



Statistics Sweden

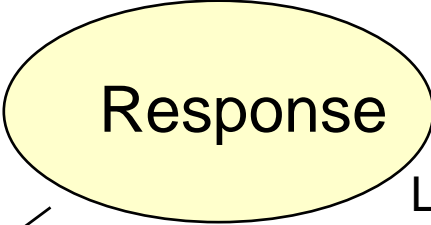
Statistiska centralbyrån

Definitions and data under the SEEA framework

Nancy Steinbach and Viveka Palm, Statistics Sweden.

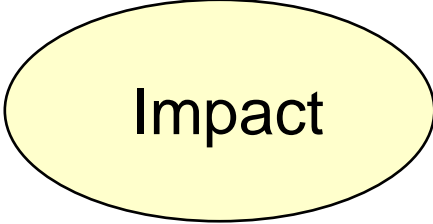
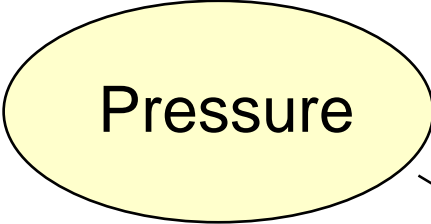
DPSIR-model. Data needs

Population
Energy use
Industry
Transport
Investments



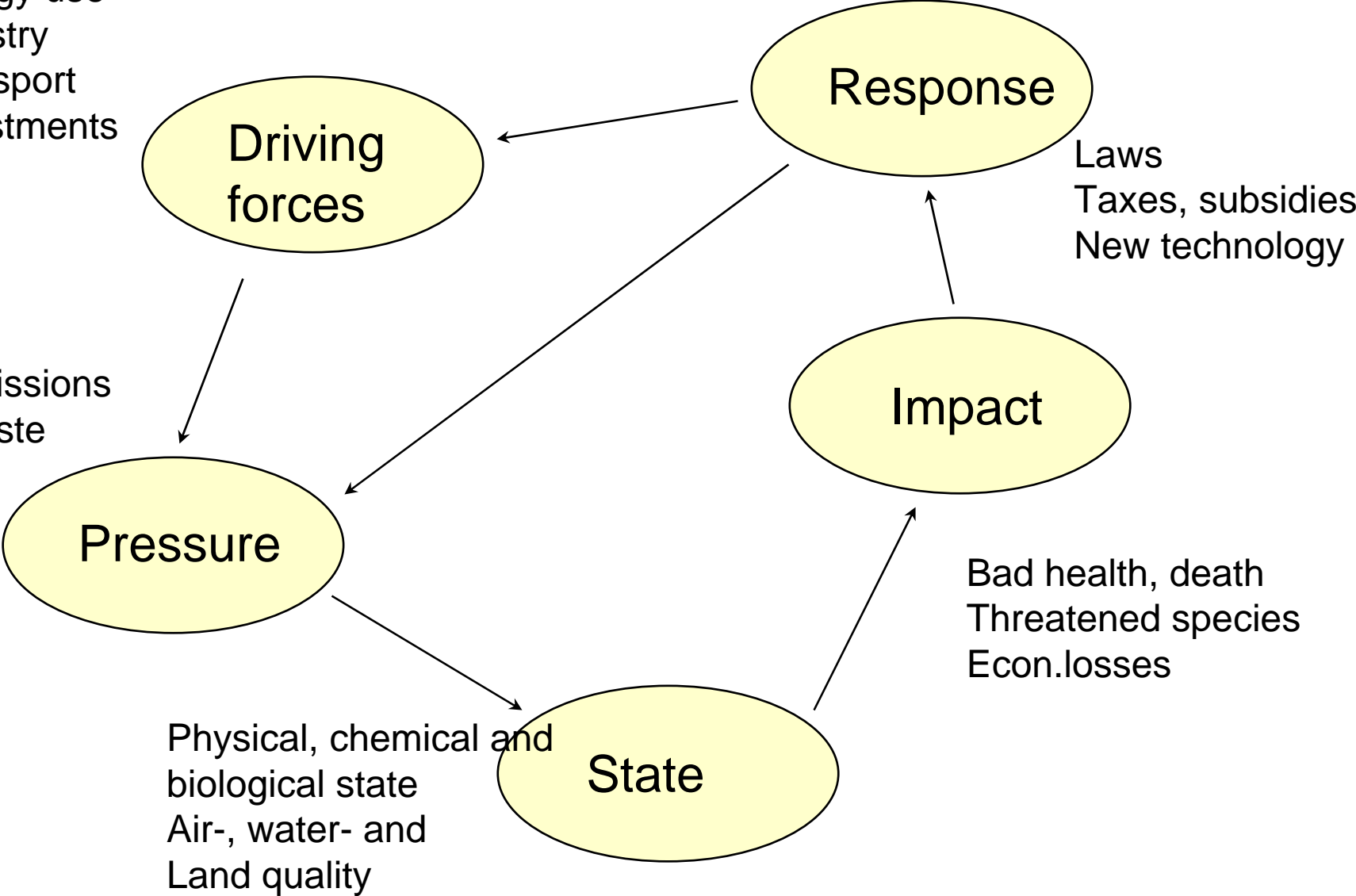
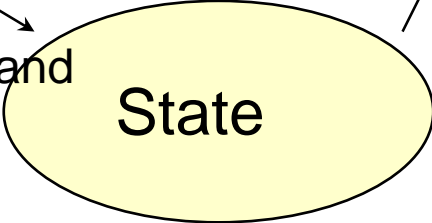
Laws
Taxes, subsidies
New technology

Emissions
Waste



Bad health, death
Threatened species
Econ.losses

Physical, chemical and
biological state
Air-, water- and
Land quality



Sectoral statistics

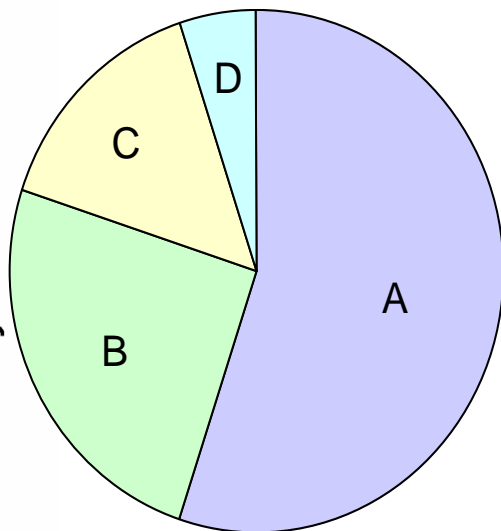
1. National accounts: taxes and subsidies
2. Environmental statistics: emissions, resources, land use
3. Energy statistics
4. Transport statistics
5. Agricultural statistics
6. Trade statistics
7. Household statistics

8. Company statistics, the business register
9. Government statistics: budget
10. Environmental protection expenditure and investments
11. Social statistics (employment, health, income)

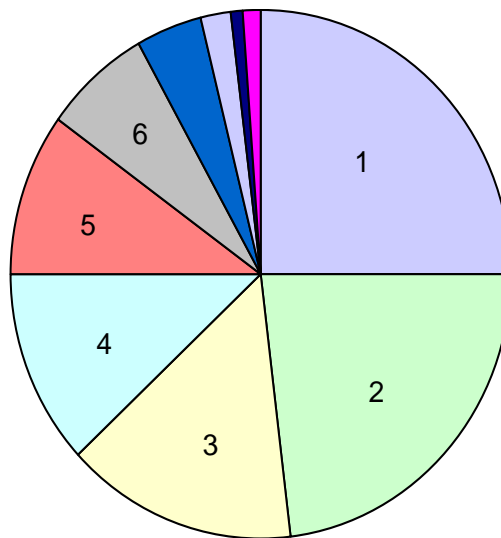


Sectors - Production - Consumption

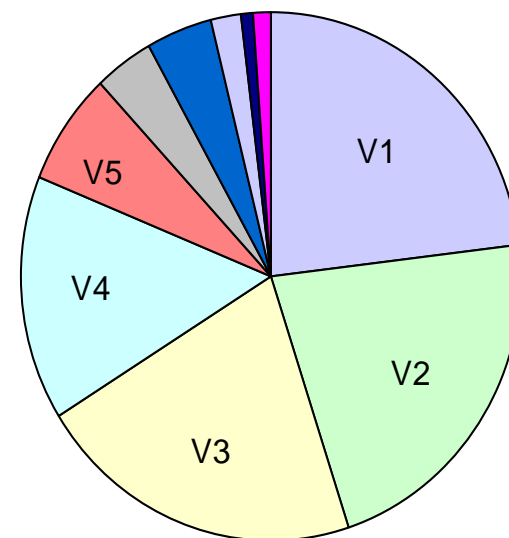
Sectors



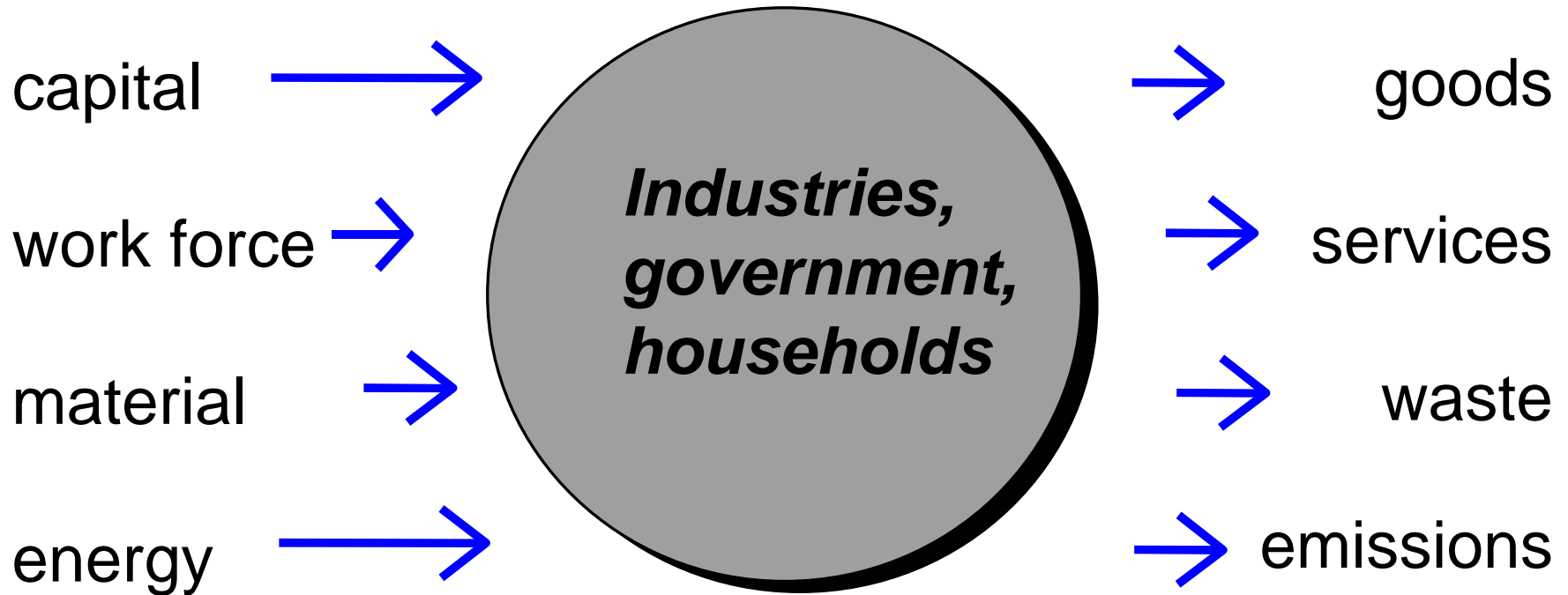
Industries/actors



Product/service



Integrated analyses

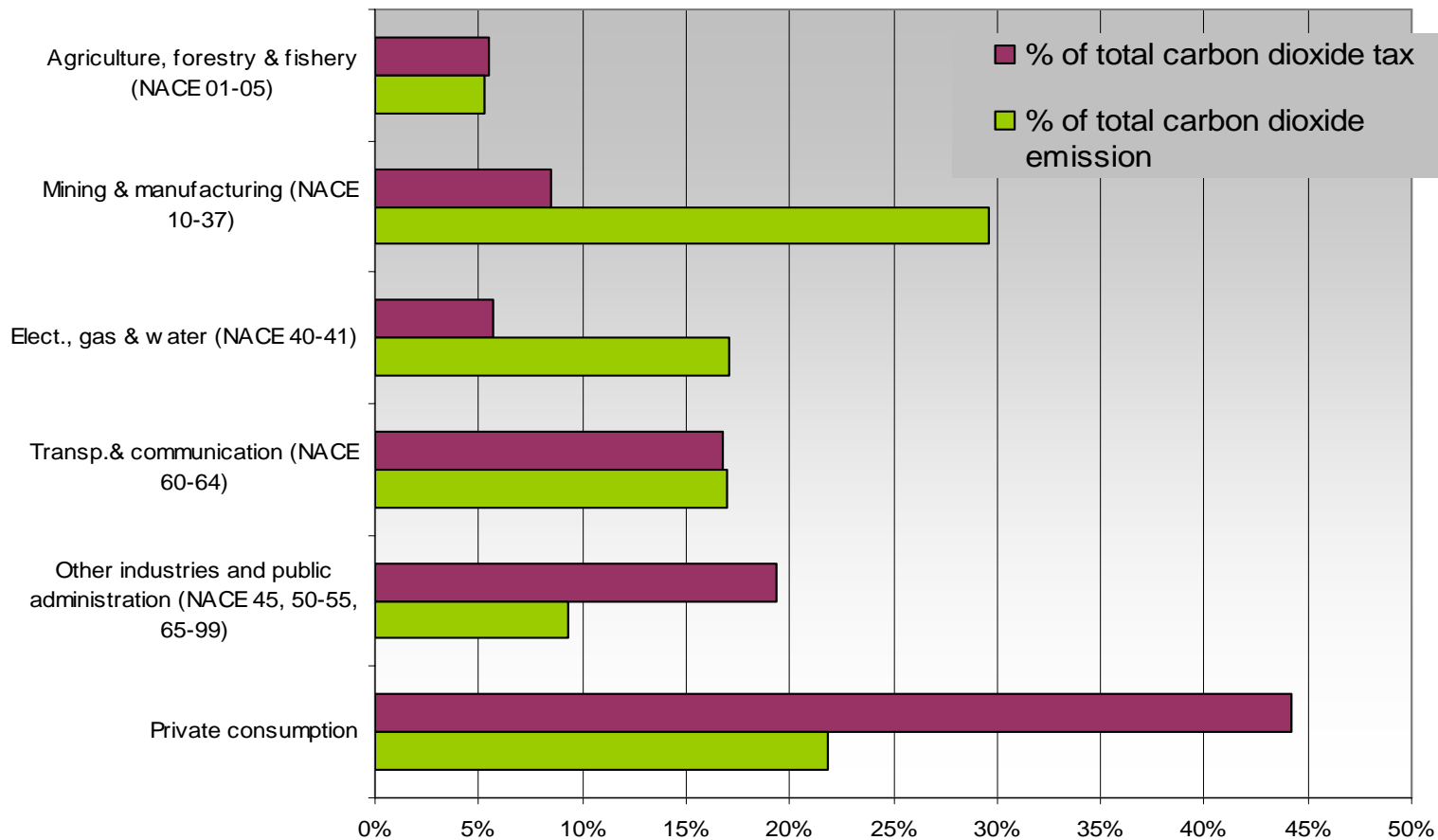


CO2 tax and CO2 emissions by industry



Statistics Sweden

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Regular publishing

- **Energy use per industry and final demand**
- **Emissions to air**
- **Environmental taxes and subsidies**
- **Environmental protection expenditure**
- **Environmental goods and services**

Environmental Accounts




Introduction

What is Environmental Accounts?

- ☑ Selection of data series
- ☑ Classifications
- PC-Axis

Environmental Accounts data

☑ *From the production side*

 By industry

☑ *From the Final Demand side*

 Domestic

 Total

☑ *From Private Consumption*


 Domestic

 Total

Simulating emissions

Background

☑ Run the model

 7 sectors

 52 sectors

About the Application

Introduction

Welcome to the data and analysis site for the Swedish Environmental Accounts.

You can look at and download data on emissions, energy use etc as well as look at indicators, decoupling etc.

Under **Introduction** you can look at the types of emissions, energy and economic variables that are in the database as well as the NACE and COICOP classifications we use.

Under **Environmental Accounts data** you find the data presented either by industry or calculated by product group for Final Demand or Private Consumption using Input-Output analysis.

Under **Simulating emissions** you find a simple simulation model for looking at the links between Final Demand, production, energy intensities and emissions.

Under **About the Application** you find help and the version of the application, the texts and the database.

▶ [Environmental Accounts at Statistic Sweden website](#)



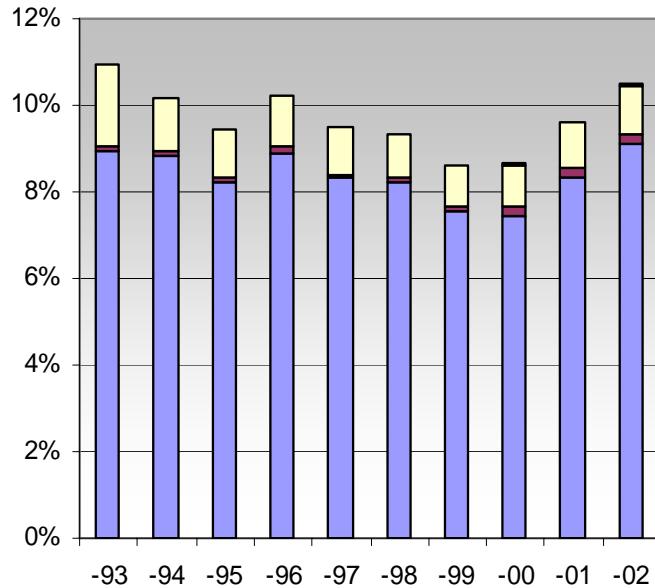
Climate relevant analyses

- Economic instruments: subsidies to green fuels, to fossil fuels, energy taxes, green tax reforms (changing tax from employment to energy)
- IO-analyses: decoupling & decomposition analysis
- Household and public consumption
- Environmental goods and services
- Modelling environment/economy

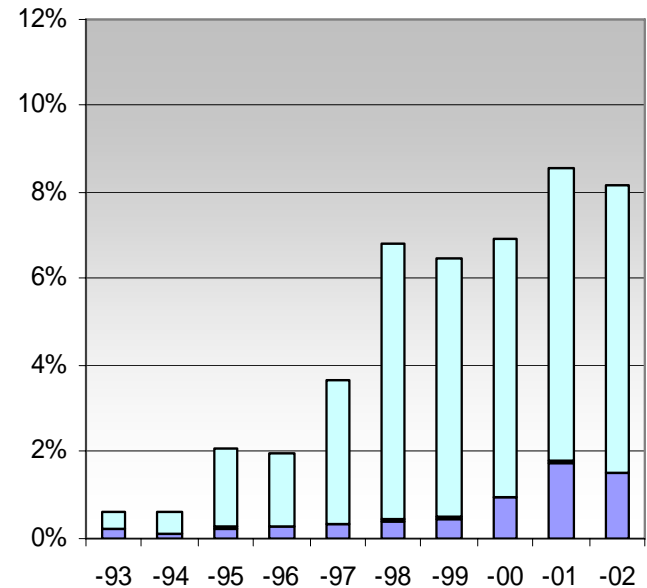
Environmental taxes and subsidies – percent of total



Environmental taxes



Environmentally motivated subsidies



Four climate change and basic statistics challenges

1. Increase availability of data to analysts and modelers. Need for international cooperation. Free access to moderately aggregated data.
2. Engage more with users. Explanations of underlying factors. Knowledge about integrated analysis must be strengthened. Requires new types of expertise in staff. Increased quality through internal cooperation.
3. Include social effects into the dominating environmental economic perspective. Needs investigation.
4. Keep a good balance between the demand for detailed data and the protection of individual and company data.

Agenda for future action

- Energy taxes and subsidies – No regular reporting to the international bodies. SNA reporting and energy reporting. Could become a standard reporting item.
- Dialogue with users to assess data needs and analyses needs. A ‘new’ user group: the modelers of environmental -economic instruments
- Internal work: organization and harmonized classification across sectoral statistics.
- Coordination of international actions to increase availability of data

Future standard for SEEA

- **Flows of materials per industry (energy, material, emissions, waste)**
- **Economic variables (labour, taxes, subsidies, costs, products and services)**
- **Natural resources (stocks, quality, value)**

Taxes and subsidies in the environmental accounts

Subsidies:

- 1) Product- and other production subsidies
- 2) Investment grants

Taxes:

- 1) Product- and other production taxes
- 2) Other levies (e.g. charges)

3) Tax subsidies

New developments: Energy subsidy types

- *Direct transfers (to producers, households)*
- *Public R&D*
- *Preferential tax treatments*

- *Loans*
- *Trade restrictions*
- *Price controls*
- *Infrastructure*

Source: Energy subsidies. Lessons learned in assessing their impact and designing policy reforms. UNEP 2004.

A tentative table for SEEA subsidy reporting. Work-in-progress draft

Nace/ final demand categories	Agric, fishing, forestry	Indus try	Ene rgy	Trans port	Public expenditure	Private consumption
A. On-budget						
Current transfers EM/ PED						
Capital transfers -EM -PED						
B. Off-budget						
Preferential tax treatments -EM -PED						
Full external cost reference value estimate -PED	EM: Environmentally motivated, PED: Potentially environmentally damaging ,					

Conclusions

- Issue paper on subsidies will be presented in September for the London group.
- Suggestion for newly defined SEEA subsidies
- Both on and off-budget
- Both environmentally motivated and potentially damaging subsidies.