The UNECE Core Set of Environmental Indicators: state of implementation

Note on the State of Play

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Background

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

The ENI SEIS II EAST project supports the six target countries to produce and share all 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.

A robust set of environment statistics is essential for measuring the environment-related Sustainable Development Goals namely 6, 7, 8, 12, 13, 14 and 15 and supporting the reporting compliance aspects, in particular for the UN and UNECE conventions (water, air, climate change, etc).

State of Play

European Environment Agency, in collaboration with UNECE, UNEP and other partners, has been working with six target countries to produce and share environmental data in areas such as climate change, air pollution and ozone depilation, water, biodiversity and land. The six target countries produce indicators that are compliant with international standards and formats that they agreed upon in the UNECE Joint Task Force on Environmental Statistics and Indicators (JTF).

Since 2009 the six target countries have been working together with the EEA and the UNECE JTF to enhance comparability of environmental indicators, improve data collection, reporting and assessments. To achieve that, countries have reviewed and agreed to apply a set of 36 environmental indicators contained in the revised Guidelines for the application of environmental indicators.[1] Since 2013 the UNECE environmental indicators process focused on production and sharing has been accelerated. The UNECE environmental indicators were identified and presented online in the UNECE repository of environmental indicators. This includes a description of indicators, tables for indicators production of and a glossary of terms.

The purpose of these indicators is to:

(i) prioritise improvements in the quality and coverage of data flows, which will enhance comparability and certainty of information and assessments;

(ii) streamline contributions to other indicator initiatives in pan-European region; and

(iii) provide a manageable and stable basis for indicator-based assessments of progress against environmental policy priorities.

The EEA review of UNECE environmental indicators availability in 2019, January-February, has shown good performance in providing and easily accessing these indicators. This proves that these countries are striving to share the indicators that they produce while improving the content and user friendliness of the websites where information on the indicators is shared. (See Figure 1).

[1] http://www.unece.org/emv/indicators.html

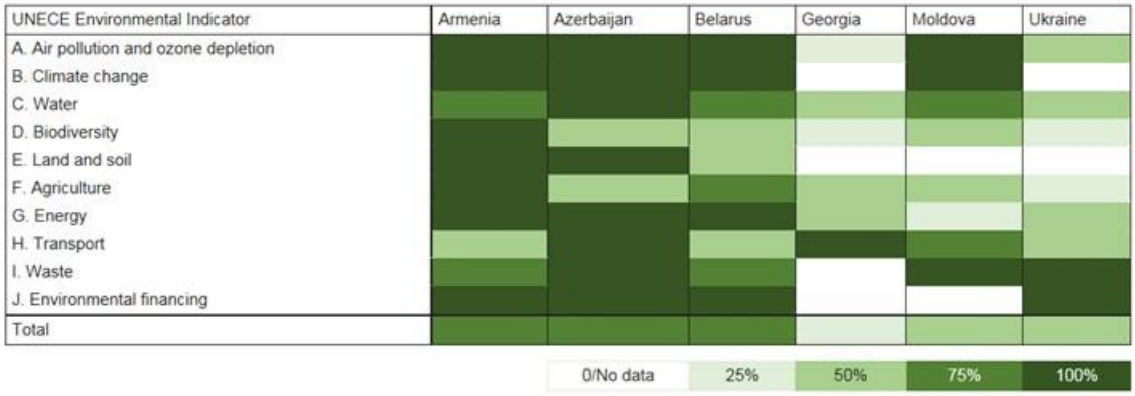
Figure 1: UNECE Environmental Indicators per country

	Armeni	Azerbai	Belarus	Georgi	Moldo	Ukraine
A. Air pollution and ozone depletion	3	3	3	1	3	2
A1. Emissions of pollutants into the atmospheric air	x	x	x	x	x	x
A2. Ambient air quality in urban areas	x	x	x		x	x
A3. Consumption of ozone-depleting substances	x	x	x		x	
B. Climate change	3	3	3	0	3	0
B1. Air temperature	x	x	x		x	
B2. Atmospheric precipitation	x	x	x		x	
B3. Greenhouse gas emissions	x	x	x		x	
C. Water	13	16	14	6	11	9
C1. Renewable freshwater resources	x	x	x			
C2. Freshwater abstraction	x	x	x	x	x	x
C3. Total water use	x	x	x	x	x	x
C4. Household water use per capita	x	x	x	x		
C5. Water supply industry and population connected to water	x	x	x	x		x
C6. Connection of population to public water supply	x	x	x		x	
C7. Water losses	x	x	x	x	x	x
C8. Reuse and recycling of freshwater	x	x	x		x	x
C9. Drinking water quality	x	x	x		x	
C10. BOD and concentration of ammonium in rivers	x	x	x		x	x
C11. Nutrients in freshwater	x	x	x		x	x
C12. Nutrients in coastal waters		x				
C13. Concentrations of pollutants in coastal seawater and sediments (except nutrients)		x				
C14. Population connected to wastewater treatment	x	x	x	x	x	
C15. Wastewater treatment facilities	x	x	x		x	x
C16. Polluted (non-treated) wastewaters	x	x	x		x	x
D. Biodiversity	6	3	4	2	3	1
D1. Protected areas	x	x	x	x	x	x
D2. Biosphere reserves and wetlands of international importance/p	x	x				
D3. Forests and other wooded land	x	x	x	x	x	
D4. Threatened and protected species	x		x		x	
D5. Trends in the number and distribution of selected species	x		x			
D6. Invasive alien species/place holder	x					
E. Land and soil	2	2	1	0	1	0
E1. Land uptake	x	x	x		x	
E2. Area affected by soil erosion	x	x				
F. Agriculture	4	2	3	2	2	1
F1. Irrigation/place holder	x		x		x	
F2. Fertilizer consumption	x	x	x	x	x	x
F3. Gross nitrogen balance	x					
F4. Pesticide consumption	x	x	x	x		
G. Energy	6	6	6	4	2	4
G1. Final energy consumption	x	x	x	x	x	x
G2. Total primary energy supply	x	x	x	x	x	x
G3. Energy intensity	x	x	x	x		x
G4. Renewable energy consumption	x	x	x	x		x
G5. Final electricity consumption/place holder	x	x	x			
G6. Gross electricity production/place holder	x	x	x			
H. Transport	2	4	2	4	3	2
H1. Passenger transport demand	x	x	x	x	x	x
H2. Freight transport demand	x	x	x	x	x	x
H3. Composition of road motor vehicle fleet by fuel type		x		x		
H4. Age of road motor vehicle fleet		x		x	x	
I. Waste	3	4	2	0	4	4
I1. Waste generation	x	x	x		x	x
I2. Management of hazardous waste	x	x	x		x	x
I3. Waste reuse and recycle	x	x			x	x
I4. Final waste disposal	x	x			x	x
J. Environmental financing	1	1	1	0	0	1
J1. Environment protection expenditure	x	x	x			x
Total	43	44	39	19	32	24

The revised list of environmental indicators comprises 48 indicators across six thematic areas, which correspond to priority themes for stronger environmental policy implementation: air pollution and ozone depletion, climate change, water, biodiversity, land and soil. The main sources of environmental pressures from economic sectors are considered to be measured through areas of sectoral indicators: agriculture, energy, transport and waste. The environmental financing areas and sectors are also integrated into the Core set of UNECE indicators to assess expenditures for environmental protection and management.

The diversity of UNECE indicators enables indicator-based assessments and show the progress in the most countries regarding key environmental policy priorities (Figure 2).

Figure 2: Scorecard of UNECE Environmental Indicator implementation per country



All countries produce environmental statistical yearbooks or specialized yearbooks. Selected environmental data are also presented in general statistical yearbooks on their websites and accessible online (See Figure 3 and the attached files with provided web links to national websites).

Figure 3: National Environmental Indicators in statistical publications per country

	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine
Environmental Statistical Yearbook	annual	annual	annual	annual	annual	annual
Statistical Yearbook	annual	annual	annual	annual	annual	annual

All of the six eastern countries use websites to provide environmental data, statistics, the UNECE environmental indicators and information to the public. They have two core web portals, one hosted by the environmental authorities (ministry of environment) and other by statistical offices.

Most countries are publishing information of their environmental portals or sites in National, Russian and English. (See Figure 4.)

Figure 4. Central environmental web portals

Country	Institution	Portal	Language
Armenia	Ministry for Nature Protection	http://www.mnp.am//	AR, ENG, RU
Armenia	National Statistical Service	http://armstatbank.am/	AR, ENG, RU
Armenia	State Committee of Real Estate Cadastre	http://www.cadastre.am/	AR
Azerbaijan	Ministry of Ecology and Natural Resources	http://eco.gov.az/	AZ,ENG
Azerbaijan	State Statistical Committee	http://www.stat.gov.az/	AZ, ENG
Belarus	Ministry of Natural Resources and Environmental Protection	http://www.minpriroda.gov.by/ru/	RUS,ENG
Belarus	National Statistical Committee	http://www.belstat.gov.by/en/	RUS,ENG
Belarus	Belarusian Research Center"Ecology"	http://www.ecoinfo.by/	RUS,ENG
Georgia	Ministry of Environmental Protection and Agriculture	http://www.moe.gov.ge/	GE, ENG
Georgia	National Statistics Office	http://www.geostat.ge/	GE,ENG
Moldova	Ministry of Agriculture, Regional Development and Environment	http://www.madrm.gov.md/en	RO,RU.ENG
Moldova	National Bureau of Statistics	http://www.statistica.md/	RO,RU.ENG
Moldova	State Agency MOLDSILVA	http://www.moldsilva.gov.md/	RO,RU.ENG
Moldova	State Hydrometeorological Service	http://www.meteo.md/	RO,RU.ENG
Moldova	Institute of Ecology and Geography, Academy of Sciences	http://www.ieg.asm.md/	RO,ENG
Moldova	Climate Change Office	http://clima.md/	RO,ENG
Moldova	Agency for Land Relations and Cadastre	http://arfc.gov.md/	RO,RU
Ukraine	Ministry of Ecology and Natural Resources	http://menr.gov.ua/	UA,ENG
Ukraine	State Statistics Service	http://ukrstat.gov.ua/	UA,ENG

Conclusion

The need to adjust environmental indicators to new policy demands has led to the integration of a longer-term perspective and the inclusion of indicators under development that will become operational to monitor sustainable development progress. Currently they are under revision process in most target countries with the UNECE amendment of methodologies and relevance to policy processes.

This provides scope for innovation and should enable the indicators to better reflect new policy demands such as green growth and green economy. The data implications arising from these proposals are expected to be crucial for the six target countries. Data flows for these indicators will either come from established processes or from recent policy initiatives e.g. the context of the Sustainable Development Goals.