



Policy brief - June 2017



Pursuing benefits for nature and society

Key messages

- Considering multiple values, including relational values, is essential for achieving a sustainable society and economy. Capitalisation of nature may neglect these relational values of nature with people.
- Synergies between nature and society are possible and necessitate awareness of and collaboration between policy sectors and governance levels. Conflicts and trade-offs need to be acknowledged and genuinely addressed.
- European institutions should facilitate synergies between nature and society. They can offer a coherent framework with shared aims and objectives while maintaining flexibility for locally adapted implementation. The UN Sustainable Development Goals offer such a framework.
- Evidence and a good knowledge base are essential to support decisions at the interface between nature and society and to raise societal awareness.
- Interdisciplinary and trans-disciplinary science, through integrated stakeholder participation, is required when identifying, designing and implementing tailored solutions that offer multiple benefits.

Nature and society - the issue

People are increasingly trying to build a balanced relationship between environment, society and economy, as reflected in the conception of the Sustainable Development Goals. Experience in the search for a balanced relationship has revealed the presence of conflicts and trade-offs and the need for optimising synergies. Years of interdisciplinary research and practical experience highlight the need for yet stronger crossovers between different disciplines, increased cooperation between stakeholders, and a more fully integrated approach towards jointly reaching sustainability goals. How can science further contribute to identifying and realising mutual benefits for nature and society?

The state of knowledge

Policy to address biodiversity loss

Decades of European and global environmental policy have not halted the loss of species or the degradation of ecosystems so far. This has direct negative impacts on society and the economy. However, local successes in balancing environment, society and economy demonstrate that applying an integrated ecosystems approach can be effective in halting local biodiversity loss.

Policy has historically been developed by individual sectors. This has resulted in isolated implementation of strategies and legislation, with little connection or coherence between policy sectors, and a culture of working in ivory towers. This sectoral approach is also reflected in society. It is compartmentalised in terms of stakeholder representation, governance structures, funding streams, beliefs and values. Often the nature sector is the requesting party for a more integrated approach (e.g. the EU 2020 Biodiversity Strategy asking for sustainable agriculture, forestry and fisheries), while the reverse is rarely the case.

This compartmentalisation does not reflect the inter-connectedness within and between nature, society and economy. Nor does it allow for dealing with the complexity of today's societal challenges or for finding consensus between diverging interests. Therefore, an integrated and truly participative approach including a broad range of different viewpoints is required. This is needed to identify locally tailored solutions that address the multiple societal and environmental objectives.

Strategies and policy measures that provide an effective framework for an integrated approach are under development at the European and global level. In particular, the 17 UN Sustainable Development Goals offer a holistic international framework for identifying interlinkages and synergies between sectors. Reaching the goals requires involvement of all relevant sectors and stakeholders. Adopting an integrated approach increases complexity and hence requires multi-level and multi-sectoral institutions that can embrace public engagement and knowledge input and exchange.

Science to support policy

Science and policy have developed concepts that aim at making a stronger and integrated connection between nature and society, including ecosystem accounting, natural capital, ecosystem services, and nature-based solutionsⁱ. They integrate the environmental, social and economic pillars of sustainable development and are useful in improving communication with target groups in specific sectors. However, their implementation may carry risks for achieving biodiversity conservation and sustainability goals as they focus on nature's benefits to people as a starting point, with the implicit assumption of use.

In particular, turning nature into natural capital and relationships into social capital may distance people from what they really value. This leads to unnecessary and irreversible losses of nature itself. When valuing ecosystems and ecosystem services, it is necessary to consider multiple values, including relational values and motivations of people. Science can play an important role in helping to measure and enable acknowledgement of these less tangible values, such as perception, happiness or emotions linked to nature.

Indeed, collaborative research (interdisciplinary) and stakeholder participation (transdisciplinary) are useful approaches in identifying multiple values. These play an important role when co-designing

landscapes and ecosystems, co-creating solutions, and co-implementing policies. Only through joint efforts at all levels will synergies be found that offer multiple benefits to nature and society.

One of the practical means to implement the integrated participative approach is through spatial planning. In doing so, the development of multifunctional landscapes, green infrastructure and nature-based solutions is an effective way to put synergies into practice. Ecosystem services should in this process be considered in bundles of services, occurring in combination. This allows identifying synergies and trade-offs between planning objectives, between beneficiaries and between ecosystem services.

Whereas identifying synergies, negotiating trade-offs or solving conflicts often happens at a local or regional scale, European institutions have a facilitating role to play in scaling up the local level to the EU and global scale, in supporting the exchange of best-practice and working examples, and in providing an enabling framework for synergies and collaboration between sectors. The latter is particularly relevant to ensure coherence in local and regional actions towards common goals and objectives.

An extensive toolbox, assembled with considerable EU funding over many years, is at hand in support of such a facilitating process. From the ecosystem research perspective, it includes a multi-stakeholder platform (ThinkNature) and an online knowledge platform for nature-based solutions (Oppla), a science-policy-society interface for biodiversity and ecosystem services (EKLIPSE), a range of Long-Term Socio-Ecological Research (LTSER) platforms and Europe's ecosystem research network ALTER-Net, to name just a few¹.

Citizen science offers opportunities to better involve local populations and non-scientific stakeholders. It can help build the evidence base, can serve as an early warning mechanism, and is an excellent platform for education, awareness and commitment raising, and for communication. Ways should be found to empower citizens and to better integrate citizen science and local knowledge into European research, such as research on identifying people's values, motives and perspectives.

Science offers the innovation that is necessary to help make society truly sustainable and support biodiversity and ecosystems. Biodiversity is the foundation on which society and economy are built. Therefore, funding for contextual ecological, social-environmental as well as interdisciplinary research on biodiversity and ecosystems should be stepped up. Where appropriate this should be combined with stakeholder engagement (i.e. transdisciplinary) processes and include other research fields such as engineering or medicine. Social sciences can play a key role in learning how to improve the connections between nature and society.

¹ www.think-nature.eu; www.oppla.eu; www.eclipse-mechanism.eu; www.lter-europe.net/lter-europe/infrastructure/sites-platforms; **www.alter-net.info**

Call to policymakers

The ALTER-Net community calls on European policymakers to:

- facilitate a European-level process between all directorates-general in order to fully integrate ecological concerns and opportunities as the starting point of new initiatives into all policy areas, rather than adding an environmental link at the last minute. In doing so, use the UN Sustainable Development Goals as a holistic and integrative framework;
- fully integrate the ecosystems approach in all policy sectors;
- systematically adopt an integrated stakeholder approach to co-develop and co-implement policy at the interface between nature and society;
- increase funding for interdisciplinary and transdisciplinary environmental research to enlarge the knowledge base, ensuring that policy decisions and societal choices are based on broadly gathered evidence;
- ensure that relational values of nature are taken into account in addition to capital values when implementing policy measures such as nature offsetting or compensation.

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This brief presents some of the key research findings and practical experiences that were presented at the international ALTER-Net conference 2017 on 'Nature and society: synergies, conflicts, trade-offs'. It formulates calls to policymakers that follow from these findings and experiences as well as from the panel debate that was part of the conference.

Terms used:

Ecosystem accounting: The process of organising information about natural capital stocks and ecosystem service flows, so that the contributions that ecosystems make to human well-being can be understood by decision makers and any changes tracked over time. Accounts can be organised in either physical or monetary terms.

Ecosystem services: The direct and indirect contributions of ecosystems to human well-being.

Natural capital: The elements of nature that directly or indirectly produce value for people, including ecosystems, species, freshwater, land, minerals, air and oceans, as well as natural processes and functions. The term is often used synonymously with 'natural asset', but in general implies a specific component.

Nature-based solutions to societal challenges: solutions that are inspired and supported by nature, that are cost-effective, simultaneously provide environmental, social and economic benefits, and help build resilience.

Photos, from left to right, by Ágnes Kalóczkai, Riku Lumiaro, Martin Sharman, Robert Kanka and Francis Turkelboom

