

Bernasconi, P.; S. Blumentrath; D.N. Barton; G. Rusch & A. R. Romeiro (2013) Policyscape— The potential of Tradable Development Rights (TDR) to improve effectiveness and reduce the costs of biodiversity conservation: study case in Sao Paulo, Brazil.

### Website:

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

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