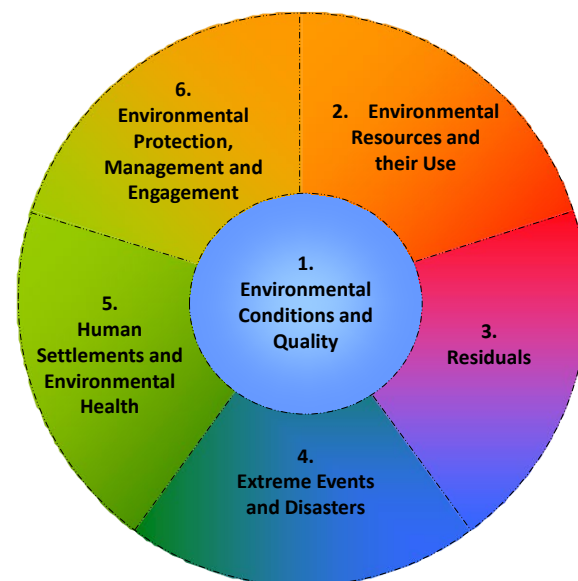


# Review of the ECE Guidelines for the Application of Environmental Indicators

Agenda item 6:

Introduction and presentation of the final version of the Guidelines for the Application of Environmental Indicators – Edition 2023

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# ECE Guidelines for the Application of Environmental Indicators

Introduction to session



## Main purposes of agenda item 6:

- Present the status of work and minor changes since 19<sup>th</sup> session
- Present structure, layout and content of indicator metadata sheets
- (Draft) outline of final version of the Guidelines for the Application of Environmental Indicators – Edition 2023
- Agree on next steps
- Hear from EEA about related activities
- Promote the use of the UNECE Guidelines for the Application of Environmental Indicators

# Rationale

## Why a review of the indicators and online guidelines?



JTFESI requested the Secretariat to review the ECE set of environmental indicators and the associated guidelines to

- **Inform better the recent global policies** (such as 2030 Agenda, Paris Agreement and Sendai Framework for Disaster-risk Reduction)
- **Improve data availability for regular pan-European Environmental Assessments and reporting**
- **Link them with statistical frameworks**, such as the FDES and SEEA
- **Increase user-friendliness** of the metadata.

### Guidelines for the Application of Environmental Indicators

The Joint Task Force 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.

The latest update for each indicator is indicated with a relevant date.

Indicator	Description	Production	Glossary of terms
A. Air pollution and ozone depletion			
A1. Emissions of pollutants into the atmospheric air (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
A2. Ambient air quality in urban areas (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
A3. Consumption of ozone-depleting substances (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
B. Climate change			
B1. Air temperature (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
B2. Atmospheric precipitation (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
B3. Greenhouse gas emissions (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C. Water			
C1. Renewable freshwater resources (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C2. Freshwater abstraction (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C3. Total water use (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C4. Household water use per capita (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C5. Water supply industry and population connected to water supply industry (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C6. Connection of population to public water supply	Integrated into C5		
C7. Water losses (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C8. Reuse and recycling of freshwater (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C9. Drinking water quality (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C10. BOD and concentration of ammonium in rivers (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C11. Nutrients in freshwater (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>
C12. Nutrients in coastal seawaters (updated October 2014)	<a href="#">PDF</a>	<a href="#">XLS</a>	<a href="#">PDF</a>

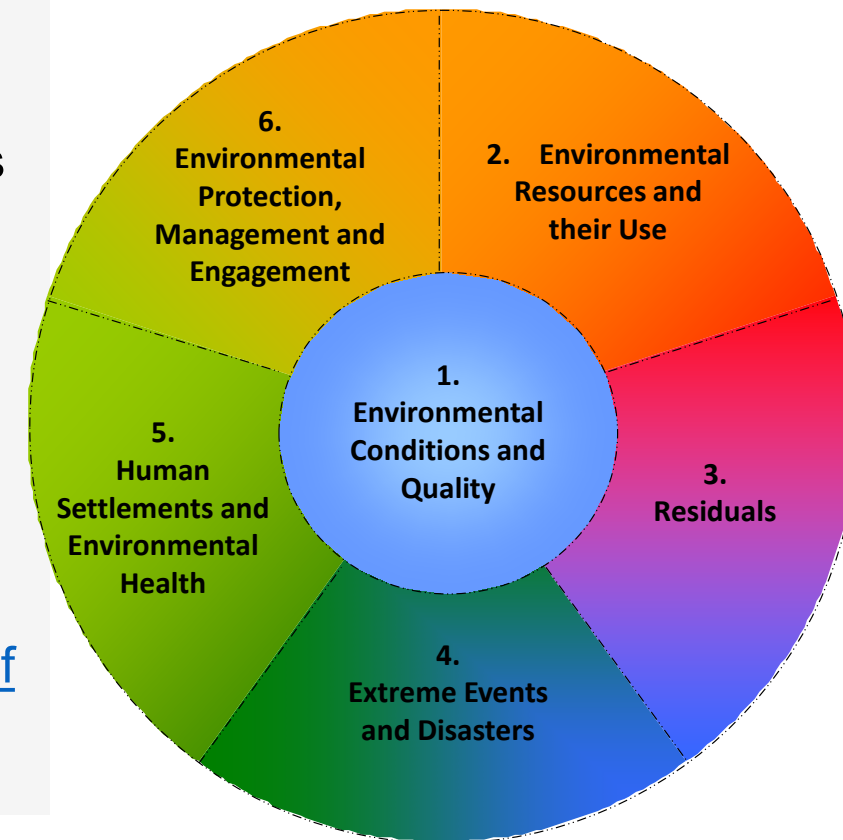
# Presentation of indicators according to FDES structure

Benefits of aligning it with the UN FDES



## Some benefits of using the structure of the FDES for the list of recommended UNECE Environmental Indicators:

1. Use of a globally agreed structure
2. FDES defines environmental indicators, data and statistics
3. FDES is broad, comprehensive and integrative. It defines the overall scope of environment statistics, thus can be used to identify information gaps and to set priorities
4. It can handle “cross-cutting issues”, such as climate change, COVID-19 or circular economy
5. New indicators can easily be added
6. Supports implementation of environmental statistics
7. Methodological guidelines (e.g. [Manual on the Basic Set of Environment Statistics](#)) available.



# (Draft) Outline of document for publication



1. Introduction
2. List of acronyms
3. Structure of the guidelines
  - Short explanation of the FDES
  - Clarification of terminology used in the document
  - Links with previous Guidelines
4. How to use the Guidelines in the national context
  - Identification of national priorities and additional statistics and indicators
  - Data disaggregation
5. List of indicators
  - Components and sub-components (according to FDES) with explanations
  - List of indicators
  - Metadata of priority indicators
6. Annexes (gradually developed and published online):
  - Metadata sheets of all indicators
  - List of statistics (and other data) needed to produce the indicators (with reference to FDES)



# Structure of the indicator metadata sheets

Example “D-3.8 Forest fires (area burnt by forest fires)” 1/2

## A. General

<u>Parameter</u>	<u>Description</u>
Indicator theme (Indicator Guidelines version 2009)	<u>D: Biodiversity</u>
Component (FDES)	<u>1: Environmental conditions and quality</u>
Sub-component (FDES)	<u>1.2: Land cover, ecosystems and biodiversity</u>
Indicator topic (FDES)	<u>1.2.3: Forests</u>
ID and name in previous indicator guidelines	D3: Forests and other wooded land
First publication	4/10/2021
<u>Latest update</u>	17/7/2023
<u>Indicator definition</u>	The indicator measures the area burnt by forest fires in each country, per year.
<u>Unit of measure</u>	Hectares
<u>Coverage</u>	Area burnt by forest fires
<u>Spatial aggregation</u>	National territory
<u>Reference period</u>	End of each calendar year or nearest date within that calendar year
<u>Update frequency</u>	<u>Annual</u>
<u>Purpose</u>	This indicator shows trends in the area affected by forest fires. Forest fires have recently affected regions in northern Eurasia not typically prone to fires, as well as the Mediterranean region, often related to droughts and heatwaves. Because of climate change, more areas within the UNECE region are likely to become exposed to significant and increasing fire risks in the future. The indicator allows to verify and follow such trends.

<u>Parameter</u>	<u>Description</u>
<u>Policy context</u>	Forests are among the most diverse and widespread ecosystems on earth. They have strong intrinsic values, provide multiple ecosystem services (provision of timber and other products, recreation, regulatory ecosystem services related to soil and water) to human societies, and thereby support sustainable development and human wellbeing on Earth. They also enable nature-based solutions to a wide range of challenges to Society (e. g. carbon sequestration, flood protection).  Forest fires are an important pressure and risk to forests and other wooded lands, besides overexploitation, fragmentation, environmental degradation and conversion into other types of land use.  This indicator is relevant to SDG target 15.1 (“By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements”).
<u>Link with SDG indicators</u>	15.1.1 Forest area as a proportion of total land area; Indirectly related  15.2.1 Progress towards sustainable forest management; Indirectly related
<u>Methodology for indicator calculation</u>	Burnt area is documented in hectares (ha) based on national reporting or the European Forest Fire Information System supported by ground surveys or remote sensing data.
<u>Comments</u>	-

# Structure of the indicator metadata sheets

Example “D-3.8 Forest fires (area burnt by forest fires)” 2/2

## B. Policy references



<i>Title of the reference document</i>	<i>Link</i>
United Nations Convention on Biological Diversity (CBD)	<a href="https://www.cbd.int/">https://www.cbd.int/</a>
United Nations Convention on Biological Biodiversity: Post-2020 Global Biodiversity Framework	<a href="https://www.cbd.int/doc/c/409e/19ae/369752b245f05e88f760aeb3/wg2020-05-1-02-en.pdf">https://www.cbd.int/doc/c/409e/19ae/369752b245f05e88f760aeb3/wg2020-05-1-02-en.pdf</a>
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. EU Biodiversity Strategy for 2030. Bringing nature back into our lives.	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52020DC0380">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52020DC0380</a>
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions New EU Forest Strategy for 2030.	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0572">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0572</a>



## C. Methodology references

<i>Title of the reference document</i>	<i>Link</i>
The European Fire Database - Technical specifications and data submission	<a href="https://effis-gwis-cms.s3.eu-west-1.amazonaws.com/effis/reports-and-publications/effis-related-publications/eudb_tech_spec_final_2register.pdf">https://effis-gwis-cms.s3.eu-west-1.amazonaws.com/effis/reports-and-publications/effis-related-publications/eudb_tech_spec_final_2register.pdf</a>

## C. Methodology references

<i>Title of the reference document</i>	<i>Link</i>
The European Fire Database - Technical specifications and data submission	<a href="https://effis-gwis-cms.s3.eu-west-1.amazonaws.com/effis/reports-and-publications/effis-related-publications/eudb_tech_spec_final_2register.pdf">https://effis-gwis-cms.s3.eu-west-1.amazonaws.com/effis/reports-and-publications/effis-related-publications/eudb_tech_spec_final_2register.pdf</a>

## D. Data and statistics needed to compile the indicator

<i>ID</i>	<i>Data item</i>	<i>FDES topic</i>
232	Burnt forest area	2.3.2: Use of forest land

## E. International databases containing this indicator

<i>Name of the database</i>	<i>Link</i>
The European Forest Fire Information System	<a href="https://effis.jrc.ec.europa.eu/">https://effis.jrc.ec.europa.eu/</a>

# Indicators updated and added since 19<sup>th</sup> Session of JTFESI



- A. WMO released new climate normal in August 2023: New indicator B-1.5: Mean temperature anomaly (compared to climate normal 1991–2020)
- B. Monitoring Framework for the Kunming-Montreal Global Biodiversity Framework adopted in December 2022
  - 10 new and/or updated indicators on biodiversity: D-7.2, D-7.3, D-4.4, D-5.3, D-1.7, D-1.8, D-6.1, C-12.4, D-3.12, D-5.2
  - New indicator on funding on conservation and sustainable use of biodiversity and ecosystems (J-1.7)
- A. Expert proposal from regional training on air quality and emissions to air (4-5 May 2023):
  - A-2.11: SO<sub>2</sub>: Annual mean concentration in cities (corrected from SO<sub>x</sub> to SO<sub>2</sub>)
  - A-2.12: NO<sub>2</sub>: Annual mean concentration in cities (corrected from NO<sub>x</sub> to NO<sub>2</sub>)
- C. Proposal by ECE forest experts: D-3.11: Forest carbon stock
- A. Consideration of list of revised EEA indicators:
  - A-1.22: Total emissions of NMVOCs (Non-Methane Volatile Organic Compounds)
  - K-1.9: Number of people exposed to unhealthy noise levels
- D. Topic “collection and treatment of wastewater”: 7 new indicators (C-15.1 – C-15.7)
- E. Suggestion of JTFESI to add disaster-risk indicators: 5 new indicators (K-1.4 - K1.8)
- F. Proposal made by Armenia at 19<sup>th</sup> session: J-1.8: Payments for use of natural resources



# Next steps



- Finalisation of work on Guidelines for the Application of Environmental Indicators – Edition 2023
- Continuation of work on producing indicator metadata sheets and publishing them online
- Regularly revise ECE Guidelines for the Application of Environmental Indicators to take into account recent policy developments (e.g., by suggesting updates or new indicators on emerging themes): ECE Guidelines for the Application of Environmental Indicators – 2028 Edition

**Thank you!**

Michael Nagy  
Statistician

**UNECE**



# Proposed Decisions

## The Joint Task Force

- Welcomes the progress made towards finalizing the Guidelines for the Application of Environmental Indicators.
- Approves the minor improvements made, including in the list of indicators and indicator metadata sheets.
- Requests the secretariat to continue work on the final version of the Guidelines for the Application of Environmental Indicators – Edition 2023, taking into account discussions at the present session of the Joint Task Force, and requests the secretariat to prepare the final version of the guidelines as an official publication in English, French and Russian in electronic and paper editions.