

## Streamlining European 2010 Biodiversity Indicators

# SEBI 2010

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Biodiversity Indicators (SEBI2010)  
is a joint pan-European activity with countries  
and other interested bodies to develop and  
implement biodiversity indicators for assessing,  
reporting on and communicating achievement of  
the 2010 target to halt biodiversity loss.





## Background

In June 2004, the EU Environment Council welcomed the set of biodiversity indicators referred to in the 'Message from Malahide' and based on the first set of indicators adopted under the Convention on Biological Diversity earlier that year. The Council also urged the European Commission to develop, test and finalise the EU set by 2006 having regard to its evolving nature. The commitment builds on a global decision taken at the Johannesburg summit in 2002 to significantly reduce the loss of biodiversity by 2010. The framework of 15 headline indicators was also adopted by the EU Council in June 2004 and by the PEBLDS (Pan-European Biological and Landscape Diversity Strategy) Council in 2005. Subsequently the SEBI2010 project was set up to oversee the process on the Pan-European level.

The activities addressed by SEBI2010 include three policy contexts:

1. European Union: by implementing the EU headline biodiversity indicators response is given to the Message from Malahide as endorsed by the EU Environment Council, as well as support to the Lisbon Agenda, the sustainable development strategy, the habitats and birds directives and the biodiversity strategy;
2. Pan-European: as a follow-up to the Kyiv Resolution on Biodiversity SEBI2010 is directly responding to the UNECE Environment for Europe process and the PEBLDS;
3. Global: the EU biodiversity headline indicators are based on the CBD trial indicators, customized to the European needs. Therefore SEBI2010 also responds to CBD Decision VII/30.

A common element in these three processes is the 2010 target and a common tool is the agreed set of indicators.

## Objectives & Outputs

The SEBI2010 coordination team and any processes it establishes have been set up to be operational from 2004 until 2010.

The objectives of SEBI2010 are:

- to consolidate, test, refine, document and help produce workable sets of policy-relevant biodiversity indicators meaningful in the context of the 2010 target;
- to help ensure adequate funding for monitoring, indicators and assessments to support implementation and achievement of the policy decisions and targets;
- to improve coordination, exchange of information and collaboration on biodiversity-related indicators and monitoring tasks building on current activities and good practice;
- to consider the wider use of the indicators, and their applicability within other relevant indicator frameworks and assessment processes.

The outputs of SEBI2010 are to provide:

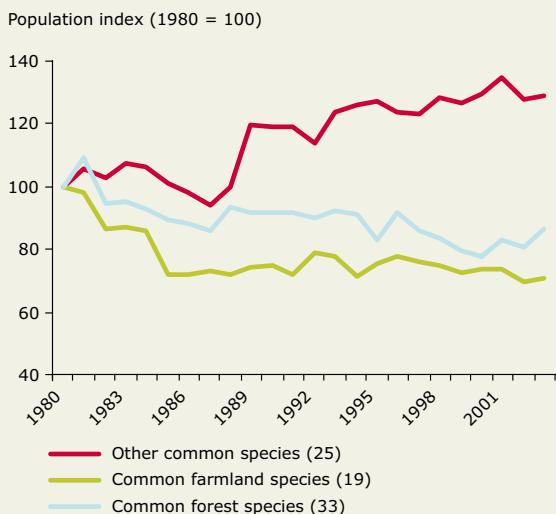
- a coherent European programme for the progressive development of biodiversity indicators;
- an initial set of tested indicators at EU and Pan-European levels;
- proposals and guidance on the development, production and delivery of agreed indicators;
- a recommendation for an approach to using the agreed indicators to measure the progress of national governments, the EU and the pan-European community towards achieving the 2010 target;
- advice on how to relate the change in biodiversity at EU and pan-European level to policy measures adopted at these levels, so as to provide information to enable the EU and countries to adjust or strengthen the measures concerned;
- proposals, guidance, recommendations and information for presentation to the appropriate European governance groups developing biodiversity policy for formal adoption;
- information to the CBD secretariat, advisory and governance processes on the results of the work being undertaken.

## Results to date

There has been significant progress within SEBI2010 since its start in January 2005 and it is expected that the first set of 15 EU headline biodiversity indicators will be in place before 2007 for monitoring progress to 2010 and beyond. The state of play of each headline indicators is briefly described below. In addition an indicator on 'Ecological Footprint' is under consideration

### 1. Trends in abundance and distribution of selected species

Data availability has been assessed for a number of species groups. Two specific, candidate indicators available now are the Pan-European Common Bird Index and the European Butterfly Indicator. Figure below shows the Pan-European Common Bird Index



### 2. Change in status of threatened and/or protected species

Three specific indicators have been proposed: the red list index, a threatened bird index and the status conservation of species under the Habitats Directive.

### 3. Trends in extent of selected biomes, ecosystems and habitats

An indicator is proposed on trends in extent of the following major habitat types: forests, peat lands, croplands, natural and semi-natural grasslands, polar/ice/tundra, inland wetlands, tidal flats/estuaries, sea grasses, dry and sub-humid lands.

### 4. Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance

The available data and indicators on genetic resources have been reviewed. Data are more advanced for domesticated animals than for other taxa (crops, trees, fish), as reporting is organized for the former by FAO through the database DAD-IS.

### 5. Coverage of protected areas

This indicator is prepared by UNEP-WCMC for circulation, review and finalisation.

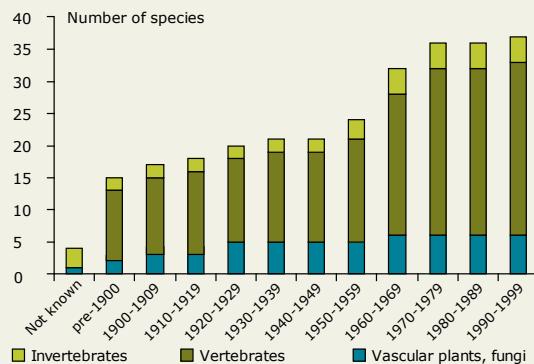
### 6. Nitrogen deposition

Available indicators on nitrogen deposition have been explored and it seems there are good availability of data for immediate use across Europe via UNECE and IIASA. Many European initiatives cover this headline indicator (e.g. ETNA, COST729, Nitro Europe) and provide several options for specific indicators.

### 7. Number and costs of invasive alien species

Data availability has been explored and four areas have been identified for development: cumulative list of alien species, worst invasive species of Europe, cost of invasive alien species, awareness of invasive alien species and management plans in place.

Figure below shows the indicator for the freshwater environment for 5 Nordic countries. It is also available for marine and terrestrial environments.



### 8. Impact of climate change on biodiversity

The EEA is considering options for including indicators being developed as part of the EEA work programme. Proposals for specific indicators will be made in 2006.

### 9. Marine Trophic Index

The Fisheries Centre at University of British Columbia has been contacted for their assistance in developing this indicator for Europe. A proposal for a specific indicator will be made in 2006.

### 10. Connectivity/fragmentation of ecosystems

Data availability has been explored as well as candidate indicators on fragmentation and connectivity of ecosystems. Specific focus was given to forests, wetlands and rivers.

### 11. Water quality in aquatic ecosystems

The EEA is considering how to use specific indicators from the EEA core set of indicators as well as examples developed by the UNEP/GEMS Water Programme for this indicator at European level. Proposals for specific indicators will be made in 2006.

### 12. Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management

Due to the need to clarify some of the concepts and expectations for this indicator, it will only be possible to make proposals for specific indicators in 2006.

### 13. Percentage of European patent applications for inventions based on genetic resources

The coordination team has agreed to contact the European Patent Office and the World Intellectual Property Organization for advice on developing a specific indicator, which will be done in 2006.

### 14. Funding to biodiversity

Several aspects of this indicator are being explored by the coordination team. Examples are bilateral aid provided by European countries reported through OECD DAC, Bilateral and multilateral aid received by Pan-European countries, and funding to biodiversity in EU research, monitoring and management. Proposals for specific indicators will be made in 2006.

### 15. Public awareness and participation

The possibility of using membership of environmental organizations and the Eurobarometer on the attitudes of Europeans towards the environment is being considered by the coordination team. Proposals for specific indicators will be made in 2006.



## Partners

The SEBI2010 process consists of a coordination team which is led by the European Environment Agency (and its European Topic Centre on Biological Diversity), ECNC (European Centre for Nature Conservation) and UNEP-WCMC (World Conservation Monitoring Centre) and expert groups. Six expert groups were established during the spring of 2005 to review, test, refine, document and help produce specific indicators in line with eight of the 15 headline biodiversity indicators. Options for the other seven headline indicators are initially being considered by the SEBI2010 coordination team. More than 120 Pan-European experts participate in the expert groups and most of them provide their assistance on a voluntary basis.

## Funding

The SEBI2010 project is financed by the European Environment Agency, with contributions from the European Commission DG Environment and the Governments of Switzerland and Norway.

## Further information

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European Environment Agency

