

Keywords

Norway, NINA, WP9, Scenario analysis (Step 3b), Policy instruments, Biodiversity and ecosystem impact, Ecosystem service values, Modelling, Implementation process, Outputs, Ecological fiscal transfers, protected areas, PES

Main research question

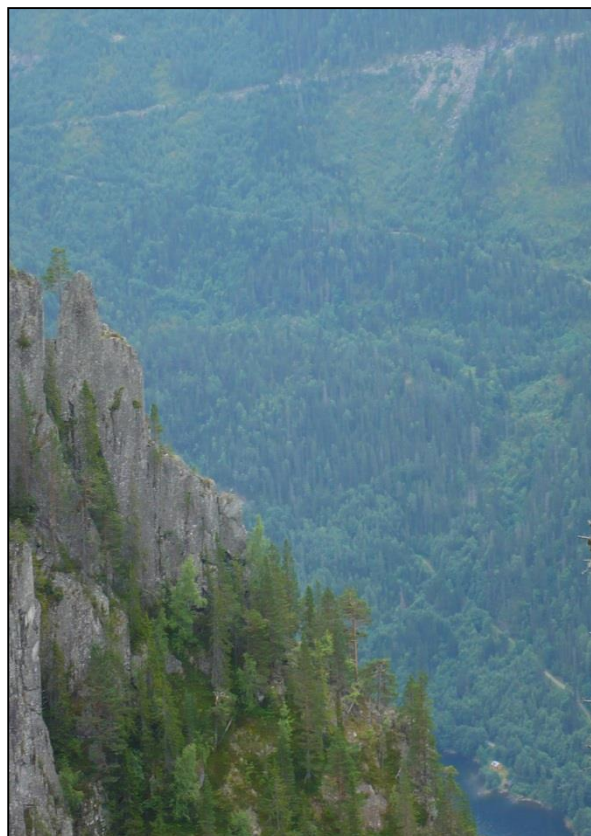
How does a policyscape for biodiversity conservation change if ecosystem services, different levels of opportunity costs of conservation, and uncertainty are considered?

Research finding in brief

We created a site prioritisation scenario with MARXAN with Zones. Incorporating ecosystem services had a remarkable effect on the allocation of policy instruments (policyscape). Opportunity costs of conservation increased by 6.6%, while area protected in partial use zones increased by 36% and area protected in the non-use zone increased by 3.2%. Reducing the conservation budget also had an effect on the policyscape. The average achievement of conservation targets decreased with decreasing cost thresholds following a concave curve.

Polycymix approach

Our results can inform policy-makers on a near-optimal allocation of a conservation budget among two different levels of area protection. This can be used for allocating ecological fiscal transfer to municipalities to cover their conservation burden.



Reference:

Schröter, M., S. Blumentrath, G. M. Rusch, D.N. Barton, B. Nordén (submitted), Incorporating ecosystem services, opportunity cost levels and uncertainty into a policyscape for biodiversity conservation.

Website:

Forthcoming at <http://polycymix.nina.no/> or journal DOI

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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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