

Environmental Economic Indicators in SEEA

**Sjoerd Schenau and Rutger
Hoekstra**

Statistics Netherlands

**London Group meeting in
Johannesburg**



Key issues

- 1) Should we include indicators in *SEEA2012* ?
- 2) Should we recommend a set of indicators ?
- 3) If yes, how to determine this set of indicators ?
- 4) How to deal with aggregation issues ?



Introduction

- Indicator basics
- Indicators in *SEEA2003*
- Important issues
 - Aggregation issue
 - Position in the handbook
 - Focus on ratio indicators ?
 - International dimensions
 - Selection criteria
- Path forward
- Discussion



Indicator basics

- ❑ **Indicators:** three basic functions: quantification, simplification and communication.
- ❑ **SNA93:** economic indicators such as GDP
- ❑ **Environmental indicators:** wide array of indicators: OECD, EEA, Eurostat, etc.



Advantages of indicators from environmental accounting

Part of a comprehensive framework

- Consistency
- Completeness
- Direct linkage to economic (and social) statistics
- Provides level of detail needed for modeled policy analysis

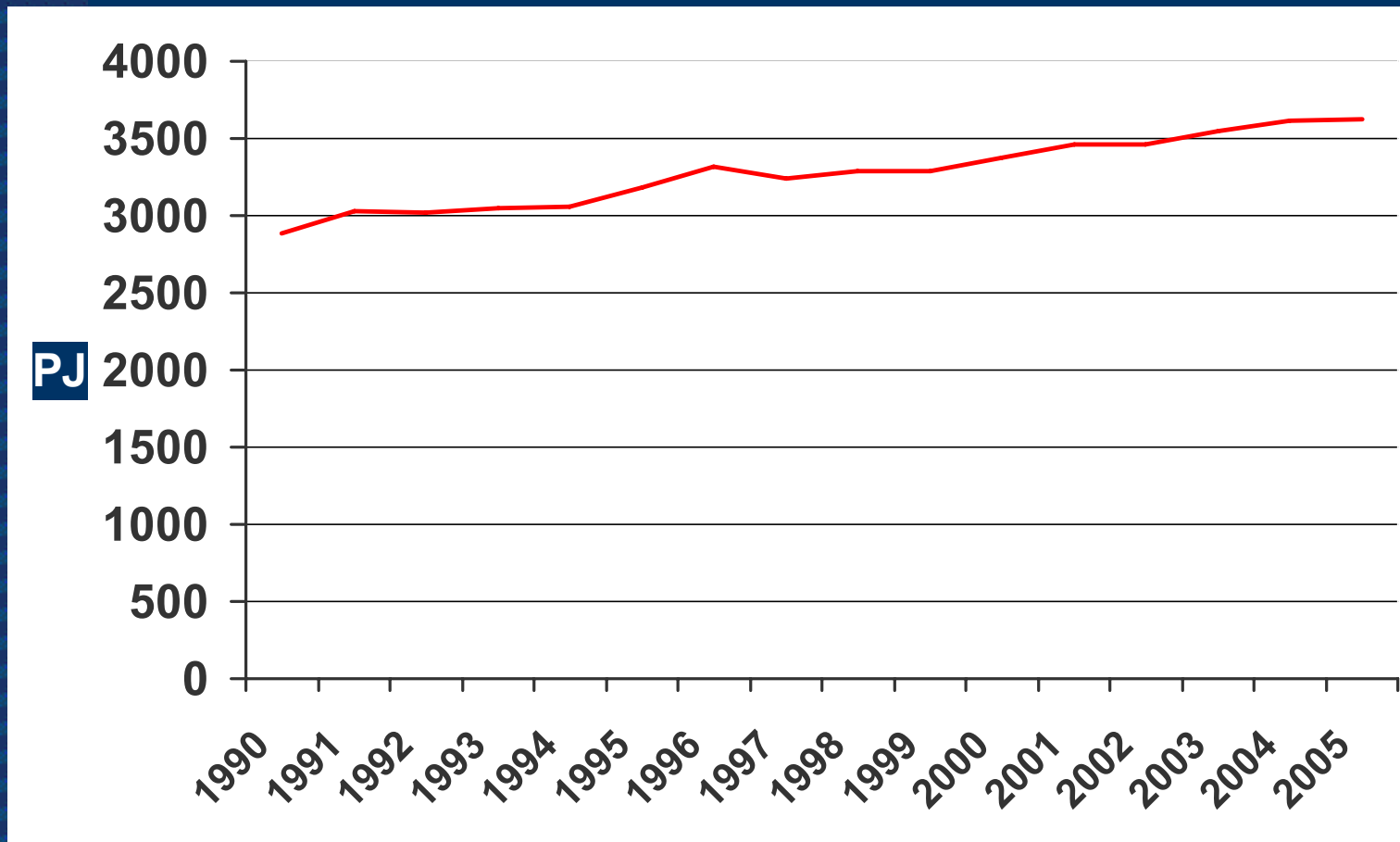


Three levels of indicators

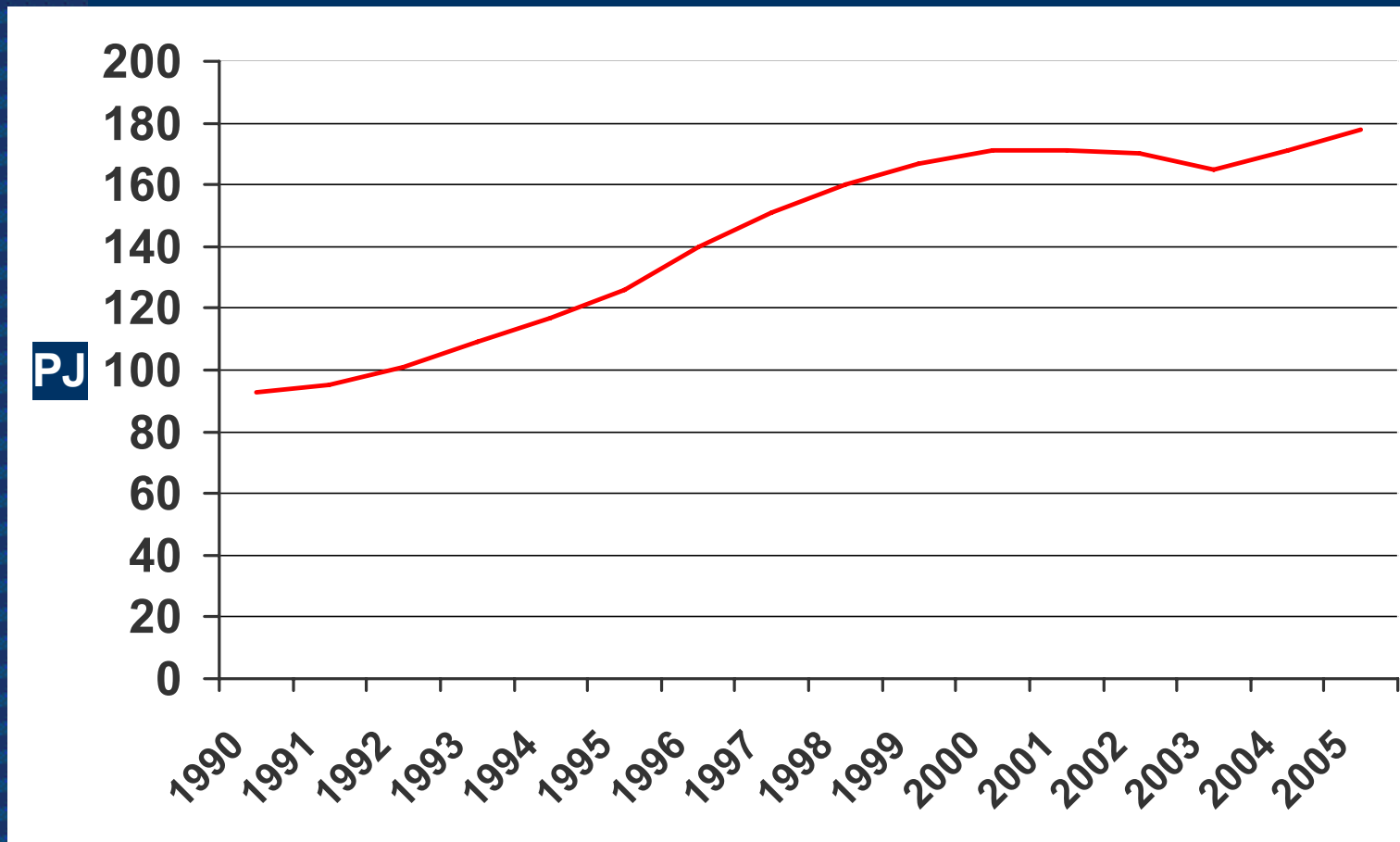
- **Indicators for “the whole economy”**
- **Detailed indicators** (disaggregated indicators on NACE/ ISIC, regional aspects etc.)
- **Ratio indicators:** intensity, productivity, per capita etc.



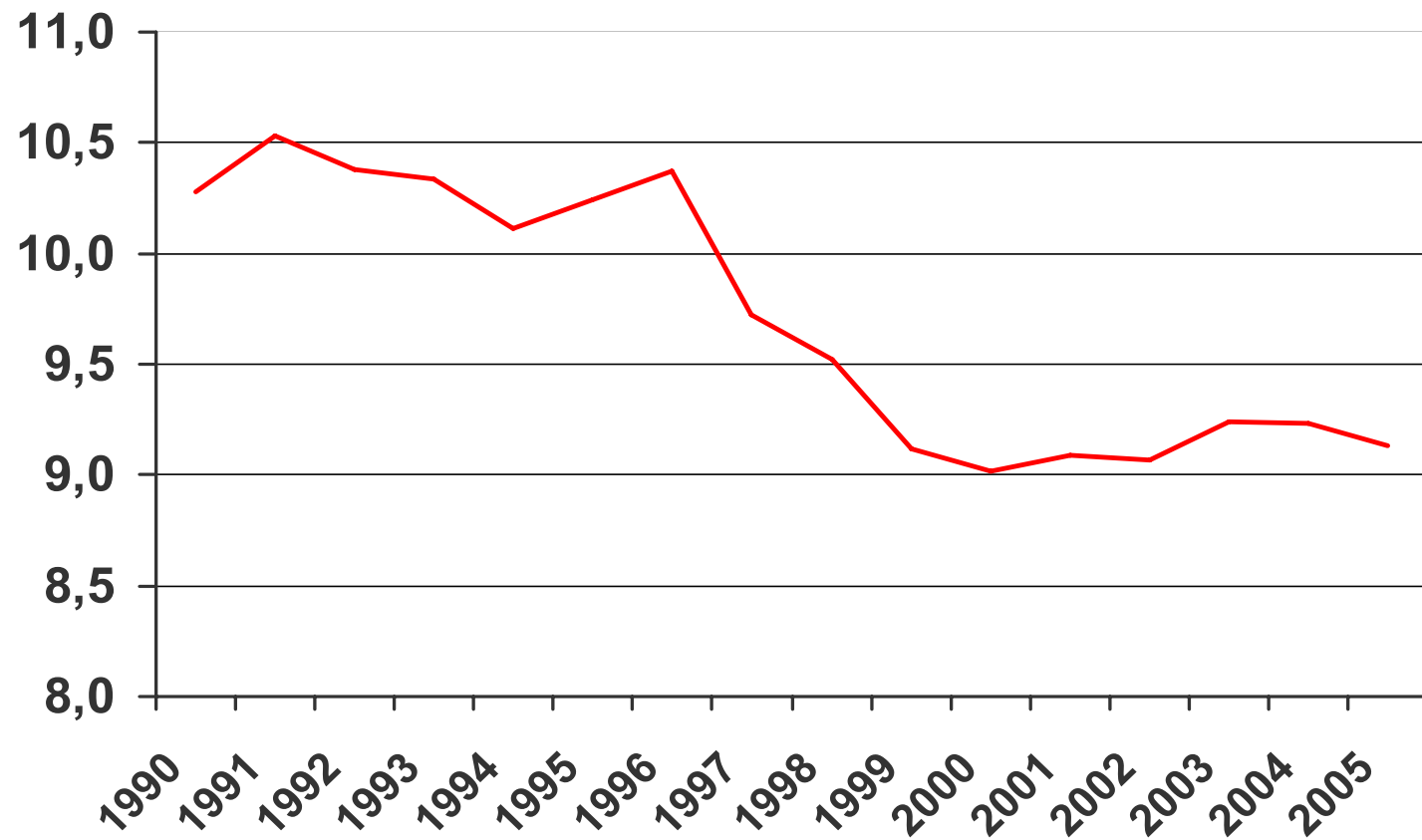
Net energy consumption of the economy



Net energy consumption of air transport



Energy intensity of the economy



Indicators in SEEA2003

Many suggestions of indicators but **no systematic listing or prioritization**

Chapter 11 : Applications: no systematic or complete discussion



Issue: Aggregation (1)

In which situation can information on environmental phenomenon be aggregated ?

A) “A composite indicator for environmental pressure is feasible and valuable”.

→ natural appeal to policy makers

B) “A composite indicator for environmental pressure is **not** feasible”.

→ only when based on a scientific basis



Issue: Aggregation (2)

**Not
contentious**



**Very
contentious**

- 1) Individual residuals or assets.
- 2) - Environmental indicators based on scientific weights.
- Composite indicators using monetary units for depletion.
- 3) - Composite indicators using mass units.
- Composite indicators using monetary units for degradation.
- 4) Composite indicators using weighting schemes.

Issue: Focus on ratio indicators ?

“Economy as a whole” indicators often similar to indicators already in existence

→ Kyoto figures

Should we in SEEA2012 pay extra attention to the issue of ratio indicators to illustrate the value of the environmental accounting system?



Issue: international dimensions

The issue of the shifting of pollution intensive production from rich to poor countries

→ “balance of trade indicators” from IO-analyses

Is there a role in the SEEA for indicators which are also based on modeling?



Issue: Position in handbook

- 1) **Inclusion in Part I:** the statistical standard
- 2) **Inclusion in Part III:** Application and policy uses

Or

- 3) To define the indicators in **Part I** and to present a list of recommended indicators in **Part III**.



Issue : selection criteria for indicators

- 1) Policy relevance
- 2) Well developed methodology for the accounts
- 3) Analytical soundness



Indicator sets

- 1) Structural indicators (Lisbon strategy)
- 2) Sustainable Development Indicators (SDI)
- 3) Sustainable Development Indicators for Sustainable Development (CSD)
- 4) OECD: Key environmental indicators

**European strategy for
environmental accounting**



Path forward: Steps towards a recommended set of indicators

- 1) Do we want to include indicators in SEEA2010 ?**
- 2) Selection of environmental themes for which to develop indicators**
- 3) To decide on the aggregation issue and other issues**
- 4) To propose a set of indicators**



Themes for which indicators should be developed:

- Energy consumption
- Water consumption
- Emissions of greenhouse gases
- Emissions of acidifying gases
- Production and recycling of waste
- Depletion of natural resources
- (Environmental expenditure, taxes, eco-industries)



DISCUSSION !!!!



Issue 1

**Should we include indicators in
SEEA2012 ?**



Issue 2

Should we recommend a set of indicators ?



Issue 3

If yes, how to determine this set of indicators ?

- 1) *Policy relevance***
- 2) *Well developed methodology for the accounts***
- 3) *Analytical soundness***



Issue 4

How to deal with aggregation issues ?

