

Ecosystem services: Interregional cooperation for sustaining the European natural capital

A close-up photograph of a honeycomb with a single bee on it. The honeycomb cells are hexagonal and filled with a golden-yellow substance. The bee is positioned on the right side of the frame, facing left. The background is a soft, out-of-focus yellow.

A policy brief from the Policy Learning Platform
on environment and resource efficiency

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Introduction

Ecosystem services are goods and services provided by nature that human welfare depends on. This policy brief addresses the EU policies, approaches and good practices aimed at the protection and restoration of ecosystem services.

What are ecosystem services?

Ecosystem services refer to all the benefits that people obtain from ecosystems¹. These include:

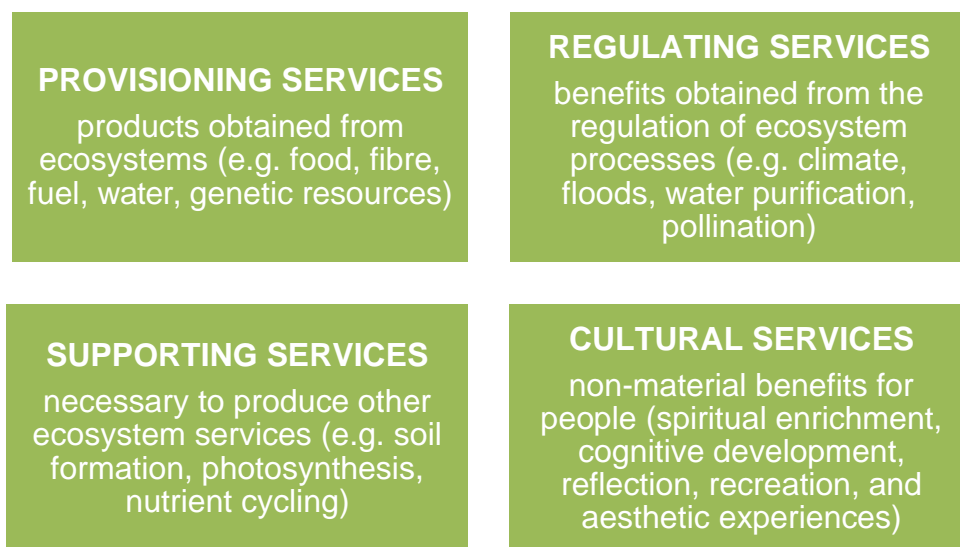


Chart 1: Overview of ecosystem services

It is important to understand the values and services provided by natural ecosystems since they are the driving force for the long-term protection and restoration of European natural capital. Any damage to natural ecosystems carries significant costs for business and society as the services they provide represent significant share of the economy. The ability to restore ecosystem services once they are lost is extremely limited due to the complexity of interactions within and among ecosystems.

Many of Europe's ecosystems are now being degraded and their ability to deliver the services so critical to human life is being reduced. Over 1950-2010 most ecosystem services show either a degraded or mixed (i.e. degraded in some regions, enhanced in other) status across Europe². Unless corrected, this disturbing trend poses an existential threat to ecosystems throughout Europe. What is positive – the public awareness about the role ecosystem services play for the growth of the European economy is continuously increasing. According to a recent Eurobarometer poll, over half of all European citizens agree that biodiversity and nature are important for long-term economic development (56%), and that biodiversity is indispensable for the production of goods such as food, fuel and medicines (53%)³.

European policies

Over the past several years the concept of ecosystem services has gained strong political support in the European Union. There is no specific policy addressing management of ecosystem services, but the concept has been integrated into other environmental policies, strategies and programmes such as the EU policies on biodiversity. The list below offers a summary of some of the main EU policies that address ecosystem services.

¹ Millennium Ecosystem Assessment, 2005.

² Assessment of progress in implementing the EU Biodiversity Strategy to 2020 (COM(2015) 478 final

³ Special Eurobarometer 436: Attitudes of Europeans towards biodiversity, 2015



Action 5 of the [EU Biodiversity Strategy 2020](#) calls member states to map and assess the state of ecosystems and their services in their national territory, with the assistance of the European Commission. Member states also need to assess the economic value of ecosystem services, and promote the integration of these values into accounting and reporting systems at EU and national level by 2020. Furthermore, Action 6 links the promotion of the green infrastructure with the ecosystem services and Action 7 sets the initiative to ensure no net loss of ecosystems and their services.

Mapping and assessment of ecosystems and their services

A Working Group on Mapping and Assessment on Ecosystems and their Services (MAES) was set up under the Common Implementation Framework (CIF), the governance structure to underpin the effective delivery of the EU Biodiversity Strategy. The objective of the MAES Working Group is to support the implementation of Action 5 by the EU and its member states. The results of this mapping and assessment should support the maintenance and restoration of ecosystems and their services. Outputs of the Working Group:

- *MAES Analytical Framework*, developed with the aim to be applied by the EU and member states ensures the consistency of approaches. It is framed by a broad set of key policy questions.
- *MAES catalogue of case-studies* collects country deliverables at various scales and with different focuses.
- *MAES digital atlas* presents in a systematic way maps of ecosystem types and ecosystem services.⁴

Section 4.1 of the [Roadmap to a Resource Efficient Europe](#), addresses ecosystem services and sets the 2020 milestone for public authorities and businesses to properly value natural capital and ecosystem services. This policy calls for mapping of the state of ecosystems and their services and for working with key stakeholders to encourage businesses to assess their dependency on ecosystem services. The 1st priority of [the 7th Environmental Action Programme](#) also considers the ecosystem services in broader scope and defines that “substantial body of Union legislation seeks to protect, conserve and enhance natural capital”.



Image credit: Photo by Steven Kamenar on [Unsplash](#)

In September 2013, a new [EU Forest Strategy](#) for forest and the forest-based sector was presented with a new framework in response to the challenges that forest sector faces at present. The Strategy introduces a wider scope in which forest protection, biodiversity conservation and the sustainable use and delivery of forest ecosystem services are addressed. The Strategy sets out 2020 forest objectives of balancing various forest functions, meeting demands, and delivering vital ecosystem services. The recognition of the importance of ecosystem services is closely related to the green infrastructure (GI) concept, promoted by EU through the [Strategy on Green Infrastructure](#). The Strategy highlights that systematically including GI considerations in the planning and decision-making process will help reduce the loss of ecosystem services associated with future land take and help improve and restore soil functions. In addition, the Strategy stresses the need for consistent, reliable data for correct valuation and pricing of ecosystem services. The importance of research is highlighted for improving the

⁴ <http://biodiversity.europa.eu/maes>



knowledge on the links between biodiversity and the condition of the ecosystem, and between the condition of the ecosystem and its capacity to deliver ecosystem services.

Challenges and solutions at regional level

Understanding the value of ecosystem services for the regions

When appraising nature's benefits in a certain region, it is important to identify which ecosystem services are central to the local and regional inhabitants, and the businesses depending on these services, and which services are at risk⁵. Currently, the level of public knowledge about the economic values associated with biodiversity and ecosystems is low, and these values are oftentimes not taken into account by the national, regional authorities and businesses. Moreover, the indicators and accounting systems for natural capital are novelties and in many regions still recognised only by the academia and specialised administrations.

Availability of quality data

High quality and consistent information on the condition of ecosystems and the services they provide is necessary for the future development and implementation of European policies such as the regional policy, agriculture, fisheries, climate change, and disaster risk reduction and management.⁶ While measures have been taken on a European level, more needs to be done by member states on mapping, assessment and economic evaluation of the ecosystem services.

Policy integration of ecosystem services

Although the society is progressively becoming aware of the importance of the ecosystems and services they provide, the value of these services is not fully integrated into the regional development strategies. There is a need to further mainstream ecosystem objectives into the regional policy instruments and into the policy assessment processes. For example, natural environment and ecosystem services can be considered when planning for adaptation to climate change as they serve as natural buffer against the impacts of climate change. The development of information tools for decision-makers is an important measure that can help raise knowledge and awareness among policy actors.

Improved management and restoration of ecosystems

The loss and degradation of the ecosystems and their services continues due to unsustainable land use practices and investments. Therefore, the promotion of ecosystem-based solutions and best practices in spatial planning, agriculture, forestry, water management, tourism and other sectors is important to ensure that there is no net loss of ecosystems and their services, as per EU [No Net Loss Initiative](#). This means that damages resulting from human activities must be balanced by at least equivalent gains - e.g. through compensation or offsetting schemes.



Image credit: Photo by Markus Spiske on [Unsplash](#)

⁵ TEEB - The Economics of Ecosystems and Biodiversity for Local and Regional Policy Makers, 2010

⁶ EC, 2014. Mapping and Assessment of Ecosystems and their Services: Indicators for ecosystem assessments under Action 5 of the EU Biodiversity Strategy to 2020



Ecosystem services in Interreg Europe projects

'Ecosystem services' is a relevant topic also in the context of interregional cooperation. The Interreg Europe Programme provides support to several projects addressing certain aspects of the natural heritage policies. The topic of ecosystem services is tackled by most of these projects, or by the policy instruments, which the projects aim to improve. Three examples are listed below:

- In the area of nature protection access to quality data is essential for improved decision making. [BID-REX](#) project works on improving regional decision making by enhancing the use of biodiversity data in regional policy processes. More specifically, the project partners aim to promote the establishment of priorities in budget allocation and monitoring the impact of the actions funded by Structural funds in different regions, by feeding decision-making processes with appropriate information on biodiversity, including social and economic benefits. The policy improvements offered by the project include specifically mapping and assessing ecosystems and ecosystem services.

Innovative biodiversity audit, a good practice from University of East Anglia (UEA), partner in Interreg Europe BID-REX project

UEA led the Economics team of the UK National Ecosystem Assessment and developed a novel biodiversity audit approach providing evidence-based priorities for regional biodiversity management and leading to improvement of cost-effectiveness of decisions. UEA, together with local stakeholders, has carried out biodiversity audits with local stakeholders in other regions in England and has analysed national utilisation of ecosystems' recreational service provision in relation to biodiversity. The practice was shared with other BID-REX partners and there is an interest from the National Institute of Biology (Slovenia), to implement it in Slovenia.

- [Land-Sea](#) project works with the management policies for the coastal areas and addresses the preservation of the land-sea ecosystem and its sustainable fruition for the socio-economic development, connected to eco-tourism strategies. The project aims to introduce approaches of regional governance and to enhance the institutional competences for the management of sustainable coastal system, able to preserve natural habitats and contextually to support the development of regional eco-tourism strategies. The project addresses four policy instruments in Bulgaria, Germany, Italy and Spain, linking the development and funding of sustainable eco-tourism strategies with the preservation and promotion of natural heritage.
- [Green Pilgrimage](#) is an innovative project which aims to show how growth and development policies can economically exploit and protect natural and cultural heritage. The tourism around the ancient pilgrim routes is a fast growing segment of the economy, providing jobs and income to local communities. This growth is partially based on the culture services that the natural landscapes provide and on the need to preserve them for the future.

The way forward

EU regions are playing a significant role in the preservation and restoration of European ecosystems. While significant steps have been taken, much more needs to be done to reverse the degradation of European ecosystems and the services they provide. To sustain ecosystem services, the regional authorities and partnering stakeholders need to:

- Support the horizontal integration of the ecosystem concerns into the sectoral policies and plans
- Invest in capacity building on ecosystem-based solutions and in public awareness on the value of natural capital
- Contribute to the 15% restoration target in the EU Biodiversity Strategy by planning and funding restoration projects and by investments in green infrastructure
- Explore innovative financial and marketing mechanisms for payment for ecosystem services



- Improve data and exchange information with other regions especially with regards to ecosystem service assessments

The Interreg Europe policy learning platform stimulates knowledge exchange in four thematic areas. One of these is the Environment and Resource Efficiency Platform, which covers topics like preservation of natural and cultural heritage and promotion of resource efficiency. The platform provides space for projects in the same family to share experiences and learn from each other. To ensure that the services and products provided by the platform meet user needs, we encourage you to share your ideas with the relevant platform managers and thematic experts. You will find their contact details [here](#).



Image credit: Photo by Matthew T Rader on [Unsplash](#)

Sources of further information:

- Europe 2020. A strategy for smart, sustainable and inclusive growth. COM (2010) 2020 final
- EU Biodiversity Strategy up to 2020, COM (2011) 244
- Assessment of progress in implementing the EU Biodiversity Strategy to 2020, COM (2015) 478 final
- European Commission, 2014. Mapping and Assessment of Ecosystems and their Services: Indicators for ecosystem assessments under Action 5 of the EU Biodiversity Strategy to 2020
- TEEB - The Economics of Ecosystems and Biodiversity for Local and Regional Policy Makers, 2010
- European Environmental Agency, 2017. Ecosystem Services in the EU

Relevant initiatives and networks:

- The [Ecosystem Services Partnership \(ESP\)](#) is a worldwide network to enhance the science and practical application of ecosystem services. The ESP aims to enhance communication, coordination and cooperation, and to build a strong network of individuals and organizations. The partnership is coordinated by the Environmental Systems Analysis Group (Wageningen University, the Netherlands), and consists of institutional and individual members.
- The [Biodiversity Information System for Europe \(BISE\)](#) is a single-entry point for data and information on biodiversity supporting the implementation of the EU 2020 Biodiversity Strategy and the Aichi targets in Europe. Bringing together facts and figures on biodiversity and ecosystem services, it links to related policies, environmental data centres, assessments and research findings from various sources. It is being developed to strengthen the knowledge base in support of the implementation of the EU biodiversity strategy and the assessment of progress in achieving the 2020 targets.
- [CICES](#) (Common International Classification of Ecosystem Services) developed from the work on environmental accounting undertaken by the European Environment Agency (EEA).

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#Biodiversity #Ecosystems #EcosystemServices #NaturalHeritage #Co-operation #NaturalCapital



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