Implementation of SEEA in Norway and selected European countries

Julie L. Hass, Ph.D.
Division for International Development Cooperation, Statistics Norway

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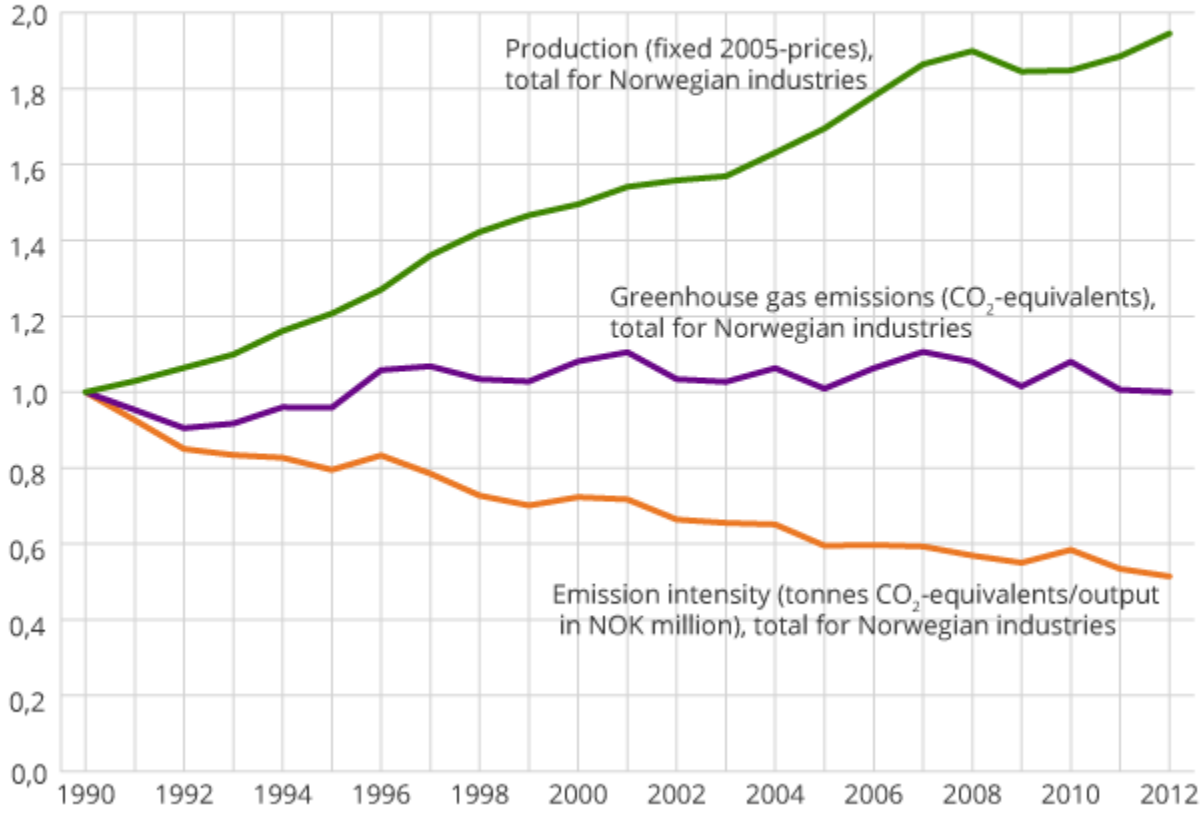
Environmental – Economic Accounts Norway

- Physical Flow Accounts
  - Air Emission Accounts – presentation & use of the accounts
  - Economy-wide Material Flow Accounts (ew-MFA)
  - Energy Accounts
- Economic Activity (Monetary Flows)
  - «Environment Industry» - ‘Core’
  - Environmental Protection Expenditure in Manufacturing, Mining Industries
  - Environmental taxes
- National Wealth – Natural Capital

Output, emissions, emission intensity (ratio)

Figure 1. Total greenhouse gas emissions (CO_2-equivalents), output (fixed 2005-prices) and emission intensity for Norwegian economic activity (excl. households). Index, 1990=1

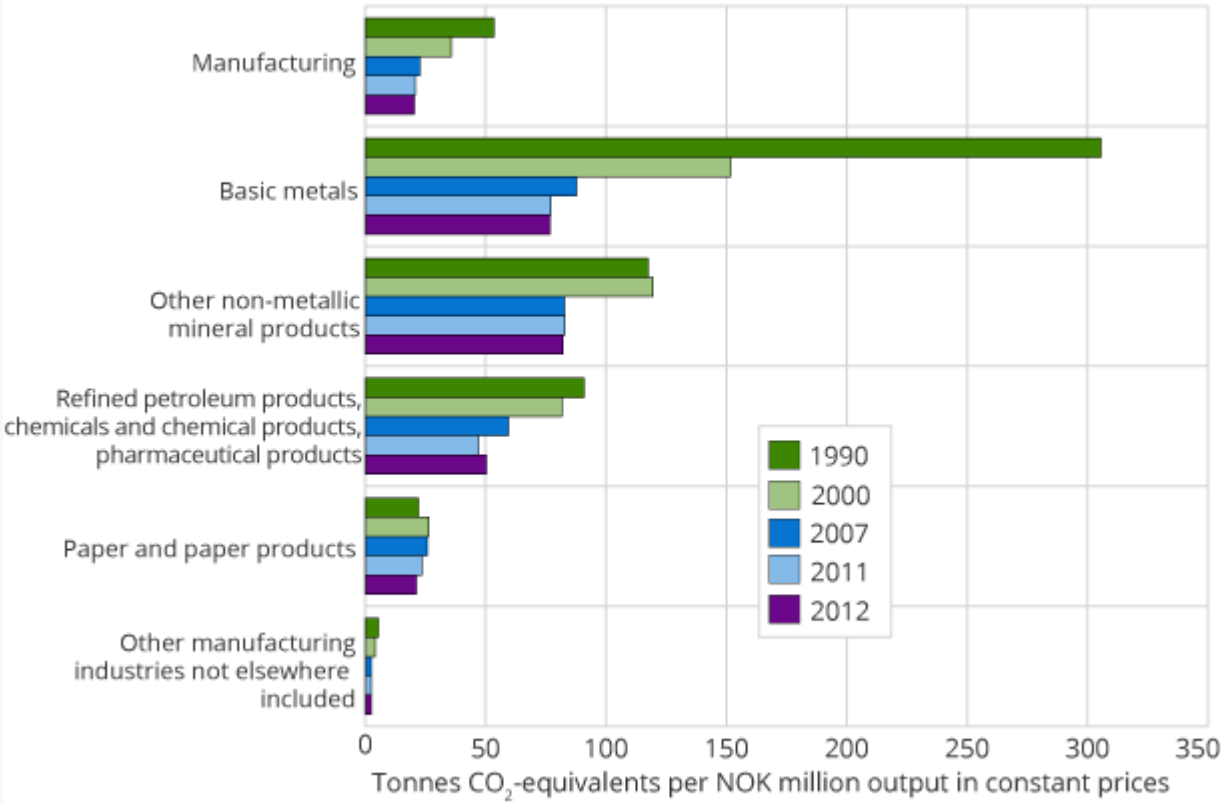


Source: Statistics Norway.

http://www.ssb.no/en/natur-og-miljo/statistikker/nrmiljo

GHG Emission intensity for industries

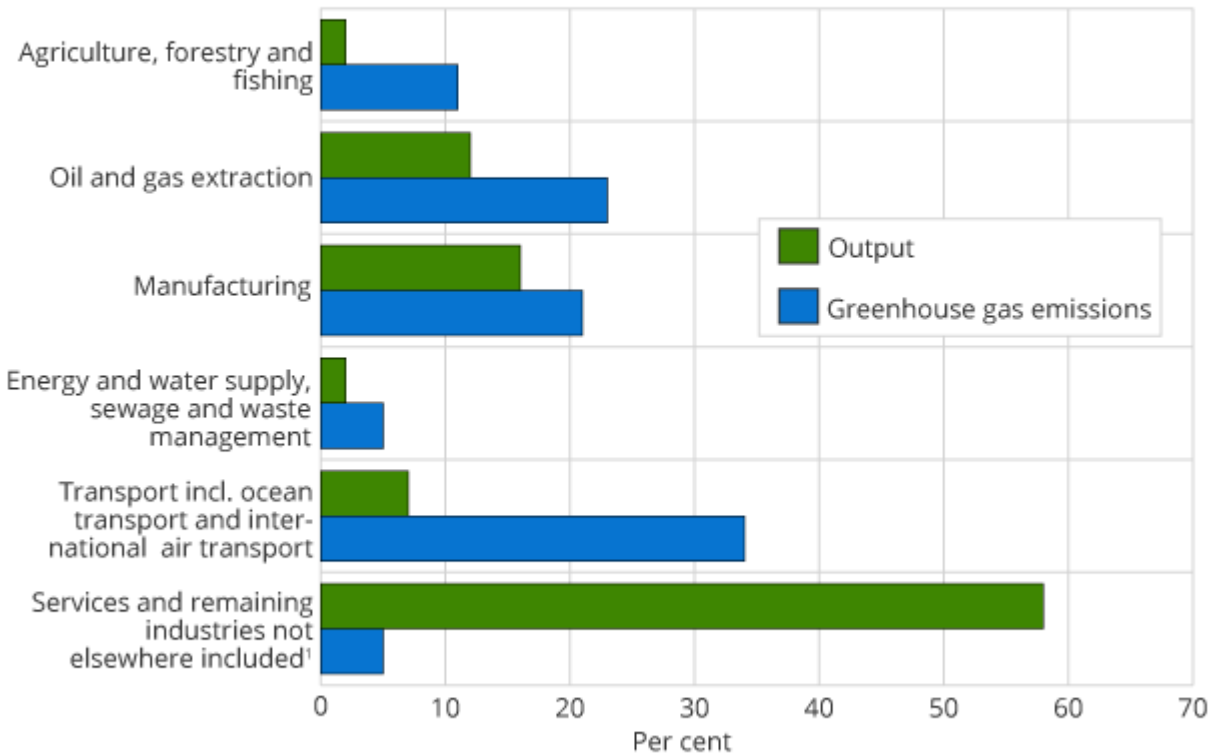
Figure 4. Greenhouse gas emission intensities in the manufacturing industry. Total and selected groups. 1990, 2000, 2007, 2011 og 2012



Source: Statistics Norway

«Profile» with output and GHG emissions by industry – who contributes the most

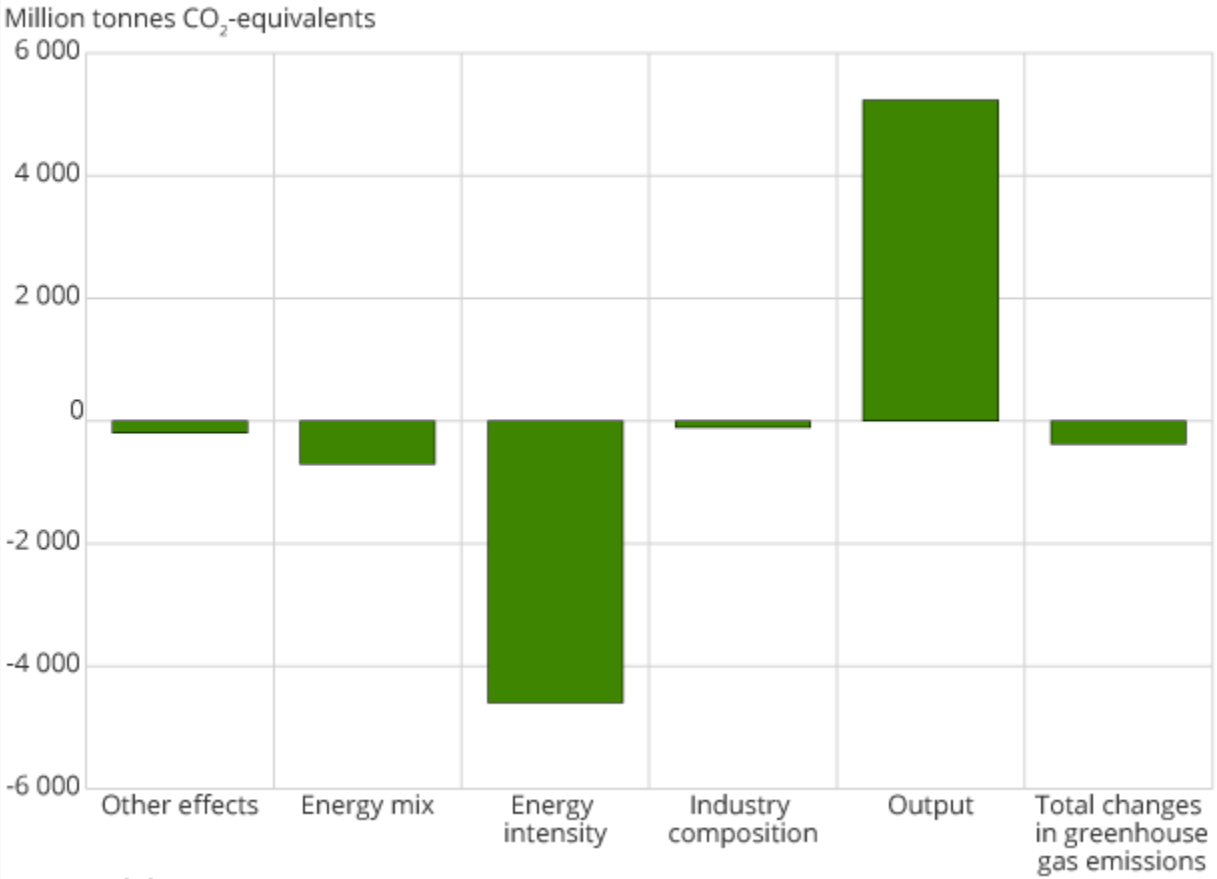
Figure 3. Greenhouse gas emissions (CO_2-equivalents) and output (fixed 2005-prices) divided according to industries and share of totals. 2012



[1] Services, energy and water supply and construction, education, health and social work and general government administration.
Source: Statistics Norway.

Decomposition Analysis – causes of the observed changes from one year to another

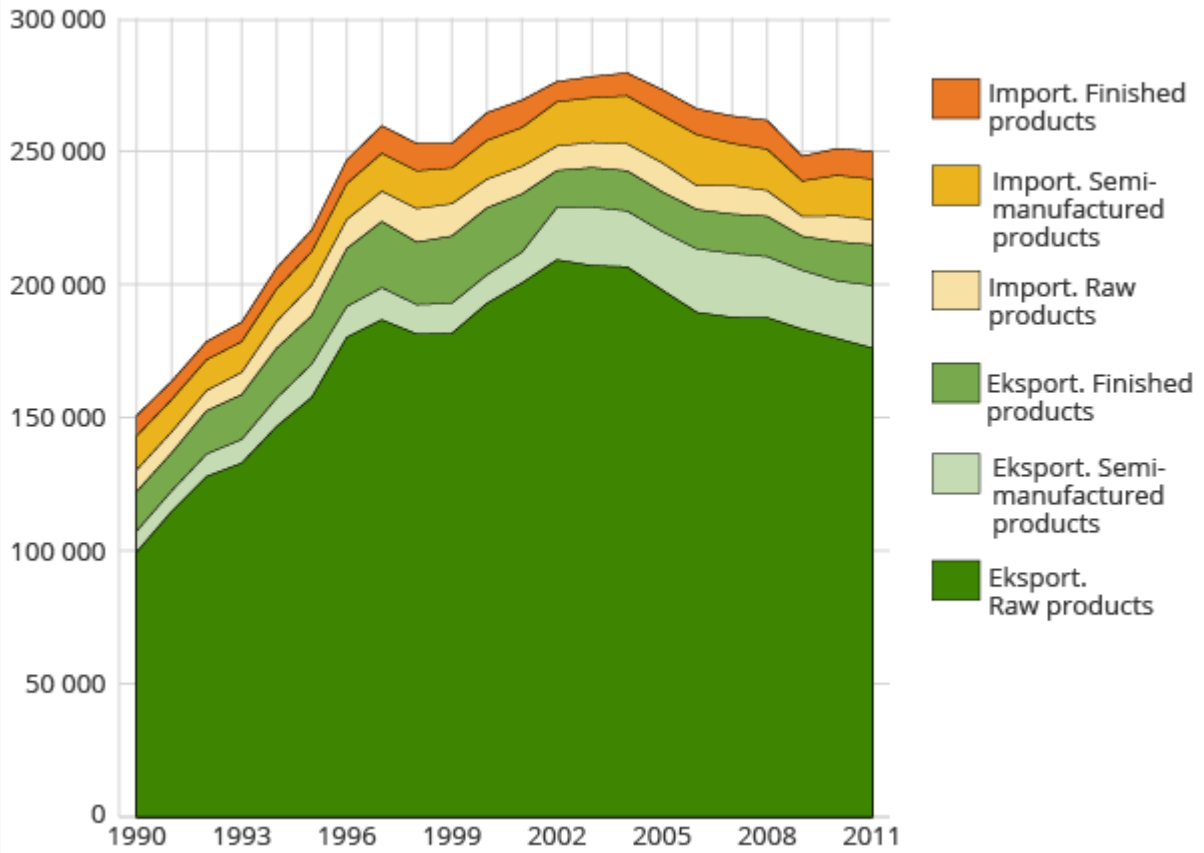
Figure 5. Effects causing changes in greenhouse gas emissions (decomposition) between 2011 and 2012



Source: Statistics Norway.

Economy-wide Material Flow Accounts ew-MFA

Figure 4. Import and export of materials, material products and waste distributed by stage of manufacturing. 1990-2011. 1 000 tonnes



Source: Statistics Norway.

http://www.ssb.no/en/natur-og-miljo/statistikker/materialstrom

«Environment Industry» – ‘Core’ NACE 2: Section E

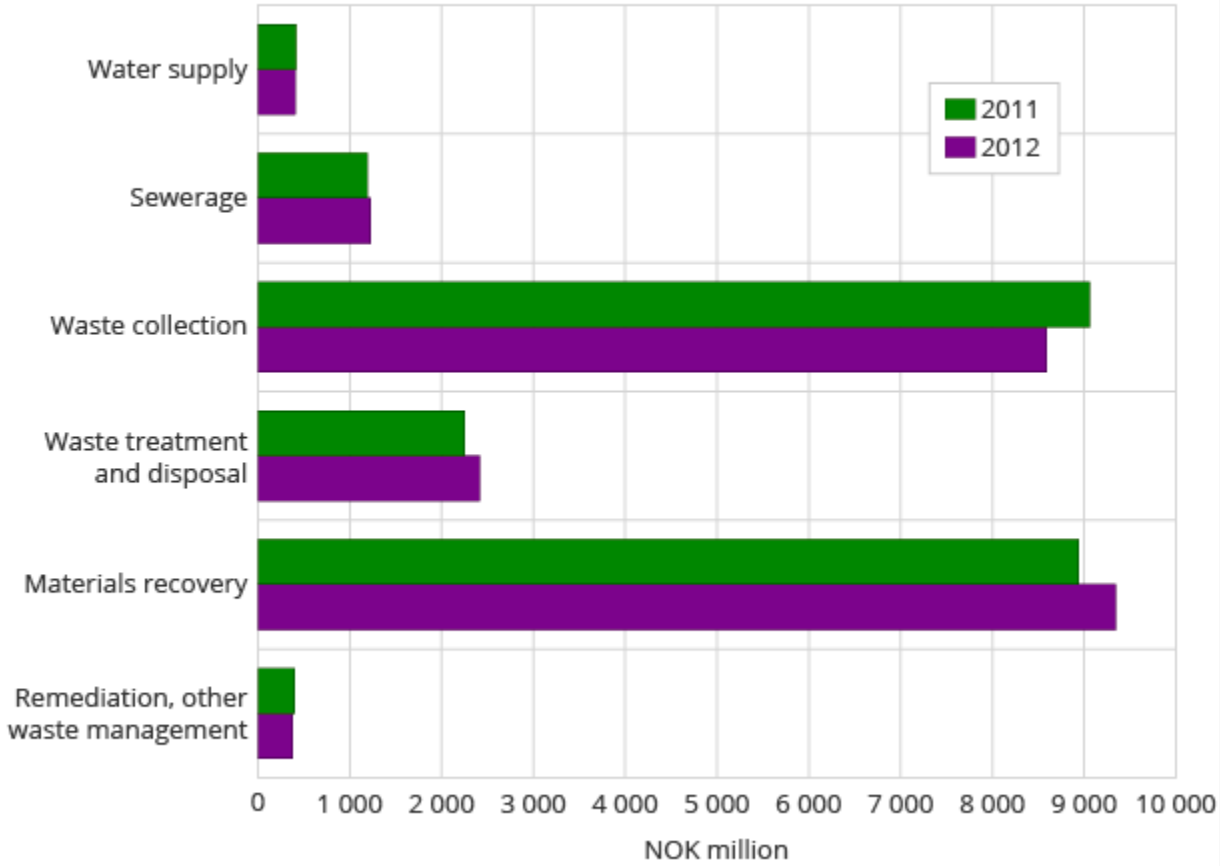
Structural business statistics for water supply, sewerage, waste management and remediation activities. Final figures

	2012	Change in per cent	
		2011 - 2012	2010 - 2012
Enterprises			
Enterprises (number)	1 084	1.3	1.7
Persons employed	7 959	-1.2	-0.7
Turnover (NOK million)	22 135	0.4	7.2
Value added (factor prices) (NOK million)	7 073	3.0	7.6
Gross operating surplus (NOK million)	2 815	5.0	8.7
Local kind of activity units			
Local kind of activity units (number)	1 275	2.7	3.6
Persons employed	8 095	-0.8	-0.4
Compensation of employees (mill. kr)	4 345	2.3	7.5
Value added (factor prices) (NOK million)	7 328	3.8	10.0
Gross investment (NOK million)	1 680	20.6	-23.5

http://www.ssb.no/en/natur-og-miljo/statistikker/stvar

«Environment Industry» – 'Core' NACE 2: Section E, Divisions 36-39

Figure 1. Turnover for local kind of activity units, by industry. 2011-2012



Source: Statistics Norway.

http://www.ssb.no/en/natur-og-miljo/statistikker/stvar

Environmental Protection Expenditure in the Mining, Quarrying and Manufacturing

NOK 8.7 billion on environmental protection in 2011

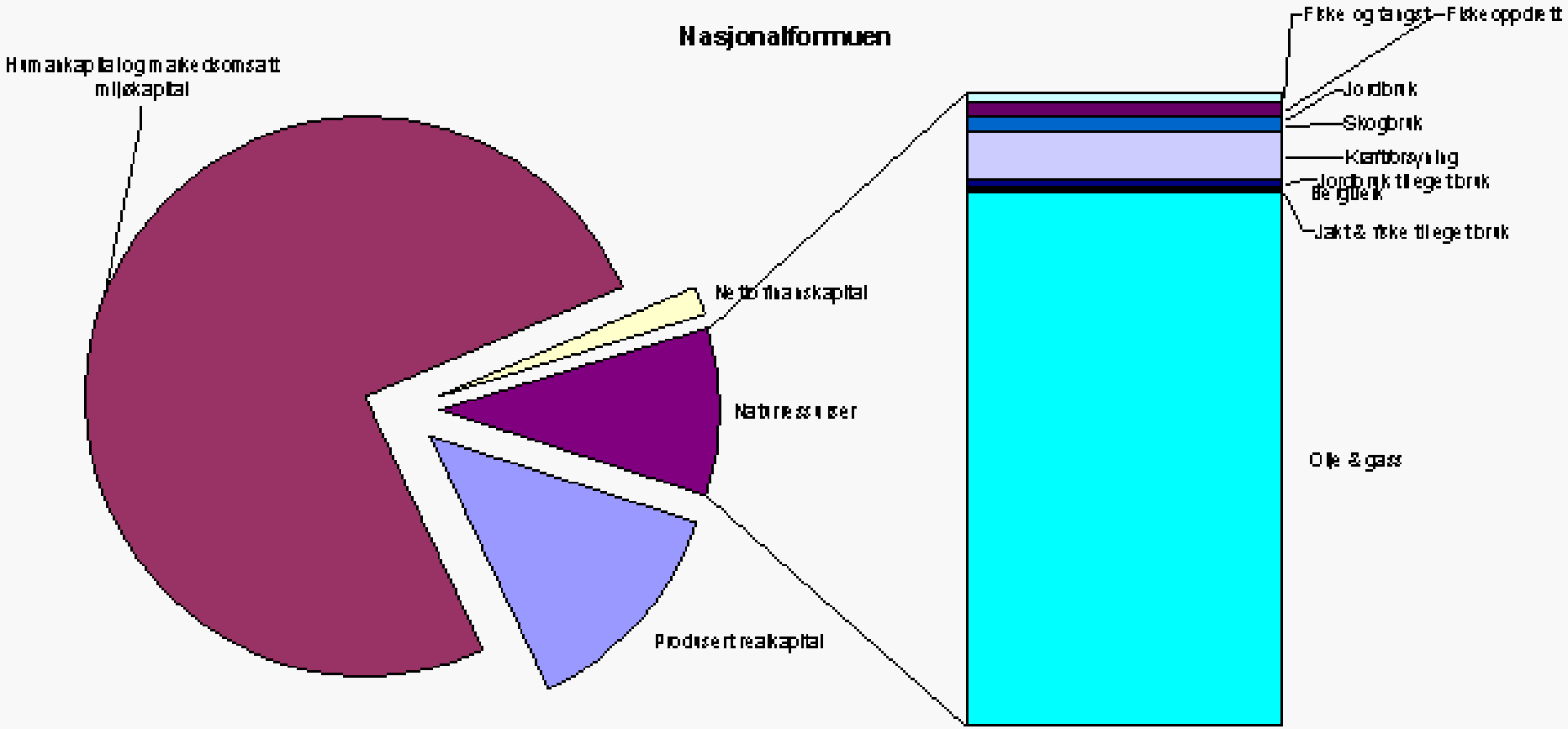
The total expenditure on environmental protection in the mining, quarrying and manufacturing industries, including oil and gas extraction was NOK 8.7 billion in 2011. This is a decrease of NOK 1 billion from 2010, but still NOK 0.5 billion more than in 2009.

Environmental expenditure in the mining, quarrying and manufacturing industries. NOK 1000

	2009	2010	2011
Environmental expenditures, total	8 177 276	9 761 221	8 703 050
Environmental current expenditure	4 463 761	5 539 211	5 073 165
Environmental investments, total	3 713 515	4 222 010	3 629 885
End-of-pipe investment	1 932 507	2 892 446	3 003 034
Investments in integrated technologies	1 781 008	1 329 564	626 851

http://www.ssb.no/en/natur-og-miljo/statistikker/miljokostind/aar/2013-07-11#content

Components of National Wealth



Sweden

Statistiska centralbyrån
Statistics Sweden

How the system is created

- data sources

The aim of work on environmental accounts at Statistics Sweden is to develop and maintain a system of physical accounts that is linked to the economic activities described in the national accounts. In practice, this means developing a system of environmental and natural resource statistics that can be linked to industry, product and sector categories used in the national accounts, thus forming a satellite system of accounts around the national accounts.

The main data sources are the national accounts for the taxes, as well as for value added, and consumtion and supply-use data. For the environmental protection expenditure for industry a yearly survey is conducted. Energy use is calculated from various surveys on fuel consumption, electricity and district heat use and partially by models. The emissions are mainly calculated on energy use, but separate methods are used to cover process emissions and emissions from traffic. The ambition is to cover the same emissions data and use the same methods as the international reporting on emissions. However, the system boundaries are not identical and the accounts need a more detailed industrial breakdown.

- More about Environmental Accounts

What can be found?

- environmental accounts

Environmental accounts provide guidance in the political decision-making process and support the evaluation of both national and international environmental goals.

- Environmental Accounts - All data
- Chemical products
- Waste
- Emissions to air

- environmental protection, taxes and subsidies

Environmental protection expenditure statistics measure investments and current costs aimed at reducing or preventing emissions. Environmental taxes impose extra costs, which decrease consumtion, and add to government income. Environmentally motivated subsidies appear as government expenditure.

- Environmental protection expenditure
- Environmental taxes
- Environmentally motivated subsidies

- environmental goods and service sector

In the database for the environmental goods and service sector, information is gathered for Swedish environmental companies. The database makes it possible to follow trends and developments in the sector. Turnover, export and employment are examples of the content in the database..

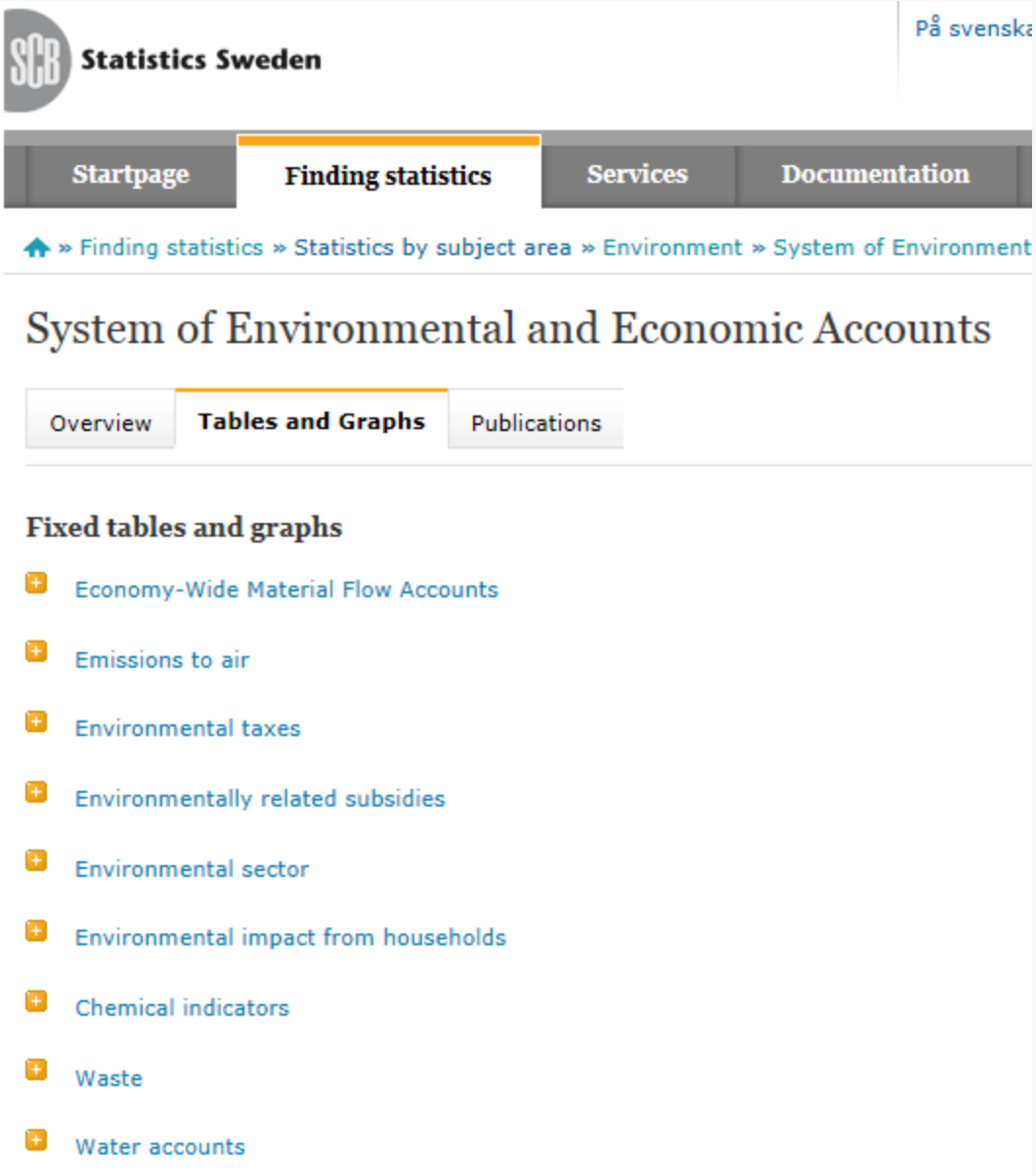
- Environmental goods and services

- sustainable development indicators

Indicators for sustainable development aim at a description of societal development in its entirety, including ecological, economic and social factors.

- Sustainable Development Indicators
  - Report 2006
- Government site for sustainable development

http://www.mir.scb.se/Eng_Default.htm



http://www.scb.se/en_/Finding-statistics/Statistics-by-subject-area/Environment/Environmental-accounts-and-sustainable-development/System-of-Environmental--and-Economic-Accounts-/Aktuell-Pong/38171/

Specialized publications
- Labour Market
- Population
- Environmental-Economic Accounting
- Information society
- International Data
- Prices
- National Accounts

Quality Reports

STATmagazin

Wirtschaft und Statistik (Monthly Journal)

Environmental-Economic Accounting

The 2002 national strategy for sustainable development of the Federal Government has made sustainability a fundamental principle of Germany's policy. To measure the effectiveness of the strategy, a set of sustainability indicators was specified for several thematic fields at the political level. Furthermore, both target values and years were assigned to the majority of these indicators. At two-year intervals, the indicator trends have been reflected and analysed in an indicator report. The Federal Statistical Office has been responsible for compiling the reports the latest of which was the 2012 indicator report.

Downloads:
Indicator Report 2012
Data relating to the Indicator Report 2012
Indicators on the environment and the economy 2012 (only in German)
Test of the OECD set of Green Growth indicators in Germany

Annual reports of Environmental Economic Accounting (EEA) - analyses and data

- Tables on EEA 2013
- Press reports of EEA (2000 - 2010)

Environmental-Economic Accounting on the following topics:

- Energy, raw material, emissions
- Private households and environment
- Transport and environment
- Cross-section publications

Sustainable Development

- Sustainable Development Indicators and Environmental-Economic Accounting
- Sustainable Development Strategy and Enviromental-Economic Accounting in Germany
- Accounts and indicators for sustainable development

Joint publications with external parties

- Environmental data Germany 2007

External Links

- UN Committee of Experts on Environmental-Economic Accounting (UNCEEA)

List of Publications of German Environmental-Economic Accounting

to the top

Spezialized publications

New release

https://www.destatis.de/EN/Publications/Specialized/EnvironmentalEconomicAccounting/EnvironmentalEconomicAccounting.html

Statistics Netherlands

http://www.cbs.nl/en-GB/menu/themas/natuur-milieu/publicaties/publicaties/archief/2013/2013-green-growth-2012-pub.htm

Links between energy statistics, energy balances and energy accounts

Energy Statistics	Energy Balances	Energy Accounts
Based on primary statistics (production, foreign trade, business survey)	Based on energy statistics	Based on energy statistics and balances
	Supply and and use balances	Supply and use balances
Specific energy surveys	Various formats (IEA, Eurostat, UN)	Uses national accounts SUT format
No specific format	Sectors and industries (ISIC)	Industries classified by ISIC
	Rearrangement of industries' energy use according to purpose (transport, auto-producers and heat for sale)	No re-arrangement of industries' energy use
	Detailed description of energy sector including technologies	Energy "sector" described by ISIC No description of technologies
	All transport in one separate sector	Own account transportation included in industries' activities
Territory principle	Territory principle	Resident principle
	Statistical differences	No statistical differences
Physical	Physical	Physical and monetary

Thank you for your attention!

- Julie Hass, Senior Adviser
  Division for Development Cooperation
  Statistics Norway
  email: JUH@ssb.no