

### Keywords

Norway, NINA, WP 3, Step 3a, Biodiversity and ecosystem impact, final outcome, protected area enforcement, protected areas

### Main research question

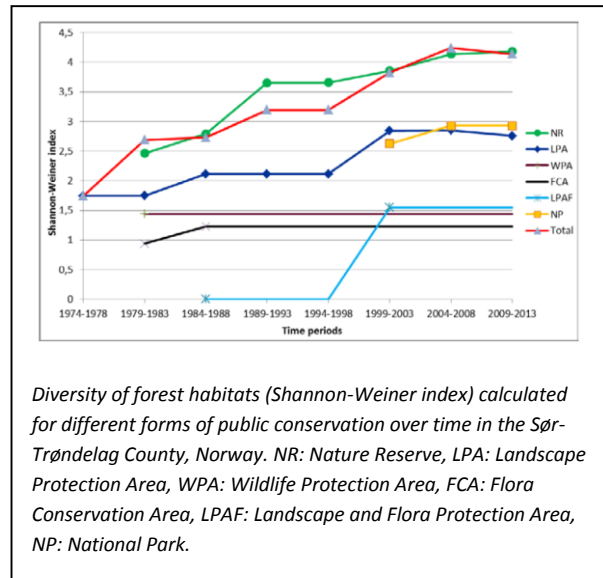
To what extent are public conservation instruments complementary and how has complementarity changed with time?

### Policymix approach

Central to many conservation situations is that the network of protected areas help to protect a representative 'sample' of the biological and ecological diversity in a country or region. We studied the various forms of public instruments used to protect forest biodiversity in the county of Sør-Trøndelag in Central Norway. We show that from 1974 to 2012, efforts in the acquisition of protected areas increased exponentially, particularly in the last decade, which has also resulted in a steady increase in the diversity of habitats represented.

The importance of nature reserves in terms of area (the most strictly regulated protection form) in forest habitat conservation has increased over time and nowadays it includes the largest area of protected forests (despite that the median size of a nature reserve is less than 1 km<sup>2</sup>). Nature reserves also represent the largest diversity of forest habitats (including the ones not protected by any other protection form). On the other hand the comparatively large national parks are considerably less important for the protection of forest habitats in Sør-Trøndelag, both in terms of total area and in diversity.

Nevertheless, even though nature reserves embrace much of the forest habitat diversity, other common protection forms (e.g. landscape protected areas and national parks) tend to be complementary in terms of the kind of forest habitats protected such as high altitude deciduous forest.



### Reference:

Bunikyte, R., G. M. Rusch, and B. J. Graae. 2012. A time-line analysis of the public biodiversity conservation mix: Changes in conservation gains in the county of Sør-Trøndelag. In: Lindhjem et al. POLICYMIX Report Del. 7.1.2. pp. 179-196

### Website:

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