Revision of the UNECE Guidelines for the Application of Environmental Indicators

Status of work

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Rationale

Why a review of the indicators and online guidelines?

The JTF requested 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)
- **link them with statistical frameworks**, such as the United Nations Framework for the Development of Environment Statistics and the System of Environmental-Economic Accounting
- **increase user-friendliness** of the metadata

Secretariat submitted a document (draft revised guidelines, ECE/CEP-CES/GE.1/2020/3) for discussion at 17th meeting (October 2020)

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)	PDF	XLS	PDF
A2. Ambient air quality in urban areas (updated October 2014)	PDF	XLS	PDF
A3. Consumption of ozone-depleting substances (updated October 2014)	PDF	XLS	PDF
B. Climate change			
B1. Air temperature (updated October 2014)	PDF	XLS	PDF
B2. Atmospheric precipitation (updated October 2014)	PDF	XLS	PDF
B3. Greenhouse gas emissions (updated October 2014)	PDF	XLS	PDF
C. Water			
C1. Renewable freshwater resources (updated October 2014)	PDF	XLS	PDF
C2. Freshwater abstraction (updated October 2014)	PDF	XLS	PDF
C3. Total water use (updated October 2014)	PDF	XLS	PDF
C4. Household water use per capita (updated October 2014)	PDF	XLS	PDF
C5. Water supply industry and population connected to water supply industry (updated October 2014)	PDF	XLS	PDF
C6. Connection of population to public water supply	Integrated into C5		
C7. Water losses (updated October 2014)	PDF	XLS	PDF
C8. Reuse and recycling of freshwater (updated October 2014)	PDF	XLS	PDF
C9. Drinking water quality (updated October 2014)	PDF	XLS	PDF
C10. BOD and concentration of ammonium in rivers (updated October 2014)	PDF	XLS	PDF
C11. Nutrients in freshwater (updated October 2014)	PDF	XLS	PDF
C12. Nutrients in coastal seawaters (updated October 2014)	PDF	XLS	PDF

Revision process is multi-dimensional

1. Distinction between “indicators” and “data and statistics”, using the definitions used in the UN Framework for the Development of Environment Statistics (FDES) – presented and discussed at 16th session of JTFESI
2. Presentation of the indicators according to FDES structure
3. Review of the list of indicators
4. Update of indicator metadata, including filling of some “placeholders”
5. All information stored in a bilingual database (English and Russian)
6. Making it more user-friendly

1. Distinction between indicators, data and statistics

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G. Energy

G1. Final energy consumption	PDF	XLS	PDF
G2. Total primary energy supply	PDF	XLS	PDF
G3. Energy intensity	PDF	XLS	PDF
G4. Renewable energy supply	PDF	XLS	PDF

Data items to calculate G2 (all in ktoe):

- Coal
- Crude oil
- Oil products
- Natural gas
- Nuclear energy
- Hydropower
- Geothermal and solar energy, etc.
- Biofuels and waste
- Electricity
- Heat

Data items to calculate G4 (all in ktoe):

- Hydropower
- Biomass
- Biofuels
- Wind power
- Solar power
- Geothermal energy
- Other renewables

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2. Presentation of indicators according to FDES structure

Currently used environmental themes
(http://www.unece.org/env/indicators.html)

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- **Currently** the indicators are presented under 10 environmental themes:
  - A – Air pollution and ozone depletion
  - B – Climate change
  - C – Water
  - D – Biodiversity
  - E – Land and soil
  - F – Agriculture
  - G – Energy
  - H – Transport
  - I – Waste
  - J – Environmental financing

Why does it make sense to change that?

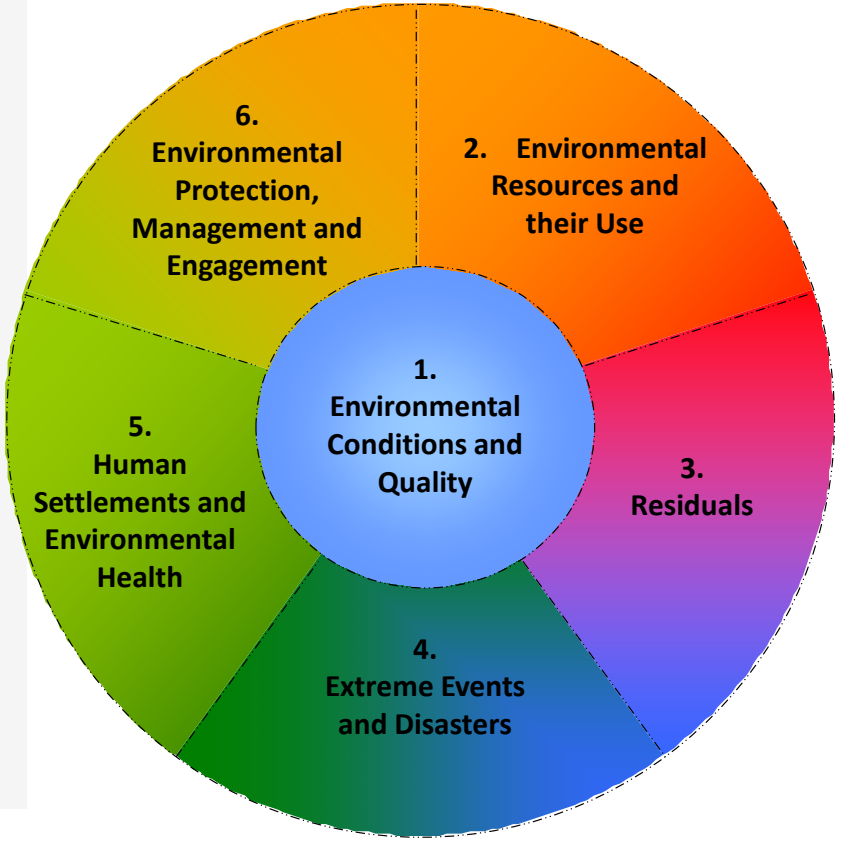
1. The "classification" is tailor made and is not used in other indicator frameworks or statistical frameworks (e.g. FDES)
2. There are overlaps. E.g. climate change is a cross-cutting issue
3. The scope is very different for each theme, e.g. "C. Water" includes freshwater resources, water use, freshwater quality, access to water-related services, wastewater treatment and quality of coastal waters
4. What to do with new indicators, in particular if they are cross-cutting (e.g. related to circular economy or disaster impact)?

2. 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. Using 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 are available



2. Presentation of indicators according to FDES structure

Example: Climate change-related indicators

Indicator theme “B. Climate change” currently includes indicators on physical conditions of the atmosphere (B1. and B2) and air emissions (B3). This is problematic from several points of view:

1. Greenhouse gas emissions are missing in indicator theme “A. Air pollution and ozone depletion”.
2. Climate change is a cross-cutting issue with a broad scope, including climate change drivers, emissions, impacts, mitigation and adaptation.

Therefore, it is proposed, in alignment with FDES, to remove indicator theme “B. Climate change” and to distribute the indicators to other areas (called “topics” in the newly proposed structure).

OLD STRUCTURE

B. Climate change

- B1. Air temperature (updated October 2014)
- B2. Atmospheric precipitation (updated October 2014)
- B3. Greenhouse gas emissions (updated October 2014)

NEWLY PROPOSED STRUCTURE

Topic “Atmosphere, climate and weather” (component “Environmental conditions and quality”, sub-component “Physical conditions”)

Topic “Emissions of greenhouse gases” (component “Residuals”, sub-component “Emissions to air”)

3. Review of the list of indicators

Taking into account new information requirements and indicator frameworks

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1. Replacement of indicators with similar ones, examples:

Original UNECE indicator	Similar indicator from more recent indicator frameworks
Water exploitation index	SDG 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources
Waste re-used and recycled	SDG 12.5.1 National recycling rate, tons of material recycled
Average annual deviations from average temperature	WMO and UNECE set of CC-related indicators: Mean temperature anomaly (compared to climate normal 1961 - 1990)

2. Adding indicators for new areas of relevance, e.g.
   - Climate change (cross-cutting), e.g. “J-1.4 Share of energy and transport related taxes in total taxes and social contributions”
   - Exposure to ambient pollution (e.g. “A-2.6 Mortality rate attributed to household and ambient air pollution” (SDG indicator 3.9.1)

4. Update of Indicator Metadata

Why is this indicator needed? How to compile it? Existing guidelines and international databases?

- JTF agreed to not change the structure significantly
- New elements in the metadata:
  - FDES topic
  - Link to SDGs (related indicators)
  - Data and statistics needed to compile the indicator
  - International databases containing the indicator
- Update of policy references, technical reference documents, classifications, improvement of methodological description etc.

5. Bilingual database

All information needed for compiling the metadata is maintained in a database

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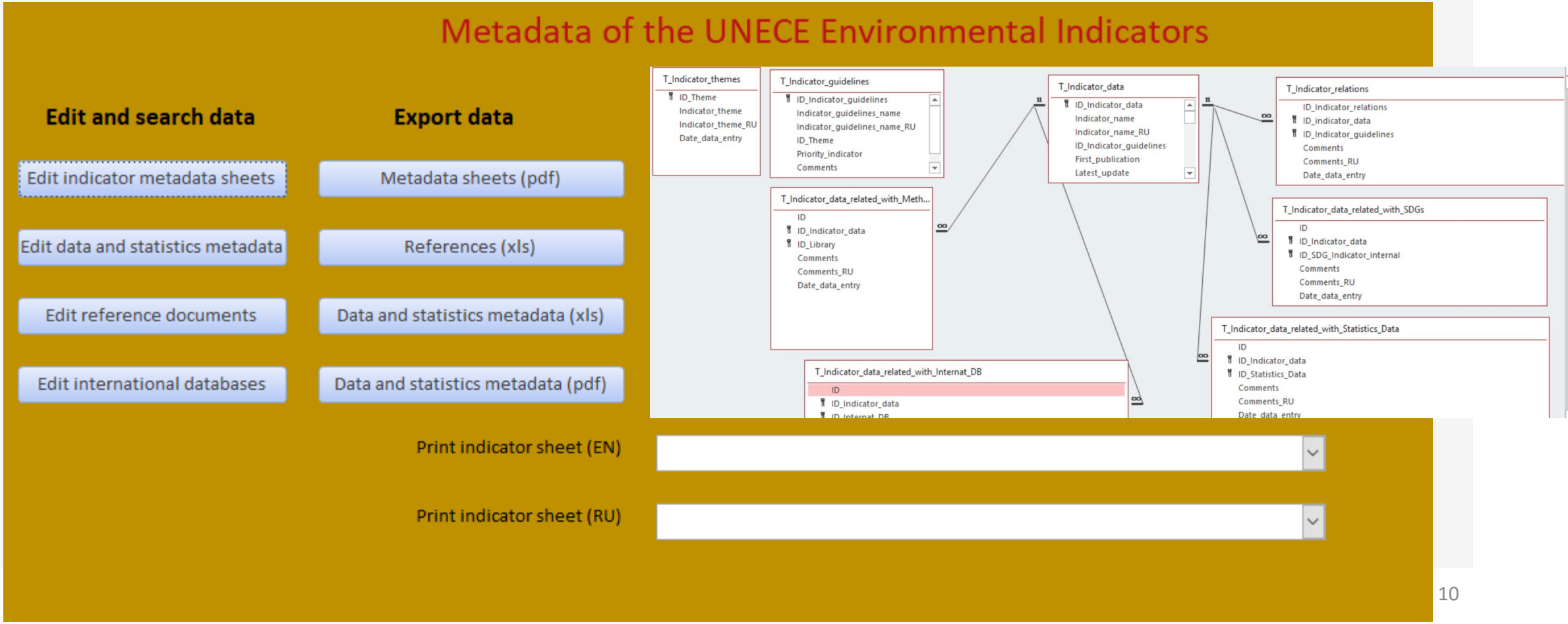
- All data are maintained in English and Russian in a database



Status of work

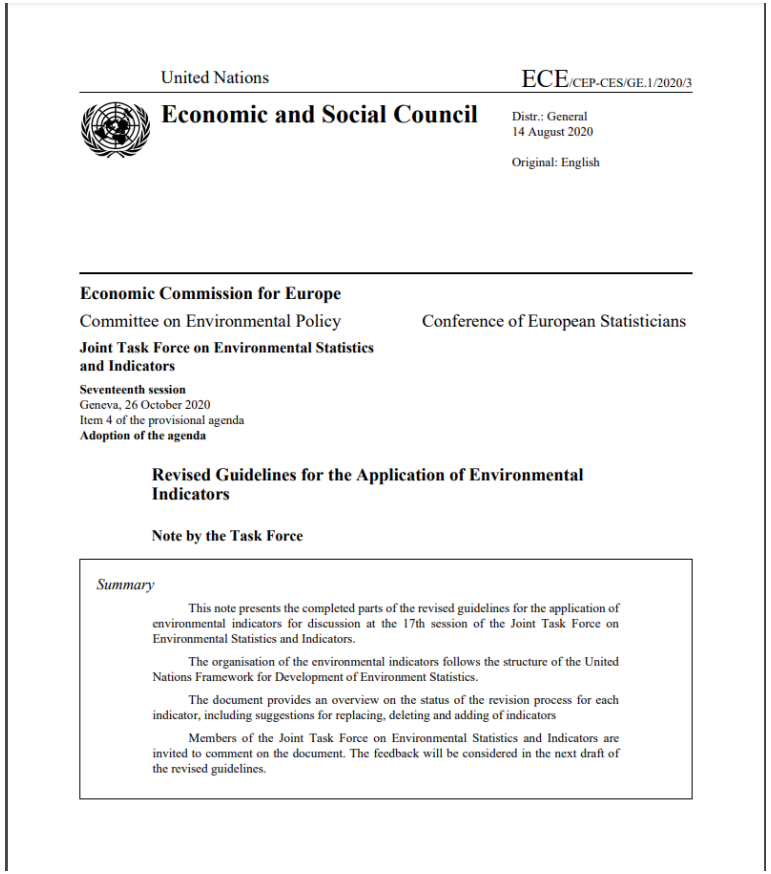
At 17th Meeting of the JTF (October 2020)

- Secretariat with help of selected JTF members managed to produce drafts of 42 indicators, 28 of which already translated into Russian
- Remaining indicators (ca. 120, including new proposals) will be gradually finalised
- Substantive comments received from JTF members

Decisions and recommendations taken by JTF at its 17th meeting:

- JTF agreed with general structure of guidelines, FDES will be used as the overall framework and structure
- Importance of harmonization with EIONET
- Secretariat together with the JTF to continue reviewing guidelines/metadata and taking into account comments received (in collaboration with JTF Chairs)
- Second expert group reviewing entire list of indicators (consultant hired to prepare a proposal for discussion with JTF experts)

Find the draft guidelines (status October 2020) at
https://statswiki.unece.org/display/JTFEI/Revised+Guidelines+for+the+Application+of+Environmental+Indicators



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Committee on Environmental Policy — Conference of European Statisticians

Joint Task Force on Environmental Statistics and Indicators

Seventeenth session
Geneva, 26 October 2020
Item 4 of the provisional agenda
Adoption of the agenda

Revised Guidelines for the Application of Environmental Indicators

Note by the Task Force

Summary

This note presents the completed parts of the revised guidelines for the application of environmental indicators for discussion at the 17th session of the Joint Task Force on Environmental Statistics and Indicators.

The organisation of the environmental indicators follows the structure of the United Nations Framework for Development of Environment Statistics.

The document provides an overview on the status of the revision process for each indicator, including suggestions for replacing, deleting and adding of indicators

Members of the Joint Task Force on Environmental Statistics and Indicators are invited to comment on the document. The feedback will be considered in the next draft of the revised guidelines.

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