



# Climate change-related indicators and System of Environmental- Economic Accounting (SEEA)

Research agenda

## Identifying fossil fuel subsidies for SDG reporting

Viveka Palm

Deputy Director Regions and Environment,  
Statistics Sweden

Adjunct professor KTH, Stockholm

Member of IAEG-SDG, The Inter-Agency  
Expert Group for the Sustainable  
Development Goals



# The 17 SDG goals and SEEA

- |     |   |                   |
|-----|---|-------------------|
| 1.  | Poverty                                       | Basic human needs |
| 2.  | <b>Agriculture</b> , food security            |                   |
| 3.  | Health  |                   |
| 4.  | Education                                     |                   |
| 5.  | Gender  |                   |
| 6.  | <b>Water</b>                                  |                   |
| 7.  | <b>Energy</b>                                 |                   |
| 8.  | <b>Growth</b> and employment                  | Economy           |
| 9.  | Infrastructure and <b>innovation</b>          |                   |
| 10. | Inequality                                    |                   |
| 11. | Cities  | Environment       |
| 12. | <b>Sustainable production and consumption</b> |                   |
| 13. | <b>Climate change</b>                         |                   |
| 14. | Marine areas                                  |                   |
| 15. | <b>Land</b> degradation and biodiversity loss |                   |
| 16. | Peace, justice                                | Society           |
| 17. | Governance – including statistical capacity   |                   |



# Task force on climate change-related statistics and indicators

- CC indicators and underlying statistics from SEEA is of interest to make analysis and to look at the driving forces and how they connect to the emissions.
- Since the economic activities are the main reason for the use of fossil fuels, the possibilities to see the use of resources, the energy and carbon tax, the fossil fuel subsidies and the emissions from all the industries.
- Development of global databases for SEEA data, Eurostat have them, OECD are building them.
- Global implementation is a key
- Some indicators in the SDG follow up



# Agenda 2030 Goal 12

Indicator 12.c.1: “Amount of fossil fuel subsidies per unit of GDP”. UN Environment is custodian for the indicator. International subsidy data available from collections of IEA, OECD, World Bank, IMF

A task force of NSI:s are now sharing experiences and testing methods, assessing whether such data may be able to be compiled via SEEA.

Report will be written during 2019.



# London group research issue

## Climate change

### A) Methodological issue

New data is requested under the SDG goal 12 – to monitor the amount of fossil fuel subsidies paid by government to society. The SEEA CF has the capacity to inform on this indicator.

### B) Status

The possibility of measuring ‘Potentially environmentally damaging subsidies’ is referred to in the SEEA CF (§4.147). It mentions that some definitions include implicit (or indirect) subsidies, such as preferential tax rates.



# Country studies available

- The countries in the Task Force are Canada, Germany, Ireland, Italy, Kirgizstan, New Zealand and Sweden.
- We have also had exchanges with Eurostat and OECD on methodology.
- Interested to be part of the work in the future by sharing experiences? Contact me.



# SEEA fossil fuel /GHG transfers

1. On-budget transfers: from the state to industry (as SNA subsidy definition), but also including transfers to international beneficiaries, households as well as capital transfers (investment grants)
2. Tax abatements: can be estimated with extra data on energy taxes paid by industry, combined with energy use or carbon dioxide emissions by industry. With national excise tax, energy taxes, carbon taxes, ETS as a basis. Possibly compared to an international price reference.
3. Other Greenhouse gas emissions by industry from SEEA can also be added.



# GHG emissions

- Fossil fuel emissions is what is being asked for in SDG follow up – results show that carbon taxation of fossil fuels vary substantially between fuel types and by industry.
- SEEA can also incorporate tax abatement for fossil fuels used in international transport.
- Other climate gases are possible to analyze with the SEEA, notably methane from agriculture and emissions from biofuels.



# Results

- Data availability for energy and emissions is good
- Data availability for fossil fuel transactions are good but more variation of national systems
- SEEA can broaden the analysis by including other climate gases than CO<sub>2</sub> and other economic instruments.
- A proposal is to make use of table 4.8 in the SEEA CF and adapt it to include tax abatements (implicit subsidies).

