

19 January 2022

Webinar 1: How to develop a national set of climate change-related indicators and to use it in policy making?

EFTA/UNECE Webinars on Climate Change-related Statistics for EECCA countries

THE EXPERIENCE OF ITALY

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Content

- Implementation of Climate change (CC) related indicators for Italy – timeline and overview of results
- Detailed results: indicators available at national level and sub-national level by AREA
- Dissemination
- Some hints for countries that would like to start the process

Italy's implementation of the core set of Unece climate change indicators - timeline and overview of results

Timeline

2020 → Istat implemented for the first time the Unece set of core climate change-related indicators for Italy at national level.

- ✓ First half of 2020 (started within a traineeship): first screening and pilot implementation → 27 indicators
- ✓ Second half of 2020 final compilation and analysis

2021 →

- ✓ First half of 2021: Feasibility assessment of implementation at sub-national level
- ✓ Second half of 2021: National Statistical Conference: update and increase → 29 indicators (+2)

Summary results here.

UNECE indicators by AREA
Total and number that can be implemented in Italy

AREA	Total n.	of which available for Italy (n.)
Drivers	9	8
Emissions	9	9
Impacts	13	5
Mitigation	8	4
Adaptation	5	3
TOTAL	44	29

Statistical sources for Unece indicators on DRIVERS – ITALY

Indicator	TIER	National territory	Nuts 2/3
Total energy use by the national economy	II	environmental accounts	n.a.
Total primary energy supply (TPES)	I	other statistics	other statistics
Share of fossil fuels in total energy use by the national economy	III	environmental accounts	n.a.
Share of fossil fuels in total primary energy supply (TPES)	I	accounts other statistics	other statistics
Losses of land covered by (semi-) natural vegetation	III	n.a.	n.a.
Total support for fossil fuels in relation to GDP	III	other statistics	n.a.
Total energy intensity of production activities of the national economy	II	environmental accounts	n.a.
Total CO2 intensity of energy used in production activities of the national economy	II	environmental accounts	n.a.
Energy use by resident households per capita	I	environmental accounts	n.a.

NEW!

n.a.=
not available

TIER	<p>I: conceptually clear, established methodology, data regularly produced</p> <p>II: conceptually clear, established methodology and standards available, data not regularly produced</p> <p>III: no established methodology and standards or methodology/standards are being developed/tested</p>
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Statistical sources for Unece indicators on EMISSIONS – ITALY

Indicator	TIER	National territory	Nuts 2/3
Total greenhouse gas emissions from the national economy	I	environmental accounts	n.a.
Total greenhouse gas emissions from the national territory	I	other statistics	other statistics
CO2 emissions from fuel combustion attributable to the national economy	III	environmental accounts	n.a.
CO2 emissions from fuel combustion within the national territory	I	other statistics	other statistics
Greenhouse gas emissions from land use change (LULUCF)	I	other statistics	other statistics
Total greenhouse gas emissions from production activities	I	environmental accounts	n.a.
Greenhouse gas emission intensity of production activities	I	environmental accounts	n.a.
Direct greenhouse gas emissions from households	I	environmental accounts	n.a.
Carbon footprint	II	environmental accounts	n.a.

n.a.=
not available

Statistical sources for Unece indicators on IMPACTS – ITALY

Indicator	TIER	National territory	N uts 2/3
Direct economic loss attributed to hydro-meteorological disasters in relation to GDP	II	n.a.	n.a.
Mean temperature anomaly (compared to climate normal 1961 - 1990)	I	other statistics	n.a.
Percentage of land area suffering from unusually wet or dry conditions (Standard Precipitation Index)	I	n.a.	n.a.
Occurrence of extremes of temperatures and precipitation	I	other statistics	other statistics
Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	I	other statistics (partial)	other statistics (partial)
Carbon stock in soil	III	n.a.	n.a.
Proportion of land that is degraded over total land area	I	other statistics (proxy)	other statistics (proxy)
Placeholder for indicator on CC impact on biodiversity			
Number of deaths and missing persons attributed to hydro-meteorological disasters, per 100,000 population	II	other statistics (partial)	other statistics (partial)
Number of people whose destroyed dwellings were attributed to hydro-meteorological disasters	II	n.a.	n.a.
Incidence of climate-related vector-borne diseases	II	n.a.	n.a.
Excess mortality related to heat	III	n.a.	n.a.
Direct agricultural loss attributed to hydro-meteorological disasters	II	n.a.	n.a.

n.a.=
not available

Statistical sources for Unece indicators on MITIGATION – ITALY

Indicator	TIER	National territory	Nuts 2/3
Renewable energy share in total energy use by the national economy	III	environ. accounts	n.a.
Renewable energy share in the total final energy consumption within the national territory	I	other statistics	n.a.
Share of climate change mitigation expenditure in relation to GDP	III	n.a.	n.a.
Share of energy and transport related taxes in total taxes and social contributions	I	environmental accounts	n.a.
Total climate change related subsidies and similar transfers in relation to GDP	III	n.a.	n.a.
Average trading carbon price	I	other than statistics	n.a.
Amounts provided and mobilized in United States dollars per year in relation to the continued existing collective mobilization goal of the \$100 billion commitment through to 2025	II	n.a.	n.a.
Net emissions/removals of carbon dioxide by forest land	I	other statistics	n.a.

NEW!

n.a.=
not available

Statistical sources for Unece indicators on ADAPTATION – ITALY

Indicator	TIER	National territory	Nuts 2/3
Share of government adaptation expenditure in relation to GDP	III	n.a.	n.a.
Change in water use efficiency over time	I	other statistics (partial)	other statistics (partial)
Share of green urban areas in the total area of cities	III	other statistics	other statistics
(Placeholder for indicator on CC adaptation by forests)			
Proportion of agricultural area under productive and sustainable agriculture	II	other statistics (proxy)	other statistics (proxy)

n.a.=
not available

Dissemination

Detailed analysis and presentation of the indicators in the context of a comprehensive ebook on environmental accounts: (in Italian only) : ECONOMIA E AMBIENTE: UNA LETTURA INTEGRATA. Istat.
(<https://www.istat.it/it/archivio/258752>).

Data for latest available year: slides for the 14° National Statistical Conference (slides in English, presentation in Italian): <https://14conferenza.istat.it/index.php/event/64>

Some indicators regularly produced for annual reports:

- Istat's Report on SDGs indicators
- Istat's Report on competitiveness of enterprises
- Ministry of ecological transition's Report on the energy situation

Conclusions

For countries that are at the initial stages of the process, the experience of Italy highlights that:

- Explore the whole range of statistical sources
- Consider starting from partial or proxy indicators
- Countries may also implement breakdowns that are highly relevant for their specific national situation – for example spatial breakdown or indicators for individual Nace categories
- Dissemination: dedicated publication but also other regular statistical reports

Thanks!

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