Information note to IPBES secretariat
on EEA and EU information

Mark Snethlage
With the support of Sophie Condé and Eva Spehn

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Authors’ affiliation:
Mark Snethlage, European Centre for Nature Conservation (NL)
With the support of Sophie Condé, Muséum national d’Histoire naturelle (FR) and Eva Spehn, Swiss Biodiversity Forum - Swiss Academy of Sciences (CH)

EEA project manager:
Frank Wugt Larsen, European Environment Agency (EEA)

ETC/BD production support:
Muriel Vincent, Muséum national d’Histoire naturelle (FR)

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European Topic Centre on Biological Diversity
c/o Muséum national d’Histoire naturelle
57 rue Cuvier
75231 Paris cedex, France
Phone: + 33 1 40 79 38 70
E-mail: etc.biodiversity@mnhn.fr
Website: http://bd.eionet.europa.eu/
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1 Aim

The aim of this document is to facilitate access to the comprehensive relevant information hosted by the European Environment Agency (EEA) to support the IPBES Regional Assessment for Europe and Central Asia.

2 Introduction

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) was established in 2012 as an independent intergovernmental body with the goal of ‘strengthening the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development’ (http://www.ipbes.net).

As part of the work programme for 2014–2018, IPBES will conduct a set of Regional and subregional assessments for biodiversity and ecosystem services for Africa, the Americas, Asia-Pacific and Europe and Central Asia, respectively (IPBES deliverable 2b). The overall scope of the regional/subregional assessments of biodiversity and ecosystem services is to assess the status and trends regarding biodiversity, ecosystem functions and ecosystem services and their interlinkages, the impact of biodiversity, ecosystem functions and ecosystem services and threats to them on good quality of life and the effectiveness of responses, including the Strategic Plan for Biodiversity 2011–2020 and its Aichi Biodiversity Targets and the national biodiversity strategies and action plans developed under the Convention on Biological Diversity. The assessments will address terrestrial, freshwater, coastal and marine biodiversity, ecosystem functions and ecosystem services.

The Europe and Central Asia assessment will focus in particular on the following questions:

(a) How can ecosystems that provide ecosystem services, such as those underpinning ecosystem-based adaptation to climate change and nature-based solutions to sustainable development, be protected through investments, regulations and management regimes for terrestrial, freshwater, coastal and marine systems?

(b) What are the effects of production, consumption and economic development on biodiversity and ecosystem services and their contribution to human well-being? Major links with other regions will be assessed;

(c) How can sectoral policies and new policy instruments make use of opportunities arising from the contribution of biodiversity and ecosystem services to human well-being?

The regional/subregional assessments will be based on existing data, scientific literature, and other information, including indigenous and local knowledge. Regional assessments will assess the state of knowledge on subregional-specific issues as an integral part of the overall analysis. This knowledge will be gathered from the published literature, including grey literature according to guidelines of the Platform, and also through bodies such as national academies of science, national research institutes, scientific societies and other research communities, government environmental agencies and statistical offices. The regional/subregional assessments will also use existing data and information held by global, regional, subregional and national institutions, such as the relevant multilateral agreements.

The scoping document for a regional assessment on biodiversity and ecosystem services for Europe and Central Asia lists the following under III Key datasets: ‘…The assessment will draw on a wide variety of datasets addressing the specific components of the conceptual framework. Relevant datasets could include those arising from ongoing and planned activities, such as the European Union MAES initiative referred to above, as well as those from a wide range of sources, including
global, regional and national institutions and organizations, those from research projects, such as earth observation data, and analysis of the scientific literature. Data and information specific to the region might be retrieved from data centres such as the European Environment Agency, the Joint Research Centre, Eurostat, the Organization of the Black Sea Economic Cooperation, the Economic Cooperation Organization and relevant centres collecting earth observation data.”

This document aims to facilitate access to the comprehensive relevant information hosted by the European Environment Agency (EEA). The document has been developed by the EEA for the IPBES Secretariat to provide the expert group with an overview of relevant resources that might be of use for the Regional Assessment for Europe and Central Asia.

The document is structured around the 6 chapters of the regional assessment and lists a selection of relevant information sources based on the review of the environmental data held on the EEA web portal¹ and BISE – Biodiversity Information System for Europe². It also highlights other key EU information and data sources held by Eurostat and JRC, the Joint Research Centre of the European Commission, including the ongoing EU work on Mapping and Assessment on Ecosystems and their Services (MAES) (see page 14)

In the MS Excel sheet associated to this report (named ‘Annex EEA4IPBES database’), each entry was tagged with a number of selection criteria allowing specific queries and reports to be performed, some of which are presented as part of this document (in the results section). These include: main topic, temporal coverage, geographical coverage (according to the EEA typology, see Map 1), key words, resource type (publication, map, graph, dataset etc.), resource format (docx, pdf, xls, shp, gif, tiff etc.), DPSIR category, relevance (core, supporting, background), as well as three criteria linking each resource to the IPBES exercise: chapter (1-6), chapter topic and Aichi target.

¹ http://www.eea.europa.eu/
² http://biodiversity.europa.eu/
For the purpose of the regional assessment for Europe and Central Asia, three subregions have been identified which include the following countries and territories, including marine and coastal areas:

<table>
<thead>
<tr>
<th>Subregions</th>
<th>Countries and territories within the Europe and Central Asia region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central and Western Europe</td>
<td>Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, the former Yugoslav Republic of Macedonia and Turkey (Group of Central European countries) Andorra, Austria, Belgium, The Kingdom of Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Liechtenstein, Luxembourg, Malta, Monaco, Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland and United Kingdom of Great Britain and Northern Ireland (Group of Western European countries)</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, Russian Federation and Ukraine</td>
</tr>
<tr>
<td>Central Asia</td>
<td>Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan</td>
</tr>
</tbody>
</table>
3 Methods

The Advance Report of the third session of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services\(^3\), that was held from 12 to 17 January 2015, in Bonn, Germany, was the reference for the search of information.

This document describes the scope, geographic boundary rationale, utility, assumptions and chapter outline for the regional assessments of biodiversity and ecosystem services.

The document Decision IPBES-3/1 Annex III (advance version)\(^4\) describes the generic regional assessments and Decision IPBES-3/1 Annex VII (advance version)\(^5\) gives more details about the assessment for Europe and Central Asia.

In order to allow a systematic and efficient search for relevant information a simple database structure was developed to record and describe the resources useful for the IPBES regional assessment for Europe and Central Asia.

For the purpose of later analysis and searchability, the relevant EEA metadata fields were included in the database structure.

- ID
- Reference
- Title
- Publication Date
- Temporal Coverage Start
- Temporal Coverage End
- URL
- Owner
- Report Number
- Description
- Keywords (see list on page 61)
- DPSIR

\(^3\) http://www.ipbes.net/plenary/ipbes-3.html#one  
\(^4\) Decision IPBES-3/1 Annex III (advance version) - GENERIC SCOPING REPORT FOR THE REGIONAL AND SUBREGIONAL ASSESSMENTS OF BIODIVERSITY AND ECOSYSTEM SERVICES. Adopted by the third session of the plenary meeting held from 12 – 17 January 2015 in Bonn, Germany. http://www.ipbes.net/images/decisions/ipbes3/Decision_IPBES_3_1_Annex_III_Advance.pdf  
\(^5\) Decision IPBES-3/1 Annex VII (advance version) - SCOPING FOR A REGIONAL ASSESSMENT ON BIODIVERSITY AND ECOSYSTEM SERVICES FOR EUROPE AND CENTRAL ASIA. Adopted by the third session of the plenary meeting held from 12 – 17 January 2015 in Bonn, Germany. http://www.ipbes.net/images/decisions/ipbes3/Decision_IPBES_3_1_Annex_VII_Advance.pdf
To these fields were added some additional descriptors specific for this assessment which should help the reader filter the required information:

- Relevance: a three category field including values: ‘core’, ‘supporting’, ‘background’ [a subjective assessment of the author]
- Chapters: the six chapters from the IPBES ToC
- Chapter Themes: a list of themes extracted by the author from the chapter contents description.
- Aichi Targets: the 20 Aichi Targets
- IPBES Regions: these were included as an option, but finally not used in the assessment.
- Countries: the full list of European, Central Asian, Middle East and North African countries.
- Comment: a memo field to record any comment

Key issues were extracted from the two IPBES regional assessment documents and added to the database in the field Chapter Themes:

<table>
<thead>
<tr>
<th>Chapter Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch. 1 - pollinators, pollination and food production</td>
</tr>
<tr>
<td>Ch. 1 - land degradation and restoration</td>
</tr>
<tr>
<td>Ch. 1 - sustainable use and conservation of biodiversity and strengthening capacity and tools</td>
</tr>
<tr>
<td>Ch. 1 - invasive alien species</td>
</tr>
<tr>
<td>Ch. 2 - values of nature's benefits to people</td>
</tr>
<tr>
<td>Ch. 2 - interrelationship between biodiversity, ecosystem functions and society</td>
</tr>
<tr>
<td>Ch. 2 - geographical difference between production and use of ecosystem services</td>
</tr>
<tr>
<td>Ch. 2 - impacts / changes of nature benefits with regard to food security</td>
</tr>
<tr>
<td>Ch. 2 - impacts / changes of nature benefits with regard to energy security</td>
</tr>
<tr>
<td>Ch. 2 - impacts / changes of nature benefits with regard to livelihood security</td>
</tr>
<tr>
<td>Ch. 2 - impacts / changes of nature benefits with regard to health security</td>
</tr>
<tr>
<td>Ch. 2 - cultural ecosystem services</td>
</tr>
<tr>
<td>Ch. 2 - impact of ecosystem services on society</td>
</tr>
<tr>
<td>Ch. 2 - innovation and nature based solutions for employment</td>
</tr>
<tr>
<td>Ch. 2 - multiple values of biodiversity</td>
</tr>
<tr>
<td>Ch. 3 - past and current trends and future dynamics of biodiversity and ecosystems</td>
</tr>
<tr>
<td>Ch. 3 - effects of change in biodiversity on ecosystem services</td>
</tr>
<tr>
<td>Ch. 3 - structural and functional ecosystem diversity</td>
</tr>
<tr>
<td>Ch. 3 - ecosystem range and distribution (changes)</td>
</tr>
<tr>
<td>Ch. 3 - species of special concern and importance</td>
</tr>
</tbody>
</table>
The EEA website\(^6\) and the Biodiversity Information System for Europe (BISE)\(^7\) were systematically reviewed and resources of interest recorded in an MS Access form. All available metadata were recorded for each entry. In the first collection phase, all potentially relevant information was harvested. Halfway the exercise a number of overviews was produced to highlight the possible gaps in information (geographical and temporal coverage, themes, chapters etc.).

\(^6\) http://www.eea.europa.eu/
\(^7\) http://biodiversity.europa.eu/
4 Results

4.1 Introduction

In this section we present the core resources identified for each of the six IPBES Regional Assessment chapters of the generic scoping and the scoping report for Europe and Central Asia (Decision IPBES-3/1 Annex III and VII). The full list of resources, including supporting and background documents are presented in the annexes and the MS Excel sheet associated to this report.

Please note that the overview below represents the status as of 23 March 2015. As much EEA information, e.g. indicators, are regularly being updated, we recommend to consult the EEA website for most recent information for a given information source.

4.2 EEA core information sources on biodiversity

4.2.1 Reports

EEA Reports summarise and analyse the data and information according to environmental themes. In relation to biodiversity and ecosystem services assessment, these reports cover overviews of the state of biodiversity and assessments of threats and pressures. Twenty-one EEA Reports were identified as part of this exercise of which 4 were tagged as core reports for biodiversity:

- ‘Assessing biodiversity in Europe — the 2010 report’ (62)
- ‘Climate change, impacts and vulnerability in Europe 2012’ (108)
- ‘Landscape fragmentation in Europe’ (102)
- ‘Protected areas in Europe - an overview’ (190)

The SOER, State of Europe’s Environment Report (159), published on 3 March 2015, presents the most comprehensive and recent overview of Europe’s environment including nature, biodiversity and an analysis of drivers and future outlooks.

Relevant upcoming EEA reports:

- ‘State of Europe’s seas’ (planned for the second quarter of 2015)
- ‘Mapping and assessment of ecosystems’ (planned for the second quarter of 2015)
- ‘Forests ecosystems’ (planned for the second quarter of 2015)

8 Numbers between brackets refer to the number of the resource in the Reference list starting on page 27
4.2.2  Indicators

The EEA develops and manages a series of indicators at EU level to monitor progress in the different environmental policy areas. In the framework of the SEBI (Streamlining European Biodiversity Indicators) process (120), a subset of 27 indicators has been developed specifically on biodiversity which includes indicators for the state of drivers, state, pressures, impacts and response. All 27 biodiversity indicators are included in this overview. In addition, a number of relevant indicators from other sets has also been added to this overview. These include 8 climate related indicators (CLI), 1 air pollution indicator (APE), 1 land and soil indicator (LSI), and two additional ones from the EEA core set of environmental indicators (CSI). A good introduction to the EEA environmental indicators is provided in the Digest of EEA indicators 2014 (147).

4.2.3  Biodiversity datasets

The EEA website is a repository for environmental datasets that can be downloaded for specific analysis purposes. The full range of 107 environmental datasets can easily be browsed and queried at http://www.eea.europa.eu/data-and-maps#tab-datasets. European datasets are presented as MS Excel worksheets, MS Access databases, ESRI Shapefiles, GeoTIFF raster files, XML files and a number of other formats.

Twenty-six biodiversity related datasets have been included in this IPBES overview including the following core (interactive) datasets and graphs:

- ‘Article 17 of the Habitats Directive - Conservation status of habitats and species of Community interest’ [dataset] (144)
- ‘Conservation status by main type of habitats’ [graph] (182)
- ‘Conservation status, species by taxonomic group’ [graph] (44)
- ‘EUNIS, the European Nature Information System’ [dataset] (184)
- ‘Growth of the nationally designated protected areas and site number’ [graph] (169)
- ‘Nationally designated areas (CDDA) geospatial database’ [dataset] (153)
- ‘Natura 2000 barometer charts’ [graph] (187)
- ‘Natura 2000 data - the European network of protected sites’ [dataset] (136)

4.2.4  10 Messages for Biodiversity

In 2010, as part of the celebration of the International Year of Biodiversity, the EEA published a series of 10 messages on biodiversity presenting a summary of major topics within the biodiversity field of work. Topics included in the 10 messages are:

- ‘Agricultural ecosystems’ (48)
- ‘Climate change and biodiversity’ (49)
- ‘Coastal ecosystems’ (50)
• ‘Cultural landscapes and biodiversity heritage’ (51)
• ‘Forest ecosystems’ (52)
• ‘Freshwater ecosystems’ (53)
• ‘Marine ecosystems’ (54)
• ‘Mountain ecosystems’ (55)
• ‘Protected areas’ (56)
• ‘Urban ecosystems’ (57)

4.2.5 Technical Reports

Twenty EEA Technical Reports are included in this overview out of which 5 have been tagged as core documents for the IPBES regional assessment:

• ‘Digest of EEA indicators 2014’ (147)
• ‘EU 2010 Biodiversity Baseline’ (68)
• ‘Invasive alien species indicators in Europe - a review of Streamlining European Biodiversity (SEBI) Indicator 10’ (214)
• ‘The impacts of invasive alien species in Europe’ (213)
• ‘Towards an early warning and information system for invasive alien species (IAS) threatening biodiversity in Europe’ (90)

Relevant upcoming EEA technical reports:

• ‘Forest/water interactions’ (Planned for second quarter of 2015)
• ‘Spatial analysis of marine protected areas networks in Europe’s seas (MPA)’ (Planned for second quarter of 2015)
• ‘Development towards European marine ecosystem (services) assessment’ (Planned for fourth quarter of 2015).
• ‘The state of nature’ (the conservation status of species and habitats) (Planned for second quarter of 2015)
• ‘EU 2010 Biodiversity Baseline adapted to the MAES ecosystem classification’ (Planned for second quarter of 2015)
• ‘EEA ecosystem assessment: concept, data availability and results’ (Planned for second quarter of 2015)
• ‘EU policies and their impact on land take and land degradation’ (Planned for second quarter of 2015)
4.3 Other EU information portals relevant for biodiversity and ecosystem services assessments

4.3.1 BISE

http://biodiversity.europa.eu

The Biodiversity Information System for Europe (BISE) is a single entry point for data and information on biodiversity supporting the implementation of the EU strategy and the Aichi targets in Europe. Bringing together facts and figures on biodiversity and ecosystem services, it links to related policies, environmental data centres, assessments and research findings from various sources. It is being developed to strengthen the knowledge base in support of the implementation of the EU biodiversity strategy and the assessment of progress in achieving the 2020 targets.

BISE is a partnership between the European Commission, DG Environment - Directorate B and the European Environment Agency, supporting the knowledge base for the implementation of the EU 2020 Biodiversity Strategy. It also serves as the Clearing House Mechanism for the EU within the context of the United Nations Convention on Biological Diversity (CBD) and as such it is supported by the collaboration of the European CHM network and the CBD Secretariat.

The EU work on Mapping and Assessment on Ecosystems and their Services (MAES)

The EU work on Mapping and Assessment on Ecosystems and their Services (MAES) is foreseen to be the main EU contribution to the regional IPBES assessment.

Action 5 of the EU Biodiversity Strategy to 2020 calls Member States to map and assess the state of ecosystems and their services in their national territory with the assistance of the European Commission. The results of this mapping and assessment should support the maintenance and restoration of ecosystems and their services. A Working Group on Mapping and Assessment on Ecosystems and their Services (MAES) currently works to implement Action 5 by the EU and its Member States.

A dedicated portal at BISE http://biodiversity.europa.eu/maes provides access to a wide range of relevant information arising from MAES, including the four key publications listed below:

- ‘MAES catalogue of case-studies’ (203)
- ‘MAES digital atlas’ (204)
- ‘An analytical framework for ecosystem assessments under Action 5 of the EU Biodiversity Strategy to 2020 (Discussion paper – Final, April 2013)’ (205)
- ‘Indicators for ecosystem assessments under Action 5 of the EU Biodiversity Strategy to 2020 (2nd Report – Final, February 2014)’ (206)

4.3.2 WISE

http://water.europa.eu/

The Water Information System for Europe (WISE) is the gateway to information on European water issues. It comprises a wide range of data and information collected by EU institutions to serve several stakeholders. It offers access to water related data that are important to biodiversity and ecosystems assessment mainly as measures for state (good ecological status), but also as pressures (water pollution, flooding, dessification, water depletion etc.).
4.3.3 Climate Adapt

http://climate-adapt.eea.europa.eu/

The European Climate Adaptation Platform (Climate-ADAPT) aims to support Europe in adapting to climate change. It is an initiative of the European Commission and helps users to access and share information on:

- expected climate change in Europe;
- current and future vulnerability of regions and sectors;
- national and transnational adaptation strategies;
- adaptation case studies and potential adaptation options; and
- tools that support adaptation planning.

Biodiversity and ecosystem services play an important role in both climate change mitigation and adaptation. This portal contains a wide range of projects, initiatives and case studies in which climate change initiatives are integrated with biodiversity.

4.3.4 European Commission

http://ec.europa.eu/index_en.htm

The European Commission on its web portal also collects much relevant information for biodiversity and ecosystems assessment in Europe. In particular the pages of DG Environment focused on Nature and Biodiversity are a good starting point to explore. Some important resources have been included in this overview:

- ‘Copernicus, the European Earth Observation Programme’ (27)
- ‘Delivering Alien Invasive Species Inventories for Europe’ (28)
- ‘Financing Natura 2000’ (32)
- ‘Infrastructure for Spatial Information in the European Community (INSPIRE)’ (33)
- ‘LIFE programme publications’ (35)
- ‘LIFE Projects database’ (36)
- ‘LifeWatch - European e-Science infrastructure for biodiversity and ecosystem research’ (37)
- ‘Nature and Biodiversity’ pages (29)
4.3.5 Eurostat

http://ec.europa.eu/eurostat/

Eurostat is the statistical office of the EU, situated in Luxembourg. Its task is to provide the EU with statistics at European level that enable comparisons between countries and regions.

The Eurostat web portal provides a wide range of statistics and statistical overviews covering all EU policy areas. Some core data about the state of the environment and nature are included here, but many statistics about drivers and pressures (demographics, pollutants, agriculture, industry, transport etc.) can also be found at Eurostat. Specifically relevant, and included in this overview are:

- ‘Agricultural Statistics’ (192)
- ‘Environmental statistics and accounts’ (193)

4.3.6 Joint Research Centre

https://ec.europa.eu/jrc/

The Joint Research Centre (JRC) is the European Commission's in-house science service which employs scientists to carry out research in order to provide independent scientific advice and support to EU policy.

The range of work carried out at the JRC also includes the compilation of a large number of databases in addition to the development of software and modelling tools. These resources are either available to all members of the public on https://ec.europa.eu/jrc/en/scientific-tools/ or to specific research groups, providing assistance to scientists in carrying out their work.

Some interesting JRC resources and datasets, useful for further exploration include:

- ‘DOPA, the Digital Observatory for Protected Areas’ (196)
- ‘EASIN, the European Alien Species Information Network’ (197)
- ‘eHabitat - Ecological Forecasting for Policy Making’ (199)
- ‘Environment and Climate Change Portal’ (200)
- ‘European Forest Data Centre Viewer’ (39)
- ‘European Forest Fire Information System’ (201)
- ‘Floods Portal’ (202)
- ‘State of Soil in Europe’ (198)
4.4 Chapter 1: Setting the scene

General scope for regional assessments: Chapter 1 of the IPBES regional assessment presents the policy-relevant questions identified for each region/subregion and how each assessment reflects the conceptual framework and the framework for the science-policy interface. It demonstrates how the assessment addresses policy questions, including those related to implementation of the CBD Strategic Plan for Biodiversity and its Aichi Biodiversity Targets. It presents regional and subregional aspects of priority thematic challenges identified by the Platform, such as land degradation and restoration, invasive alien species, and sustainable use of biodiversity as addressed in the thematic assessments. It also outlines the methodologies and approaches used in the assessment, including its approach to the use of different knowledge systems, and outline how the assessment will identify and address uncertainties and gaps in data and knowledge. It identifies the relevant stakeholders requesting the regional assessment and their priorities.

4.4.1 Indicators

- Invasive alien species in Europe (SEBI 010) (78)
- SEBI 007 Indicator Nationally designated protected areas (104)

4.4.2 Publications

- The European Environment - State and Outlook 2015 (159)
- The impacts of invasive alien species in Europe (213)
- Invasive alien species indicators in Europe a review of streamlining European biodiversity (SEBI 010) (214)

4.5 Chapter 2: Nature’s benefits to people and quality of life

General scope for regional assessments: Chapter 2 reflects the Conceptual Framework boxes ‘Nature’s benefits to people’ and ‘Good quality of life’, and fluxes between them. It will assess the values of nature’s benefits to people, including the interrelationship between biodiversity, ecosystem functions and society, the geographical difference between the production and use of ecosystem services, as well as the status, trends and future dynamics of ecosystem goods and services and nature’s gifts to people. It will apply methods described in the guide for assessments (IPBES deliverable 2 (a)) and interact closely with the thematic assessments in deliverable 3 (b). It will also assess the different impacts of changes in nature’s benefits to people with regard to food security, energy security, livelihood security and health security and identify aspects of biodiversity and ecosystem functions and services that are critical to social relationships, spirituality and cultural identity. It will also address issues of equity, including intergenerational and intergenerational equity, social relationships, spirituality and cultural identity with respect to biodiversity and ecosystem functions and services. The chapter reflects in particular Goal D of the Strategic Plan for Biodiversity and will address issues related to the three Aichi Targets under this goal (Aichi Targets 14, 15 and 16) as well as target 18. The Regional Assessment for Europe and Central Asia analysis will also address the impact of ecosystem services on society and on how innovation and nature-based solutions are influencing the job market in the region. The chapter will also examine the multiple values of biodiversity.
4.5.1 Publications

- The European Environment - State and Outlook 2015 (159)

4.6 Chapter 3: Status, trends and future dynamics of biodiversity and ecosystems underpinning nature’s benefits to people

General scope for regional assessments: Chapter 3 will reflect the Conceptual Framework box ‘Nature’, emphasizing the components and fluxes impacting on ‘Nature’s benefits to people’. It will assess what is known about the past and current trends and future dynamics of biodiversity and ecosystems and their positive and negative effects on the key ecosystem goods and services identified in chapter 2. It will consider both structural and functional ecosystem diversity and genetic diversity and the area and extent of ecosystems, and include fragile habitats and hotspots and species of special concern and importance, such as Convention on International Trade in Endangered Species (CITES) species, migratory species and International Union for Conservation of Nature (IUCN) threatened species, taking into account species listed at the national level where relevant. It will also include species that are important for the functioning of ecosystems and livelihoods. Available forecasts on current trends will also be outlined. The chapter will also explore how changes in ‘Nature’ impact ‘Nature’s benefit to people’. The chapter reflects in particular Goal C of the Strategic Plan for Biodiversity and will address issues related to the three Aichi Targets under this goal (Aichi Targets 11, 12 and 13), as well as relevant aspects of Aichi Targets 14.

4.6.1 Data

- Conservation status, species by taxonomic group (44)
- Conservation status of habitat types and species (Article 17, Habitats Directive 92/43/EEC) database and spatial dataset (46)

4.6.2 Indicators

- Abundance and distribution of selected species (SEBI 001) (58)
- Ecosystem coverage (SEBI 004) (66)
- Habitats of European interest (SEBI 005) (76)
- Impact of climate change on bird populations (SEBI 011) (77)
- Livestock genetic diversity (SEBI 006) (81)
- Marine trophic index of European seas (SEBI 012) (83)
- Red List Index for European species (SEBI 002) (87)
- Sites designated under the EU Habitats and Birds Directives (SEBI 008) (105)
- Species of European interest (SEBI 003/CSI 007) (88)

4.6.3 Interactive data

- Conservation status of the habitat types and species of Community interest (41)
- Conservation status, species by taxonomic group (44)
• Article 17 of the Habitats Directive - Conservation status of habitats and species of Community interest (2007-2012) (144)
• State of Nature Report 2015 (175)
• Conservation status by main type of habitats (182)
• EUNIS, the European Nature Information System (184)

4.6.4 Maps

• Conservation status of habitat types and species (Article 17, Habitats Directive 92/43/EEC) database and spatial dataset (46)
• Distribution of Natura 2000 sites across EU-27, 2012 (109)

4.6.5 Publications

• Assessing biodiversity in Europe: the 2010 report (62)
• Digest of EEA indicators 2014 (147)
• EU 2010 biodiversity baseline (68)
• European environment — state and outlook 2015 (SOER 2015) (159)
• Landscape fragmentation in Europe (102)
• State of Nature Report 2015 (175)

4.7 Chapter 4: Direct and indirect drivers of change in the context of different perspectives of quality of life

General scope for regional assessments: Chapter 4 reflects the Conceptual Framework boxes and fluxes on ‘Institutions and governance and other indirect drivers’ and ‘Direct drivers’. It will assess the status and trends and future dynamics of indirect drivers, focusing in particular on those affecting ‘Nature’ and ‘Nature’s benefits to people’ as the foundation for ‘Good quality of life’. It will assess the status and trends in direct drivers, as well as the impact of these drivers on ‘Nature’ based on future predictions, and analyse the interrelations between and among direct drivers and indirect drivers. Indirect drivers include policy changes, changes in economic activity, population change and technology change. Consideration will be given to how institutional and governance arrangements contribute to changes in biodiversity, ecosystem functions and ecosystem services. Direct drivers include habitat conversion, use of aquatic resources – including through fisheries – land management practices, use of wild species, pollution, invasive alien species, the impacts of climate change on nature, and extreme events. The chapter reflects in particular Goals A and B of the Strategic Plan for Biodiversity and will address issues covered by the Aichi Targets under this goal (in particular Aichi Targets 4, 5, 6, 7, 8, 9 and 10). The Regional Assessment for Europe and Central Asia will specifically place emphasis on the regional and subregional aspects of land degradation and restoration as well as on invasive alien species and sustainable intensification of agriculture. Fire and floods will be included as a driver in the European and Central Asian assessment owing to its growing importance in the region.
4.7.1 Indicators

- Agriculture: nitrogen balance (SEBI 019) (60)
- Aquaculture: effluent water quality from finfish farms (SEBI 022) (61)
- Critical load exceedance for nitrogen (SEBI 009) (63)
- Ecological Footprint of European countries (SEBI 023) (64)
- Fisheries: European commercial fish stocks (SEBI 021) (71)
- Forest: deadwood (SEBI 018) (72)
- Forest: growing stock, increment and fellings (SEBI 017) (73)
- Fragmentation of natural and semi-natural areas (SEBI 013) (74)
- Freshwater quality (SEBI 016) (75)
- Impact of climate change on bird populations (SEBI 011) (77)
- Invasive alien species in Europe (SEBI 010) (78)
- Nutrients in transitional, coastal and marine waters (SEBI 015) (84)

4.7.2 Publications

- Climate change, impacts and vulnerability in Europe 2012 (108)
- Digest of EEA indicators 2014 (147)
- European environment — state and outlook 2015 (SOER 2015) (159)
- Invasive alien species indicators in Europe a review of streamlining European biodiversity (SEBI) 010 (214)
- Protected areas in Europe: an overview (190)
- The impacts of invasive alien species in Europe (213)

4.8 Chapter 5: Integrated and cross-scale analysis of interactions of the natural world and human society

General scope for regional assessments: Chapter 5 reflects all the boxes and fluxes of the Conceptual Framework. It will build on the analysis in the previous chapter and make extensive use of scenarios and modelling in its analysis. It will focus on the key issues that society is expected to face over the next 40 years that will determine the dynamics of the interactions between society and nature. It will include integrated and cross-scale analysis of these dynamics, including feedback, synergies, time-lags, tipping points, resilience, cross-regional interrelations, and trade-offs. The chapter will explore various paths towards sustainable development; this involves exploring changes in the trajectories of multiple drivers and the role played by synergies, trade-offs and adaptive behaviour. The chapter relates to the long term 2050 vision of the Strategic Plan for Biodiversity and will help to identify possible pathways to achieve this vision. It will rely heavily on outputs of the thematic assessment on scenarios and models of biodiversity, ecosystem function and ecosystem services (Platform deliverable 3 (c) and recommendations in the guide for regional and global assessments (Platform deliverable 2 (a)). Chapter 5 of the Regional Assessment for Europe and Central Asia will in particular consider issues which include increasing demand for biological raw materials in a bio-economy context (bioenergy, fibres and organic matter), climate change, food provisioning from land and water, and water availability. It will assess how the value of biodiversity and associated
ecosystem services influences indirect drivers and how the integration of such values into national and local development planning and accounting may help address Aichi Biodiversity Target 2.

4.8.1 Indicators

- Impact of climate change on bird populations (SEBI 011) (77)

4.8.2 Publications

- Climate change, impacts and vulnerability in Europe 2012 (108)
- European Atlas of Soil Biodiversity (17)
- European environment — state and outlook 2015 (SOER 2015) (159)

4.9 Chapter 6: Options for governance, institutional arrangements and private and public decision making across scales and sectors

General scope for regional assessments: Informed by the analysis in previous chapters, chapter 6 will reflect the Conceptual Framework boxes and fluxes on ‘Institutions and governance and other indirect drivers’. It will examine different policy ideas and possible options for decision makers at the regional and subregional levels, in response to the scenario set out in previous chapters, in particular chapter 5. Explorations of options will be policy relevant, but not policy prescriptive, as outlined in the principles of the Platform. Options explored will include different policy instruments, market tools, conservation and management practices, and international and regional agreements. The chapter will look at options at different hierarchical spatial and temporal scales, from the international level to local and indigenous communities and households. It will explore options for policy mixes and alignments in polycentric governance systems, assess the effectiveness of such options and consider who would gain or bear their cost. The chapter will analyse future challenges for sustainable use and conservation in key sectors in each region and assess options for integrating biodiversity, ecosystem function and ecosystem services into poverty reduction strategies and national accounting, and, where appropriate, the recognition of the rights of Mother Earth. The analyses will include incentives, subsidies harmful to biodiversity, positive incentives for the conservation and sustainable use of biodiversity, ecosystem function and ecosystem services, as well as measures taken to achieve sustainable production and consumption of biodiversity, ecosystem function and ecosystem services and rights-based approaches in order to address biodiversity conservation. The chapter will also identify the enabling environments and limitations for policy uptake and lessons learned, including solutions and methods for ensuring success and capacity-building needs. It will address issues related to Goals A and E of the Strategic Plan for Biodiversity and the relevant Aichi Targets (in particular Aichi Targets 1, 2, 3, 4, 17, 18, 19 and 20) as well as target 16. The Regional Assessment for Europe and Central Asia will in particular consider public decision-making across scales and sectors, future challenges for sustainable use and conservation in key sectors in the European and Central Asian region such as nature protection, agriculture, forestry, fisheries, water management, spatial planning, energy (including bioenergy), tourism, infrastructure and incentives (including subsidies harmful to biodiversity as well as positive incentives for the conservation and sustainable use of biodiversity).

4.9.1 Data

- Natura 2000 data - the European network of protected sites (136)
- Nationally designated areas (CDDA) geospatial database (153)
4.9.2  **Indicators**

- Financing biodiversity management (SEBI 025) (70)
- SEBI 007 Indicator Nationally designated protected areas (104)
- Sites designated under the EU Habitats and Birds Directives (SEBI 008) (105)

4.9.3  **Interactive data**

- Growth of the nationally designated protected areas and site number (169)
- Natura 2000 barometer charts (187)

4.9.4  **Maps**

- Distribution of Natura 2000 sites across EU-27 (109)
- Nationally designated areas (CDDA) geospatial database (153)

4.9.5  **Publications**

- Landscape fragmentation in Europe (102)
- European Environment - State and Outlook 2010 (159)
- Towards an early warning and information system for invasive alien species (IAS) threatening biodiversity in Europe (90)

4.9.6  **Policy instruments**

- Birds Directive (12)
- Habitats Directive (4)
5 Gap analysis of the selected EEA information

5.1 Thematic coverage of the information

The results of the selection of EEA resources have been analysed in order to highlight some gaps in relation to the IPBES needs to perform the Regional Assessment.

The current situation, after 200 resources were identified and processed shows a marked bias of the information towards chapter 3 and 4 which focus mainly on status and trends of biodiversity and ecosystem (services) and the status and trends of drivers and pressures.

What is still missing at this stage and could be the subject of more targeted search are issues relating biodiversity and ecosystem services to society (Chapter 2) and dynamic analysis and forecast of ecological processes (Chapter 5).

Chapter 1 and 6, although the IPBES TOC indicates a number of focus areas, will be very much about the whole range of issues, as they can be considered more like an introduction and a conclusion to the report. They will benefit from most of the collected information.

Table 1 Number of EEA resources per IPBES Assessment chapter by relevance

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Core</th>
<th>Supporting</th>
<th>Background</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>4</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>27</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>20</td>
<td>23</td>
<td>27</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>6</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Chapter 6</td>
<td>17</td>
<td>24</td>
<td>37</td>
</tr>
</tbody>
</table>

The analysis of the Aichi targets covered by the selected information also shows a strong bias, and if needed this table can also be used to focus the remaining time for the search.

Table 2 Number of EEA resources per Aichi Target

<table>
<thead>
<tr>
<th>Aichi Target</th>
<th>Number of resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target 4 Plans for sustainable production consumption</td>
<td>10</td>
</tr>
<tr>
<td>Target 5 Rate of habitat loss halved, degradation reduced</td>
<td>20</td>
</tr>
<tr>
<td>Target 6 Sustainable fisheries</td>
<td>11</td>
</tr>
<tr>
<td>Target 7 Sustainable agriculture and forestry</td>
<td>30</td>
</tr>
<tr>
<td>Target 8 Pollution controlled</td>
<td>28</td>
</tr>
<tr>
<td>Target 9 IAS controlled or eradicated</td>
<td>14</td>
</tr>
<tr>
<td>Target 10 Climate change impacts minimized</td>
<td>32</td>
</tr>
<tr>
<td>Target 11 Network of protected areas in place</td>
<td>19</td>
</tr>
<tr>
<td>Target 12 Conservation status of most threatened species improved</td>
<td>18</td>
</tr>
<tr>
<td>Target 13 Agricultural genetic diversity safeguarded</td>
<td>5</td>
</tr>
</tbody>
</table>
Much data and information relevant to Aichi targets 5 to 15 is included in the collected resources. These data and information relate to (the status) species, habitats and sites and to the main drivers (climate change, agriculture, forestry, fisheries), pressures (invasive alien species, pollution) and traditional responses (protected areas, species protection). The EEA resources also offer quite some useful information about the role of biodiversity and ecosystem services for society. The current selection of EEA and related data show gaps as far as Harmful incentives, Agricultural genetic diversity, NBSAP development, Access and Benefit Sharing and Traditional Use of Biodiversity are concerned.

### Table 3 Number of EEA resources per DPSIR category

<table>
<thead>
<tr>
<th>DPSIR</th>
<th>Number of resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver</td>
<td>17</td>
</tr>
<tr>
<td>Pressure</td>
<td>64</td>
</tr>
<tr>
<td>State</td>
<td>66</td>
</tr>
<tr>
<td>Impact</td>
<td>32</td>
</tr>
<tr>
<td>Response</td>
<td>90</td>
</tr>
</tbody>
</table>

The EEA data covers the areas of pressure and state of biodiversity quite well. Also in terms of responses there is a good number of relevant resources. The collected information is much lower on drivers and impacts.

### Table 4 Number of EEA resources per resource type

<table>
<thead>
<tr>
<th>Resource type</th>
<th>Number of resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article</td>
<td>1</td>
</tr>
<tr>
<td>Case Study</td>
<td>1</td>
</tr>
<tr>
<td>Data</td>
<td>19</td>
</tr>
<tr>
<td>Graph</td>
<td>3</td>
</tr>
<tr>
<td>Indicator</td>
<td>36</td>
</tr>
<tr>
<td>Interactive data</td>
<td>15</td>
</tr>
<tr>
<td>Interactive map</td>
<td>12</td>
</tr>
<tr>
<td>Map</td>
<td>18</td>
</tr>
<tr>
<td>Policy instrument</td>
<td>11</td>
</tr>
<tr>
<td>Portal</td>
<td>21</td>
</tr>
</tbody>
</table>
### Resource type and Number of resources

<table>
<thead>
<tr>
<th>Resource type</th>
<th>Number of resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project</td>
<td>5</td>
</tr>
<tr>
<td>Publication</td>
<td>85</td>
</tr>
</tbody>
</table>

#### 5.2 Temporal coverage of the selected EEA information

The table of results (an MS Excel table presented as an annex to this document) includes information on the temporal coverage of the data, and this information can be retrieved from that overview.

**Figure 1 Temporal coverage of selected resources by DPSIR category**

![Figure 1 Temporal coverage of selected resources by DPSIR category](image)

Figure 1 shows the temporal coverage of data and information contained in the selected resources. Only those resources for which an explicit temporal coverage of the data and information is given or could be traced are included in these figures. Indeed, the data used in the graph exclude publication dates of reports, and only refer to the temporal coverage of the data and information contained in the report. As could be expected there is a strong concentration of data and information in the time interval between the beginning of the 1990ies (Convention on Biological Diversity, Habitats Directive) and 2014 (end year of most assessment reports). Some publications contain projections and results of scenario and modelling exercises, some of which cover a period up to the year 2100.

The graph also shows that most information and data resources provided by the EEA concerns the state of biodiversity and the threats and pressures acting upon the biodiversity.
5.3 Geographical coverage of the selected EEA information

The geographical area covered by the EEA information does not overlap fully with the geographical coverage of the IPBES Regional Assessment for Europe and Central Asia. Most of the information collected and managed by the EEA is retrieved from the EU Member States, plus Iceland, Liechtenstein, Norway, Switzerland and Turkey. Historical data is often only available at the EU15, EU25, EU27 or EU28 levels. Where available, the geographical coverage of the data has been recorded. The results as on 5 March 2015 are presented in Map 2. It shows the number of selected EEA references per country, and should help the IPBES experts focus the efforts in the search of additional data and information to complete the assessment at the Europe and Central Asia regional level.

Map 2 Geographical coverage: Number of selected EEA references per country

In line with the expectations, the data and information about biodiversity and ecosystem services held and made available by the EEA is geographically biased towards the 28 EU member states and the 33 EEA member countries. The EU15 and EU25 countries have the best geographical coverage, followed by the EU27 and EU28 countries and some of the EEA member countries (in particular Liechtenstein, Norway and Switzerland).

The map shows that in order to achieve a balanced geographical coverage of biodiversity and ecosystem services information and data for the IPBES European and Central Asian Assessment, additional efforts will have to be made to find resources for Eastern neighbours and Central Asian countries.
References

Please note that the hyperlinks provided in this reference list were checked at the moment of the publication of this report. However, it is widely known that URLs tend to change over time. If an URL is broken, the requested document can generally be found by inserting either the document title or reference in the search engine.


27. EC, Copernicus, the European Earth Observation Programme [http://www.copernicus.eu/]
28. EC, Delivering Alien Invasive Species Inventories for Europe [http://www.europe-aliens.org/]
30. EC, European Biodiversity Observation Network (EBONE) [http://www.wageningenur.nl/en/Expertise-Services/Research-Institutes/alterra/Projects/EBONE-2.htm]
33. EC, Infrastructure for Spatial Information in the European Community (INSPIRE) [http://inspire.ec.europa.eu/]
34. EC, INSPIRE Geoportal [http://inspire-geoportal.ec.europa.eu/]
36. EC, LIFE Projects database [http://ec.europa.eu/environment/life/project/Projects/index.cfm]
37. EC, LifeWatch - European e-Science infrastructure for biodiversity and ecosystem research [http://www.lifewatch.eu/web/guest/home]
38. EC, WISE - the Water Information System for Europe [http://water.europa.eu/]
47. EEA, 2009, Ensuring quality of life in Europe's cities and towns - Tackling the environmental challenges driven by European and global change, EEA Report No 5/2009, European Environment


Information note to IPBES secretariat on EEA and EU information
81. EEA, 2010, Livestock genetic diversity (SEBI 006) - Assessment published May 2010


83. EEA, 2010, Marine trophic index of European seas (SEBI 012) - Assessment published May 2010

84. EEA, 2010, Nutrients in transitional, coastal and marine waters (SEBI 015) - Assessment published May 2010

85. EEA, 2010, Patent applications based on genetic resources (SEBI 024) - Assessment published May 2010

86. EEA, 2010, Public awareness (SEBI 026) - Assessment published February 2015

87. EEA, 2010, Red List Index for European species (SEBI 002) - Assessment published May 2010
   http://www.eea.europa.eu/data-and-maps/indicators/red-list-index-for-european-species/red-list-index-for-european

88. EEA, 2010, Species of European interest (SEBI 003/CSI 007) - Assessment published May 2010


90. EEA, 2010, Towards an early warning and information system for invasive alien species (IAS) threatening biodiversity in Europe, European Environment Agency, Copenhagen, Denmark.


93. EEA, 2011, Datasheet — Revealing the costs of air pollution from industrial facilities in Europe


Information note to IPBES secretariat on EEA and EU information


114. EEA, 2012, Plant and fungi phenology (CLIM 023) - Assessment published Nov 2012


116. EEA, 2012, River floods (CLIM 017) - Assessment published Nov 2012

117. EEA, 2012, Share of HNV farmland per utilised agricultural area (UAA)

118. EEA, 2012, Soil erosion (CLIM 028) - Assessment published Nov 2012


126. EEA, 2013, Adaptation in Europe - Addressing risks and opportunities from climate change in the context of socio-economic developments, European Environment Agency, Copenhagen, Denmark.


138. EEA, 2013, PCB levels in grey seals (a), white-tailed sea eagle eggs (b), Guillemot eggs (c) and Baltic Herring (d) in the Baltic region between 1970 and 2010 http://www.eea.europa.eu/data-and-maps/figures/pcb-levels-in-grey-seals


165. EEA, 2015, EU 2010 Biodiversity Baseline adapted to the MAES ecosystem classification. Technical report No xx/2015, European Environment Agency, Copenhagen, Denmark (in prep)


174. EEA, 2015, State of Europe’s Seas, European Environment Agency, Copenhagen, Denmark (in prep) http://www.eea.europa.eu/publications#c14=&c7=en&c9=all&c11=5&b_start=0&c12=EEA+Report


177. EEA, Biodiversity Data Centre (BDC) http://www.eea.europa.eu/themes/biodiversity/dc


179. EEA, Climate Adapt http://climate-adapt.eea.europa.eu/

180. EEA, Climate change data centre http://www.eea.europa.eu/themes/climate/dc

181. EEA, Complementarity between European designations (Natura 2000 and Emerald networks) and national designations by share of terrestrial area http://www.eea.europa.eu/data-and-maps/daviz/complementarity-between-european-designations#tab-chart_1

182. EEA, Conservation status by main type of habitats http://www.eea.europa.eu/data-and-maps/daviz/conservation-status-by-main-type#tab-chart_1
184. EEA, EUNIS, the European Nature Information System http://eunis.eea.europa.eu/index.jsp
188. EEA, Our Natural Europe http://www.eea.europa.eu/highlights/atlas/our-natural-europe
191. European Cooperative Programme for Plant Genetic Resources (ECPGR) http://www.ecpgr.cgiar.org/
196. JRC, DOPA, the Digital Observatory for Protected Areas http://dopa.jrc.ec.europa.eu/
197. JRC, EASIN, the European Alien Species Information Network http://easin.jrc.ec.europa.eu/
199. JRC, eHabitat - Ecological Forecasting for Policy Making http://ehabitat.jrc.ec.europa.eu/
201. JRC, European Forest Fire Information System http://forest.jrc.ec.europa.eu/effis/


Annex 1 All selected EEA information grouped by IPBES Regional Assessment Chapters

This section presents all selected information resources grouped by IPBES Regional Assessment Chapters. Some references that seem relevant to more than one chapter appear more than once in this list. This list includes the core information as presented in chapter 3, but also the supporting and background information.

Chapter 1: Setting the scene

Data

Indicator

Map

Publication
Maxim L. And J. Van der Sluijs, 2013, Seed-dressing systemic insecticides and honeybees. In: Late lessons from early warnings: science, precaution, innovation, EEA Report No 1/2013, European Environment Agency,


**Portal**

EC, BISE - the Biodiversity Information System for Europe http://biodiversity.europa.eu/

Eurostat, Environmental statistics and accounts http://ec.europa.eu/eurostat/web/environment/overview

Chapter 2: Nature’s benefits to people and quality of life


Article
EEA, Our Natural Europe http://www.eea.europa.eu/publications/europes-ecological-backbone

Data


Graph

EEA, 2013, PCB levels in grey seals (a), white-tailed sea eagle eggs (b), Guillemot eggs (c) and Baltic Herring (d) in the Baltic region between 1970 and 2010 http://www.eea.europa.eu/data-and-maps/figures/pcb-levels-in-grey-seals

Indicator


Publication


**Portal**


Chapter 3: Status, trends and future dynamics of biodiversity and ecosystems underpinning nature’s benefits to people

Data


Graph


Indicator
Interactive data


Information note to IPBES secretariat on EEA and EU information


EEA, EUNIS, the European Nature Information System http://eunis.eea.europa.eu/index.jsp

Interactive map

EEA, EUNIS, the European Nature Information System http://eunis.eea.europa.eu/index.jsp

Map


Publication


**Portal**


EC, Copernicus, the European Earth Observation Programme [http://www.copernicus.eu/](http://www.copernicus.eu/)


EEA, Biodiversity Data Centre (BDC) [http://www.eea.europa.eu/themes/biodiversity/dc](http://www.eea.europa.eu/themes/biodiversity/dc)


Chapter 4: Direct and indirect drivers of change in the context of different perspectives of quality of life

Data
JRC, DOPA, the Digital Observatory for Protected Areas http://dopa.jrc.ec.europa.eu/

Graph
EEA, 2013, PCB levels in grey seals (a), white-tailed sea eagle eggs (b), Guillemot eggs (c) and Baltic Herring (d) in the Baltic region between 1970 and 2010 http://www.eea.europa.eu/data-and-maps/figures/pcb-levels-in-grey-seals

Indicator
EEA, 2010, Nutrients in transitional, coastal and marine waters (SEBI 015) - Assessment published May 2010

EEA, 2012, Distribution of plant species (CLIM 022) - Assessment published Nov 2012

EEA, 2012, Plant and fungi phenology (CLIM 023) - Assessment published Nov 2012

EEA, 2012, River floods (CLIM 017) - Assessment published Nov 2012

EEA, 2012, Soil erosion (CLIM 028) - Assessment published Nov 2012


EEA, 2012, Forest fires (CLIM 035) - Assessment published Nov 2012

EEA, 2013, Land take (CSI 014/LSI 001) - Assessment published Jun 2013

EEA, 2014, Ammonia (NH3) emissions (APE 003) - Assessment published Jan 2014

EEA, 2014, Nitrogen oxides (NOx) emissions (APE 002) - Assessment published Jan 2014

EEA, 2014, Permafrost (CLIM 011) - Assessment published Jun 2014

Interactive data


EEA, 2015, Changes in land cover between 2000 and 2006: Previous status of newly urban areas

JRC, DOPA, the Digital Observatory for Protected Areas http://dopa.jrc.ec.europa.eu/

Interactive map


JRC, DOPA, the Digital Observatory for Protected Areas http://dopa.jrc.ec.europa.eu/

Map


EEA, 2014 Main pathways of introduction of marine non-indigenous species in regional seas of Europe  

EEA, Actual and potential future alien plant invasion hotspots under two emissions scenarios  


Publication


Project


Portal

EC, BISE - the Biodiversity Information System for Europe http://biodiversity.europa.eu/

EC, Copernicus, the European Earth Observation Programme http://www.copernicus.eu/

EC, WISE - the Water Information System for Europe http://water.europa.eu/
Chapter 5: Integrated and cross-scale analysis of interactions of the natural world and human society

Data
EC, Delivering Alien Invasive Species Inventories for Europe http://www.europe-aliens.org/
JRC, eHabitat - Ecological Forecasting for Policy Making http://ehabitat.jrc.ec.europa.eu/

Indicator

Interactive data
JRC, eHabitat - Ecological Forecasting for Policy Making http://ehabitat.jrc.ec.europa.eu/

Interactive map
EC, INSPIRE Geoportal http://inspire-geoportal.ec.europa.eu/
JRC, eHabitat - Ecological Forecasting for Policy Making http://ehabitat.jrc.ec.europa.eu/

Map

Publication


Project

EC, Delivering Alien Invasive Species Inventories for Europe [http://www.europe-aliens.org/]

EC, European Biodiversity Observation Network (EBONE) [http://www.wageningenur.nl/en/Expertise-Services/Research-Institutes/alterra/Projects/EBONE-2.htm]


**Portal**

EC, BISE - the Biodiversity Information System for Europe http://biodiversity.europa.eu/

EC, Delivering Alien Invasive Species Inventories for Europe http://www.europe-aliens.org/


EEA, Climate Adapt http://climate-adapt.eea.europa.eu/

EEA, Climate change data centre http://www.eea.europa.eu/themes/climate/dc

Eurostat, Environmental statistics and accounts http://ec.europa.eu/eurostat/web/environment/overview


**Policy instrument**

Chapter 6: Options for governance, institutional arrangements and private and public decision making across scales and sectors


Data

EC, Delivering Alien Invasive Species Inventories for Europe http://www.europe-aliens.org/


JRC, DOPA, the Digital Observatory for Protected Areas http://dopa.jrc.ec.europa.eu/

Indicator


Interactive data


EEA, Complementarity between European designations (Natura 2000 and Emerald networks) and national designations by share of terrestrial area http://www.eea.europa.eu/data-and-maps/daviz/complementarity-between-european-designations - tab-chart_1


JRC, DOPA, the Digital Observatory for Protected Areas http://dopa.jrc.ec.europa.eu/

Interactive map

EC, INSPIRE Geoportal http://inspire-geoportal.ec.europa.eu/


JRC, DOPA, the Digital Observatory for Protected Areas [http://dopa.jrc.ec.europa.eu]

Map


Publication


Case Study


Project

EC, Delivering Alien Invasive Species Inventories for Europe http://www.europe-aliens.org/


Portal

EC, BISE - the Biodiversity Information System for Europe http://biodiversity.europa.eu/

EC, Delivering Alien Invasive Species Inventories for Europe http://www.europe-aliens.org/


EC, LIFE Projects database http://ec.europa.eu/environment/life/project/Projects/index.cfm

EC, LifeWatch - European e-Science infrastructure for biodiversity and ecosystem research http://www.lifewatch.eu/web/guest/home
European Cooperative Programme for Plant Genetic Resources (ECPGR) [http://www.ecpgr.cgiar.org/]
Eurostat, Environmental statistics and accounts [http://ec.europa.eu/eurostat/web/environment/overview]

**Policy instrument**


Annex 2 Full details

One example of an entry with all recorded metadata. All data are included in the Excel Workbook provided as an annex to this report. The full database (in Excel or Access format) can be requested from Mark Snethlage email: snethlage@ecnc.org

EU 2010 Biodiversity Baseline


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

Resource: Publication | Format: PDF

Relevance: Core

Topic: Biodiversity; Policy instruments

Chapter: Chapter 3: Status, trends and future dynamics of biodiversity and ecosystems underpinning nature’s benefits to people

Chapter themes: Ch. 3 - past and current trends and future dynamics of biodiversity and ecosystems; Ch. 3 - ecosystem range and distribution (changes); Ch. 3 - species of special concern and importance

Keywords: soil; global; marine ecosystems; rivers; heath and scrub; species; endemic species; baseline; land cover; conservation; agro-ecosystems; habitats; ecosystem services; red list; genes; lakes; EU ecosystems; Natura 2000; biodiversity; grassland; coastal

DPSIR: State

Description: 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.

Aichi targets: Target 1 People aware of biodiversity and actions; Target 2 Biodiversity values integrated into strategies; Target 19 Science base and technology related to biodiversity are shared

Geographical coverage: EU27

Temporal coverage – from: 1990 to 2010
Annex 3 List of keywords

These are the keywords used in the database column “Keywords”. To a large extend they correspond to the keywords used as part of the EEA document metadata.

10 messages for 2010
access to EU information
access to information
acidification
adaptation
adaptation strategies
adaptation to climate change
afforestation
agricultural ecosystems
agriculture
agriculture policy
agro-environment
agro-ecosystems
air
air emissions
Air emissions accounts
air pollutants
air pollution
air pollution control
air pollution indicator
air quality
Air quality and greenhouse gases
alien species
ammonia
animal welfare
animals
aquaculture
aquatic ecosystems
Article 17
Assessment of Assessments
atmospheric nitrogen
baseline
bats
belgrade
biocapacity
biodiversity
biodiversity indicators
biodiversity loss
biodiversity monitoring
bioenergy
bioenergy crops
biogeographical regions
biomass
biomass energy
birds
birds directive
border control
bore hole measurement
building industry
building insulation
butterflies
cancer
cap
carbon
carbon sink
carbon stock
cattle
cdda
chemicals
cities
citizen science
climate
climate change
climate change adaptation
climate change impacts
climate change mitigation
coastal
Coastal and marine environment
coastal ecosystems
coastal management
common strategy
conservation
conservation of resources
conservation status
consumption
consumption and production patterns
contaminated land
corine land cover
COST
countryside
critical load
cultural landscapes
data
dataset
deadwood
deforestation
degree of pollution
designated areas
Digital Earth
disaster risk reduction
disclosure of information
drinking water
drought
drought early warning
Earth observation
ecological footprint
economic and social cohesion
economic growth
economic recession
economic resources
economic stabilisation
Ecosystem
ecosystem accounting
ecosystem based approaches
ecosystem services
ecosystems
Ecosystems and biodiversity
ecotone
education
eea owned data sets
Eionet
een
endemic species
endocrine disruption
energy consumption
energy policy
energy resources
environment
Environment for Europe
Environmental goods and services
sector
environmental impact
Environmental monitoring
environmental policy
environmental protection
Environmental protection expenditure
environmental standard
Environmental taxes
environmental trends
economically-compatible bioenergy
E-PRTR
erosion
ESF
EU
EU action
EU cohesion policy
EU ecosystems
eu emission inventory
EU environmental policy
EU financing
EU marine strategy framework
directive
EU policy
EU programme
eruns
Europe
eutrophication
evaluation
expenditures
extinction
extreme events
extreme temperatures
extreme weather events
farm structure
farming
farmland
farmland abandonment
felling
fertility
financial financing
fire
fisheries
fixing of prices
flood
flood management
floods
food resources
food safety and security
forecast
forest
forest biodiversity
forest connectivity
forest conservation
forest creation
forest ecosystems
forest fire
forest management
forest monitoring
forestry
forests
FP5
FP6
FP7
fragmentation
freshwater
freshwater ecosystems
genesis
genetic diversity
geographic data
geographical information
geographical information system
geographical information systems
geophysical hazards
geospatial data
global
global megatrends
global warming
globalsisation
gmes
graph
Information note to IPBES secretariat on EEA and EU information

- Green and resource-efficient Europe
- Green economy
- Green infrastructure
- Green solutions
- Green space
- Green urban areas
- Greenhouse gas emissions
- Grid
- Groundwater
- Habitat
- Habitat fragmentation
- Habitats
- Habitats directive
- Hazardous substances
- Health
- Heat waves
- Heath and scrub
- High nature value
- Hnv
- Hormones
- Housing
- Human
- Human health
- Hunting
- Hydrometeorological
- Hydropower
- Impact study
- Import restriction
- Income
- Increment
- Indicator
- Indicators
- Industrial project
- Information network
- Information system
- Information transfer
- Infrastructure
- Inland waterway
- Innovation
- INSPIRE
- Integrated farming
- Integrated sustainability assessments
- Integrated urban management
- Integrated water management
- Intensive farming
- Interactive map
- Internet
- Inundations
- Invasive alien species
- Invasive species
- Investment
- Job creation
- Joint implementation
- Knowledge economy
- Labour input
- Lakes
- Land
- Land conservation
- Land conversion
- Land cover
- Land cover changes
- Land development
- Land prices
- Land take
- Land use
- Land use change
- Land use planning
- Land use taxes
- Land use trends
- Landfill
- Landscape
- Landscape fragmentation
- Landscape management
- Landscape planning
- Landscape protection
- Landslides
- Legal instruments
- LIFE+
- Living plant
- Logging
- Long-range transboundary air pollution
- Low-carbon economy
- Lrtap convention
- Management
- Management of resources
- Map
- Marine
- Marine and coastal
- Marine ecosystem
- Marine environment
- Marine pollution
- Maritime sector
- Material flows and resource productivity
- Mediterranean
- Megatrends
- Migratory species
- Mining
- Modelling
- Monitoring
- Mountain ecosystems
- Mountains
- National parks
- Nationally designated areas
- Natura 2000
- Natural capital
- Natural disaster
- Natural hazard
- Natural heritage
- Natural resources
- Natural resources consumption
- Nature
- Nature and biodiversity
- Nature conservation
- Neonicotoids
- Neurodevelopmental disorders
- Nh3
- Nitrogen
- Nitrous oxide
- Noise
- Non-indigenous species
- Nox
- Oestrogens
- Organic farming
- Organic substances
- Orthophosphate
- Overexploitation
- Oxidation
- Ozone
- Pan-Europe
- Pan-European environment
- Patent publication
- Patents
- Pcb
- Permafrost
- Pesticides
- Pet shop
- Phenology
- Policies
- Policies and measures
- Policy instruments
- Pollutants
- Pollution
- Pollution control
- Population
- Poverty
- Prevention of pollution
- Prices
- Principle of subsidiarity
- Priority data flow
- Private sector
- Production
- Productivity
- Protected area
- Protected areas
- Protected sites
- Protected species
- Protection
- Protection of animal life
- Protection of forests
- Protection of plant life
- Public awareness campaign
- Public safety
- Public sector
- Quality of life
- Recreational areas
- Red list
- Reforestation
- Reporting
- Research and development
- Reserve
- Resource efficiency
- Resource use
- Response
- Risk management
- Risk prevention
- Risk reduction
- Rivers
- Rural development
- Sac
- Safe water
- Scenarios
- Sci
- Sea
- Seis
- Semi-natural habitats
- Shared Environmental Information System
- Sheep
- Site
- Sites
- Social equity
- Social inequalities
- Soer2010
- Soer2015
- Soer2015 communication
- Soil
- Soil biodiversity
- Soil sealing
- Spa
- Spatial planning
- Species
- Species Article 17
- Specific regions
- Status
- Storms
- Supply
- Surface water
- Sustainability
- Sustainable cities
- Sustainable consumption and production
- Sustainable development
- Sustainable farming practices
- Sustainable forest management
- Sustainable forestry
- Synthesis
- Taxonomy
- Technological hazards
- Temperatures
- Terrestrial
territorial cohesion
territorial waters
thematic assessments
threatened species
threats
threats to biodiversity
tipping points
toxic spills
traceability
traffic
trans-European network
transmission network
transport
urban
urban air quality
urban areas
urban ecosystems
urban environment
urban forests
urban lifestyle
urban planning
urban policy
urban population
urban sprawl
urbanisation
use
use of water
vector data
vegetation
volcanic eruptions
Waste
waste management
water
water accounts
water analysis
water consumption
water framework directive
water management
water management in agriculture
water pollutant
water pollution
water protection
water quality
water resource management
water resources
water scarcity
water services
water towers
water use
welfare
well-being
wetlands
wildlife
wind
wood supply