



***Data and indicators to measure progress
towards the EU's biodiversity targets***

Conferenza ISPRA per la conservazione della biodiversità.

Rome 24-26 November 2010

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European Environment Agency



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Policy context

- European Union
 - Nature directives (and other thematic)
 - Biodiversity strategy and action plans (in response to CBD)
 - 6th EAP
- Global
 - Convention on Biological Diversity
 - Other Conventions and pan-European agreements



European Environment Agency

- Supports development of reporting frameworks
- Provides know-how and infrastructure for data flows
- Develops and supports development of biodiversity-related indicators
- Makes assessments and deliver policy-relevant information



Reporting on conservation status of habitats and species (Art.17)

Data flow on Natura 2000 sites and designated areas (CDDA)

- Reportnet
- Data centres (BDC)
- Information systems (BISE)

Indicators:
- SEBI 2010
- Core set

EU post-2010 biodiversity policy

- State of the Environment reports (every 5 years)
- Technical reports

Biodiversity Baseline



Rationale for the baseline (i)

What is in the 'baseline'?

- Facts & figures on the state and trends of biodiversity & ecosystems components
- Why biodiversity is important and why is it urgent to act: provide arguments and rationale

Rationale for the baseline (ii)

Why do we need that?

- To support development of post-2010 target(s) and sub-targets
- For measuring/monitoring progress and achievement from 2011 to 2020

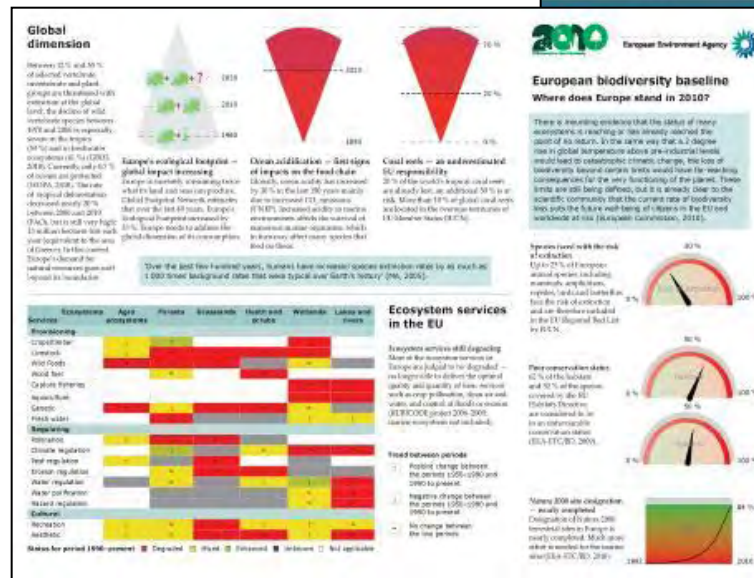
EU biodiversity baseline products (i)

Released during
Green Week in
June:

2 page summary
of key findings
– *flyer*

Summary of facts
and figures
– *brochure*

<http://www.eea.europa.eu/publications/eu-2010-biodiversity-baseline>



EU biodiversity baseline products (ii)

Released now:

The screenshot shows a Microsoft Internet Explorer browser window displaying the EEA website. The address bar shows the URL: <http://www.eea.europa.eu/publications/eu-2010-biodiversity-baseline/>. The page features the EEA logo and a search bar. A navigation menu includes links for Environmental topics, Publications, Multimedia, Data and maps, Networks, Press room, and About EEA. The main content area highlights the 'EU 2010 Biodiversity Baseline' as a technical report. A sidebar on the left promotes the 'SOER 2010' launch and provides a 'Sign up now!' form for email notifications. A 'Themes' section on the right lists 'Biodiversity' and 'Policy instruments'. The Windows taskbar at the bottom shows several open applications, including Microsoft Office, Windows Media Center, and Microsoft PowerPoint.

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Search Europe's environment...

A-Z Glossary

Environmental topics Publications Multimedia Data and maps Networks Press room About EEA

SOER 2010
The European environment – state and outlook, launch Nov.30

Publications

- » Publications
- » **EU 2010 Biodiversity Baseline**

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EU 2010 Biodiversity Baseline

Technical report No 12/2010

The EU 2010 Biodiversity Baseline provides facts and figures on the state and trends of the different biodiversity and ecosystem components. It thereby supports the EU in developing the post-2010 sub-targets and provides factual data for measuring and monitoring progress in the EU from 2011 to 2020.
Published: 19 Oct 2010

Themes

- Biodiversity
- Policy instruments

Published by

- EEA (European Environment Agency)

Contents



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Conservation status

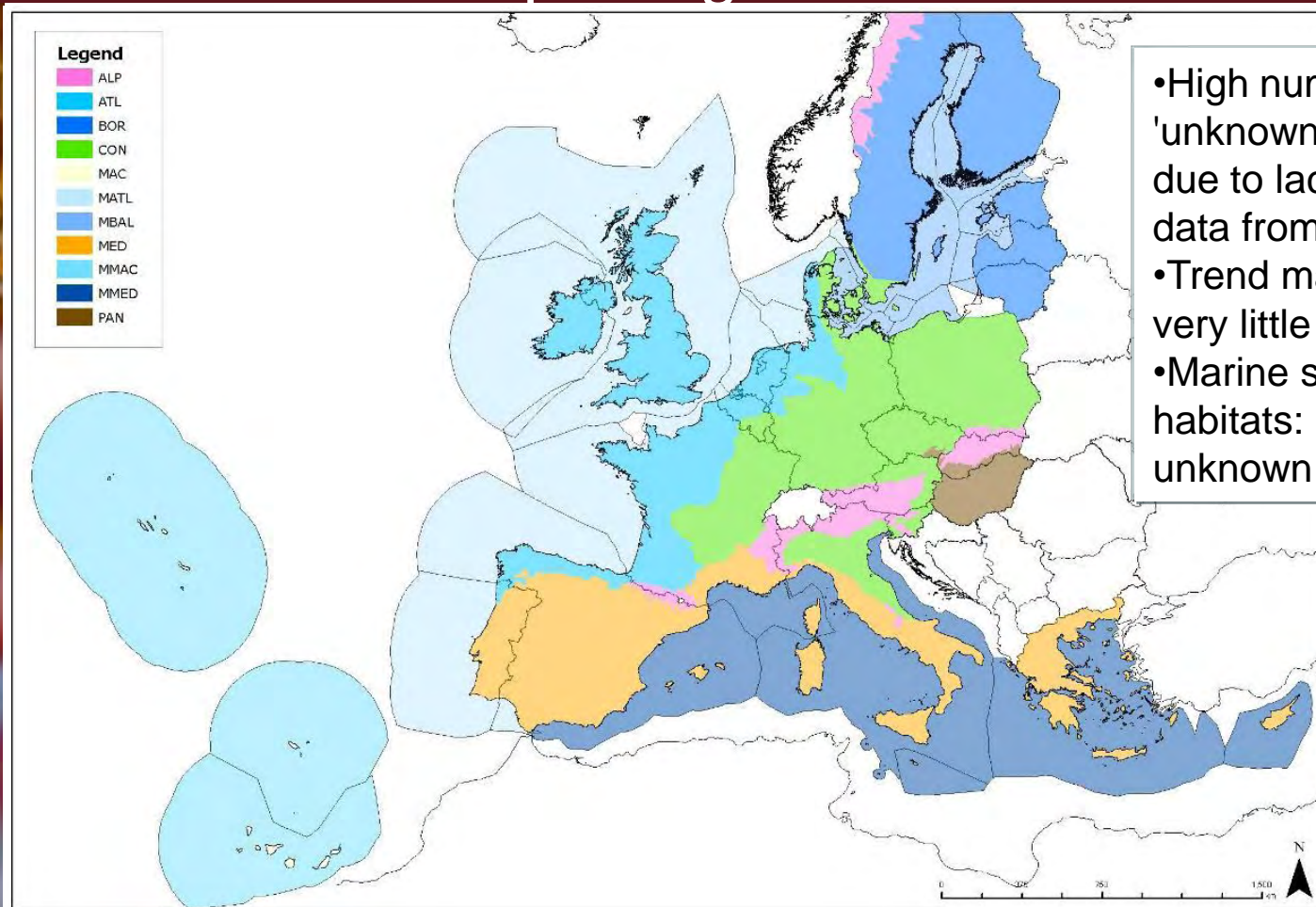
Article 17 reporting

65% of the habitats and
52% of species covered by
the EU Habitats Directive
have an unfavourable
conservation status



Conservation status

Article 17 reporting – trends 2000 - 2006



- High number of 'unknowns', mainly due to lack of basic data from MS
- Trend magnitude: very little reported
- Marine species & habitats: mostly unknown

7 biogeographical regions and 4 marine regions used for reporting and assessments



Conservation status

Article 17 reporting

- Conservation status of
 - 216 habitat types (Annex I)
 - 1 182 species (Annexes II, IV, V)
- For each biogeographical region (7) and marine region (4)
- EU 25, period 2001-2006 (BG & RO not covered)
- Background information: range, area, population, future prospects, structure & functions
- Trends
- Pressures & threats



Conservation status

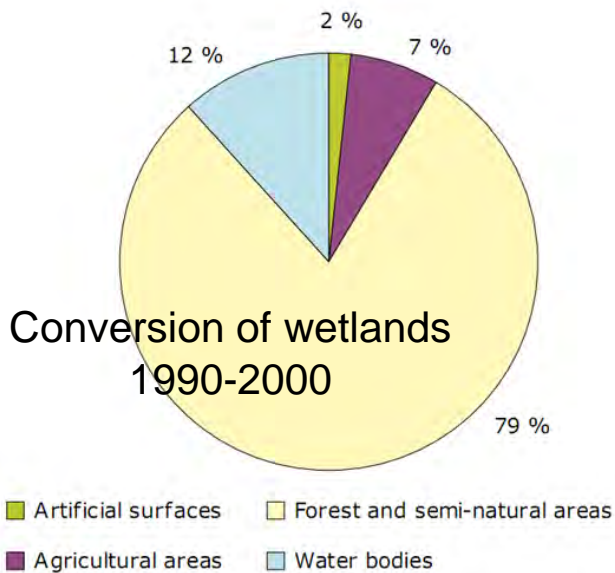
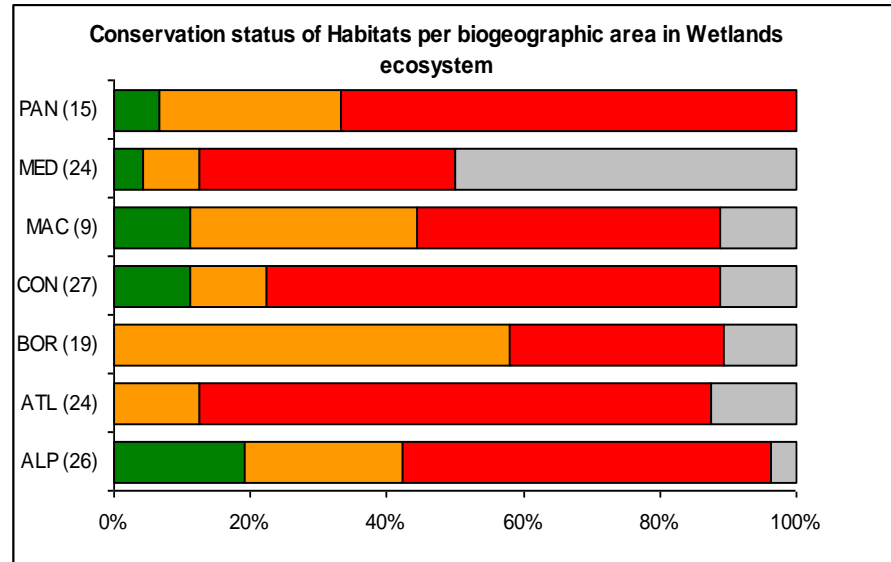
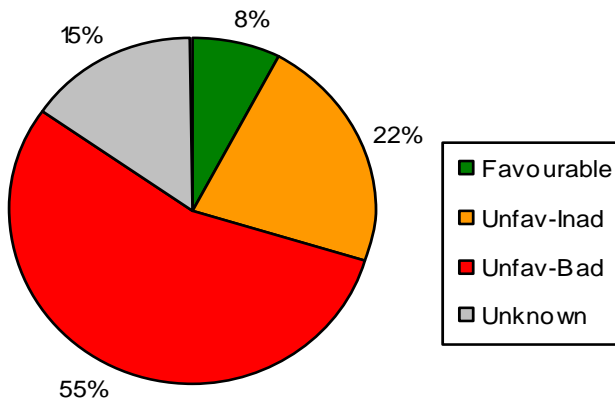
Article 17 reporting

In total:

- 2 756 reports of conservation status for habitats
- 6 064 reports of conservation status for species (plants & animals)
- Using a 'traffic light' system

Favourable -	FV ('green')
Unfavourable – inadequate -	U1 ('amber')
Unfavourable – bad -	U2 ('red')
Unknown -	XX ('grey')

Wetlands - habitats



Article 17 findings

Article 17 report suggests better management of designated areas is needed - as well as better integration of biodiversity concerns into sectoral policies affecting the wider countryside and the environment at large.

Loss of biodiversity often reduces productivity of ecosystems

Services	Ecosystems	Agro ecosystems	Forests	Grasslands	Heath and scrubs	Wetlands	Lakes and rivers
Provisioning							
Crops/timber		↓	↑			↓	
Livestock		↓	=	=	=	↓	
Wild Foods		=	↓	↓		=	
Wood fuel			=		=		
Capture fisheries						=	=
Aquaculture						↓	↓
Genetic		=	↓	↓	=	=	
Fresh water			↓			↑	↑
Regulating							
Pollination		↑	↓	=			
Climate regulation			↑		=	=	=
Pest regulation		↑		=			
Erosion regulation			=	=	=		
Water regulation			=		↑	↑	=
Water purification						=	=
Hazard regulation						=	=
Cultural							
Recreation		↑	=	↓	↑	↑	=
Aesthetic		↑	=	=	=	↑	=

Trend between periods

↑ Positive change between the periods 1950–1990 and 1990 to present

↓ Negative change between the periods 1950–1990 and 1990 to present

= No change between the two periods

Status for period 1990–present: ■ Degraded ■ Mixed ■ Enhanced ■ Unknown Not applicable



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Sources of information for Biodiversity Baseline:

SEBI 2010 – **S**reamlining **E**uropean **B**iodiversity **I**ndicators

- Initiated in 2005 to select a set of indicators to monitor progress towards 2010 in Europe
- Institutional partners
 - EEA and ETC/BD
 - ECNC
 - UNEP-World Conservation Monitoring Centre
 - European Commission
 - PEBLDS
 - Czech Republic
- SEBI 2010 built on the conceptual framework provided by the CBD, and worked with a set of headline indicators within the CBD focal areas.



16 EU Headlines

ECOSYSTEM INTEGRITY, GOODS AND SERVICES

- Marine trophic index
- Connectivity/fragmentation of ecosystems
- Water quality in aquatic ecosystems

SUSTAINABLE USE

- Area of ecosystems under sustainable management
 - Forest
 - Agriculture
 - Fishery
 - Aquaculture
 -
- Ecological footprint

+ Funding to biodiversity
+ Public awareness & participation
+ Patent applications

STATUS AND TRENDS OF COMPONENTS OF BIODIVERSITY

- Trends in extent of selected biomes, ecosystems, habitats
- Coverage of protected areas
- Trends in abundance and distribution of selected species
- Change in status of threatened and/or protected species
- Trends in genetic diversity of domesticated animals, cultivated plants, fish species of major socioeconomic importance

THREATS TO BIODIVERSITY

- Nitrogen deposition
- Numbers and costs of invasive alien species (*Trends in invasive alien species*)
- Impact of climate change



... and 26 specific indicators

1. Abundance and distribution of selected species	14. Fragmentation of river systems
2. Red List Index for European species	15. Nutrients in transitional, coastal and marine waters
3. Species of European interest	16. Freshwater quality
4. Ecosystem coverage	17. Forest: Growing stock, increment and fellings
5. Habitats of European interest	18. Forest: Deadwood
6. Livestock genetic diversity	19. Agriculture: Nitrogen balance
7. Nationally designated protected areas	20. Agriculture: Area under management practices potentially supporting biodiversity
8. Sites designated under the EU Habitats and Birds Directives	21. Fisheries: European commercial fish stocks
9. Critical load exceedance for nitrogen	22. Aquaculture: Effluent water quality from finfish farms
10. Invasive alien species in Europe	23. Ecological Footprint of European countries
11. Impact of climatic change on bird populations	24. Patent applications based on genetic resources
12. Marine Trophic Index of European seas	25. Financing biodiversity management
13. Fragmentation of natural and semi-natural areas	26. Public awareness

Sources of information for the biodiversity baseline: SEBI Reports

2007: technical report documenting the indicators



2009: first assessment report based on the indicators + indicator factsheets



2010: Assessing biodiversity in Europe



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Sources of information for the biodiversity baseline: 10 messages for 2010

Each message provides a short assessment focusing on a specific ecosystem or issue related to biodiversity in Europe.

- Climate change and biodiversity
- Protected areas
- Freshwater ecosystems
- Marine ecosystems
- Forest ecosystems
- Urban ecosystems
- Agricultural ecosystems
- Mountain ecosystems
- Coastal ecosystems
- Cultural landscapes and biodiversity heritage



Biodiversity Information Centre for Europe (BISE)

Single entry point for data and information on biodiversity and ecosystems in Europe

The screenshot shows the BISE website interface. At the top, there are navigation links: "home | login" on the left and "EC-CHM WISE Contact us Sitemap Search" on the right. The main content area features a large banner with the BISE logo on the left, a photograph of a yellow tractor in a field under a moon on the right, and a text box on the right that reads: "Biodiversity Information System for Europe. BISE is a partnership between the European Commission (DG Environment, Joint Research Centre, Eurostat) and the European Environment Agency (EEA). It incorporates the network of the European Clearing House Mechanism." Below the banner are two buttons: "about BISE" and "show sitemap". A horizontal menu below the banner contains five tabs: "Policy", "Topics", "Data", "Research", and "Countries & Networks". Below the menu are two columns of news. The "News - Europe" column lists several news items with dates and sources, such as "COST, 13/10/2010: COST News No 17 - October 2010" and "EU CHM, 08/10/2010: Addressing knowledge gaps and responds to policy on biodiversity in the EU". The "News - World" column lists news items like "CBD, 13/10/2010: Farms in the sky, an interview with Dickson Despommier" and "IUCN, 29/09/2010: New study shows over one fifth of the world's plants are under threat of extinction". At the bottom of the page, there are three logos: the European Commission logo, the European Environment Agency logo, and the International Year of Biodiversity 2010 logo.

home | login

EC-CHM WISE Contact us Sitemap Search

Biodiversity Information System for Europe

BISE is a partnership between the European Commission (DG Environment, Joint Research Centre, Eurostat) and the European Environment Agency (EEA). It incorporates the network of the European Clearing House Mechanism.

[about BISE](#) [show sitemap](#)

Policy Topics **Data** Research Countries & Networks

News - Europe

COST, 13/10/2010: COST News No 17 - October 2010
COST, 13/10/2010: The COST Office Association is a reality
EU CHM, 08/10/2010: Addressing knowledge gaps and responds to policy on biodiversity in the EU
SCALES, 08/10/2010: Financing Natura 2000 - Conference Proceedings online available
EEA, 04/10/2010: Biodiversity in Europe: policy scope must be widened for effective conservation
EEA, 27/09/2010: Protecting Europe's cultural landscapes and biodiversity heritage
Alter-net, 16/06/2010: Conserving biodiversity hotspots

News - World

CBD, 13/10/2010: [Farms in the sky, an interview with Dickson Despommier](#)
CBD, 13/10/2010: [Floods wash away Pakistan's crop research efforts](#)
CBD, 13/10/2010: [Russia backs away from plans to break up the unique Pavlovsk seed bank](#)
IUCN, 29/09/2010: [New study shows over one fifth of the world's plants are under threat of extinction](#)
IUCN, 28/09/2010: [IUCN joins "I am the ocean" campaign](#)
IUCN, 23/09/2010: [Securing water for all - a 2050 plan](#)

 European Commission

 European Environment Agency

 International Year of Biodiversity



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Into the policy loop - BAP final assessment

2010 assessment of implementing the EU Biodiversity Action Plan

Adopted October 2010

Overview of progress at both EC and Member State levels.

Addresses four main policy areas: biodiversity in the EU, the EU and global biodiversity, biodiversity and climate change, and the knowledge base; and its supporting measures: financing, EU decision making, partnerships, and awareness raising.

Includes:

Consolidated profile

More detailed comparative factual assessment of progress at Community and Member State level.

Updated Summary of Community level Action

Synthesis of progress for each of the ca 150 actions set out in Action Plan.

SEBI 2010 Biodiversity Indicators

2010 update of biodiversity indicator fact sheets

Country profiles

National assessments on implementation of EU Biodiversity Action Plan.

http://ec.europa.eu/environment/nature/biodiversity/comm2006/bap_2010.htm



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Into the policy loop – post Nagoya

Main outcomes

- Strategic Plan for Biodiversity 2011-2020 (“Aichi Targets”)
- Strategy for Resource Mobilisation
- Nagoya Protocol on Access and Benefit-Sharing

And some 35 other decisions

- Climate change and biodiversity
- Biofuels and biodiversity
- Marine & coastal biodiversity
- IPBES
- ...



Into the policy loop

Strategic Plan 2011-2020

2050 Vision

“By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.”

2020 Mission

Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life, and contributing to human well-being, and poverty eradication;

To ensure this, pressures on biodiversity are reduced, ecosystems are restored, biological resources are sustainably used and benefits arising out of utilization of genetic resources are shared in a fair and equitable manner; adequate financial resources are provided, capacities are enhanced, biodiversity issues and values mainstreamed, appropriate policies are effectively implemented, and decision-making is based on sound science and the precautionary approach.



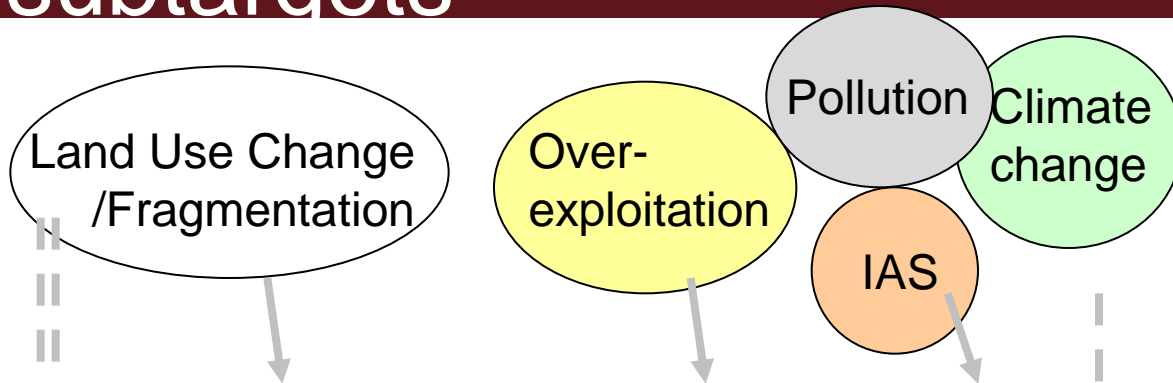
20 targets across 5 strategic goals

- **Strategic goal A**
Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society (targets 1-4)
T2 valuation/national accounts; T3 incentives/subsidies
- **Strategic goal B**
Reduce the direct pressures on biodiversity and promote sustainable use (targets 5-10)
T5 halving and, where feasible, bringing close to zero the rate of loss of natural habitats, *including forests* + significantly reducing fragmentation and degradation
T6 fishing within safe ecological limits/avoid overfishing
- **Strategic goal C**
To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity (targets 11-13)
T11 protected areas = 17% terrestrial, 10% marine
- **Strategic goal D**
Enhance the benefits to all from biodiversity and ecosystem services (targets 14-16)
T15 restoration of 15% of degraded ecosystems
- **Strategic goal E**
Enhance implementation through participatory planning, knowledge management and capacity building (targets 17-20)
T20 substantial increase in financial resources *from all sources*
☞ [Link to resource mobilisation decision](#)



Rational for the proposal of new EU subtargets

PRESSURES



Halting Biodiversity loss

1. Agriculture/Forests

2. Fisheries

3. IAS

4. Nature conservation

Restoring ES

5. No deterioration and restoration (incl GI)

Global BD

6. Contribution to global biodiversity

OBJECTIVES

SUBTARGETS

Will contribute to



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Link to CBD Strategic Plan

ST1- Agriculture and Forest	This would be linked to the achievement of targets T3, T4, T7, T8, T13, T14, T15
ST2- Fisheries	This would be linked to T3, T4, T6, T10
ST3- Invasive Species	This would be linked to T9
ST4- Nature Conservation	This would be linked to T5, T11, T12
ST5- No deterioration/restoration incl GI	This would be linked to T14, T15, T5, T2, T11, T6, T7
ST6- Global contribution	This would be linked to T2, T3, T4, T16, T18, T14, T20



Enhancing the knowledge base TEEB- Study cases

The EEA has prepared an interactive map to present the TEEB cases on local and regional scale.

The screenshot displays the EEA website's interface for the TEEB study. At the top, a navigation bar includes links for Environmental topics, Publications, Multimedia, Data and maps, Networks, Press room, and About EEA. The main content area features the SOER 2010 logo and a section titled "The economics of ecosystems and biodiversity (TEEB)". Below this, a text block explains that the TEEB study is a major international initiative to draw attention to the global economic benefits of biodiversity, highlight the growing costs of biodiversity loss and ecosystem degradation, and draw together expertise from science, economics, and policy to enable practical actions.

The central focus is an ArcGIS Explorer Online window titled "The Economics of Ecosystems and Biodiversity". The window shows a world map with numerous orange pins indicating TEEB study cases across various continents. The interface includes a toolbar with options like Home, Start Presentation, Edit Presentation, Search, Identify, Measure, Map Notes, Create, Basemap, Add Content, Map Contents, Draw Order, and Map Legend. The map is powered by Bing and Esri. At the bottom of the browser window, the Windows taskbar is visible, showing the Start button, several open applications, and the system clock displaying 12:07 on 12/07.

Enhancing the knowledge base - IPBES

UN Resolution on the Establishment - discussed and hopefully adopted by the end of the year
In 2011 operationalizing - through 1st Plenary meeting of IPBES
For 2011, COM may envisage contract « Towards an EU mechanism for independent, authoritative research-based advice to inform implementation and further EU biodiversity policy development »



The screenshot shows the IPBES website homepage in French. The browser window title is "Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) - Microsoft Internet Explorer provided". The URL is "http://ipbes.net/". The page features a navigation menu with links: Home, News Centre, About IPBES, 3rd Meeting on IPBES, Regional Consultations, E-Peer Review, and Contact. The main content area includes a "Want to know the latest trends?" section, a "3rd Meeting on ipBes" section with a "Download Documents" button, and a "Report of the Busan meeting now available in 6 languages" section. A "Regional Consultation Meetings" section lists meetings for North America, Latin America, Africa, Central Asia, and Eastern Europe. A "News Alerts" section lists several news items with dates. The footer includes the "2010 International Year of Biodiversity" logo and the "European Environment Agency" logo.



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Continuing to:
Enhance the knowledge base
Support policy making

Thank you for your attention!



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