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Regional training on air quality and emissions to air statistics and indicators

Producing, sharing and using high-quality information for Cleaner Air

ROLE OF SEEA-CF IN PRODUCING GHG INDICATORS: THE ITALIAN EXPERIENCE

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Overview of data on GHGs using SEEA regularly produced by Istat

In compliance with **Regulation** (EU) No 691/2011 of the European Parliament and of the Council on **European environmental economic accounts** Istat annually produces and disseminates data on flows of residual gaseous and particulate materials INCLUDING GHGs originating from:

- Production activities, NACE Rev.2 (A*64 aggregation level), fully compatible with ESA 95
- Households

In addition to Regulation requirement, consistency between Air emissions accounts and national accounts principles and standards, as defined by the European System of national and regional Accounts in the EU (ESA2010) allows to annually calculate and disseminate **emission intensity indicators**:

- emissions/output; output at basic prices - chain-linked volumes - reference year 2015
- emissions/value added; value added at basic prices - chain-linked volumes - reference year 2015
- emissions/total full time equivalents (FTE)
- CO₂ emissions/net domestic energy use for energy purposes

Implementation and dissemination of Unece indicators on GHG in Italy

EMISSIONS 9/9	Value
Total greenhouse gas emissions from the national economy (Istat, 2020, Mton CO ₂ equivalents) (p)	393,3
Total greenhouse gas emissions from the national territory (Ispra, 2020, Mton CO ₂ equivalents) (p)	382,3
CO ₂ emissions from fuel combustion attributable to the national economy (Istat, 2020, Mton) (p)	298,9
CO ₂ emissions from fuel combustion within the national territory (Ispra, 2020, Mton) (p)	288,0
Greenhouse gas emissions from land use, land use change and forestry (LULUCF) (Ispra, 2020, Mton CO ₂ equivalents) (p)	-34,4
Total greenhouse gas emissions from production activities (Istat, 2020, Mton CO ₂ equivalents) (p)	295,0
Greenhouse gas emission intensity of production activities (Istat, 2020, ton CO ₂ equivalents per million euro of value added) (p)	210,8
Direct greenhouse gas emissions from households (Istat, 2020, Mton CO ₂ equivalents) (p)	98,4
Carbon footprint (Istat, 2018, Mton CO ₂ equivalents)	475,0

Source: Presentation on 'Climate Change and Hazardous Events: statistical experiences and challenges' – National Statistical Conference, Roma 30 November 2021

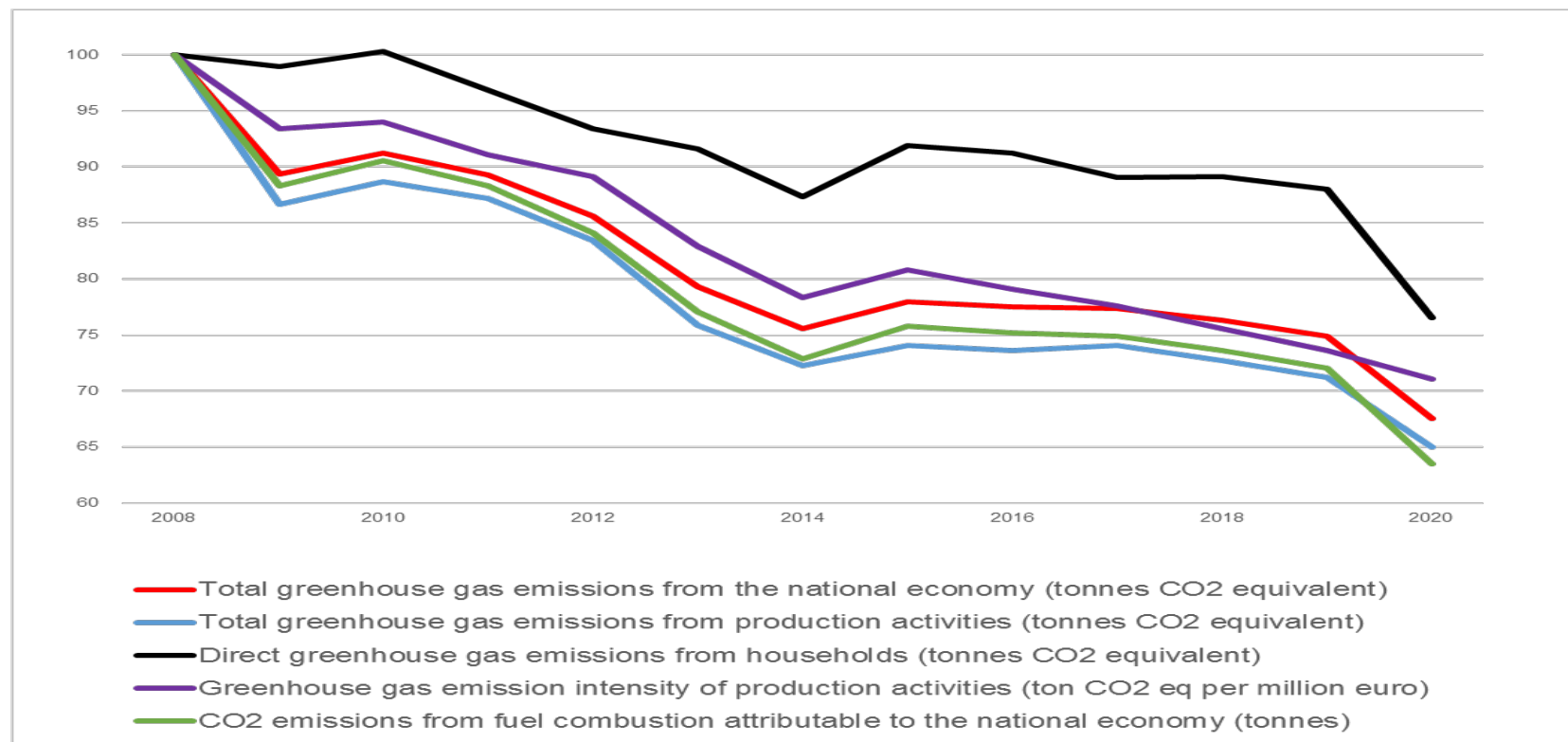
UNECE indicators by AREA - Total number and number that can be implemented in Italy

AREA	Total n.	of which available for Italy (n.)
Drivers	9	7
Emissions	9	9
Impacts	13	5
Mitigation	8	3
Adaptation	5	3
TOTAL	44	27

	Environmental accounts
	Other statistics
	Not available

Implementation and dissemination of Unece indicators on GHG in Italy

Example of joint presentation of SEEA-based Unece GHG indicators for Italy: GHGs emissions from the national economy – total, production activities, households. Emission intensity – Years 2008 - 2018 (index numbers 2008=100)



Main policy uses

Istat annual Report on Equitable and Sustainable Well-being (Benessere Equo e Sostenibile – BES) aiming to evaluating progress of society not only from an economic, but also from a social and environmental point of view, covers **per-capita GHG emissions (SEEA consistent)**.

According to Law 163/2016 12 indicators, are selected from BES Report for the Economic and Financial Document (DEF) , the main economic policy programming document and in the Report to the Parliament. **Per-capita GHG emissions (SEEA consistent)** is one of them.

The 2021 report presents per capita GHG emissions for the period 2008-2021 as well as preliminary forecasts for 2022-2025 based on SEEA consistent air emission data as well as on emission inventory statistics. The model also provides (unpublished) sectoral estimates also based on detailed SEEA consistent air emissions.

Main challenges

Past challenges

(potential challenged that worked well in our case):

Institutional arrangements to ensure:

cooperation with colleagues responsible of emission inventory

cooperation with national accounts colleagues

(particularly challenging in our case):

Communicate to users the difference between SEEA based emission accounts and emission inventories

Current challenges

Users' demand beyond Regulation requirements:

Subnational detail

Economic activity detail

Timeliness

Possible improvements - treatment of selected conceptual issues

Thanks!

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