

4th Biodiversity Indicators Forum

16 October 2006

Streamlining European 2010 Biodiversity Indicators

James Williams

Joint Nature Conservation Committee

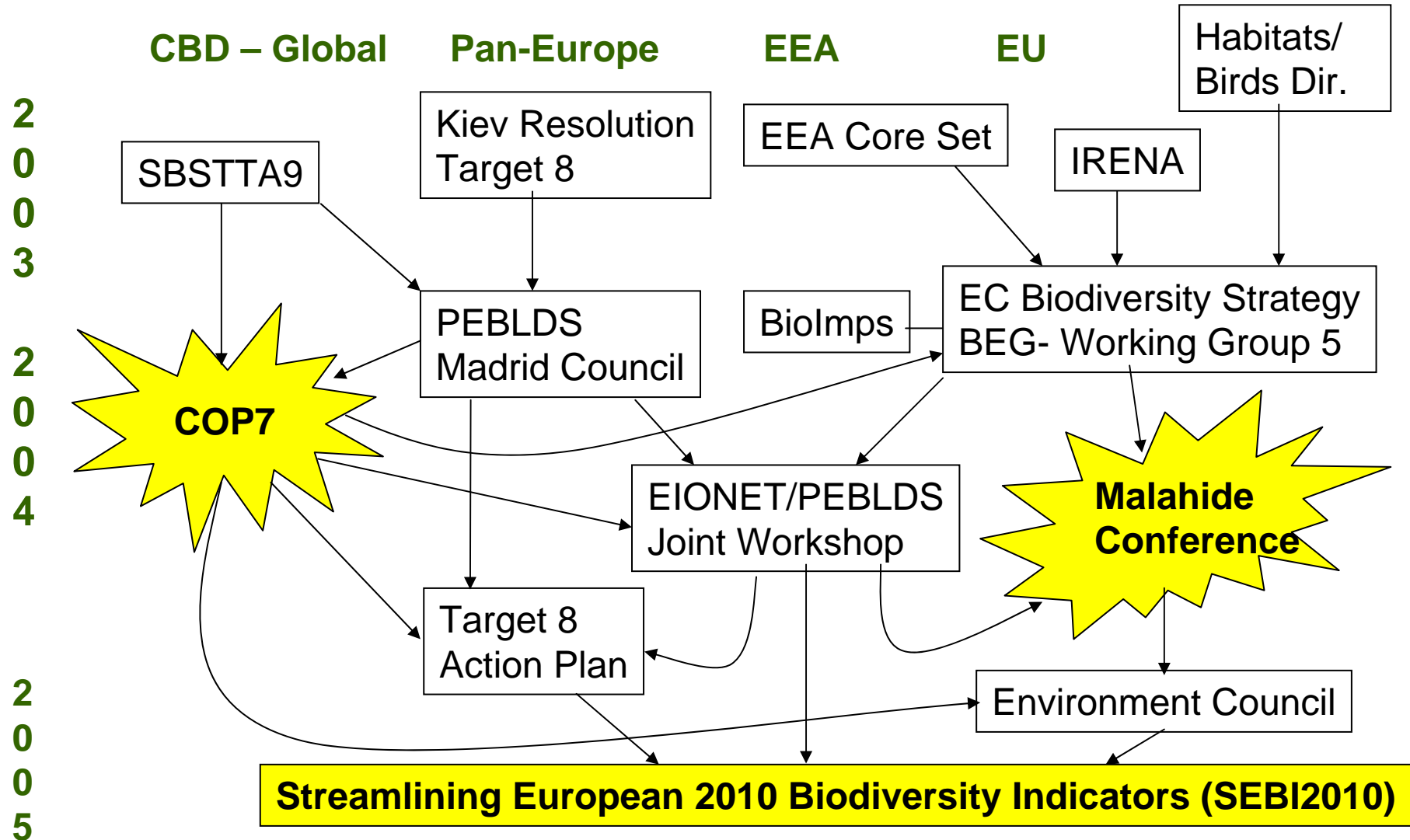
Monkstone House, City Road, Peterborough. PE1 1JY. U.K.

+44 (0)17 33 86 68 68

james.williams@jncc.gov.uk



Towards a European Consensus



EU Headline Indicators

Status and trends of the components of biological diversity	<p>Trends in extent of selected biomes, ecosystems and habitats</p> <p>Trends in abundance and distribution of selected species</p> <p>Change in status of threatened and/or protected species</p> <p>Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance</p> <p>Coverage of protected areas</p>
Sustainable use	<p>Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management</p> <p>Ecological Footprint</p>
Threats to biodiversity	<p>Nitrogen deposition</p> <p>Numbers and costs of invasive alien species</p> <p>Impact of climate change on biodiversity</p>
Ecosystem integrity and ecosystem goods and services	<p>Marine trophic index</p> <p>Connectivity / Fragmentation of ecosystems</p> <p>Water quality in aquatic ecosystems</p>
Status of access and benefit sharing	<p>Patents (to be developed)</p>
Status of resource transfers and use	<p>Funding to biodiversity</p>
Public opinion	<p>Public awareness and participation</p>

SEBI2010 Expert Groups

Expert Group	Indicators
Species	Trends in abundance and distribution of selected species Change in status of threatened and/or protected species
Ecosystems	Trends in extent of selected biomes, ecosystems and habitats Connectivity/fragmentation of ecosystems
Genetics	Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance
Nitrogen	Nitrogen deposition
Invasives	Number and costs of invasive alien species
Sustainable Use	Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management

**Six expert groups, focussing on eight of the indicators
Others being dealt with by the Co-ordination Team
Documentation, progress etc available at:**

<http://biodiversity-chm.eea.eu.int>

Progress 2005/06

- Over 70 candidate indicators considered
- 69 candidates fully or partly documented and reviewed by SEBI2010 coordination team
- 6 given **A** ranking: indicator and documentation available now
- 20 given **B** ranking: indicator or documentation to be completed in 2006
- 43 given **C** ranking: indicator and documentation need further work in 2006/2007

Expert group	EU Headline Indicator	A (in bold)/B Ranked Proposals (January 2006)
1. Species	<p>Trends in the abundance and distribution of selected species</p> <p>Change in status of threatened and/or protected species</p>	<ul style="list-style-type: none"> •Common Birds •Butterflies •Waterbirds •Large carnivores •European Birds Red List Index (initially based on global index)
2. Ecosystems	<p>Trends in extent of selected biomes, ecosystems and habitats</p> <p>Connectivity/ fragmentation of ecosystems</p>	<ul style="list-style-type: none"> •Trends in extent and composition of selected ecosystems in Europe •Status and trends of forest spatial patterns per biogeographical region and country
3. Genetic diversity	Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance	<ul style="list-style-type: none"> •Trends in genetic diversity of domesticated animals: Number of breeds per country
4. Nitrogen	Nitrogen deposition	<ul style="list-style-type: none"> •Critical load exceedance for nitrogen

Expert group	Indicators to be reviewed and documented in 2005	A (in bold)/B Ranked Proposals (January 2006)
5. Invasives	Number and costs of invasive alien species (Trends in invasive alien species)	<ul style="list-style-type: none"> • Cumulative numbers of alien species in Europe since 1900 - data for five Nordic countries • Worst invasive alien species threatening biodiversity in Europe
6. Sustainable use	Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management	<ul style="list-style-type: none"> • Forest area, Management of forest resources, Forest health, Products and service (roundwood, fuel wood, non-wood goods, services) • N-balance, HNV area, Area of organic farming, Agricultural area with biodiversity oriented support • Fish stocks outside Safe Biological Limits in 2002

Expert group	A (in bold)/B Ranked Proposals (January 2006)
Coordination team	<ul style="list-style-type: none"> • Coverage of protected areas (5 indicators) • Ecological footprint

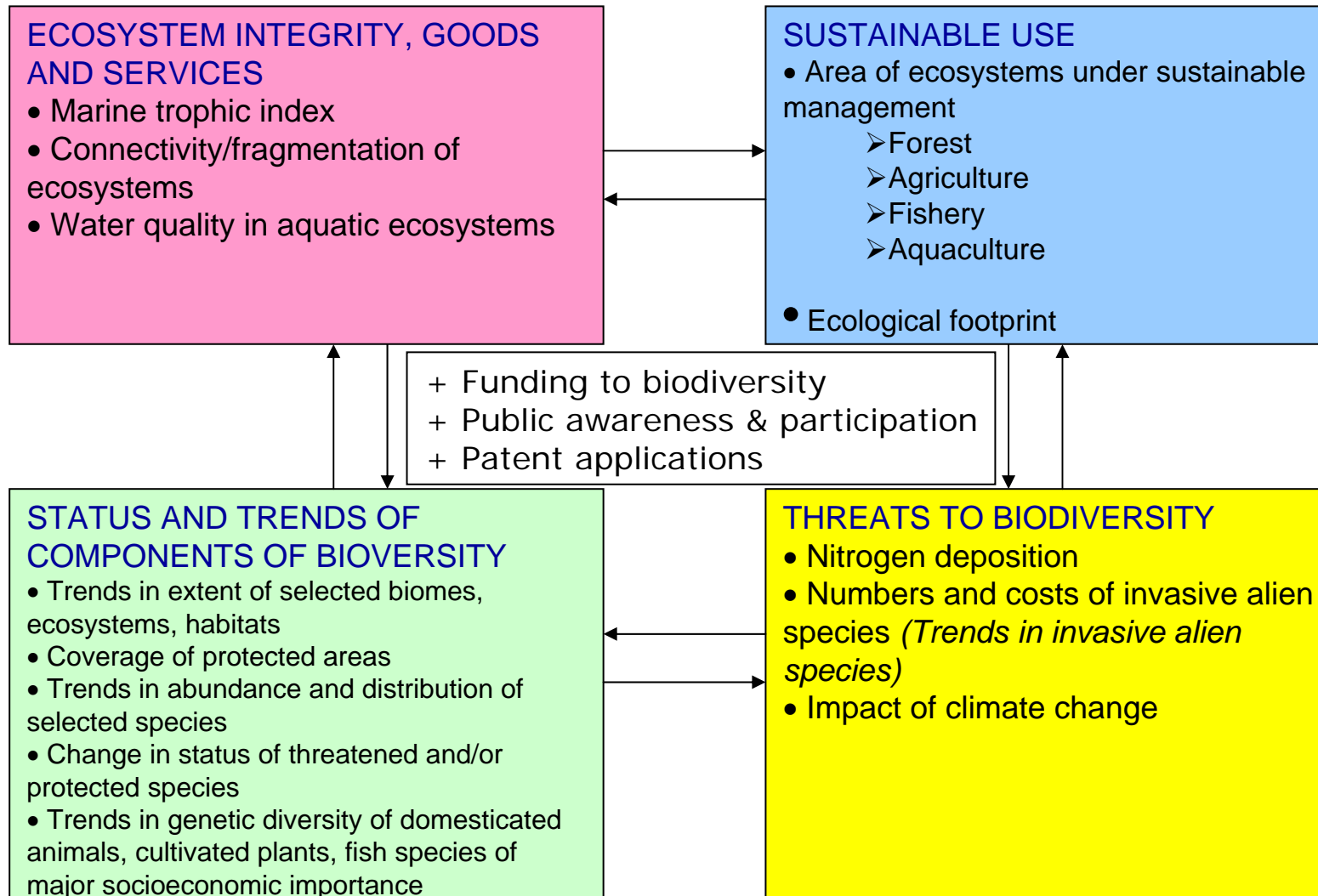
Main issues to be resolved

- Produce first set of indicators in 2006
- Adoption by EU and PEBLDS
- Ensure adequate funding of monitoring, data management, indicator production and quality assurance
- Extend each indicator to include data from additional countries/regions
- Use indicators in monitoring progress and in assessments

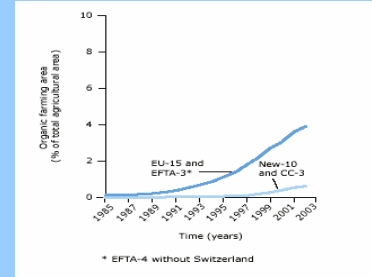
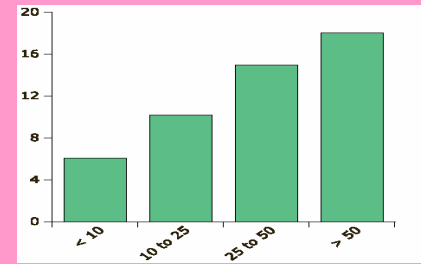
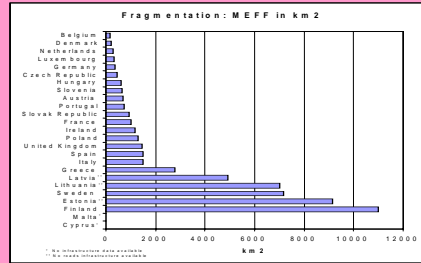
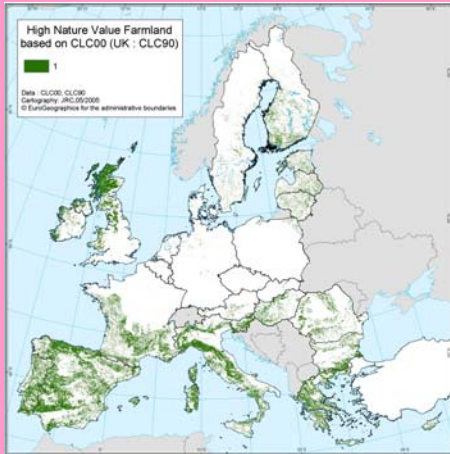
Biodiversity reporting 2007-2013

Year	EU	EEA / Pan-Europe	CBD
2006	SEBI Progress report 2006		
2007	- Development of EU biodiversity index - 1 st Biodiversity Action Plan Progress Report	Pan-European assessment report, Belgrade, September	SBSTTA meeting, July, Paris
2008	2 nd Biodiversity Action Plan Progress Report, including mid-term evaluation of 2010 target (end of year)	Indicator-based biodiversity assessment report	COP 9, Bonn
2009	3 rd Biodiversity Action Plan Progress Report (end of year)		Preparation of GBO3
2010	4th Report on EU achievements of 2010 commitments, including indicators (end of year)	State and Outlook 2010 report (biodiversity sub-report to be decided)	COP 10
2011	5th Biodiversity Action Plan Progress Report (end of year)		
2012	6th Biodiversity Action Plan Progress Report (end of year)	European ecosystem assessment	
2013	7th Report on EU achievements of commitments & post-2010 targets, including indicators (end of year)		

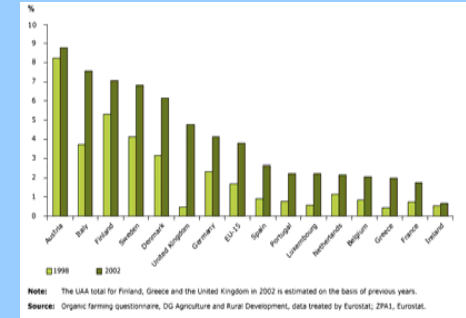
EU Headline Biodiversity Indicators by CBD Focal Area



Ecosystem Integrity

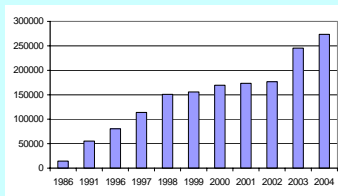
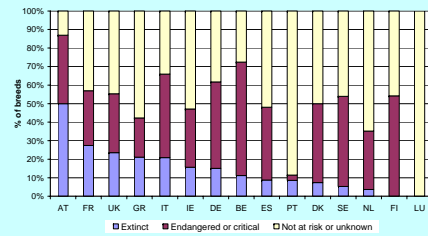


Sustainable Use

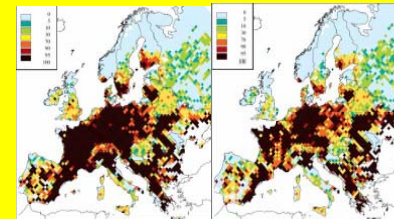
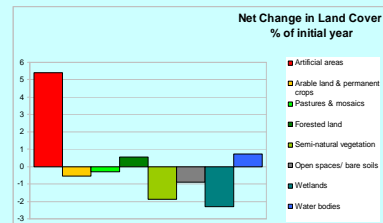


Note: The UA total for Finland, Greece and the United Kingdom in 2002 is estimated on the basis of previous years.
Source: Organic farming questionnaire, DG Agriculture and Rural Development, data treated by Eurostat; ZPA1, Eurostat.

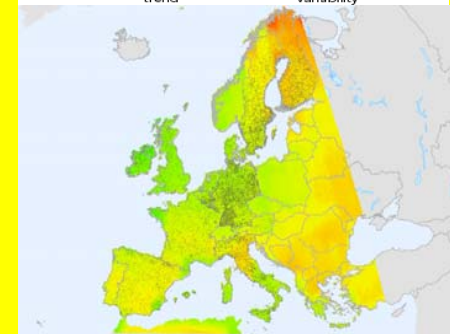
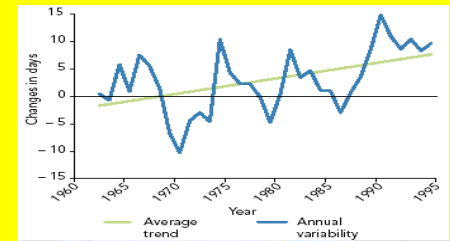
Status & Trends



Source: Natura 2000 SPA database, June 2004 and CEC-DG Environment



Map of critical load exceedance for nitrogen eutrophication across Europe. a. 2000, b. 2020 (Source: EMEP)



Threats

Have we halted biodiversity loss by 2010?

CBD focal area	Headline Indicators	Trend to 2010
Status and trends of the components of biological diversity	Trends in abundance and distribution of selected species	
	Change in status of threatened and/or protected species	
	Trends in extent of selected biomes, ecosystems and habitats	
	Trends in genetic diversity of domesticated animals, cultivated plants, and fish species of major socioeconomic importance	
	Coverage of protected areas	
Threats to biodiversity	Nitrogen deposition	
	Number and costs of invasive alien species	
	Impact of climate change on biodiversity	
Ecosystem integrity and ecosystem goods and services	Marine trophic index	
	Connectivity/fragmentation of ecosystems	
	Water quality in aquatic ecosystems	
Sustainable use	Area of forest, agricultural, fishery and aquaculture ecosystems under sustainable management	
	Ecological footprint	
Status of access and benefits sharing	Percentage of European patent applications for inventions based on genetic resources and/or traditional knowledge that disclose the source of these resources and knowledge	
Status of resource transfers and use	Funding to biodiversity: <ul style="list-style-type: none"> • in economic and development cooperation (response) • in EU research, monitoring and management 	
Public opinion (additional EU focal area)	Public awareness and participation	

Illustrative Example

Thank you for your attention

Questions?

Discussion?