



Factsheet

# The Economic Benefits of Natura 2000

## The Natura 2000 Network

In March 2010, the EU Heads of State and Government set themselves the ambitious target of halting, and reversing, the loss of biodiversity in Europe by 2020. In May 2011, the European Commission adopted a new EU Biodiversity Strategy which sets out a policy framework for achieving this.

The Habitats and Birds Directives are a core element of this Strategy. Together, they enable all 28 EU countries to work together within a common legal framework to conserve our most endangered species and valuable natural habitats.

At the heart of the two Directives lies the creation of a European network of nature areas – known as the Natura 2000 Network. This represents the most important practical action that is being taken across the EU to halt and reverse the loss of biodiversity.

The Network currently contains over 26,000 terrestrial and marine sites, making it the largest coordinated network of areas of high biodiversity value anywhere in the world.

In total, Natura 2000 covers almost a fifth of the EU land area as well as substantial parts of the surrounding seas. Because of its scale it is much more than just a refuge for endangered species and rare habitats. It preserves countless other valuable species and healthy ecosystems as well.

As such, it is at the core of Europe's Green Infrastructure and plays a major role in safeguarding our living natural capital upon which we all depend.

## Providing vital ecosystem services

In addition to preserving biodiversity for future generations, the Natura 2000 Network provides a wide range of other important benefits to society and the economy via the flow of ecosystem services.

Healthy freshwater ecosystems, for instance, provide clean water and help remove pollutants from the surrounding countryside. Intact wetlands act as natural buffers against floods, soaking up excess rainwater. Peat bogs help fix and store carbon dioxide, the number one cause of climate change, whilst forests improve air and soil quality.

In addition, Natura 2000 helps to conserve natural pollinators, preserve landscape and amenity values, as well as support tourism and recreation. By offering attractive breathing spaces, it provides ample opportunities for economic activities based on these valuable natural assets.

Healthy and well-functioning ecosystems sustained within protected areas can increase not only the range of ecosystem services, but also the resilience of ecosystems to resist and adapt to natural disasters and disturbances (e.g. climate change) also beyond the site level.

However, for the Natura 2000 Network to deliver its full economic and biodiversity potential, it is essential that every effort is made to restore the sites to a more favourable condition. Positive conservation action is vital if we are to safeguard Europe's biodiversity for future generations and maximise the socio-economic benefits that flow from healthy well-functioning ecosystems.

*Healthy freshwater ecosystems provide clean water and act as natural buffers against floods, soaking up excess rainwater.*



## Estimating the economic value of different types of ecosystem services



**STORING CARBON:** The Natura 2000 Network provides a critically important service of storing carbon, revealing essential synergies of biodiversity with climate mitigation and adaptation.

In general, many Natura 2000 sites protect ecosystems (e.g. forests, wetlands, peatlands, grasslands, marine and coastal areas...) that are important current stores of carbon and offer significant opportunities for further carbon sequestration. It is estimated that the Natura 2000 Network currently stores around 9.6 billion tonnes of carbon, equivalent to 35 billion tonnes of CO<sub>2</sub>, **which is estimated to be worth between €600 and €1,130 billion** (stock value in 2010), depending on the price attached to a ton of carbon.

It can be expected that in the future these carbon values will increase, especially if the conservation status of the Network improves. Onsite measures that positively affect carbon fluxes include the restoration of wetlands, peatlands and agro-forestry ecosystems. On the contrary, policies that encourage land conversion from grassland to cropland will cause the release of stocked CO<sub>2</sub> into the atmosphere.



**NATURAL HAZARDS:** Natura 2000 sites offer potentially significant cost savings and a reduction in damage caused by extreme weather events

Natural hazards cause significant damage across the EU. For the period 1990–2010, the value of economic losses from natural disasters in the EU25 amounted to around €163 billion. Protected areas, such as Natura 2000 maintain healthy, intact and robust ecosystems which play a vital role in mitigating the impacts of disasters (such as floods, avalanches, landslides) and reducing the overall vulnerability of communities to these disasters.

Although the benefits arising from natural hazards risk reduction are very site-specific, well-functioning ecosystems can offer efficient mitigation services, often at a much lower cost than man-made measures. For instance, in the Kalkense Meersen Natura 2000 site, in Belgium, it has been estimated that the restoration of the original river landscape by means of wetlands and estuarine habitats restoration **can bring flood mitigation benefits of between €640,000–1,650,000 per annum.**



**FOOD SECURITY AND PROVISION:** Natura 2000 sites harbour a wide range of valuable plants and animals, such as pollinating insects, that are important to society

**Insect pollination services are important in Europe – with an annual value estimated at €14 billion per year**, which represents 10% of agricultural production for human food in 2005. However, the existing data does not allow identification of the share of this from Natura 2000 and from wider Green Infrastructure.

Many Natura 2000 sites also support important agricultural practices. Farmland covers almost 50% of the EU territory, and agro-ecosystems represent 38% of the surface of Natura 2000 sites. High Nature Value farming can offer significant benefits for biodiversity as well as helping to support local breeds, conserving genetic diversity and enhancing the resilience of the sector.

## Valuing the economic benefits of Natura 2000

According to recent Commission studies, the benefits that flow from Natura 2000 are estimated to be in the order of €200 to 300 billion/year. It is estimated that there are between 1.2 to 2.2 billion visitor days to Natura 2000 sites each year, generating recreational benefits worth between €5 and €9 billion per annum.

In Europe, around 4.4 million jobs, and €405 billion in annual turnover, are directly dependent on the maintenance of healthy ecosystems, a significant proportion of which is situated within Natura 2000.

Although these figures provide only a first estimate, the preliminary results already show that the economic benefits derived from the Natura 2000 Network compares very favourably to the costs associated with managing and protecting this important resource. The latter is estimated at around €5.8 billion/year – which is a fraction of its potential worth to society.

The precise cost-benefit ratio will of course depend on a range of factors, including the location of the sites and their land use, but, all evidence to date points to the fact that a well managed Natura 2000 Network will more than repay the costs related to its maintenance.

Investing in Natura 2000 therefore not only makes sound economic sense, it also offers real value for money in light of the wide range of ecosystem services on offer. However, for these benefits to be taken seriously, their economic value must be adequately reflected in society's decision-making and accounts.

## Investing in Natura 2000 for the benefit of all

Having a fully operational Natura 2000 Network will encourage a more coherent and resource efficient use of our valuable natural capital as well as foster a more sustainable and inclusive growth economy.

It can also lead to a more integrated and cohesive development policy, which brings together complementary economic activities that are based on healthy ecosystems.

As stated in the 7th EU Environmental Action Programme: protecting, conserving and enhancing the EU's natural capital requires tackling problems at source through, *inter alia*, better integration of natural capital objectives into other policies, ensuring that policies are coherent and deliver co-benefits.

EU funds under the new EU Multi-Annual Financial Framework 2014–2020 can substantially contribute to achieving these objectives, in particular through a wise use of the EU agriculture, fisheries and cohesion funds and the LIFE fund.

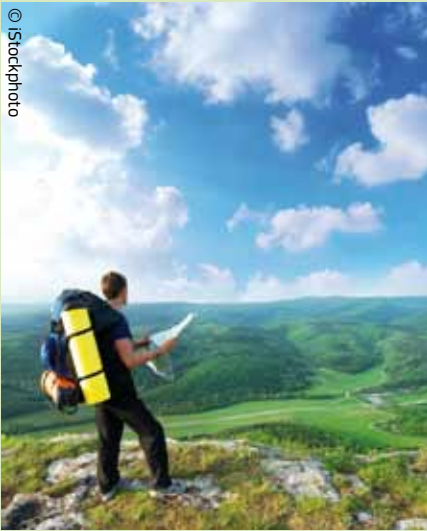
For Natura 2000 to deliver its full potential however, it is important that all relevant stakeholders are engaged in the process. Being able to demonstrate the multiple social as well as economic benefits of a well managed Natura 2000 Network will encourage all relevant land use sectors to take better account of the value of Europe's rich natural capital in their decision-making processes.

This in turn should lead to a smarter, more inclusive and sustainable development policy as advocated by the Europe 2020 Strategy.

*Integrating Natura 2000 objectives into other sectoral policies will help deliver co-benefits.*



## Estimating the economic value of different types of ecosystem services



**TOURISM:** Natura 2000 is already proving to be an important motor of many local economies by attracting tourists, whose spending supports local economies

It is estimated that the expenditure supported by visitors to Natura 2000 sites is around €50–85 billion/year (in 2006). If only the expenditure of those visitors who have affinity for Natura 2000 designation (as opposed to natural areas in general) is considered, the range becomes €9–20 billion/year in 2006, generated by around 350 million visitor days.

The total expenditure provided by tourism and recreation supports between 4.5 and 8 million Full Time Employment (FTE) jobs. **The benefits generated by the visitors with affinity to Natura 2000 would support from 800,000 to 2 million FTE jobs.** This compares to a total of about 13 million FTE jobs in the tourism sector within the EU27 (in 2008). Furthermore, protected areas can provide additional benefits to the local and regional economy, by attracting inward investment and enhancing local image and quality of life.



**WATER:** Money can be saved through working with natural capital, saving water purification and provisioning costs

Water purification and provision are important ecosystem services that are provided by natural ecosystems, including protected areas such as Natura 2000. A number of major European cities, including Munich, Berlin, Vienna, Oslo, Madrid, Sofia, Rome, and Barcelona all benefit from natural filtration in different ways. These municipalities save money on water treatment due to natural treatment from the ecosystems. The savings can be passed on to consumers, resulting in lower utility costs for EU residents.

Information from the four European cities of Berlin, Vienna, Oslo and Munich allows an illustration of the benefits of protected areas for water purification and provision. Using benefit transfer, it can be estimated that the **annual economic benefits of water purification are between €7 and €16 million and of water provision between €12 and €91 million per city.** The average per capita benefits are between €15 and €45 per year for both water purification and provision combined in the four European cities analysed. This compares to average household water bills of €200 per year in the case of Germany.



**MARINE PROTECTED AREAS:** Marine Natura sites, as part of a wider network of connected marine areas, may have positive effects on overexploited fish stocks

Marine Protected Areas (MPAs), including marine Natura 2000 sites, support a range of ecosystem services, which help amongst others to maintain healthy fish stocks. The value of benefits delivered by the marine area currently protected by the network (equivalent to 4.7% of the EU's marine area) is **approximately €1.4–1.5 billion per year.**

This would increase up to €3.0–3.2 billion per year if 10% of the sea area were protected, and €6.0–6.5 billion per year for protection of 20% of the sea area. This should be seen as a ball park value. Obtaining more robust results would need an improved understanding of how protection will influence habitats, services and off-site fisheries, amongst others.

## Comparing costs and benefits of Natura 2000

The protection of all 300 Natura 2000 sites in **Scotland** was estimated to have an overall benefit-cost ratio of around seven over a 25-year period. This means that overall national welfare benefits are seven times greater than the national costs, representing good value for money.

As part of a wider economic and institutional assessment of Natura 2000 in **France**, several studies were carried out to determine the benefits arising from Natura 2000 across a range of sites. At the Natura 2000 site 'Plaine de la Crau', the net benefits were calculated to be around €142 ha/year, i.e. around seven times higher than the costs associated with the Natura 2000 site.

In 2009 the **Finnish** Natural Heritage Services (Metsähallitus) and the Finnish Forest Institute (Metla) carried out a national assessment of the economic impacts of nature tourism and nature-related recreational activities on local economies. According to the study, the total annual revenue linked to visitor spending in national parks amounted to €70.1 million and supported local employment by creating 893 person-years. In general, it was estimated that €1 of public investment to protected areas provided €20 in return.



*Natura 2000: protecting Europe's natural capital for the benefit of nature and people.*

### For further information:

- DG Env Natura 2000 webpage: Financing [http://ec.europa.eu/environment/nature/natura2000/financing/index\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/financing/index_en.htm)
- Commission Staff Working Paper: Financing Natura 2000. Investing in Natura 2000: delivering benefits for nature and people, Dec 12, 2011 [http://ec.europa.eu/environment/nature/natura2000/financing/docs/financing\\_natura2000.pdf](http://ec.europa.eu/environment/nature/natura2000/financing/docs/financing_natura2000.pdf)

### Studies and brochure (all available from the above Natura 2000 financing website):

- The Economic benefits of the Natura 2000 Network (Synthesis report)
- Investing in Natura 2000: for nature and people – brochure
- Estimating the overall economic value of the benefits provided by the Natura 2000 Network & Annexes
- Estimating the economic value of the benefits provided by the tourism/recreation and employment supported by Natura 2000
- Recognising Natura 2000 benefits and demonstrating the economic benefits of conservation measures: successful and innovative approaches to financing Natura 2000 needs
- Assessing Socio-economic benefits of Natura 2000 sites – a toolkit
- The Economics of Ecosystems and Biodiversity (TEEB) (available from [http://ec.europa.eu/environment/nature/biodiversity/economics/index\\_en.htm](http://ec.europa.eu/environment/nature/biodiversity/economics/index_en.htm))



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