Dutch environmental accounts: implementation and compilation

Bram Edens

Statistics Netherlands

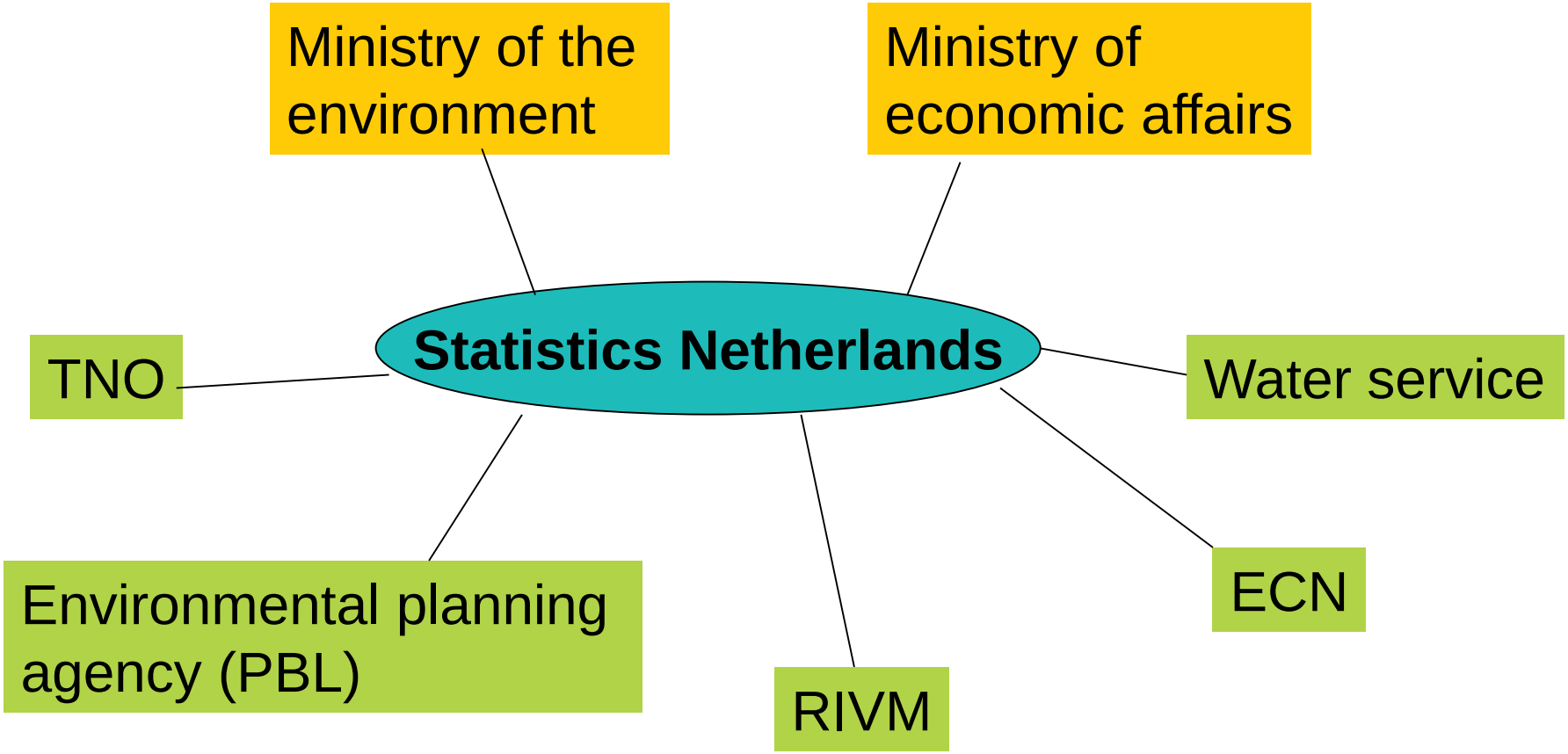
Outline

- Compilation of Dutch EA
  - Organisation
  - Overview accounts in production
  - Data sources
  - Methodology
  - Examples
    - Oil and gas reserves
    - Air emission accounts
  - Dissemination
  - Revision policy
- Conclusions

Organisation of EA

- Situated in the National Accounts Department
- Currently around 8 fte (about 50% is externally funded)
- Close cooperation with:
  - environment statistics
  - energy statistics
  - other
  - external institutes

Other national institutes involved



Main users of the Dutch EA

- **Research institutes:** Netherlands environmental assessment agency, National water institute, Energy research centre, etc.
- **Policy makers**: ministries of economic affairs, environment
- **Business:** Water producers, producers for environmental technology etc.
- **Eurostat**

Accounts in regular production

		Timeliness *years*	Publication *date*	EU legal base
1	Energy accounts (physical)	t-1	november	2nd
2	Water accounts	t-2	november	3rd?
3	Material flow accounts (EW-MFA)	t-3	november	yes
4	Waste accounts	t-2 / t-3	november	3rd?
5	Air emissions	t-1	november	yes
6	CO2 emissions on quarterly basis	t	quarterly	
7	Water emissions national	t-2	november	3rd?
8	Nutrient accounts	t-1	november	
9	Oil and gas reserves	t-1	november	
10	Environmental taxes	t-1	november	yes
11	Renewable energy (wind)	t-1	november	
12	Emission permits	t-1	november	
13	Env. Goods and Services Sector	t-2	november	2nd

Production regular accounts

- Regular accounts can be made quite efficiently (2.5 fte)
  - No survey programs
- Capacity also required for:
  - Dissemination (statline; annual publication; press releases; DNE; reporting to Eurostat
  - Revisions (ISIC/CPC etc)
- Capacity is required for:
  - Commissioned research
  - Developing new accounts (e.g. EPEA / RUMEA)
  - Other projects

Legal base on environmental accounting

- REGULATION No 691/2011 of the EU Parliament and council passed july 2011
- Covers 3 modules:
  - air emissions accounts
    - 14 different pollutants;
    - NACE Rev.2 A*64 + households
    - bridging tables
  - environmentally related taxes by industry
    - energy taxes; transport taxes; pollution taxes, resource taxes,
  - EW-Material Flow Accounts
- First data transmission: sept 2013, from 2008 onwards
- New modules will be added in 2nd tranche:
  - Energy accounts (physical);
  - EPEA
  - EGSS

Methodology

- System of environmental and economic accounts (SEEA 2012)
- Eurostat compilation guides

  Air emission accounts

  Material flow accounts

  Environmental expediture accounts

  Environmental goods and service sector etc.
- National reports on used methodologies

Most important data sources

- National accounts (supply use tables, IO tables, labour accounts etc.)
- Energy statistics (energy balances)
- Emission inventory (emission to water, soil and air)
- Government statistics
- International trade statistics
- Survey on environmental expenditure
- Register data

Integration

1. Correcting for residence principle

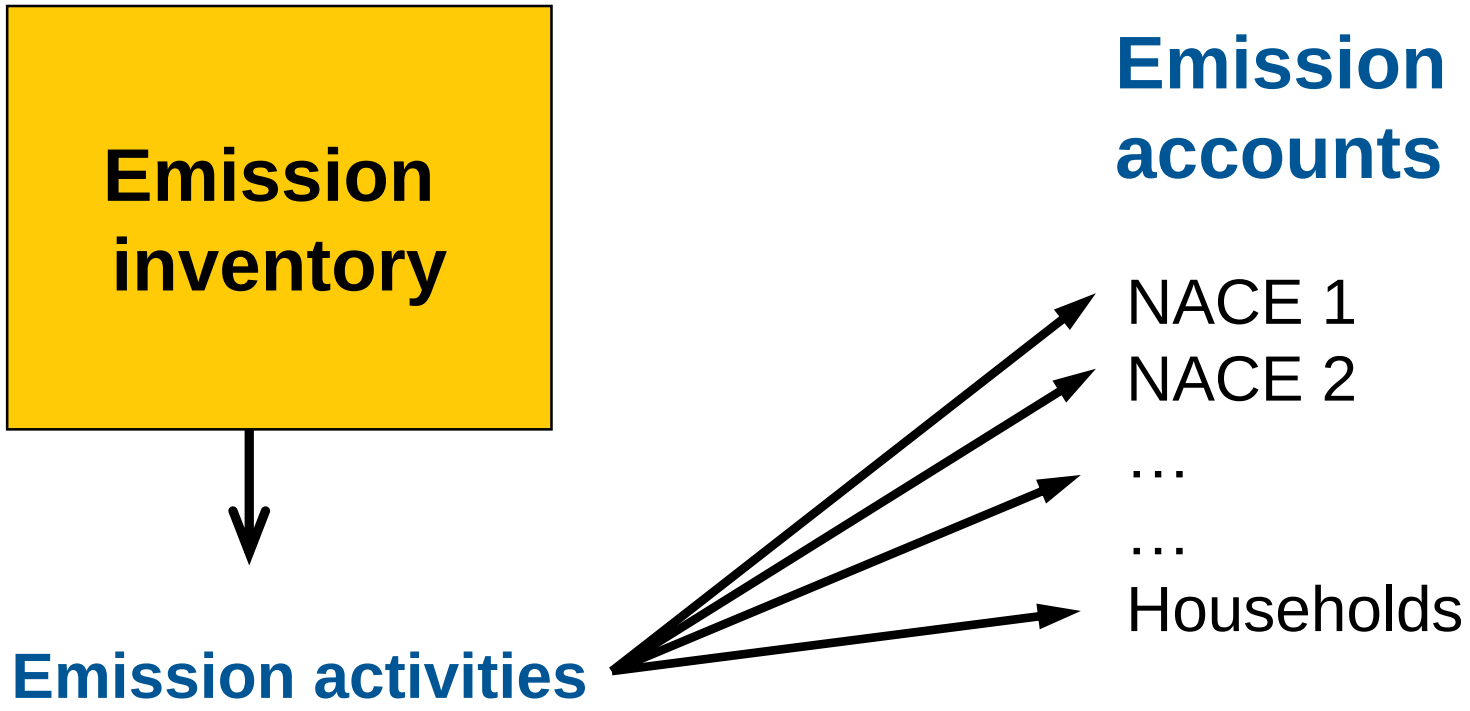
2. Assigning emissions to NACE

Example 1: stock account

Mineral reserves (stock accounts):

- Annual publication by TNO/ELI with overview of current physical reserves
- We make a consolidated time series
- Calculate resource rent based upon capital stock / services model
- Update extraction path
- Compile stock accounts in monetary terms
- Allows to estimate cost of depletion

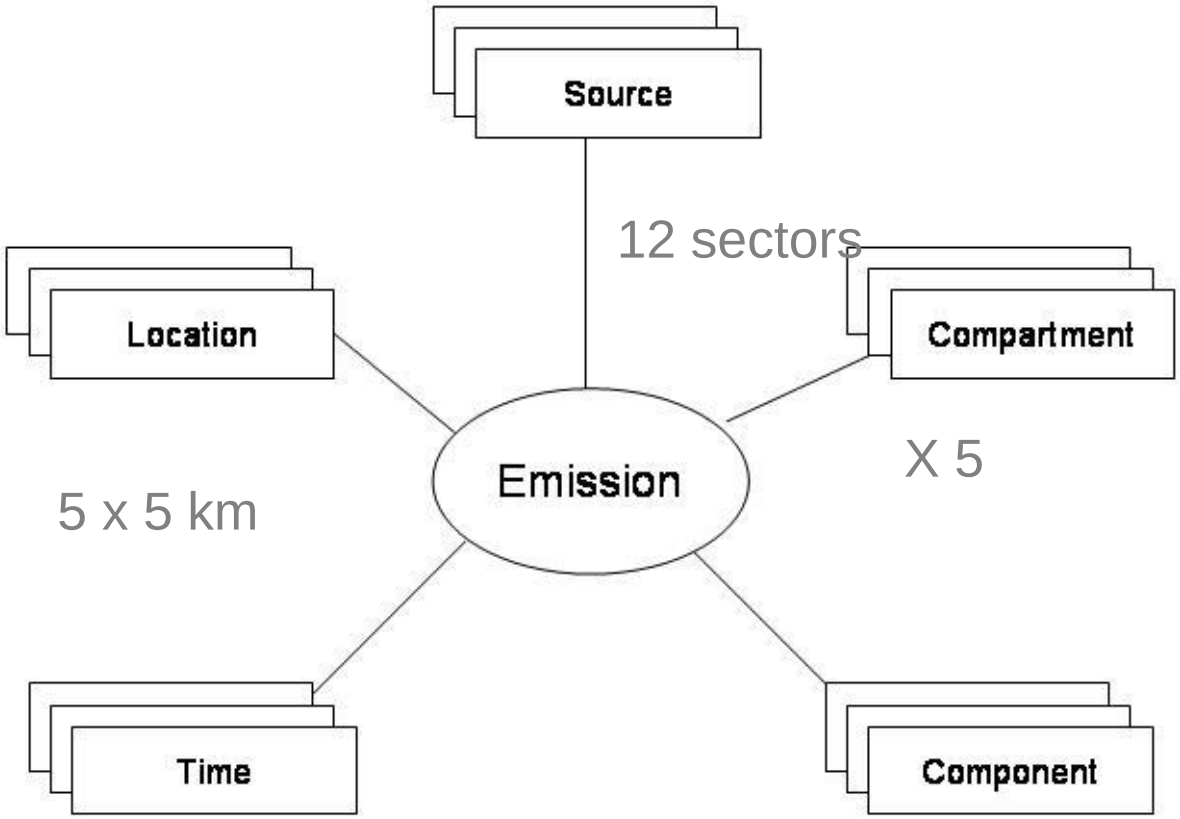
Example 2: air emission accounts



General outline of the Dutch Emission Inventory system (PRTR)

- Contains annual emission data on more than **350 pollutants** to air, soil and water
- Covers the **whole process** of collection, processing and reporting of emission data in the Netherlands
- Emissions of diffuse as well as point sources are collected in one **central database**
- Data for all **international reports** can be withdrawn from the system: Greenhouse gasses monitoring, EU Water Framework Directive, EU PRTR Directive etc.

Dimensions of emissions in the central database



PRTR | Pollutant Release & Transfer Register

Introduction
General introduction PRTR
How to use this site
How to interpret the emissiondata

Top 10 Graphics
-- choose a graphic

Top 10 Maps
the Netherlands
Postalcode
-- choose map

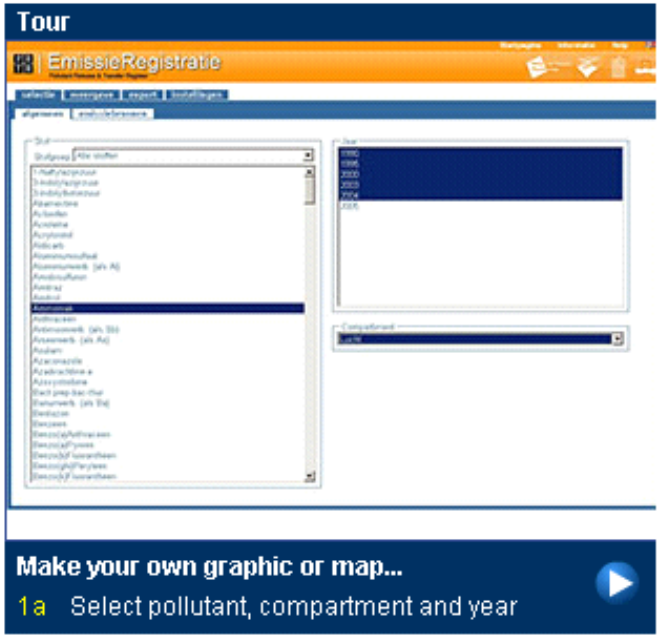
Top 10 Sources
-- choose top 10 sources

Make your graphic or map
Select pollutants, sources ...

Documentation
All documents
Search in documents
Glossary
Related links

Release of pollutants to air, water and soil in the Netherlands

This website shows the yearly releases (emissions) of the most important pollutants in the Netherlands. You can explore the emission data through various channels, such as maps, graphs and tables. But you can also download all the details into your own database. More about the use of this website ...



Up to date

The data shown in this website is updated 2 to 3 times a year. The current release shows emissions for 1990, 1995, 2000, 2005, 2006 and 2007 The 2007 emissions are preliminary data and not yet shown in the maps. We expect to add an extra year to the point sources (2007) in Octobre 2008
Please send us an update-mail if you want to be informed on website updates.

The Netherlands Pollutant Release & Transfer Register

Since 1974 a number of organisations have been working closely together in this pollutant register (PRTR) project to collect and formally establish the yearly releases of pollutants to air, water and soil in the Netherlands. Results of this project serve to underpin the national environmental policy. Data is in this way also provided for the many environmental reportsreports to international organisations such as the European Union and the United Nations, e.g. the National Inventory Report for the Kyoto Protocol. More about the Netherlands PRTR ....

Integration

- Point sources: emission inventory
- Diffuse sources (activity*emission coefficient)
  - Residence principle
    - International transport and tourism
      - Vehicles: transport statistics (kms driven abroad and in NL)
      - Inland shipping (ibid)
      - International shipping: National accounts data
      - Air transport: KLM annual report + grossing up based on production statistics
  - NACE/ISIC:
    - Energy accounts used
    - Behind energy accounts is Dutch energy statistics

‘Theme’ indicators in the environmental acocunts for pollution

1. Greenhouse gas emissions (CO_2-eq)
2. Ozone layer depletion (CFC-12 eq)
3. Acidification (H+ eq)
4. Eutrophication (N-eq)
5. Solid waste (kg)
6. Local air pollution (TOFP-eq)
7. Fine dust pollution (kg)
8. Heavy metals to water (Toxicity eq)
9. Waste water (resident eq.)

Revision policy

- National accounts (every 6-8 years)
  - Conceptual revision (e.g. 2008 SNA)
  - Technical revisions (e.g. ISIC / CPC)
- Environmental accounts
  - Follow NA revisions
  - Annual updating when new environment and energy statistics are available
  - Always complete time series is revised

Dissimination

- Statline (electronic database)

  → http://statline.cbs.nl/statweb/?LA=en
- Website

  → http://www.cbs.nl/nl-NL/menu/themas/natuur-milieu/publicaties/milieurekeningen/default.htm
- Data for Eurostat + reports
- Several publications

  → annual publication on environmental accounts

Publication Environmental acocunts in the Netherlands 2010

- Energy
- Water
- Material flows
- Waste
- Air emissions
- Water emissions
- Oil and gasreserves
- Environmental taxes
- CO_2 emission permits
- Environmental expenditure
- The environmental goods and service sector

- Economy of the North Sea
- Valuation of wind energy resources
- Environmental subsidies

Conclusions

- The Netherlands has well-developed source data (e.g. inventories; register data)
- Accounts require no additional surveys
  - Integration based on multiple data sources
  - Accounts can be compiled efficiently