Governance and land use policies to implement the Trans-European Nature Network (TEN-N)

Review, synthesis and recommendations

The **EU Biodiversity Strategy for 2030** aims to put Europe's biodiversity on the path to recovery by 2030. A key component of this Strategy is the development of a **Trans-European Nature Network (TEN-N)**, through designation of additional protected areas and ecological corridors for Europe's priority habitats and species.

This briefing summarises our review, synthesis and recommendations on appropriate governance mechanisms, land-use policies and financing instruments to create a resilient TEN-N. The briefing is especially relevant for national and regional governments and authorities responsible for nature conservation, agriculture and forestry, for spatial planners and for the European Commission.

Our review was drawn up in consultation with a wide **range of stakeholders**, such as EU Member States' governments, protected area managers, land-use planners, NGOs and citizens. It features **case studies** across six regions in the Danube-Carpathian, Finland, France, Portugal, Spain and Germany. The assessment applies a **political economy analysis[1]** including interviews, workshops and a comprehensive literature review to identify common governance barriers and successful frameworks for building ecological connectivity. The findings are used to identify potential pathways of change and interventions that integrate **Green and Blue Infrastructure** in support of **biodiversity** and **sustainable development**.

Key review findings

Many European countries face common governance challenges to implement and safeguard ecological connectivity of protected areas effectively, despite having EU and (sub)national guiding frameworks in place. Our review identified four root causes: (1) **weak regulations and limited implementation**; (2) **poor conflict management**; (3) **unsustainable land use and infrastructure development**; and (4) **gaps in funding, technical capabilities and knowledge**.

Policies often do not have the required impact on spatial planning at the relevant level for implementation, and hence fail to protect ecological corridors from developments that damage or destroy them. This is worsened by a **lack of formal rules for strategic planning in specific economic sectors**. In several countries, **gaps in legislation** undermine proper implementation at local level or result in a purely voluntary and *ad hoc* approach. In these cases, ecological connectivity is not considered formally in decision-making. Implementation also suffers from **lack of political incentives** and little appetite for **enforcement**.

For connectivity, a **mismatch often exists between the scale of implementation** (the responsible authority) **and the scale of action needed**. This problem is amplified **by a lack of staffing and ecological expertise,** especially at the lower administrative levels.

Public funding is available to support ecological connectivity, but it is often project-based and hence **lacks the longer-term perspective and safeguards**. It is also usually not sufficient to tackle the key funding needs, leaving **many protected area networks under-resourced**. In addition, public funding streams are not always used in the most targeted way relevant to benefit connectivity (e.g. Common Agricultural Policy). **Private financing instruments** are being developed in parallel, but are still rather small-scale and fragmented.

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[1] Political economy analysis is 'a set of concepts, questions and tools that can help better understand the interaction of political, economic, social and cultural processes and how these generate particular outcomes'.

Recommendations

To tackle the diverse set of issues raised above, the review outlines four complementary **pathways of change[2] as a set of conditions with corresponding interventions** for governments and other implementing authorities at European, national, regional and local levels in the different land use sectors. These interventions are illustrated with several good-practice examples.

Pathway 1 - Regulatory framework: *If* an appropriate regulatory framework exists, is implemented well and is backed by solid incentives, *then* the different stakeholder groups are supportive, *because* they recognise the values, benefits and importance of ecological connectivity for people and wildlife. Recommended interventions:

✓ **Review existing policies and legislation**: ensure legal obligations are in place with a binding effect on spatial planning, and a participative decision-making process
✓ **Improve implementation**: ensure an adequate (political) mandate, staffing, financing and enforcement
✓ **Integrate connectivity into sectoral policies**: ensure policy coherence (incl. infrastructure, agriculture and forestry) and synergies with other spatial planning
✓ **Address land use conflicts:** use voluntary approaches, including through innovative tools such as conservation easements

Pathway 2 – Sustainable economic development: *If* economic development is coupled with clear guidance for mitigation measures, accounting for ecosystem services, and preventing land use conflicts via collaboration across sectors, *then* it shifts towards a sustainable economic model that values and profits Green Infrastructure *because* the power of each sector is balanced when all have to work towards mutual benefits. Recommended interventions:

✓ **Engage farmers and foresters, and address conflicts with landowners**: build long-term commitments and trust with timely and adequate incentives
✓ **Integrate connectivity in planning and assessments**: undertake strategic planning for infrastructure projects, employ a programmatic approach for existing infrastructure, and recognise the multiple benefits of connectivity at landscape level

Pathway 3 - Knowledge and capacity building: *If* the appropriate knowledge base, technical and human capabilities are developed and communicated, *then* planning and design as well as the implementation of a well-connected, resilient TEN-N improves, *because* this will facilitate access of all relevant sectors to the most beneficial solutions, with optimised costs. Recommended interventions:
✓ **Optimise role of professional networks and institutions**: create a community of practice
✓ **Raise awareness and provide training**: include appropriate guidelines and science-based standard setting
✓ **Promote and ensure adequate funding and tools**: maximise proper use of existing funding and explore new instruments
✓ **Build business and economic skills among professionals**: unlock innovative options for investments

Pathway 4 - Empowerment and conflict management: *If* civil society is empowered and causes of conflicts are clarified by bringing actors together, *then* engagement can be built, conflicts can be managed, and stakeholder trust and cooperation is improved, *because* bottom-up initiatives and improvements are catalysing positive change. Recommended interventions:

✓ **Empower civil society**: create a policy environment that is inclusive and open to change, support local champions
✓ **Increase stakeholder engagement**: establish national and transboundary cross-sectoral networks
✓ **Apply conflict management and collaborative learning**: develop a shared vision, work as equals, monitor the outcomes and adapt

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[2] A pathway of change is 'an explanation of how a desirable outcome might arise due to the actions of (possibly multiple) other actors'.

The outlined pathways are complementary and include various action points on different levels. Governance, policy, and financing are crucial components for either enabling or hindering the successful implementation of a connected system of Protected and Conserved Areas across Europe.

The review is part of the **NaturaConnect project**, which aims to support EU Member States' effective designation and implementation of TEN-N through providing scientific and policy data, guidelines and decision-making tools. Learn more about Europe's existing legal frameworks and governance systems in different countries in the **full report.**

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