

# System of Environmental Economic Accounting



System of  
Environmental  
Economic  
Accounting

# Environmental activity accounts

Environmental taxes

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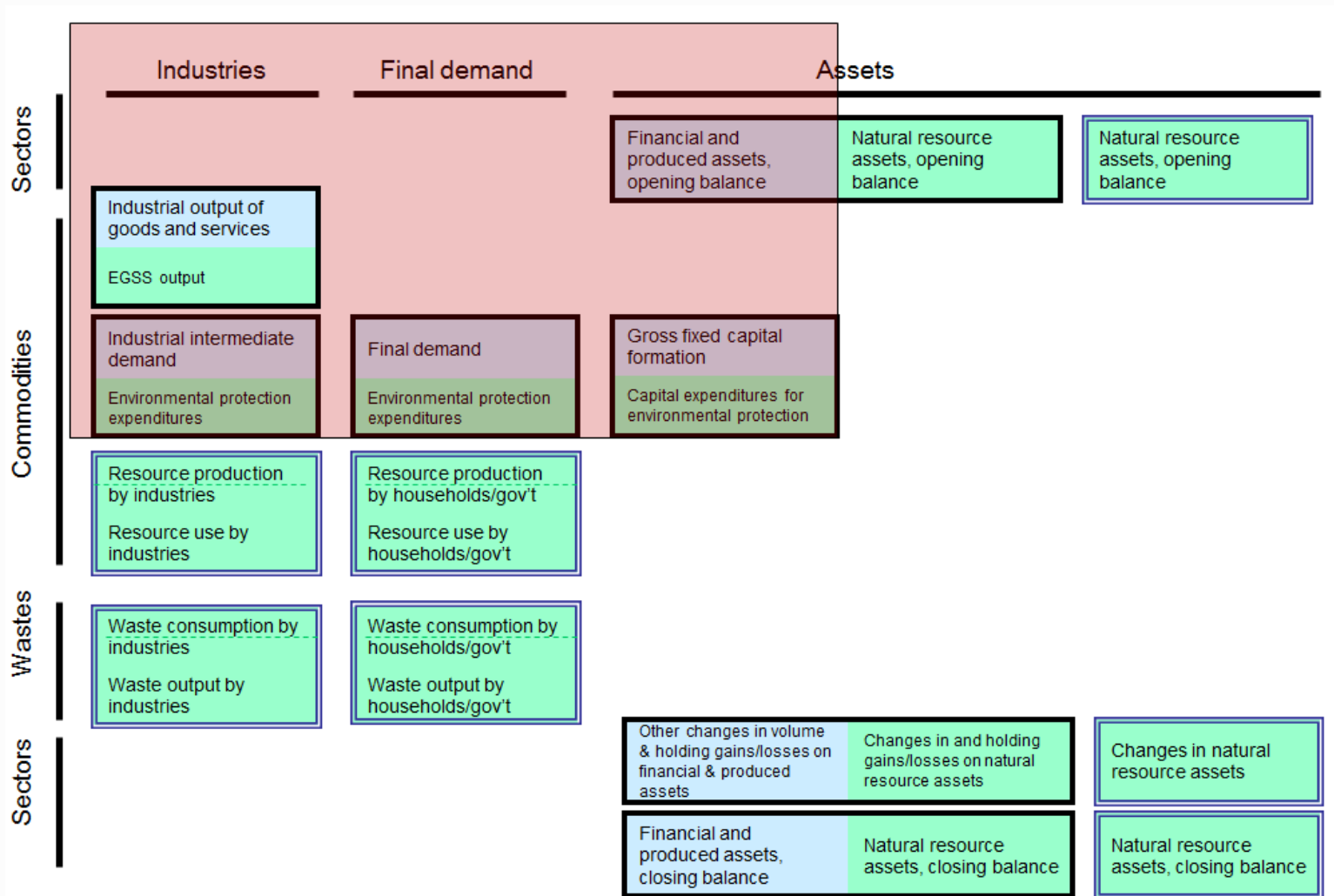


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# Content

- What are environmental activity accounts?
- What are environmental taxes?
- Some thoughts on EGSS
- Exercise

# Environmental activity accounts



# Scope of environmental activities

- **The scope of environmental activities** *include those economic activities whose primary purpose is to reduce or eliminate pressures on the environment or to make more efficient use of natural resources.*
  - Environmental protection
  - Resource management
- **Primary purpose criterion**

# Classification of environmental activities

Group	Classes
I: Environmental protection (EP)	1 Protection of ambient air and climate
	2 Wastewater management
	3 Waste management
	4 Protection and remediation of soil, groundwater and surface water
	5 Noise and vibration abatement (excluding workplace protection)
	6 Protection of biodiversity and landscapes
	7 Protection against radiation (excluding external safety)
	8 Research and development for environmental protection
	9 Other environmental protection activities
II: Resource management (RM)	10 Management of mineral and energy resources
	11 Management of timber resources
	12 Management of aquatic resources
	13 Management of other biological resources (excluding timber and aquatic resources)
	14 Management of water resources
	15 Research and development activities for resource management
	16 Other resource management activities

# Which of the following activities are environmental?

- Installation of solar panels to generate electricity
- Buying equipment to measure pollution
- Buying an apartment in an area with less pollution
- Buying mercury free batteries

# Environmental activity accounts in SEEA-CF

- Environmental protection expenditure accounts (EPEA)
- Environmental goods and service sector (EGSS)
- Environmental taxes
- Environmental subsidies and similar transfers
- Environmental permits



# Environmental Goods and Services Sector

# EGSS

- **Supply side** of environmental activities → production of environmental goods and services
- **Aim:** assessing the contribution of EGSS to the total economy and its employment potential
- **Key indicators:**

*Total production, total employment, total value added, total exports, total gross fixed capital*

# Scope

**The EGSS consists of producers of all environmental goods and services** → Thus, all products that are produced, designed and manufactured for purposes of environmental protection and resource management are within scope of the EGSS.

- Environmental specific services, connected products, adapted goods and environmental technologies
- 'Main purpose' criterion (technical nature of product or activity / intension of the producer)

# Methodology: activity approach versus product approach

- **Product approach:** → Identify environmental goods and services in source data
- **Activity approach:** → Identify environmental activities in source data
- **Data sources:** surveys (new or already existing), statistics, SNA, external reports
- *Netherlands:*
  - → Many different environmental activities have been identified by Statistics Netherlands as EGSS activities
  - → For every activity a specific methodology has been developed in order to compile the data

# Overview: activities in EGSS

1) Sewage and refuse disposal services (ISIC 37-39)



2) Recycling (ISIC 38.3)



3) Wholesale in waste and scrap



# Overview: activities in EGSS

4) Renewable energy production



5) Production of energy saving and sustainable energy systems



6) Insulation activities

# Overview: activities in EGSS

- 7) Production of environmental equipment
- 8) Environmental advise, environmental engeneering
- 9) Environmental technical Construcion
- 10) Environmental related inspection
- 11) Second hand shop
- 12) Organic agriculture
- 13) Own account activities
- 14) Government governance related to the environment
- 15) Environmental non profit organisations
- 16) Environmental education

# Many different data sources.....

Activity	Main source
Sewage and refuse disposal services	National accounts, supply and use tables
Wholesale in waste and scrap	National accounts, supply and use tables
Environmental related inspection and control	Employment registers
Government governance related to the environment	Environmental Statistics, EPE statistics
Organisations and associations on the environment	Employment registers and business register
Internal environmental activities at companies	Environmental Statistics, EPE statistics
Renewable energy production	Energy Statistics, Renewable energy statistics
Energy saving and sustainable energy systems	Own constructed database and Production Statistics
Insulation activities	National accounts
Organic agriculture	Agriculture statistics, area of organic agriculture
Recycling	National accounts, supply and use tables
Second hand shops	Production Statistics
Water quantity control by waterboards	National accounts, Government accounts
Environmental advice, engineering and other services <sup>1</sup>	Own constructed database and Production Statistics
Industrial environmental equipment <sup>1</sup>	Own constructed database and Production Statistics
Environmental technical construction <sup>1</sup>	Own constructed database and Production Statistics
Environmental related education	Education statistics



# Most important data sources

- **SNA** data → environmental services
- Own constructed data base of environmental companies plus **production statistics** (PRODCOM), international trade statistics etc.
- Government statistics
- Agricultural statistics
- Labour registers
- EPEA

# Some key issues.....

- International comparison data
  - Scope
  - Methodology
  - Data sources
  - The more effort, the larger the EGSS ?
- Cleaner goods / resource efficient goods
- Integration in EPEA / ReMEA
- Dissemination of the results

# What are environmental taxes?

# Definitions

- *Taxes are compulsory, unrequited payments, in cash or in kind, made by institutional units to government units.*
  - > Taxes on products
  - > Other taxes on production
  - > Taxes on income
  - > Other current taxes
  - > Capital taxes

# Definitions

- *An **environmental tax** is a tax whose tax base is a physical unit (or a proxy of it) of something that has a proven, specific, negative impact on the environment*
  - > Energy taxes
  - > Transport taxes
  - > Pollution taxes
  - > Resource taxes

# Environmental taxes by type of tax

## Environmental taxes by type of tax

Type of environmental tax	Type of tax						Total
	Taxes on products	Other taxes on production	Taxes on income		Other current taxes	Capital taxes	
			Corporations	Households			
Energy taxes	10 800	1 500				300	12 600
Carbon taxes	4 600						4 600
Taxes on fuel used for transport	4 700						4 700
Other energy taxes	1 500	1 500				300	3 300
Transport taxes	2 600	800			1 400	100	4 900
Pollution taxes	400	500			200		1 100
Resource taxes	200	400			300		900
<b>Total environmental taxes</b>	<b>14 000</b>	<b>3 200</b>			<b>1 900</b>	<b>400</b>	<b>19 500</b>
Non-environmental taxes	79 000	15 400	23 000	74 000	5 800	1 600	198 800
<b>Total taxes</b>	<b>93 000</b>	<b>18 600</b>	<b>23 000</b>	<b>74 000</b>	<b>7 700</b>	<b>2 000</b>	<b>218 300</b>
<i>Share of environmental taxes (percentage)</i>	<i>17.7</i>	<i>20.8</i>	<i>0.0</i>	<i>0.0</i>	<i>32.8</i>	<i>25.0</i>	<i>9.8</i>

# Approach

- Starting point: All government levies (national, subnational)
- I. Identification of tax base(s); environmentally-related levies
- II. Distinction between environmental taxes and environmentally related payments
- III. Allocation to environmental tax groups
- IV. Allocation to the final tax payer
  
- Data Sources: Tax statistics, government finance statistics, national accounts

# Exercise



# Exercise

- Compile the environmental taxes account for the 2 years for which data is provided
- What conclusions can be drawn from the accounts
- Discuss any indicators that can be derived from the information in the accounts
- What additional data source could be integrated with the tax data to provide additional insights



**THANK YOU**

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