

Combined Effects of Natura 2000, Climate Change and Multi-level Governance on European Beech Forests, and Proposed Solution Paths for the Future

OBJECTIVES

Beech forests are such an important part of the EU's Natura 2000 network that Member States have obligations regarding their conservation. However, the implementation of Natura 2000 has resulted in conflicts related to the designation of protected areas and the management of the forests. These conflicts have impaired the results of local conservation efforts and negatively impacted on the EU's biodiversity policy in general. The BeFoFu project aimed to analyse the governance and management of beech forests under Natura 2000 in order to:

1. Identify specific policy and management related challenges to the implementation of Natura 2000 at different policy levels;
2. Assess the importance of climate change in the context of the management of the protected beech forests;
3. Propose "solution pathways" for the governance and management of European beech forests that can tackle identified challenges.

MAIN ACADEMIC FINDINGS

- BeFoFu results indicate a generalised decline of beech forests in southernmost regions of Europe, while localised areas will remain. However, beech will also decline in more core areas of its distribution ^(1, 2).
- The positive effect of Natura 2000, though not yet discernible, is expected to increase in the future ⁽³⁾.
- Persistence of beech forest of particular conservation or cultural value can be improved by management techniques exploiting vegetative reproduction, particularly where reproduction from seed is challenging due to the warming climate ⁽⁴⁾.
- BeFoFu identified a number of conflicts rising from the implementation of Natura 2000, mainly on land use, administrative and institutional responsibilities, and property rights, which result in continuous challenges in effectively implementing the policy in forests ^(5, 6, 7, 8).
- More specifically, while local implementation has become more inclusive for various stakeholder demands, often vaguely formulated management plans provide too little guidance in situations where conflicts between conservation and other forestry goals occur ⁽⁹⁾.

By combining these results with stakeholder knowledge and opinions, the BeFoFu team worked to design and propose policy recommendations and strategies for a better implementation of Natura 2000 and a more successful conservation of beech forests across Europe.

APPROACHES

The BeFoFu team combined researchers from five different countries for a highly interdisciplinary project, looking into the ecological and institutional aspects of the governance of Natura 2000. This team:

1. Analysed the relationships between multi-level policies and local management strategies relating to Natura 2000 forest sites;
2. Analysed the effects of different forest management strategies on biodiversity;
3. Analysed the importance of climate change for both forest (conservation) policy-making and forest management;
4. Identified core challenges and possible policy solution pathways based on extensive communication between different policy stakeholders and researchers.

Consortium partners:

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AgroParisTech, France

University of Stirling, UK

University of Natural Resources and Applied Life Sciences, Vienna, Austria

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Amount: € 1,395,721



ACADEMIC RESULT HIGHLIGHT

The BeFoFu team assessed how the debate on climate change adaptation affects forest conservation and management under Natura 2000*. Drawing from the concept of argumentative discourse analysis and 213 qualitative interviews with policy-makers and practitioners in 6 Member states, the team identified and analysed major discourses and the type of actors that support them. They found that debates at the European level are much more polarised and politicised, while local debates concerning Natura 2000 and climate change remain rather vague. This indicates that links between climate change adaptation and forest conservation are mostly explored at a higher policy level and used to influence well-known policies and legitimise distinct pre-existing interests.

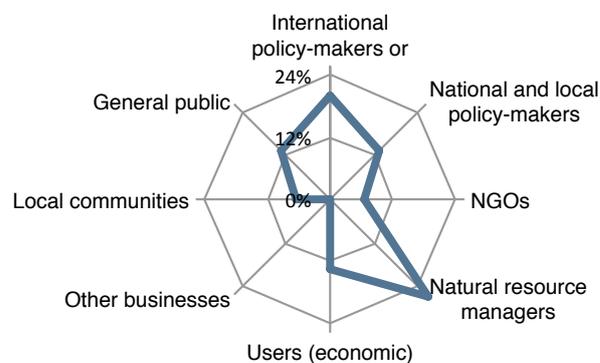
* de Konig *et al.* (2014) Natura 2000 and climate change - Polarisation, uncertainty and pragmatism in discourses on forest conservation and management in Europe. *Environmental Science and Policy* 39:129-138

STAKEHOLDER ENGAGEMENT AND PRODUCTS RELEVANT TO SOCIETY/POLICY

- BeFoFu worked extensively with many stakeholders (see figure below), conducting qualitative interviews at different stages of the research process with a range of stakeholders including policy-makers at all levels (EU to local), natural resource managers, farmers and foresters, and NGO representatives.
- The BeFoFu team set up a mixed steering committee for the project, involving three policy makers and three scientists who provided input from project framing to supervision and data collection.
- After drafting initial recommendations based on findings and interviews, the team discussed and proposed strategies with European and national policy-makers, including with the European Commission's ad-hoc working group on Natura 2000 and forests.

BeFoFu produced a set of tools adapted for use by their stakeholders in a proactive manner:

- ➔ Publication of important project results by each partner in national practitioners journals
- ➔ Joint recommendations for policy stakeholders at different levels, thanks to the integration of data and discussion across natural and social sciences



Types of stakeholders engaged in BeFoFu

HIGHLIGHTS ON SOCIETY/POLICY-RELEVANT PRODUCTS

- **Policy paper on the implementation of Natura 2000 in forests:** this document identifies five “core challenges” and solution paths (Winkel *et al.*, 2015 - The implementation of Natura 2000 in forests: a trans- and interdisciplinary assessment of challenges and choices. *Environmental Science and Policy*. 52:23-32).
- **“Natura 2000 and Europe’s forests” policy brief,** supported by BiodivERsA, that presents key research results and outlines policy solutions to improve the effectiveness of Natura 2000 to conserve and sustainably manage Europe’s forest (<http://www.biodiversa.org/660>).
- **Two databases on innovative forest management:** *the Forest Policy and Innovation Database* (<http://policy-database.boku.ac.at/>); and the *Innoforce Database of Innovation Cases in Forestry* (<http://cases.boku.ac.at/>).