

Policy Uses
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Viveka Palm

Policy uses in the Swedish SEEA

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Introduction

In 1993, Statistics Sweden (SCB), the National Institute of Economic Research (NIER) and the Swedish Environmental Protection Agency (SEPA) were instructed by the Government to prepare a study covering the physical links between the economy, the environment and natural resources, the monetary reflection of these relations, and the state of the environment.

The environmental accounts at SCB are a system of physical accounts that are linked to the economic activities described in the national accounts. This system of environmental and natural resource statistics is linked to the industry, product and sector categories used in the national accounts, thus forming a satellite system of accounts.

Data that are produced every year

- Energy statistics
- Air emission statistics
- Economic statistics
- Employment statistics
- Chemical product indicators
- Input-output tables
- Environment industry

Data that is presented with approximately 3-5 years interval

- Natural Resource Accounting Statistics
- Water emissions
- Waste statistics

Data that awaits funding

- Material flow statistics

The data collection is complemented by special analyses, such as the underlying factors of trends, analyses of different aggregates of the data and of different regional analyses.

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The aim

The aim of this presentation is to reflect on the institutional setting and the policy questions that have promoted the use of the physical environmental accounts data during this time. What can be done to enhance the use of data further?

Institutional setting

To start with defining what we mean by increasing the use of the data by making it more policy relevant. Our notion of policy use can be expressed as: 'putting the data in forms so that it answers frequent and relevant questions in the area'. In order to understand what questions are of importance several institutional groups and habits have been created.

At the start, the work was defined partly by a report made on Commission from the Swedish Government. The report covered many areas and recommended that data of particular topics should be generated. However, at the same time, it was acknowledged that an international practice would evolve and that a great deal of freedom must be left for the accounts to adapt to these new practices or standards. A reference group of researchers with interest in environment and economic topics was established. This group surveyed the first years of development and gave comments and recommendations on the work. Some of them were also directly involved in using the data in modeling efforts.

After a couple of years the group was not as active as in the beginning and new types of groups were formed to try and establish similar functions. The London Group has of course been one of these points of references. Other important contacts have been those of prominent environmental accounts in other countries, e.g. Holland, Denmark, Norway, Finland, Germany and the UK, often under the realm of Eurostat Task Forces on various topics.

Today, Statistics Sweden has advisory groups to all the official statistics. The environmental accounts advisory group meet two times a year. The head of the advisory board, Mr Alf Carling, who is a senior expert on environmental economics with a large record of doing work for different government committees, is also available for consultation on a more regular basis. It consists of people from the department of finance, department of industry and the department of environment, the Swedish EPA, the NIER, the WWF, Stockholm University and a representative from Västmanland, one of the counties in Sweden. The participants are asked to contribute for a period of three years.

Besides these meetings, we also use reference groups for some of the reports that are produced. This has generated increased contacts to people in the authorities that we may not otherwise have worked together with.

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Reporting

The data is published in **official statistical publications** that give a general overview of Swedish society. The data are also published free in data-bases on the web-site. Many of the publications are also available there. We have a common series of reports together with NIER and SEPA where we publish data and analyses to show what can be done.

An electronic **newsletter** (in Swedish) is produced about four times a year where new publications and new projects are described.

The use of **press releases** is a way to spread the main results of the development work to the Swedish media. Whenever a report is released from the environmental accounts, a press release is sent out, and is usually cited in many newspapers. The citations are collected by our press service so it is possible to see how it was presented.

Contacts with **government commissions** on relevant issues. SCB has an organized service to inform on the government commissions on various subjects. If the subject has connections to environmental accounting we make contacts with the people involved and inform them of data and analyses available.

Network for environmental economists and for LCA-practitioners

We participate in several networks and occasionally we present our work in seminars that are being arranged by these.

The main national Users and Uses

At Statistics Sweden a report was made in 2001, partly on the commission from Eurostat, to investigate and report on the users and uses of the Swedish Environmental Accounts. Some of the results from that report will be discussed. The data have found many different uses and the reports are read by a number of people who uses them to keep themselves updated on environmental accounting in Sweden.

NIER is a public organization that does analytical work for the parliament and other government bodies. Their Division for Environmental and Resource Economics has been a major user of the accounting data from the beginning of the work, and they have served on the steering committees that set up and managed the accounting work.

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NIER have mainly used economic data, energy data and air emission data so far. For evaluation studies the forest account data has been used. A medium-term economic forecast model has been developed, which takes environmental aspects into account. The model uses environmental accounting data to link air emissions to productive sectors and assess the economic impacts of different environmental goals. It also is linked to transportation models, since transport is a major source of pollutant emissions and a key input into production. NIER have used this to assess the implications of Kyoto Protocol targets for economic activity. Their wish is to include more types of data, e.g. environmental taxes, in future work.

The Ministry of Finance routinely undertakes medium-term economic forecasts based on a general equilibrium model developed at NIER, which includes some environmental aspects as described above.

The Swedish Environmental Protection Agency is using information from the environmental accounts in many different ways. In 2001, we made a small email-survey asking its personnel who uses the environmental accounts and for what purpose. Many noted that they used it for general information on economic issues, and when preparing reports or speeches.

The Swedish Government has called for a number of studies based on the accounting data. They have created national commissions on climate change, the Committee on Environmental Objectives, the committee for growth and environment, green taxes and Producer responsibility, all of which have commissioned analytical work relating the economy and the environment. These commissions are central to the Swedish process for identifying key policy issues and analysing strategies to resolve them. Thus the accounting data are feeding into high-visibility public debates about tax policy, climate change, environmental policy and economic growth.

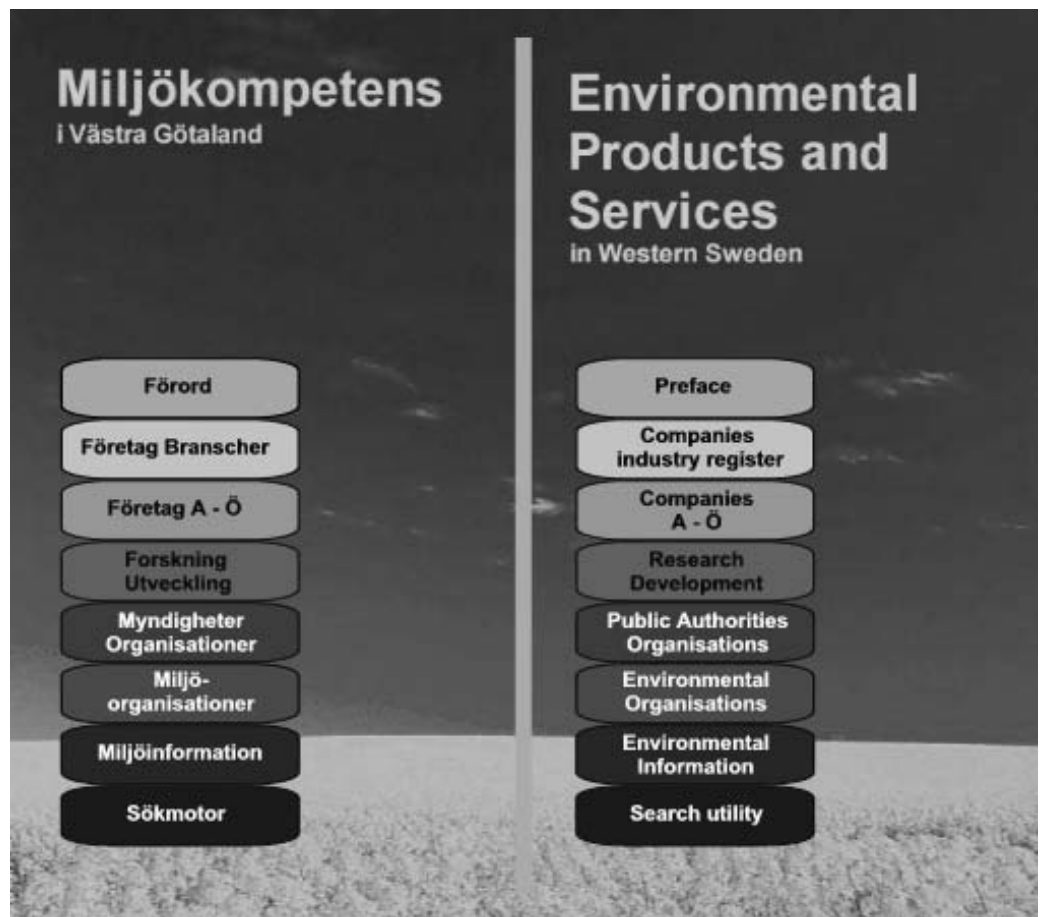
The Swedish Environmental Objectives Council (miljömålskansliet) has asked SCB to make a one-day indicator course for the people involved in setting up a system of indicators to follow up on the Environmental Quality Objectives. In this way we have had the opportunity of showing examples of possible analyses that can be made with the environmental accounts. The course has been very appreciated and up till now

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we have given it on about ten occasions and for approximately 80 people.

The Swedish delegation for sustainable technology (miljöteknikdelegationen), has used data on environment industry. The data is requested by many different actors, some with a regional perspective. For example, the information has been published on regional web-sites (Figure 3).

Figure 3. A web-site describing environmental products and services in Western Sweden.



The Swedish National Labour Market Administration (AMS), has used the estimations on the size of environmental industry in their analyses on employment potential and policy.

The Swedish Trade Union Confederation (LO), has been interested in the linkages between industries and environmental pressure on a seminar on environment and unions, which was

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held together with **The Swedish Society for Nature Conservation**.

The Office of Regional Planning and Urban transportation in Stockholm (RTK), has commissioned work on regional accounting, as a basis for their analyses.

The Swedish Environmental Research Institute (IVL)
Swedish accounting data are being used by consulting firms that advise businesses on their environmental performance. One firm, IVL, has used the accounting data to produce indicators on energy use and pollutant emissions per unit of output for different industrial sectors to help individual firms assess their own performance relative to the norm for their industry, and to help them develop priorities for monitoring their environmental impacts.

The data is also requested by **journalists, universities, political parties, and writers**.

These are examples of national uses, but the data are also used in different international contexts that are not listed here. For a short description of the user needs recorded at the Eurostat ESEA Task Force see appendix.

Future work

The fact that many data sets are depending on the production of statistics from the national accounts has caused problems with the timeliness of the information. Due to extensive revisions and restructuring of the national accounts, the latest time series for air emission accounting data is e.g. for the year 2000. This problem will have to be dealt with, in order to make the information as useful as possible for policy work. A time lag of approximately one year for energy, emission and economic data would be more acceptable.

It becomes increasingly important to make the data available to the users by the means of databases. We already have the publications, which often contain the data that is available until now, on the SCB homepage. This increases availability, and is appreciated by our users. In the future we would like to be able to connect our data also to other national or international data sets.

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Modelling work is deeply needed, in order to understand the coupling between the different areas that are part of the environmental accounts. One major topic will be to investigate the properties of different policy instruments. Other types of analyses will be necessary to understand how economic cycles, structural changes, technological changes and behavioural changes affect the outcome of the system.

Further development of the data collection will be necessary for many areas. Newly established areas such as subsidies, chemicals, water emissions, sustainable development indicators and environment industry are still being formed.

The possibilities for combining different types of resource accounts would be of interest. The use of separate resource accounts has not been that widespread, since different authorities already collect similar information for their own needs. However, an overall resource account may find policy uses that are not covered by existing statistics.

International co-operation is a necessary component in the work. The data needs to be internationally comparable. The environmental accounts are well suited for analyses of factors that work on an international level. In the future, we hope to be able to link the Swedish environmental accounts to our trading partners and thus give a more full perspective on the links between environment and economy.

Summary

The data have been used by a variety of actors in Swedish society and has made new analyses possible, which could not be performed with earlier statistics. Future work will, together with refining of the methods to produce the data that is now in the system, be concentrated on getting more timely data and on refining the underlying factors behind the changes in environmental performance.

It is important to present the results in forms that are available for readers without statistical backgrounds to enhance the uses of data. Reports with text and tables together are preferred for many of our users. This also means that recruiting people with expertise from research or policy uses can be valuable.

The areas that receive most interest in Sweden at the moment are:

- Economic instruments: taxes and subsidies, green tax reforms

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- Indicators: accounting as a basis for sustainability indicators, social issues
- Chemicals policy: chemical product indicators
- IO-analyses: decoupling & decomposition analysis
- Resource policy: water accounts on catchment/ water district basis
- Sectoral policy: households and Integrated product policy measured from the consumption side
- Modeling: trade emissions, long term economic survey, water accounts

To increase the use of the SEEA it is important to increase and maintain contacts with the consulting and research community. In order to make contacts with large organizations with international policy goals on sustainable development, a coordinated effort would be preferred. Obstacles for use of environmental accounts data on the international level may be that established environmental reporting for international agreements often are based on a non-economic sectoral approach. Still, it is vital for making better policies that the environment economic interaction can be displayed.

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Appendix

The EUROSTAT Task Force ESEA

The ESEA Task Force met 3 times in 2001 and 2002 to develop recommendations for environmental accounting. The focus was on identifying user needs and improving the links between policy needs and European environmental accounting to be achieved through efficient use of available data in priority areas where the statistical system has a comparative advantage.

The ESEA Task Force undertook a comprehensive review of uses and user needs at EU and national level. Identification of EU user needs was facilitated by the participation of DG Environment, DG ECFIN and the European Environment Agency in the work of the Task Force.

The policy trends relevant for environmental statistics and accounts were found to include:

- Problems that require longer-term attention and where regular observation of changes over time and in structure is important (e.g. energy use and climate change, transport, resource productivity), including observing sectoral developments over time (e.g., eco-efficiency of industries in time series).
- Policies are moving towards using State of the environment indicators as targets in some areas (e.g., biodiversity, water quality) thus requiring integrated data-sets that link the economic actors, the environmental pressures, the societal actions and the state of the environment,
- Integrated assessment of policies (cost – benefit analyses, joint analysis of economic, social and environmental consequences).
- The concepts of decoupling, eco-efficiency and resource productivity receive increased attention.
- The focus on theme-specific reporting (transport and environment, waste and natural resource use, etc.), address the contribution of economic development and structural change as key drivers of environmental change and on international aspects such as the environmental burden displaced through imports and exports. All these require integrated data sets.

Understanding user needs requires that statistical bureaus identify the longer-term visions of policy, translate these into specific data requirements and develop data sets for this demand. In practice, many concrete uses can only develop once the data are available.