


SEEA Policy Examples from around the World

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Including slides prepared by Australian Statistical Bureau, Statistics Canada, Statistics Netherlands, Statistics Norway, Statistics Sweden, Eurostat and UNSD



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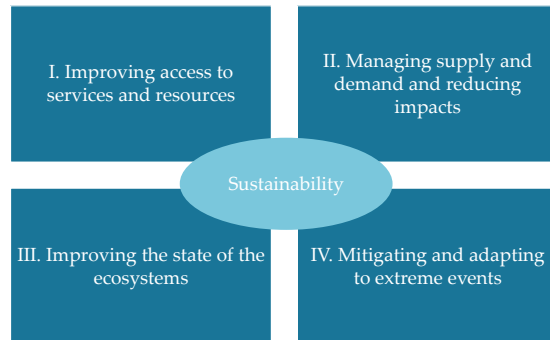
Integrated environmental and socio-economic data for policy

Information from the SEEA can be used to:

- Analyze the impact of economic policies on the environment and vice versa
- Identify socio-economic drivers, pressures, impacts and responses affecting the environment
- Provide a quantitative basis for policy design, including;
 - > Productivity analysis
 - > Natural resource management
- Support greater precision for environmental regulations and resource management strategies
- Develop indicators that express the environment-economy relationship



Policy quadrants and the SEEA



SEEA responds to complex policy questions

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- How can natural resources be used sustainably? What is the impact of regulatory environmental measures on different economic sectors and households?
- How do ecosystems contribute to the well-being of people and to the economy?
- Which are the most cost-efficient measures to improve the state of the environment?
- What are the effects of environmental taxes on the environment and on the economy?
- Etc.

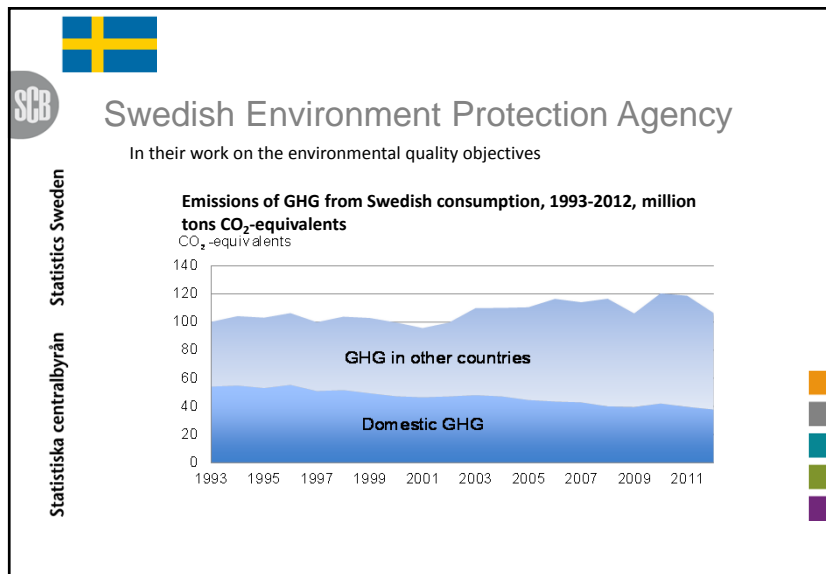
SEEA is considered as an underlying framework by international initiatives

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- Monitoring Sustainable Development Goals (SDGs)
- OECD: Towards Green Growth
- European Union: Beyond GDP
- Conference of European Statisticians: Set of key Climate Change-related Indicators
- World Bank: Wealth Accounting and the Valuation of Ecosystem Services
- UNDP and UNEP: Poverty-Environment Initiative
- Etc.

Examples from around the world





Canada: Environmental Assessment of trade agreements
Policy question and methodology

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Purpose: Identify potential positive and negative impacts on the environment resulting from a proposed trade agreement.

Four-step methodology:


1. Identification of the economic effects of the negotiation (input-output based multiregional Computational General Equilibrium model). 5 different types of effects are considered: scale effects, structural effects, product effects, technology effects and regulatory effects; Physical flow accounts are linked with the different economic effects to estimate environmental impacts.
2. Identification of the likely environmental impacts of such changes (via link to SEEA Physical Flow Accounts)
3. Assessment of the significance of the likely environmental impacts
4. Identification of enhancement/mitigation options to inform the negotiations

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Canada: Environmental Assessment of trade agreements
Results

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	Scale Effect	Composition Effect	Total CETA-Induced Effect	Technique Effect	Total Effect, 2014	
GHG Emissions (kilotonnes of CO₂ eq)	3,681	-1,375	2,306	0.38%	-393	1,913
Energy Use (terajoules)	51,820	-20,835	30,985	0.36%	-677	30,308
Water Use ('000 m³)	212,401	174,817	387,218	1.10%	N/A	387,218

The conclusion was that the quantitative analysis showed that the net impact of increased bilateral trade with the EU on Canada's environment would be minor based on projected changes in GHG emissions, energy use and water use.

<http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/eu-ue/initiale-ceta-aecg-ee/initiale.aspx?lang=eng>


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Application of Land Accounts



- Great Barrier Reef Land Account and disaster recovery information after Cyclone Yazi 2011
- South Australian Land Account will be used to measure impact of new highway out of the capital city, Adelaide



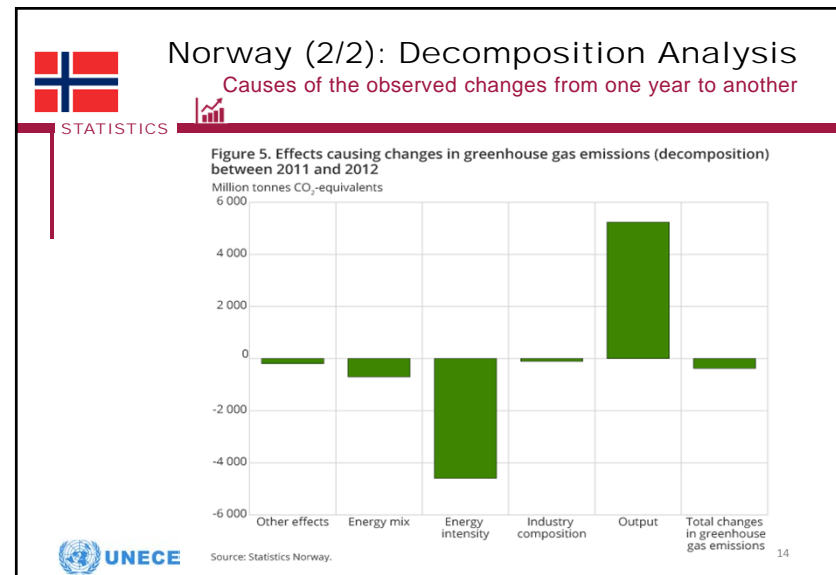
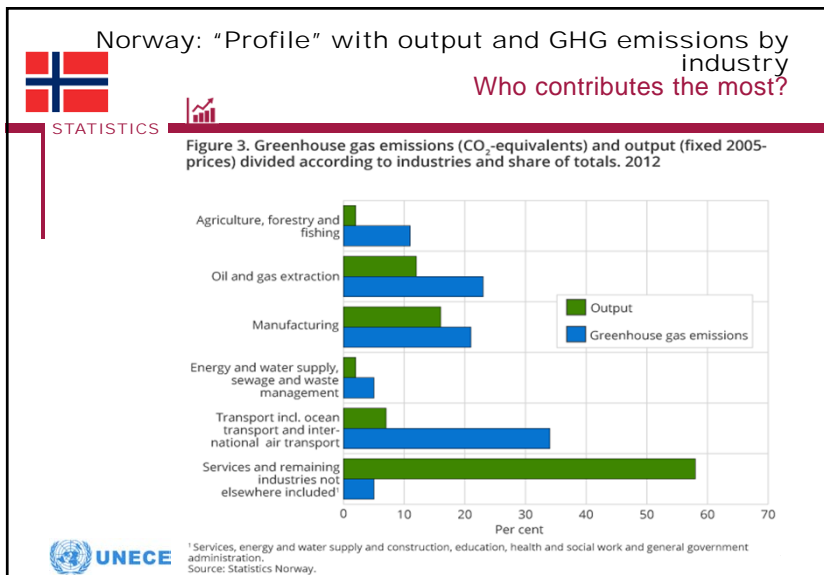

Application of Water Accounts

- Treasury analysis of allocation of water across Murray Darling Basin during drought to minimise the impact on GDP and Employment
- Input into forecasting models for water consumption across industry

6.5 DISTRIBUTED WATER USE AND VALUE(a), by industry—MDB—2009–10

Opportunities

- Update to Great Barrier Reef Environmental Economic Accounts will complement 5 yearly report on the condition of the reef
- 2021 State of the Environment Report will use environmental accounts as an information base as well as some jurisdictions (Victoria and the ACT)
- Outcomes of Agricultural Statistics Review will use the SEEA AFF as the statistical framework
- Collaborative working with the Department of the Environment and Energy, GeoScience Australia and Department of Agriculture and Water Resources



Netherlands: Measuring Green Growth Assessing the state of green growth

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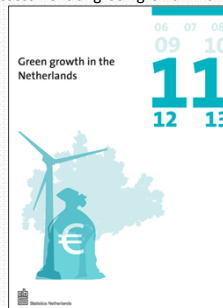
Objective:

- Assess the state of green growth in the Netherlands
- Benchmark for a more thorough and comprehensive assessment of green growth in the future

Point of departure: OECD indicators

- *Data availability*
- *Robustness of indicators*
- *Relevance for the Netherlands*
→ List of 20 relevant indicators

Project was completed in only 2 months



Netherlands: Measuring Green Growth SEEA as a data source

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Group	Indicator	Environmental and energy statistics		
		Environmental accounts	Environmental and energy statistics	Other
i Environmental Efficiency	Production-based greenhouse gas intensity	X		
	Consumption-based greenhouse gas	X		
	Energy efficiency	X		
	Renewable energy		X	
	Surpluses of nutrients		X	
	Material intensity	X		
	Water use intensity	X		
ii Natural asset base	Waste treatment	X		
	Stocks of standing timber	X		
	Fish inputs	X		
	Natural gas reserves	X		
	Land conversion into built-up land		X	
iii Environmental quality of life	Threats to biodiversity		X	
	Pollution induced health problems			X
iv Policy responses	Green patents			X
	Share of green taxes	X		
	Energy prices	X		
	Carbon trade	X		
	Environmental investments	X		
	Green jobs	X		



Europe 2020

EU's growth strategy for the decade 2010-2020

Smart, sustainable and inclusive economy

Eurostat indicators to monitor progress





7 flagship initiatives

New engines to boost growth and jobs

Smart growth
Digital agenda for Europe
Innovation Union
Youth on the move

Sustainable growth
→ *Resource efficient Europe*
An industrial policy for the globalisation era

Inclusive growth
An agenda for new skills and jobs
European platform against poverty



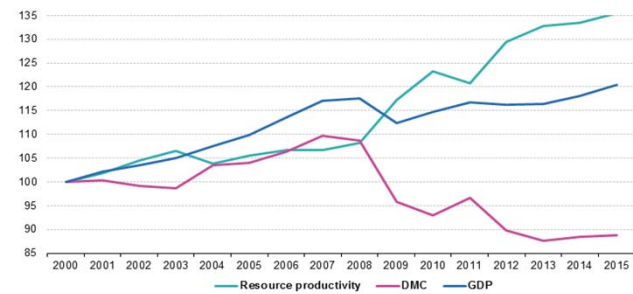
Monitoring 'A resource efficient Europe': Resource efficiency scoreboard

- Published and maintained by Eurostat
- Structure:
 1. **Lead indicator : resource productivity**
 2. **Dashboard indicators – complement the lead indicator**
Focus on 4 areas: materials, water, carbon and land
 3. **Thematic indicators to show progress in a range of key areas**
Transforming the economy
Nature and ecosystems
Key areas (energy, food, buildings, transport)



Lead indicator: resource productivity indicator

$$\text{Resource productivity} = \frac{\text{GDP}}{\text{Domestic material consumption}}$$



(*) GDP in chain-linked volumes, reference year 2010

SEEA Applications and Extensions A very helpful guide for compilers and analysts

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- Shows how SEEA can be used in decision-making, policy review and formulation, analysis and research
- Provides a bridge between compilers and analysts



https://seea.un.org/sites/seea.un.org/files/ae_final_en.pdf

Joint OECD/UNECE Seminar on the Implementation of SEEA 21-22 February 2018, Geneva, Switzerland

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- Session I: National SEEA implementation plans
- Session II: Guidelines for SEEA implementation and new ways to generate data
- Session III: Coordination of capacity building activities
- **Session IV: Policy applications of SEEA**
- Session V: Conclusions and follow-up activities



Thank you!

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