

# Science for Environment Policy

## First EU-wide economic valuation of Natura 2000 network

**A new study** has produced the first indicative estimate of the overall economic benefits provided by the Natura 2000 network. It suggests that the value could be currently between €200 and €300 billion per year, or 2% to 3% of the EU's Gross Domestic Product.

**Alongside biodiversity benefits,** Natura 2000 provides a range of ecosystem services that benefit society and the economy - examples include climate change mitigation and adaptation, improvement of water quality, food provision, job creation and livelihood, health and social cohesion. It is vital to communicate these benefits to ensure continuing support for Natura 2000 from relevant stakeholders; a well-communicated economic valuation could provide an easy-to-understand method of understanding the value of Natura 2000.

The study tests several methods of evaluating economic value. Using a site-based method, it analysed existing data on the value of Natura 2000 sites taken from 21 studies. By calculating an average value per hectare, it scaled up the value to an EU-level whilst adjusting for GDP of different countries (which influences the value placed on the sites). This produced an economic value in the range of €220 to €310 billion per year. However, this is a preliminary estimate, based mainly on cases from 12 EU Member States, with a particular reliance on studies from the UK and the Netherlands. To improve the robustness of this estimate, the report suggests that a minimum of 200 comparable studies across different regions is needed.

The researchers also applied an ecosystem service analysis, which identified preliminary values for a set of seven ecosystem services. Some of these, such as carbon storage and tourism, had relatively robust estimates. For example, it is estimated that the total carbon stock value of all Natura 2000 habitats lies between €607 and €1,130 billion (as at 2010), depending on which carbon price is used in the estimation. In addition, tourism motivated by Natura 2000 sites would provide €9 and €20 billion per year.

To value other ecosystem services, such as natural hazard mitigation, water provision and pollination, the study made use of illustrative case examples complemented by experimental methods. For example, the value of mitigating natural hazards can be based on estimates of 'avoided costs' - these are the costs that could otherwise arise through incidents such as flooding damage. The value of water purification relates to avoided need for water pre-treatment by technological means. Given the site-specific nature of benefits for these services, significantly more case evidence is needed before EU-wide values can be truly estimated.

Based on the analysis, the study highlights the usefulness of a 'roadmap' for the future valuation of Natura 2000. This would include improved use of Geographic Information Systems (GIS) and mapping, which would particularly help assess the value of carbon storage, water supply and flood control. The study also recommended that more valuations are conducted and, at the same time, developing 'value production functions', to facilitate future analysis of the economic values of Natura, to make research cost-effective. The study also underlined that the economic assessment of values should be seen as complementary information to insights on the richness and rarity of biodiversity and its intrinsic value in Europe, which, after all, are the reason for designating sites as Natura 2000.



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