



Beech forest. Picture by Georg Winkel

POLICY BRIEF

Natura 2000 and Europe's forests: understanding and tackling implementation challenges

Forests are key ecosystems for conserving Europe's biodiversity and an important focus of the protected area network Natura 2000 – the EU's cornerstone nature policy. They are also essential for delivering multiple ecosystem goods and services to human societies. Yet, forest biodiversity conservation under Natura 2000 faces several challenges which may trigger conflicts during the implementation of the network.

The BiodivERSA-funded [BeFoFu project](#) has investigated both ecological challenges related to the management of protected forests and governance challenges related to the implementation of Natura 2000. This Policy Brief describes these socio-ecological challenges, presents key research results, and outlines policy solution pathways towards improving the effectiveness of Natura 2000 with regards to the conservation and sustainable management of Europe's forests.

Main findings:

- Forests are essential for conserving Europe's biodiversity. Nearly 50% of Natura 2000 habitats are forests; around 23% of all EU forests are located within Natura 2000 sites.
- Implementation of Natura 2000 in forests has led to conflicts related to different interests and land use paradigms (e.g. balancing nature conservation and sustainable timber production) and implementation procedures (e.g. science-based-technical versus participatory-inclusive). Resolving and managing these conflicts remains an important challenge for EU biodiversity policy.

Key policy recommendations:

Challenges can be addressed with appropriate policies and management strategies, in particular:

- Making the 'favourable conservation status' concept more specific and quantifiable, based on the best available ecological knowledge across EU Member States' jurisdictions.
- Facilitating continuous learning processes across EU Member States, e.g. through guidance documents on management issues.
- Better integration of Natura 2000 objectives into public and private forest management planning and practices.
- Reforming the funding schemes for Natura 2000 by creating incentives for delivering conservation and societal benefits.
- Involving local stakeholders and making Natura 2000 a citizens' project.

The context

Forests host the greatest concentration of terrestrial biodiversity globally. They are a backbone of Europe's biodiversity, and in many countries they represent the least intensively managed ecosystems. At the same time, Europe's forests have been subject to a long history of human land uses that have greatly altered these ecosystems. European countries have a history of forestry policy aimed at protection and improvement of forests from the point of view of sustained resource use and economic sustainability. The result of these policies is that the forest area and standing volume of timber is increasing in most EU Member States.

Natura 2000 is the EU's main instrument for conserving biodiversity through implementation of the Birds and Habitats Directives. Around 50% of the Natura 2000 protected area network (currently covering around 18% of EU territory) consists of forested key biodiversity areas. According to the Directives, the "favourable conservation status" of habitats and species needs to be achieved within Natura 2000 sites, while at the same time protected areas should contribute to sustainable development; this may comprise the sustainable use of natural resources, including timber production, recreation and other goods and services.

Member States periodically report on the conservation status of Natura 2000 sites (under Article 17 of the EU Habitats Directive), but there has been little analysis of how the objectives of Natura 2000 are implemented in the management of Europe's forests. Moreover, it is unclear how management of forests may need to respond to changing environmental conditions, such as climate change.

The BeFoFu project, funded by major national funding agencies from European countries through BiodivERsA, has investigated the implementation of Natura 2000 in forests and the key challenges related to forest management and biodiversity conservation. The research combined social science and ecological research on fourteen Natura 2000 forest sites (mostly beech dominated) in six EU Member States (Austria, France, Germany, Spain, The Netherlands, UK). Altogether, more than 300 in-depth interviews with stakeholders have been conducted, and tree growth and genetic, plant, insect and bat diversity have been analyzed.

Key research results

BeFoFu research has identified a number of challenges related to the implementation of Natura 2000 management in protected forest areas, namely:

Balancing timber production and nature conservation

A core challenge investigated by BeFoFu is related to the compatibility of timber production and nature conservation in managed Natura 2000 areas. While there are synergies between these objectives, some basic conflicts do exist. For example, harvesting regimes may change tree species composition in a way that counters conservation objectives, and late

successional stages (with old trees and dead wood) are often removed even though they are highly important for conserving forest specific biodiversity. Such trade-offs come to the fore when Natura 2000 management is implemented and concrete decisions about specific forest stands need to be made.

The role of clear objectives and plans to guide managers

For most of the sites investigated, BeFoFu revealed that management plans for Natura 2000 do not clearly set out management objectives and are not specific enough, meaning that they do not provide adequate guidance to forest managers. At times, plans 'circumvent', rather than directly address, possible

competing forest uses and management approaches. Moreover, management plans are often not legally binding. The legality of certain management practices still requires clarification. Altogether, this leads to uncertainty for forest owners about requirements.

The importance of local stakeholder involvement

The BeFoFu data show that during the implementation process of Natura 2000 participatory approaches have gained significant ground in some countries, for instance in France and Germany. This has notably increased the acceptance of the policy by local actors, which is essential if synergies are to be found between conservation and (other) sustainable development needs. However, these processes have also led to a delay in the implementation process

and have prompted questioning about Natura 2000's conservation targets. They have lowered requirements and criteria for good conservation status in comparison with proposals based solely on conservation science. Hence, additional efforts are needed to ensure that policy-makers, scientists and practitioners work together more effectively to enable conservation goals to be met through collaborative learning.

The challenge of climate change

Climate change poses a challenge when protecting and managing habitats and species under Natura 2000. The effects of climatic changes on local habitat patches cannot be mitigated by local management intervention alone. For those habitats and sites close to the range edge of key species, additional condition assessment and designation flexibility are advisable.

Due to climate change, it is likely that some beech forest habitats at the Southern edge of their range will not be able to be maintained in the future, whereas additional habitats may develop at the Northern edge. Flexibility for such habitats is advisable, yet it must not be misused to weaken measures for biodiversity conservation itself.

The role of effective funding arrangements

The BeFoFu findings revealed that the current financial architecture of Natura 2000 is not only hampered by a lack of sufficient funds, but also by diverging policy priorities across levels (EU versus Member States) and sectors (environmental versus rural development policy). More specifically, there is an imbalance between the funding system and its implementation

on one hand, and the regulatory requirements of Natura 2000 on the other, which determines the network's effectiveness. In addition, specific requirements related to long-term ecological and economic cycles in forests may be out of synchrony with existing financial instruments which usually relate to shorter time periods.

Policy integration between sectors and levels

The funding issue is related to a lack of substantial policy integration between different policy sectors and across policy levels. Different policy sectors (e.g. forest, climate, energy, nature conservation) have different priorities for forests and their management. This results in distinct forest-related policy problem perceptions (e.g. the need to better protect forests versus the need to mobilize more wood) and related solution strategies

(protection versus intensified management). These contradicting views are reinforced by competing actor networks and institutional arrangements (e.g. policy strategies and law). This situation hampers the implementation of the EU Habitats Directive and Natura 2000 through the coexistence of partly contradicting regulatory objectives and inconsistent financial incentives without explicit priority setting.



Picture by Georg Winkel



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Policy recommendations

Based on their [findings](#), the BeFoFu team has developed five solution pathways which were discussed intensively with EU and national policy experts and stakeholders during a workshop in March 2013 as well as during additional expert interviews. The pathways are intended to advise decision-makers on priority-setting to support effective

Pathway 1: Facilitate learning and exchange

Even though the EU Habitats Directive was developed more than 20 years ago, the implementation of a management regime for Natura 2000 in forests is still “in the making”. More time is needed for mutual learning among the different groups involved in Natura 2000 site management. Research is showing that this leads not only to improved mutual understanding and a better realization of shared benefits, but also to an enhanced capacity to manage conflicts.

Pathway 2: (Re-)enforce the ecological rationale – Use more specific objectives

The current implementation practices of Natura 2000 in forests are partially compromising the policy's efficiency. This pathway argues for greater use of evidence from conservation science in the implementation process. Concepts such as the “favourable conservation status” for forest habitats and species could be made

implementation of EU biodiversity policy. They suggest that forests in Natura 2000 need further substantial efforts and serious investments by all involved stakeholders if the targets of the EU Habitats and Birds Directives, [the EU 2020 Biodiversity Strategy](#), [the 7th Environment Action Programme](#) and the [EU Forest Strategy](#) are to be achieved.

This learning process needs to be facilitated via communication, collaboration, guidelines, best practice examples and improved information at all levels. For instance, the Forests and Natura 2000 Guidance Document that is currently being developed by an ad-hoc working group guided by the European Commission and [the new Biogeographical Process](#) may support such a learning process.

more specific and based on the best available ecological knowledge across jurisdictions. However, given the increasing influence of climate change, such specifications may also need adjustment once ecological conditions change. The full integration of Natura 2000 objectives into “traditional” forest management planning would be beneficial.

Pathway 3: (Re-)enforce the social rationale – Make Natura 2000 a citizens' project

Natura 2000 covers a significant proportion of the European territory, which has been shaped by various forms of land use and traditions. Consequently, local stakeholders and land users have to make this policy “their own” for it to be a success. The expert-based, scientific character of the policy needs to be transformed into a “social” concept of forest conservation. The overall approach towards Natura

2000 should include social collaboration, collaborative learning, transparency and public deliberation at all policy levels. In principle, the current institutional framework provides room for reframing the main means of implementing the policy, yet guidance on an inclusive and transparent policy approach may need to be provided.

Pathway 4: (Re-)enforce the economic rationale – Make a truthful investment

Funding issues are at the core of improving the implementation of Natura 2000 in forests. This pathway foresees the development of a new comprehensive funding policy for Natura 2000 in forests, creating an incentive for achieving conservation objectives and other societal benefits. The design of forest environmental measures has to

be adapted to specific characteristics of forestry, especially the long production cycles and the often slow changes of biodiversity in forest ecosystems. It is recommended that the nexus between implementing regulatory requirements and providing sufficient and reliable funds is guaranteed through an institutional reform of the funding schemes.

Path 5: Work towards an integrated European land use and conservation policy

The implementation of Natura 2000 in forests can be improved through an integrated policy approach stretching across nature protection and other forest-related policies. Successful policy integration necessitates mutually supportive relations among policy goals, instruments and actors. The policy integration process related to Natura 2000 and forestry could be characterized by the following elements and steps: (1) development of an integrated policy scheme in a systematic and participatory process; (2) development of a monitoring and evaluation scheme for the implementation

process; (3) implementation of the integrated policy scheme in a collaborative manner, (4) systematic evaluation of implementation challenges, (5) transparent revision of the policy integration scheme, where appropriate; (6) implementation of a revised policy design and repeated monitoring. Science can greatly contribute to this process by delivering evidence relating to challenges that need to be tackled using the integrated policy approach, and assessing the policy outcomes of such an approach together with stakeholders and decision makers.

Links to sources

BeFoFu project [website](#)
Scientific papers by BeFoFu
BeFoFu information on [BiodivERsA website](#)

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About this Policy Brief

This Policy Brief is part of a series aiming to inform policy-makers on the key results of the biodiversity research projects funded by BiodivERsA and provide recommendations to policy-makers based on research results.

The series of BiodivERsA Policy Briefs can be found at www.biodiversa.org/policybriefs.

This publication was commissioned and supervised by BiodivERsA, and produced by IUCN.

The key research results presented here were validated by Dr. Georg Winkel, [Albert-Ludwigs-University of Freiburg](#), Germany, leader of the BeFoFu project and project colleagues. Input was provided by experts of [IUCN World Commission on Protected Areas](#).

The policy recommendations made do not necessarily reflect the views of all BiodivERsA partners, nor of IUCN.