

Stakeholders' Conference

Biodiversity and the EU – Sustaining Life, Sustaining Livelihoods

Grand Hotel, Malahide, Ireland

25-27 May 2004

MALAHIDE/MP/Indicators

EU HEADLINE BIODIVERSITY INDICATORS

The opinions expressed in this paper are not necessarily those of the European
Commission

FORWARD

This paper has been prepared by the European Environment Agency based on the proceedings of the Working Group on Monitoring, Indicators and Reporting (Working Group 5) established under the EC's Biodiversity Expert Group (BEG).

The working group met twice, on 1 October 2003 and 2 April 2004 and benefited also from inputs from the four sectoral working groups established under the BEG. WG members also made written input. A smaller expert group also met on 8 December 2003 to support WG5. This paper also includes suggestions on implementation arrangements discussed at the BIO-MIN meeting of 21-23 April 2004.

The Working Group was co-chaired by DG Environment and the EEA. Membership of the Working Group was open to all members of the Biodiversity Expert Group (Member States, Accessing Countries, civil society organisations). The following is a list of the nominated representatives (and alternates) to the Working Group (excluding Commission staff):

Geert De Blust, Belgium; Marie-Celine Godin, Belgium; Annette Doerpinghaus, Germany; Christoph Eichen, Germany; Stavroula Spyropoulou, Greece; Carlos Martin Novella, Spain; Laurent Duhautois, France; Fabienne Allag-Dhuisme, France; Livia Fodor, Hungary; Deirdre Lynn, Ireland; Damiano Luchetti and Trapazzo Benedetta, Italy; Sandra Sietinsone, Latvia, Ben Ten Brink, the Netherlands; Martin Götzl, Austria; Jussi Soramäki, Finland; Ole Inghe, Sweden; Andrew Stott, United Kingdom; Tomas Landers, CEPF; Ben Delbaere, ECNC; Jos Noteboom and Ulla Pinborg, EEA; Gordon McInnes, EEA; P. Brotherton, EEAC; Kevin Parris, EHF; Ian Burfield, EHF; Szabolcs Nagy, EHF; Ronan Girard, ELO; Doug Beveridge, Europeche; Allan D. Watt, EPBRS; Dominique Richard, ETC/NPB; Sophie Condé and Vibeke Horlyck, ETC/NPB; Vibeke Horlyck, ETC/NPB; Manuel De Tillesse and Ralf Eisenbeiss, FACE; Dave Dawson, Andrew Terry, IUCN Regional Office for Europe; Ivonne Higuero, UNEP.

We apologise in advance for any omission or error in this list.

EU headline biodiversity indicators

Proposal by ad hoc working group monitoring, indicators and reporting (BEG WG5)

In the context of the EU biodiversity policy review the ad hoc working group on monitoring, indicators and reporting considered the requirements of the Convention of Biological Diversity (CBD), EU Biodiversity Strategy and relevant EU legislation and agreed to propose a set of headline biodiversity indicators.

With support of the Biodiversity Expert group (BEG)¹ the set is presented for adoption during the EU stakeholder conference on Biodiversity and the EU – Sustaining Life, Sustaining Livelihoods at Malahide, Ireland to be held on 25 – 27 May, 2004.

The purpose of the proposed set is to inform politicians and the public on the general status of biodiversity in the EU and the main progress of policies aiming to achieve the target of halting the loss of biodiversity by 2010 in the EU and at global scale.

The proposed set addresses the requests of European Parliament and Council for biodiversity indicators and will form the basis for reporting on progress towards the 2010 biodiversity target. The set will also support reporting of the EU to the CBD.

The proposed set is based on the decision of the seventh conference of the parties of CBD on evaluation of progress and addresses the major threats to biodiversity as recognized in the EC Biodiversity Strategy and Action Plans.

The proposed EU set is attached to this explanatory cover note. The rationale of the design and selection of indicators that are part of the set is given below.

In the second part of this note the organisational arrangement for the implementation of the set is proposed.

1. Explanatory note

Levels of communication

The ad hoc working group on monitoring, indicators and reporting (BEG WG5) has distinguished three main levels of communication for indicators. The description of the three levels is given in the table below. Indicators at lower level can be aggregated or used selectively to give messages at the higher levels.

The indicators that are linked to policy sectors (level 3) should follow logically from decisions taken about priorities and target actions of the EU Biodiversity Strategy and Action Plans (the 2010 delivery plan). In developing the headline indicators (level 2) level 3 indicators and linkages to specific European biodiversity policy objectives will be taken into account. From the set of headline biodiversity indicators it is expected

¹ The BEG is a consultative body on EU biodiversity policy issues of the European Commission with all Member States and Civil Society representation.

that one or a few structural indicators for biodiversity (level 1) can be selected or aggregated for inclusion in reporting under the Lisbon process.

A fourth level might consist of technical and specialist indicators or data sets associated to specific policy instruments.

Level 1. <i>Structural Indicator for Biodiversity.</i>	The function of this indicator is to inform politics and the public at a very generic way on the condition of biodiversity in Europe. This indicator should place biodiversity alongside economic growth and social development.
Level 2. <i>Headline Indicators for Biodiversity.</i>	A small set of indicators that give high-level messages on trends of various aspects of biodiversity. Politicians and the public are the target group again but the information has a broader coverage. This level should complement other environment, economic and social indicators and together they present a picture of sustainable development in Europe.
Level 3. <i>Indicators linked to policy sectors.</i>	Indicators designed for communication with key stakeholders in each sector, so that stakeholders get an impression of how their actions impact on biodiversity. Organisation of indicators around recognised key stakeholder/policy themes is the main issues at this level. Biodiversity indicators at this level should logically contribute to other sector/policy indicator sets in order to communicate efficiently and avoid overlap.

CBD decision on indicators

The seventh conference of the parties held in Kuala Lumpur in February 2004 agreed upon indicators for assessing progress towards the global 2010 biodiversity target². For several focus areas indicators are listed for immediate testing or for further development. The proposed EU headline biodiversity indicators are consistent with the COP7 decision.

The EU headline biodiversity indicators are organised across the CBD focal areas with exception of ‘status of traditional knowledge, innovations and practices’, which is considered less relevant for Europe. ‘Public opinion’ is added as a focal area because of the importance this issue has in EU biodiversity policy.

In addition to CBD indicators for immediate testing the proposed EU headline set includes some of the CBD indicators listed for further development because they are considered achievable in Europe and are policy relevant given the objectives of the EU Biodiversity Strategy. The EU proposal goes beyond CBD decisions by adding indicators that address specific EU policy issues (funding to biodiversity, public awareness).

CBD SBSTTA has provided concept and background papers for the CBD indicators that will be taken into account in the implementation of the set of EU headline biodiversity indicators³.

EEA core set

The EEA recently took the decision to prioritise a core set of indicators for development⁴. Most important criteria were policy relevance, ability to measure progress towards targets, and based on ready available and routinely collected data. The decision to focus on 37 core set indicators was taken after comprehensive EEA member country consultation.

² UNEP/CBD/COP/7/L.27

³ UNEP/CBD/SBSTTA/9/INF/26 and UNEP/CBD/SBSTTA/9/14

⁴ See: <http://biodiversity-chm.eea.eu.int/information/indicator/F1078143615/F1078143889>

The core set contains three biodiversity indicators: ‘threatened and protected species’, ‘designated areas’, and ‘species diversity’. Although titles may differ they all fit with the CBD indicators for assessing progress towards the 2010 biodiversity target. Further consideration of core set (sub)indicators in the light of development of CBD and EU headline biodiversity indicators is part of core set implementation.

Other relevant developments

Several ongoing operations feed into level 3 indicators and could be used selectively in the implementation of the EU headline biodiversity indicators. In particular indicators for environment integration in the Common Agriculture Policy (IRENA) and Common Fishery Policy, Bio-IMPs indicators for implementation of EU biodiversity policy, MCPFE indicators for sustainable forest management and OECD wildlife and agriculture indicators appear to be relevant to consider during implementation.

The UNEP-WCMC work on global and European biodiversity indicators should also be considered for the focal area on status and trends of the components of biological diversity. Important partners for this area are the NGOs who gather and compile species data all over Europe depending partly on voluntary contributions. RSPB, EBCC, BirdLife International and Wetland International already produced the bird indicators for EU15 countries⁵.

Next steps

The proposal will be presented at the Malahide conference and once agreed the Irish Presidency is requested to bring it to the table of the Environment Council for adoption. If endorsed by the Council then it will become the blue print for operationalisation and implementation within EU, including the determination of monitoring needs.

⁵ see: The state of biological diversity in the European Union, EEA information paper to Malahide conference (Malahide/INF2); European Commission, 2003 Environment Policy Review. COM (2003) 745 (final).

EU headline biodiversity indicators based on CBD decision and focal areas⁶

EU headline indicator	EU comments	CBD status	Relevant EEA core set(s)	Other relevant developments
<i>Status and trends of the components of biological diversity</i>				
<ul style="list-style-type: none"> Trends in extent of selected biomes, ecosystems and habitats 	State indicator giving trends in area surface of the main European ecosystem types (i.e. forests, wetlands ...) and habitat types mentioned in Habitats and Birds Directives	CBD indicator for immediate testing		<ul style="list-style-type: none"> CORINE Land Cover (CLC) 1990 and 2000
<ul style="list-style-type: none"> Trends in abundance and distribution of selected species 	State indicator giving population trends of selected species characteristic for main European ecosystem types (i.e. forests, wetlands ...) and Habitats and Birds Directives habitat types	CBD indicator for immediate testing	<ul style="list-style-type: none"> Species diversity (BDIV02): trends of representative selection of species populations associated with different ecosystems. 	<ul style="list-style-type: none"> UNEP-WCMC work on biodiversity indicators for Europe. Bird index by RSPB, EBCC and BirdLife
<ul style="list-style-type: none"> Change in status of threatened and/or protected species 	State indicator including EU Red Lists and species mentioned in the annexes of the Habitats and Birds Directives	CBD indicator for development (Red List indicator under development)	<ul style="list-style-type: none"> Threatened and protected species (BDIV03): number of globally threatened taxa (per species group, geographic region, endemics for Europe); proportion of protected species under different instruments 	<ul style="list-style-type: none"> IUCN work on European Red Lists

⁶ UNEP/CBD/COP/7/L.27

<ul style="list-style-type: none"> • Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance 		<p>CBD indicator for development</p>		<ul style="list-style-type: none"> • OECD agro-biodiversity indicators
<ul style="list-style-type: none"> • Coverage of protected areas 	<p>Response indicator showing coverage of protected areas under national and international agreements, sufficiency of MS proposals of designated areas under Habitats and Birds Directives, protected areas (Natura 2000) with management plans</p>	<p>CBD indicator for immediate testing</p>	<ul style="list-style-type: none"> • Designated areas (BDIV010): cumulative areas of sites over time under international conventions and initiatives (incl EU Directives), progress implementation Habitats and Birds Directives, cumulated area of national designated area over time in Pan-Europe 	<ul style="list-style-type: none"> • UNEP-WCMC work on protected areas • EEA Common Database on Designated Areas (CDDA)
<p><i>Sustainable Use</i></p>				
<ul style="list-style-type: none"> • Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management 	<p>Fishery is added to the original CBD definition to strengthen the link to relevant Common Fishery Policy</p>	<p>CBD indicator for development, excl fishery</p>	<ul style="list-style-type: none"> • Share of organic farming area in total agricultural area (AGRI06) • Gross nutrient balance (AGRI02) • Status of marine fish stocks (FISH01) • Aquaculture production (FISH03) • Fishing fleet capacity (FISH08) 	<ul style="list-style-type: none"> • MCPFE process for sustainable forest management indicators • IRENA operation on indicator reporting on the integration of environment concerns into agriculture policy • DG Fisheries indicators for environment concerns in the Common Fisheries Policy
<p><i>Threats to Biodiversity</i></p>				
<ul style="list-style-type: none"> • Nitrogen deposition 		<p>CBD indicator for immediate testing</p>	<ul style="list-style-type: none"> • Exceedance of critical loads in rural areas (APD13) 	
<ul style="list-style-type: none"> • Numbers and costs of invasive alien species 		<p>CBD indicator for development</p>		

<ul style="list-style-type: none"> • Impact of climate change on biodiversity 	<p>Impacts on biodiversity is important issue in EU climate policy, this indicators links to that</p>			<ul style="list-style-type: none"> • EEA study on impact of climate change
<p><i>Ecosystem integrity and ecosystem goods and services</i></p>				
<ul style="list-style-type: none"> • Marine trophic index 	<p>Possibly the indicator could also cover freshwater and terrestrial ecosystems</p>	<p>CBD indicator for immediate testing</p>		
<ul style="list-style-type: none"> • Connectivity/Fragmentation of ecosystems 	<p>Indicator linked to EU transport and regional development policies</p>	<p>CBD indicator for development</p>		
<ul style="list-style-type: none"> • Water quality in aquatic ecosystems 	<p>Indicator linked to Community water policies</p>	<p>CBD indicator for immediate testing</p>	<ul style="list-style-type: none"> • Oxygen consuming substances in rivers (WEU05) • Nutrients in freshwater (WEU01) • Nutrients in coastal water (WEU04) • Chlorophyll in transitional, coastal and marine water (WEU13) 	<ul style="list-style-type: none"> • Eurowaternet (EEA)
<p><i>Status of access and benefits sharing</i></p>				
<ul style="list-style-type: none"> • Patents (to be developed) 	<p>Not yet fully elaborated proposal. Opinion of BEG WG5 is that this focal area should be included and for the moment the patenting of biodiversity should be explored as appropriate for defining an indicator for this area.</p>			
<p><i>Status of resource transfers and use</i></p>				
<ul style="list-style-type: none"> • Funding to biodiversity 	<p>Funding biodiversity in economic and development cooperation, research, monitoring, and site management is an issue in EC Biodiversity Strategy</p>			

<i>Public opinion</i>				
<ul style="list-style-type: none"> • Public awareness and participation 	Public awareness and participation is issue in EC Biodiversity Strategy. Possible information on membership of environmental organisations can provided			<ul style="list-style-type: none"> • An Eurobarometer on the attitudes of Europeans towards the environment already exists.

II. Organisation arrangement⁷

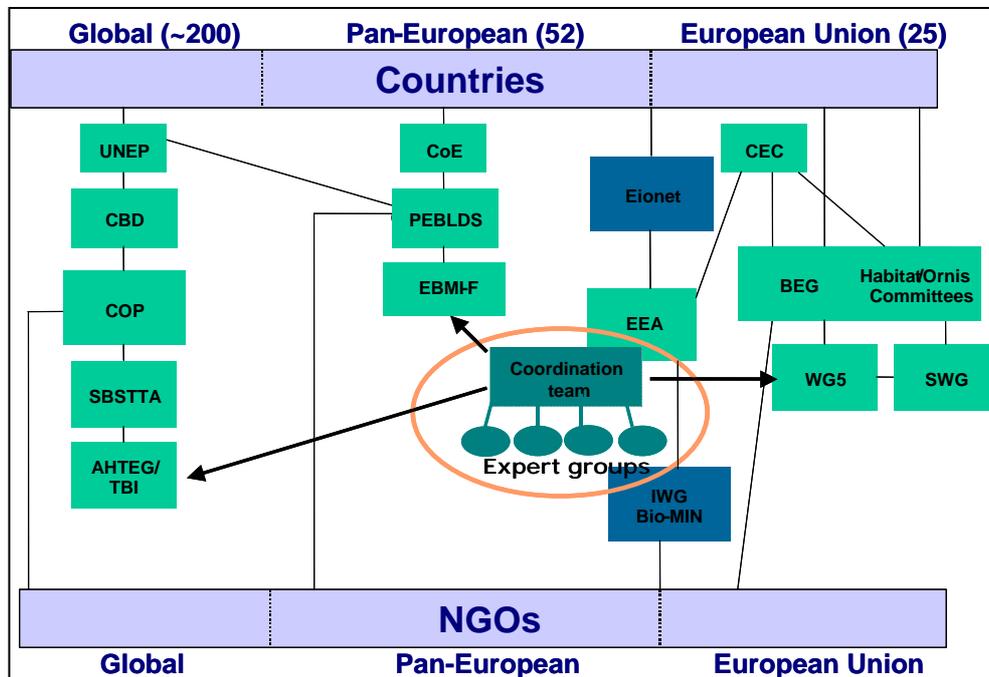
Political context

- CBD/COP7 adopted a framework of indicators and identified several for immediate testing to be used for the 2nd Global Biodiversity Outlook. European countries and the EC itself are partners to the Convention and have endorsed this decision.
- The 5th ministerial conference on environment for Europe (Kiev 2003) requested for an agreed core set of biodiversity indicators and a coherent programme on biodiversity monitoring and reporting (Kyiv resolution on biodiversity) to be developed through PEBLDS.
- At the EU level both the European Parliament and the Council requested the Commission to report regularly upon the status of nature and biodiversity in the Union and the progress of Community policies in this area.

Organisation

Given the similar political requirements for biodiversity monitoring, indicators and reporting at global, pan-European and EU level a coordinated support is proposed rather than to serve the various processes individually.

The establishment of a coordination group is proposed that should drive the implementation of the EU headline biodiversity indicators in coordination with PEBLDS and the CBD. This coordination group should be small and focus on technical issues relating to the detailed testing, development, use and documentation of the headline indicators and related monitoring and data management.



Overview policy relevant biodiversity organisations with in circle proposed organisation arrangement for the implementation of the EU headline biodiversity indicators

⁷ This section of this note is based on the outcomes of the joint EIONET/Bio-MIN/PEBLDS meeting in Copenhagen 21-23 April and feedback received by the BEG meeting 28 April.

Since the implementation of the EU headline biodiversity indicators requires tailor-made solutions and different expertise, expert groups are proposed for dealing with the various indicators. This enables to bring together for each indicator the best expertise. The expert groups will provide technical assistance to the coordination group in a pragmatic approach making use of best available knowledge.

The coordination group consists of representatives of EEA, ECNC and UNEP-WCMC to ensure coordination across EU, pan-Europe and global level. Its position relative to the different organisations that play a role in development and implementation of biodiversity policy is given in the figure above.

For the first implementation phase 6 expert groups are proposed (see table).

<i>Name expert group</i>	<i>Focal area</i>	<i>Indicators</i>
Species Group	Status and trends of the components of biological diversity	<ul style="list-style-type: none"> • Trends in abundance and distribution of selected species • Change in status of threatened and/or protected species
Area Group	Status and trends of the components of biological diversity	<ul style="list-style-type: none"> • Trends in extent of selected biomes, ecosystems and habitats • Coverage of protected areas
Threats Group	Threats to biodiversity	<ul style="list-style-type: none"> • Nitrogen deposition • Number and costs of invasive alien species • Impact of climate change on biodiversity
Ecosystem Group	Ecosystem integrity and ecosystem goods and services	<ul style="list-style-type: none"> • Marine trophic index • Connectivity/fragmentation of ecosystems • Water quality in aquatic ecosystems
Sustainable Use Group	Sustainable Use	<ul style="list-style-type: none"> • Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management
Genetics Group	Status and trends of the components of biological diversity	<ul style="list-style-type: none"> • Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance

Mandate

The coordination team and expert groups require a clear mandate at EU and pan-European level beyond respectively the EEA mandate to coordinate the development of environment indicators for EU and EEA member countries⁸ and the Kiev ministerial decision on the European biodiversity monitoring and indicator framework⁹

Specifically the coordination team with expert groups and the objectives for the work to be done should be recognised during the Malahide conference as prerequisite for the implementation of the EU headline biodiversity indicators. The Irish presidency is asked to propose to the Environment Council in June the mandate for the coordination team for approval.

⁸ EEA Strategy 2004-2008

⁹ ECE/CEP/108 (Kiev Biodiversity Resolution)

In order to achieve coordinated and synergetic implementation of biodiversity indicators at EU and the pan European level, given the common obligations from CBD, the mandate should be in agreement with the action plan on monitoring and indicators to be adopted by PEBLDS Bureau in May¹⁰.

Timing

The work should start as soon as possible, and build on current activities and good practice within both governmental and non-governmental organisations.

The work to be done should meet the needs and time schedules of EU, PEBLDS and CBD (and their inter-connections). See table.

Implementation plan
June 2004: mandate
August 2004: detailed work plan by coordination group
Mid 2005: immediate testing indicators ready for Global Biodiversity Outlook
Mid 2006: first phase of headline biodiversity indicators finished

<i>Relevant time schedules for the implementation of the EU headline biodiversity indicators</i>		
<i>EU</i>	<i>pan-Europe</i>	<i>CBD</i>
Annual reporting Lisbon process Annual reporting to Council and Parliament on the status of biodiversity and the progress of the EC Biodiversity Strategy Annual Environment Policy Review	Agreed set of core indicators Coherent programme on biodiversity monitoring and reporting	Nov 2005: SBSTTA review Global Biodiversity Outlook (GBO) 2006: CBD-COP8 -> GBO
2010 biodiversity target???		

Work plan elements

The first phase of the implementation arrangement foresees the testing and documenting of 8 of 15 EU headline indicators. The emphasis in this phase is on the CBD indicators selected for immediate testing and to be included in second Global Biodiversity Outlook.

After the first phase the work is evaluated, monitoring needs are established, and decisions are taken about the continuation of the implementation process.

Funding

Although indicator development can be done within existing organisations additional funding will be necessary for:

- the organisation of the coordination team and expert groups;
- ensuring organisational sustainability of each of the data flows through governmental and non-governmental organisations as appropriate to ensure efficient development and delivery of the necessary monitoring and data.

¹⁰ STRA-CO (2004) 3f revised