

# Environmental indicator catalogue for the Eastern Partnership countries

## Concept Note



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## Contents

|  |   |
|--|---|
| Introduction .....   | 3 |
| Background.....  | 3 |
| Why a catalogue of environmental indicators?.....                                  | 3 |
| How different are types of indicators?.....  | 5 |
| What is structure of the catalogue?.....   | 5 |
| Why the project supports the Environmental Indicators catalogue in practise? ..... | 6 |
| Conclusion:.....   | 8 |

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The document was discussed with the EEA Indicator Management Team.



## Introduction

***The Environmental indicator catalogue for the Eastern Partnership countries is an answer to the Regional and National Work plan activities for 2017-2020.***

***Purpose of this document is to provide methodological support and way forward to the countries to develop the national Catalogue of Environmental Indicators in order to:***

- ***Implement the UNECE indicators on environment for the pan-European assessment reporting commitments;***
- ***Improve and share of environmental information to ensure transparency and accountability;***
- ***Produce regularly the environmental indicators and assessments for knowledge-based policy-making and good environment governance;***
- ***Ensure evidence-based decision-making, including monitoring and reporting the implementation of environmentally -related SDGs;***
- ***Provide environmental reporting to international, regional and national commitments.***

***The document is based on the methodology of the European Environmental Indicator Catalogue <sup>1</sup>and their links to data and metadata.*** Currently, the catalogue includes indicators produced by Eurostat and the European Environment Agency (EEA), indicators from the Commission's Joint Research Centre (JRC) and other international sources.

## Background

Environmental Indicators are important tools to help policy makers at national and international levels to understand the undergoing changes to the environment, to feed environmental assessments and SOER reporting, to access comprehensive information in effective manner, and to compare the results with neighbours and within the pan-European region.

The ENI SEIS II EAST project supports the six target countries to produce and share the environmental indicators and their underpinning datasets by 2020, which is an important step towards establishing a Shared Environmental Information System (SEIS) to support a regular reporting.

## Why a catalogue of environmental indicators?

Reliable, relevant, targeted and timely environmental information is an essential element in implementing environmental policy and management processes. Such information

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<sup>1</sup> [https://ec.europa.eu/eurostat/documents/1798247/6812352/Environmental+indicator+catalogue\\_pdf/](https://ec.europa.eu/eurostat/documents/1798247/6812352/Environmental+indicator+catalogue_pdf/)



can come in many formats — with indicators being a long-established approach to distilling detailed information into trends that are robust and easily understandable by a broad audience.

As an example, in the Europe Union, the European and international bodies develop environmental indicators mainly for policy purposes. Over the past decades the European Union has put in place a broad range of environmental legislation. As a result, air, water and soil pollution has significantly been reduced. Chemicals legislation has been modernised and the use of many toxic or hazardous substances has been restricted. Today, EU citizens enjoy some of the best water quality in the world and over 18% of EU's territory has been designated as protected areas for nature. However, many challenges persist and these must be tackled together in a structured way. The 7th Environment Action Programme<sup>2</sup> is guiding European environment policy until 2020. In order to give more long-term direction it sets out a vision beyond that, of where it wants the Union to be by 2050: "In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society."

It identifies three key objectives:

- to protect, conserve and enhance the Union's **natural capital**
- to turn the Union into a **resource-efficient**, green, and competitive low-carbon **economy**
- to **safeguard** the Union's citizens from **environment-related pressures** and risks to health and wellbeing

Four so called "enablers" will help Europe deliver on these goals:

- better **implementation** of legislation
- better **information** by improving the knowledge base
- more and wiser **investment** for environment and climate policy
- full **integration** of environmental requirements and considerations into other policies

To ensure it is implementation and that priority objectives set out are met by 2020 includes the European Commission puts forward policies and programmes designed to protect natural habitats, keep air and water clean, ensure proper waste disposal, improve knowledge about toxic chemicals, and help businesses move towards a sustainable economy. To keep the Europeans increasingly aware of environmental problems, the EU institutions and the Member States have developed reporting mechanism that based on policy context and solid knowledge to monitor the goals and objectives of the 7th Environment Action Programme.

The EU 'Environmental indicator catalogue' is one of the answer to the EU monitoring and reporting systems and it is a repository of available indicators to monitor the European

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<sup>2</sup> <http://ec.europa.eu/environment/action-programme/>



environment policy. It is an inventory of more than 200 European indicators, providing a one-stop shop for indicators on environmental and environment-related themes.

The catalogue serves as a central overview of the environmental indicators and thus at the same time forms the basis for monitoring the programmes, strategies and conventions funded through national and the international programmes. This document is gradually introducing a monitoring system for national programmes and international commitments which will enable coordinate and systematically monitor in while supporting transparency and reporting to the key stakeholders and the public and partners in abroad. The interactive structure and set of indicators are organised accordingly by data and metadata. This catalogue of indicators lists the indicators ordered by themes and sub themes. Thus is the basis of environment policy reporting and systematic evaluation of the target achievement. To this end, these indicators contain valuable information for environmental management and they are policy orientated and relevant.

## How different are types of indicators?

Indicators have been designed to provide an assessment of progress towards established objectives or to describe a situation or trend. The purpose and type of an indicator are determined by the questions it seeks to answer. In this context, indicators may appear in different forms. There are indicators in the form of a table with numerical data describing the evolution of a parameter over time and space. There are also indicators, which combine multiple tables and graphs from different sources and focus on the assessment of progress towards targets. Eurostat's indicators are of the first type, whereas EEA indicators belong to the second type. Each indicator type serves in the way to the purpose for which it was created.

| Climate |                                     |  |  |
|---------|-------------------------------------|--|--|
|         | Temperature                         |  |  |
|         |                                     | Global and European temperature (EEA_CSI012/CLIM001)               | <a href="#">Indicator and metadata</a> |
|         |                                     | Heating degree days (EEA_CLIM047)                                  | <a href="#">Indicator and metadata</a> |
|         | Weather and climate-related effects |  |  |
|         |                                     | Arctic and Baltic Sea ice (EEA_CLIM010)                            | <a href="#">Indicator and metadata</a> |
|         |                                     | Economic losses from climate-related extremes (EEA_CSI042/CLIM039) | <a href="#">Indicator and metadata</a> |
|         |                                     | Extreme temperatures and health (EEA_CLIM036)                      | <a href="#">Indicator and metadata</a> |
|         |                                     | Glaciers (EEA_CLIM007)   | <a href="#">Indicator and metadata</a> |
|         |                                     | Greenland ice sheet (EEA_CLIM009)                                  | <a href="#">Indicator and metadata</a> |
|         |                                     | Hail (EEA_CLIM053)   | <a href="#">Indicator and Metadata</a> |
|         |                                     | Mean precipitation (EEA_CLIM002)                                   | <a href="#">Indicator and metadata</a> |
|         |                                     | Precipitations extremes (EEA_CLIM004)                              | <a href="#">Indicator and metadata</a> |
|         |                                     | Snow cover (EEA_CLIM008)   | <a href="#">Indicator and metadata</a> |
|         |                                     | Wind storms (EEA_CLIM005)  | <a href="#">Indicator and metadata</a> |

## What is structure of the catalogue?

In the Europe Union, the catalogue is organized according to environmental themes (16) and sub-themes (55). Indicators are listed under sub-themes and for each indicator there are clickable links to its data and metadata. Next to the indicator's name, its owner and code are mentioned in parenthesis. An indicator metadata file provides information on the definition, properties, dissemination and methodology for developing the indicator. Themes, sub-themes and indicators are all listed in alphabetical order. See table below:



Table 1. Environmental Indicators Catalogue in the Europe Union

|  |                                     |  |                        |               |
|---|-------------------------------------|--|------------------------|---------------|
| Directorate E: Sectoral and regional statistics<br>European Commission            |                                     |  |                        |               |
| <b>Environmental indicator catalogue (as of 24 May 2017)</b>                      |                                     |  |                        |               |
| Theme   | Sub-theme                           | Indicator name (producer_indicator code)<br><small>[EEA: European Environment Agency]</small>  | Indicator link         | Metadata link |
| Agriculture   | Environmental impact of agriculture |  |                        |               |
|   |                                     | Area under agri-environmental commitment (Eurostat_tsdpc430)                                   | Indicator              |               |
|   |                                     | Area under organic farming (Eurostat_tsdpc440)   | Indicator              | Metadata      |
|   |                                     | Agriculture: area under management practices potentially supporting biodiversity (EEA_SEBI020) | Indicator and metadata |               |

Links to data and metadata:

- **Eurostat indicators:** Data and metadata are published on different web pages and, thus, the catalogue provides two separate links. The link to data can be found in column 'Indicator link' and the link to metadata in column 'Metadata link'.
- **EEA indicators:** Data and metadata are published on the same web page. The catalogue provides the relevant single link under 'Indicator and metadata'. The details are available on the EEA website.<sup>3</sup>

## Why the project supports the Environmental Indicator Catalogue in practice?

The ENI SEIS II East project aims to support the Implementation of the UNECE indicators on environment for the **pan-European assessment reporting** commitments. The project is implemented by the EEA and funded by European Union. The EEA with the UNECE Joint Task Force on Environmental Indicators and Statistics and Working Group on Monitoring and Assessments developed and then revised the Guidelines for the Application of Environmental Indicators in Eastern Europe, Caucasus, Central Asia and South-Eastern Europe. With this revision the online version of the Guidelines was created. In the Online Guidelines each indicator is presented through three files: description of the indicator, table for the production of the indicator, and glossary of terms.<sup>4</sup>The description of the indicator contains following information:

-  General description (brief definition, units of measurement, context);
-  Relevance for environmental policy (purpose, issue, international agreements and targets);
-  Methodology and guidelines (data collection and calculations, internationally agreed methodologies and standards);
-  Data source and reporting;
-  References at the international levels.

<sup>3</sup> <https://www.eea.europa.eu/data-and-maps/indicators/about>

<sup>4</sup> <http://www.unece.org/env/indicators.html>.



To support the countries global reporting of the **UNSD Environmental Indicators**<sup>5</sup> which are compiled from a wide range of data sources and organised around ten themes. The themes and indicator tables were selected and based on the current demands for international environmental statistics and the availability of internationally comparable data. Indicator tables, charts and maps with relatively good quality and coverage across countries, as well as links to other international sources, are provided under each theme<sup>6</sup>:

- Air and Climate
- Biodiversity
- Energy and Minerals
- Forests
- Governance
- Inland Water Resources
- Land and Agriculture
- Marine and Coastal Areas
- Natural Disasters
- Waste

To support countries development of national environment statistics programmes and helping them to make decisions on priorities for statistical development **the UNSD has designed** and put in place the **Basic set of environmental statistics**. It is a comprehensive, but not exhaustive of statistics, it is embedded in the [FDES 2013](#) and consists of 458 individual statistics organized into the structure of the FDES (components, sub-components and topics). The Basic Set is divided into three tiers, based on the level of relevance, availability and methodological development of the statistics and the document available in English and Russian languages.<sup>7</sup>

The EEA shares and provides knowledge and experience on indicators reporting in the European countries in order to build institutional capacities. “The Digest of EEA indicators 2014” report provides a comprehensive guide to EEA indicators.<sup>8</sup>List of EEA indicators is available on the web link.<sup>9</sup> The EEA's Indicator Management System (IMS) currently contains 27 indicators, covering 22 environmental topics.<sup>10</sup> The Core Set of Indicators (CSI), aims to prioritise improvements in the quality and coverage of data flows, streamline contributions to other international indicator initiatives, and provide a manageable and stable basis for indicator-based assessments of progress against environmental policy priorities. The set is often used as a model for indicator sets at country level. Indicator assessment contains following information:

- ❖ Key messages;
- ❖ State and trend analysis with illustration (graphics, maps);
- ❖ Indicator specification and metadata (indicator definition, units);
- ❖ Rationale (justification for indicator selection, scientific references);

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<sup>5</sup> <https://unstats.un.org/unsd/envstats/qindicators.cshtml>

<sup>6</sup> <https://unstats.un.org/unsd/environment/qindicators.htm>

<sup>7</sup> <https://unstats.un.org/unsd/environment/FDES/BasicSet.htm>

<sup>8</sup> <https://www.eea.europa.eu/publications/digest-of-eea-indicators-2014>.

<sup>9</sup> <https://www.eea.europa.eu/downloads/1d8e256d75ef478a80aa7bf059d5ebe8/1438348079/list-of-eea-indicators.pdf>

<sup>10</sup> <https://www.eea.europa.eu/downloads/0b23043ba42d49df8ba62524a0661992/1499931387/eea-indicators.pdf>



- ❖ Policy context and targets (context description, targets, related policy documents).

## Conclusion:

The document contains a list of considerations to assist the Eastern Partnership countries to endorse and develop their system of national monitoring and reporting based on the list of environmental indicators. Thus should be in line with:

- regional and national reporting commitments;
- policy relevance and knowledge based decision making;
- access to comprehensive information in effective manner and share the results with neighbours;
- public awareness and link to national, regional and international targets.

Proposed list of the considerations is provided below. It is important for countries to take a decision on the way forward as outlined in this concept note in order to advance the ENI SEIS II EAST Project implementation to support the regular reporting.

### **Consideration 1.**

***The national Environmental Indicators Catalogue (EIC) will respond to the national needs for reporting obligations and commitments to national, regional and international policies and bodies. The national EIC will contain and will be a repository of all available indicators related to the environment and environmental related topics.***

### **Consideration 2.**

***The structure of the national Environmental Indicators Catalogue will follow the best practices of the EU and UN SD recommendations. The EICEC organisation and structure replicate the EU Environmental Indicator Catalogue and sustain around the themes, subthemes, indicator name, indicator link and metadata link.<sup>11</sup>***

### **Consideration 3.**

***National indicators need to be designed in order to respond to the national, regional and global reporting commitments and targets with focus on the SDGs Indicators. The indicator will measure and describe the distance to the targets and the goals.***

### **Consideration 4.**

***National Indicators need to be developed in line with the UNECE process of amendment of the UNECE guidelines for the regional environmental indicator set up in October 2018.***

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<sup>11</sup> [http://ec.europa.eu/eurostat/documents/1798247/6812352/Environmental+indicator+catalogue\\_version+24May2017.pdf\\_](http://ec.europa.eu/eurostat/documents/1798247/6812352/Environmental+indicator+catalogue_version+24May2017.pdf_)

