

Socio-Economic benefits associated with Natura 2000

***Why is it important to invest in Natura 2000?
What are the benefits we can obtain?***

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Building on the work of the wider team, and inputs from across Member States

Stakeholder Conference on Financing Natura 2000

15-16 July 2010

Brussels, BE



Institute for
European
Environmental
Policy



Why look at the benefits of Natura 2000?

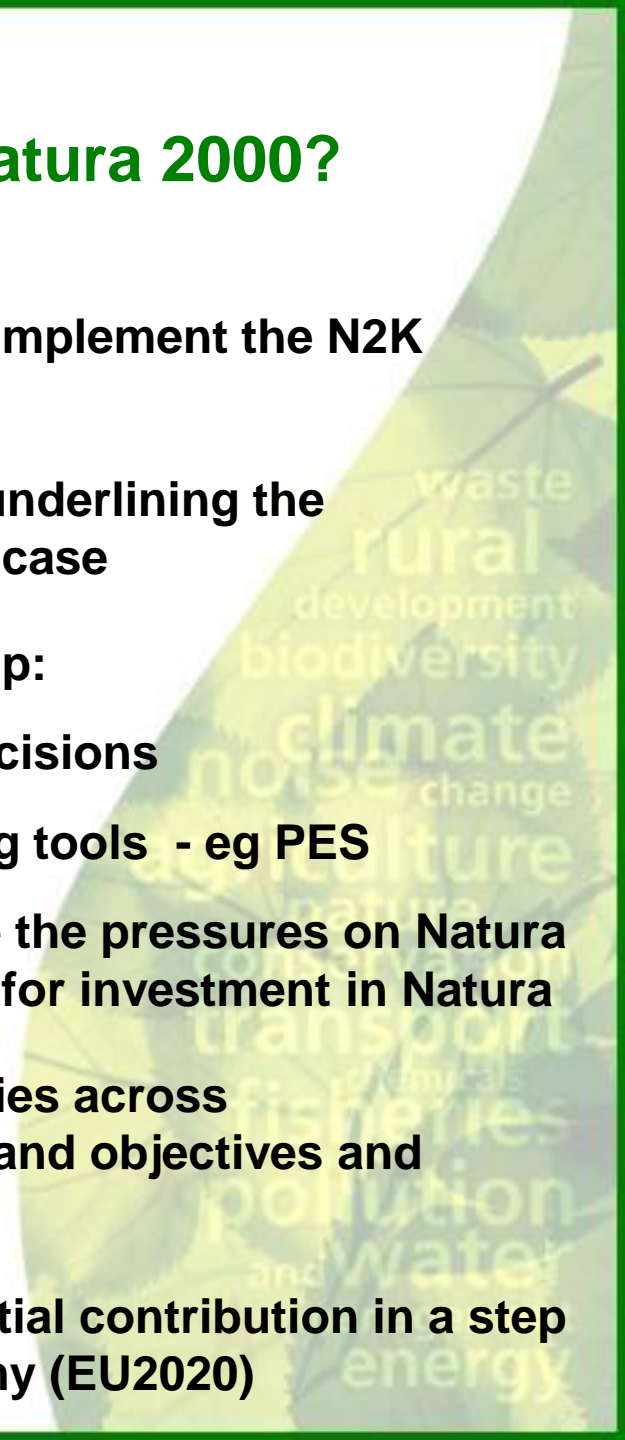
- The financial resources required to implement the N2K network need to be found/fought for
- A case needs to be made for this – underlining the (economic) benefits helps make the case

Appreciation of the benefits can also help:

- decide on investment and permit decisions
- be used also for innovative financing tools - eg PES
- can help motivate policies to reduce the pressures on Natura which can also reduce future needs for investment in Natura

Clarifying benefits can underline synergies across environmental and sector activities and objectives and hence help integration

Natura 2000 benefits offer a major potential contribution in a step towards a resource efficient economy (EU2020)

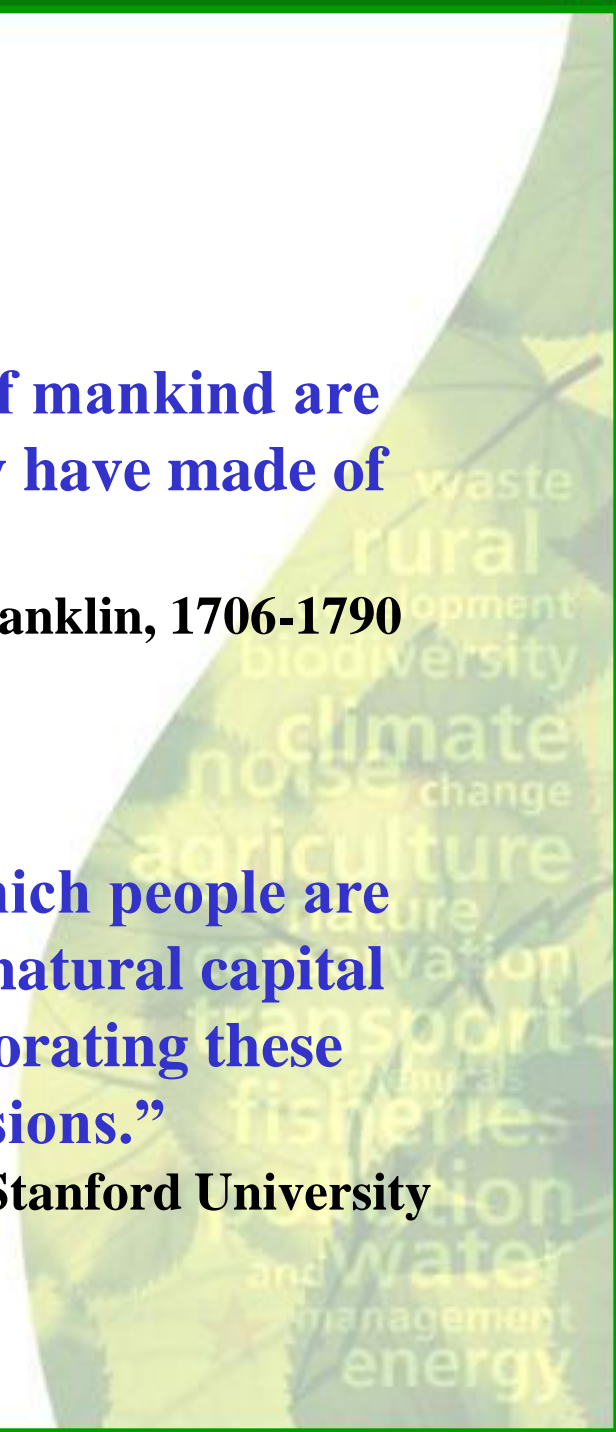


“I believe that the great part of miseries of mankind are brought upon them by false estimates they have made of the value of things.”

Benjamin Franklin, 1706-1790

“There is a renaissance underway, in which people are waking up to the tremendous values of natural capital and devising ingenious ways of incorporating these values into major resource decisions.”

Gretchen Daily, Stanford University

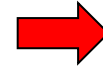


What are the benefits of Natura 2000 ?

Ecosystem Services — nature provides, humanity benefits

Provisioning services

Food, fibre and fuel
Water provision
Genetic resources



Valuable inputs/products:

Agriculture, fisheries, forestry,
water sector, pharmaceuticals,
biomimicry et al
>>policy synergies

Regulating Services

Climate /climate change regulation
Water and waste purification
Air purification
Erosion control
Natural hazards mitigation
Pollination
Biological control



Avoided costs

Of impacts (eg climate, air
pollution, soil erosion,
hazardous events, pests/IAS)

Of needed substitute processes /
solutions (eg pollination,
water purification, climate
mitigation)

Cultural Services

Aesthetics, Landscape value,
recreation and tourism
Cultural values and inspirational
services



Motors of growth -

Aesthetics, Landscape value,
recreation and tourism

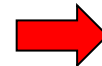
Jobs - Direct, indirect,
multipliers

Supporting Services

Soil formation

Wellbeing/identity - Cultural
values and inspirational
services

+ **Resilience** - e.g. to climate
change



**Policy
synergy/integration**

+ the Intrinsic Value of Biodiversity mitigation/adaptation

Natura 2000 benefits & Integration (examples)

- **Water Sector** - maintenance and restoration of forests/grasslands and water purification and provision
- **Agriculture** - Natural pollination benefits and hedgerows (agriculture) ; Organic produce and branded produce; Buffer strips and water purification - to avoid run-off, polluted surface/groundwaters and eutrophication
- **Forestry** - PES for management for water purification and supply & PES for carbon storage; sustainable forestry practice and certification and GPP (for certification and against illegal timber)
- **Fisheries** - Marine Protected areas, zoning and fisheries management
- **Tourism** - Protected areas and recreation tourism – e.g. pervasive: eg Scotland, Flanders, Germany
- **Natural hazards management** - natural floodplains and flood control (link to ag or forestry/other land use) – e.g. Schelde (B/NL)
- **Climate change – mitigation and adaptation** - carbon storage/avoided deforestation/degradation; Investment in ecosystem based adaptation / resilience
- **Food and drink** - biodiversity benefits and markets – certified products & organic / MSC certified fish – lesser production impacts
- **Pharmaceuticals/medicines** – build on genetic information / natural medicines
- **Biomimicry** – potential for range of sectors.

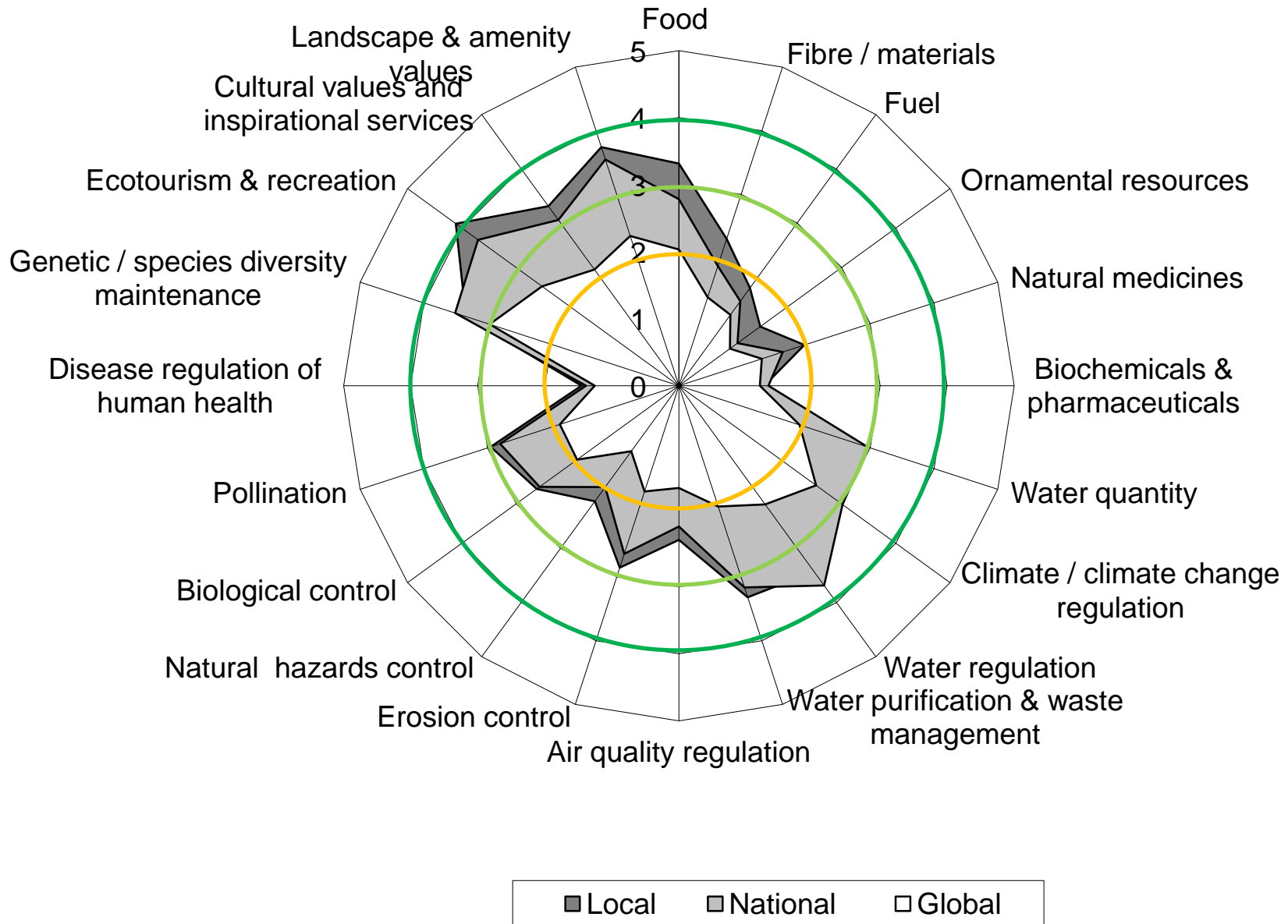
The multiple beneficiaries

- **local public benefits:** supporting local identity, local recreation, local non-market forest products, and the local “brand” ;
- **local private benefits:** support to natural water purification resulting in lower pre-treatment costs to the local water supply company, etc.;
- **local public sector benefits:** a site’s abilities to mitigate floods resulting to lower public investment in flood control and / or flood damage, etc.;
- **regional & cross-border benefits:** regulation of climate & floods, mitigation of wild fires, water provisioning & purification in transnational river basins;
- **international / global public benefits:** provision of habitat for a migratory species at some point in its annual cycle, regulation of climate (carbon capture and storage), maintenance of global species and genetic diversity), etc.; and
- **international private benefits:** new pharmaceutical or medicinal product derived via bioprospecting, etc.

Benefits of Natura 2000 – Current information base

- **Historically benefits discussions focused on jobs and tourism**
- **This has moved to assessment of ecosystem services –**
 - **Increasing interest across Member States**
 - **A lot of progress in a range of countries (UK, France, Belgium.....)**
- **However,**
 - **Not systematic**
 - **Case study based rather than general assessment (eg ecosystem service wide analysis)**
 - **Different methodologies used, creating comparability issues**
- **a lot of interesting case studies emerging (leaving this for the speakers!)**

Study Survey – qualitative analysis



Study Survey – qualitative analysis

Natura 2000 benefits: most relevant - Regulating and cultural services, inc.

- the regulation of climate (e.g. mitigation of climate change),
- purification of water and maintenance of water flows,
- safeguarding natural pollinators,
- preservation of landscape and amenity values, and
- support of tourism and recreation

Natura 2000 benefits: also important:

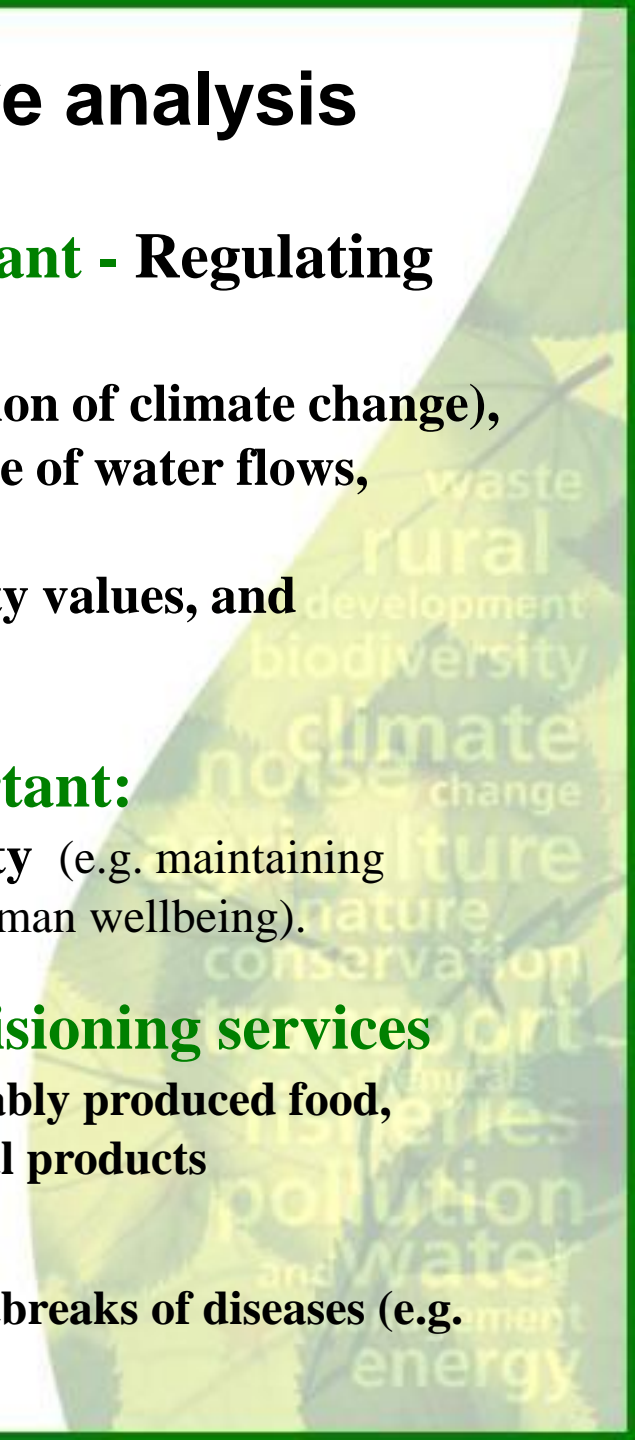
- preserving genetic and species diversity (e.g. maintaining healthy populations of species beneficial to human wellbeing).

Natura 2000 benefits : low: provisioning services

- providing different goods, such as sustainably produced food, fibres, natural medicine and pharmaceutical products

+

Regulating service: in regulating outbreaks of diseases (e.g. human health).



Interpreting the benefits

The level of benefits of a site will depend on

- **the quality and quantity of the biodiversity,**
 - **the services that the ecosystems provide, and**
 - **who benefits from these services.**
-
- **Wealthier individuals tend to have a higher willingness to pay (WTP) whether for recreation or to pay for species protection or access to sites.**
 - **The value of water purification and provision depends inter alia on how many people benefit from these services in neighbouring cities or towns.**
 - **The value of a protected area for flood protection depends on the level of risk, how the protected site can mitigate it, and what the economic and other assets at risk are.**
 - **The value of carbon sequestration and storage on the other hand relates mainly to the physical processes of the site and the value of carbon.**

Interpreting the benefits

Nature of value

Some of the values will be **“real money”** (e.g. tourism receipts, avoided cost of flood impacts, avoided costs of water pre-treatment or provisioning service gains by pollination),

some have the **“potential to be real”** (e.g. carbon storage, which becomes real to the extent that a market is set up to reward the benefits), and

others remain **“welfare benefits”** that reflect social (perceptions of) benefits (e.g. cultural identity, and non-paid recreation).

Synthesis

Multiple (potential) benefits from Natura

Multiple (potential) beneficiaries

**Understanding the benefits key for financing, for investment,
for integration and wide public acceptance**

Awareness of benefits growing – but much to do.

Information base growing – also much to do.

**Destination: understanding the value of nature and
integrating it across policies.**

Cases

Wide range of cases obtained – thanks to countries

8 cases in background report – of which 3 to present shortly

- 1. Estimated gross benefits of Natura 2000 sites in the Netherlands**
- 2. Assessment of the net economic benefits of Natura 2000 sites in Scotland**
- 3. Global economic costs of the Natura 2000 Network in Spain & WTP**
- 4. Estimated net benefits of managing Natura 2000 in France**
- 5. The benefits supported by floodplain ecosystems in the lower Danube basin, Romania**
- 6. A range of ecosystem services provided by the Natura 2000 area “Pico da Vara / Ribeira do Guilherme” (Azores, Portugal)**
- 7. Income streams created by tourism at national parks and recreational areas in Finland**
- 8. Estimated benefits arising from the Burren National Park in Ireland**

PLENARY SESSION:
The benefits of investing in Natura 2000

Chair
Patrick ten Brink

11:30 **Socio-Economic benefits associated with Natura 2000**

Patrick ten Brink (IEEP)

Why is it important to invest in Natura 2000?

What are the benefits we can obtain?

12:00 **Cases studies exploring the benefits of Natura 2000; where costs are offset by benefits; who enjoys the benefits and who pays the costs**

Socio-economics of farming for conservation in the Burren (Ireland)

Brendan Dunford (HNV Services)

The lower Danube basin and its floodplain functions (Romania)

Orieta Hulea (WWF-DCP)

An economic and institutional evaluation of the Natura 2000 programme in France
Anne Dujin (CREDOC)

12:30 **Questions and answers**