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Cover Note for Session 4.d -
Data Compilation and dissemination

Session Organizer: OECD

(for discussion)

**COMPILATION AND DISSEMINATION OF
SEEA-BASED DATA AT GLOBAL LEVEL**

Session goal

Discuss how best to compile and disseminate international SEEA-based data; agree on the data sets that should be given priority and on next steps. This session is closely related to the discussions on international cooperation (session 5), on global databases (session 2) and on capacity building (session 4b).

Background

At its tenth meeting in June 2015, the UNCEEA considered SEEA-based data dissemination at the international level as an important step in the promotion and implementation of the SEEA. It suggested that selected economic and environmental data already stored in international databases (regional, global) could be used as a basis (in association with modern technology, open data and SDMX), and that priorities should be established for selecting a small set of accounts whose data could easily be brought together and disseminated to showcase the SEEA. This was further supported by the UNSC at its 47th session in March 2016.

Purposes

Bringing together international data from selected SEEA accounts can serve several purposes that go beyond encouraging the implementation of the SEEA and showcasing its usefulness.

First, it helps provide coherent data for use in international work, in particular for:

- Policy analysis and assessments (economic analyses of environmental issues; analysis of structural changes and of productivity growth; assessment of policy integration and coherence; country reviews; …).
- Monitoring progress towards green growth and towards the SDGs, and communicating major trends to a broader audience.

Second, it helps provide harmonised international data for use in national work, and facilitates international comparisons and benchmarking, and hence the exchange of experience and lessons learned.

Requirements

a. Cost-effective and pragmatic arrangements

To be successful, the processes put in place to compile SEEA-based data need to be cost-effective and pragmatic. They should use existing work and cooperation arrangements, by applying the subsidiarity principle and adopting a layered approach. This requires:

- Shared views on priority topics and accounts considering information demands and data availability (demand-supply relationship)
- Harmonised compilation formats and database structures (core tables and variables)
- Harmonised methodologies, classifications and terminology
- Agreements on data sharing and/or transfer mechanisms.

It also requires a good understanding of the resource implications of establishing and maintaining global SEEA-based data sets and of carrying out additional work for example on methodological developments and alignments, bridging and conversion tools.

b. Continuity in measurement

A global compilation of SEEA-based data also requires continuity in the related international data production and dissemination efforts, including regular updating at agreed frequencies, appropriate funding and proper integration into the programmes of work and budget of the international organisations involved.

Priority setting

a. Criteria

The criteria for selecting a small set of SEEA-based data that could be brought together for global use and dissemination include the following:

- Data availability: the availability of SEEA accounts and SEEA-based data at international level, or the availability of coherent source statistics for populating SEEA accounts and of tools to adjust existing data to the SEEA principles (e.g. bridging and conversion tools such as the PEFA builder).

  Here a distinction may need to be made between what could be achieved at a broader international level (data available for a large number of countries or easy to be made available in the short term), and what could be achieved at a narrower international level (data available for a limited number of countries) but could still showcase the usefulness of SEEA-based data and support international policy work at regional level.

- Concepts and methods: the availability of concepts and methods that are robust and mature, and that benefit from an international consensus about their validity.

- Policy relevance: the relevance of the data for monitoring progress towards commonly agreed goals and objectives, and for supporting international policy work and analysis.

- Costs: the resource implications (staff, expertise, funding) of compiling the selected international data sets.

b. Candidate accounts and data sets

Using these criteria and on the basis of the *Briefing Note* [BK/4d(2)] one can distinguish between accounts and data sets that could be brought together in the short term, i.e. over the next 2-3 years (low hanging fruits), and other relevant accounts and data sets that have the potential for being brought together in the medium (3-5 years) or longer term (5-10 years). See also Table 1.

Low hanging fruits (feasibility: short term)

Physical flow accounts:
   – Material flow accounts (economy-wide, by material)
   – Energy (from balances to accounts)
   – Greenhouse gas and air emissions (from inventories or energy statistics to accounts)

Other relevant accounts/data sets (feasibility: medium to long term)

Physical flow accounts
   – Material flow accounts (economy-wide, indirect flows, footprints)
   – Waste generation by industry
   – Water use by industry (supply)

- Material flows by industry

Monetary flow accounts
- Environmental tax revenues (macro-level)
- Environmental protection expenditure

In addition, the medium to long term prospects for compiling other SEEA-based data from Eurostat's work, from the World Bank's WAVES project, from OECD work on natural asset accounts (sub-soil assets: energy, minerals), from the SEEA-AFF and from joint activities by the FAO and the UNCCD could be reviewed (e.g. land accounts).

c. Proposed focus areas

The proposal would be to start work in the three areas qualified as long hanging fruits: **material flows, energy and air and GHG emissions**. In all these areas, international cooperation and joint work already exists, and a layered approach for data collection is in place.

- For material flows, economy-wide accounts are regularly collected and produced by Eurostat (legal basis) and the OECD, and more recently the UNEP International Resource Panel (IRP). Cooperation is in place to further develop methodologies for measuring demand-based material flows (footprints) and to set-up an international statistical infrastructure for doing so.

- For energy, physical energy flow accounts (PEFA) will be regularly collected and produced in Europe by Eurostat (legal basis). Data for compiling energy balances are regularly collected by Eurostat, the International Energy Agency (IEA) and UNSD, and could be used as a basis for compiling simplified accounts for OECD and other countries. This would require additional work to develop harmonised bridging tables or conversion tools (e.g. a simplified version of Eurostat PEFA builder) as well as training and capacity building in countries, in particular those with less advanced energy statistics.

- For air and GHG emissions, accounts are regularly collected by Eurostat (legal basis) and compiled by the OECD (selected countries). Further work would be required to extend the country coverage. This could focus first on carbon and other GHG emissions and could be done by using national emission inventories as source data in combination with bridging tables, or by using IEA energy data in combination with national accounts or IOTs (exploratory work on carbon emission accounts being carried out by the OECD).

Global compilation and dissemination

Global compilation of SEEA-based data in the three proposed focus areas could concentrate on relatively simple SEEA core tables with focus on data that underlie selected international indicators. These core tables could be extracted from the databases of the various author organisations and be brought together on a common platform or data portal with links to the websites of the author organisations.

In the long term, the UNCEEA may wish to consider an expansion to a more detailed multi-purpose SEEA database for use in policy analysis and research.

International coordination and collaboration

To coordinate the activities related to the production of international SEEA-based data, existing arrangements and thematic groups can be used. These include for example the Inter-Secretariat Working Group on environment statistics for coordinating work on environmental source data; InterEnerStat for coordinating work on energy statistics and balances with links to energy accounts; OECD/Eurostat cooperation and joint work on environmental data and accounts; OECD/UNEP IRP/Eurostat cooperation and joint work on material flow accounts, etc.

The UNCEEA could develop a roadmap for global compilation, guide further developments and review the progress made at its annual meeting. Depending on the topic and the required development, the Technical Committee or the London Group could also be involved.

Implementation in countries

The implementation of the selected priority accounts in countries will be essential. To help countries get started and establish simplified accounts, the SEEA core tables and the technical notes could be useful tools. They would however need to be further reviewed and adapted, be complemented with other tools such as simplified builders, bridging tables, transfer matrices, and appropriate training and capacity building. Concerning energy for example, countries could be encouraged to construct both their own energy accounts and their own energy balances.

Quality assurance

An important question relates to the quality assurance of those SEEA-based data sets that will not be collected from countries but be compiled by using source data in combination with harmonised conversion or bridging tools (e.g. air emissions) or in combination with harmonised calculation methods and conversion factors (e.g. material flows). How can quality be best ensured and by whom? The use of harmonised methodologies that benefit from an international consensus is often considered as sufficient to ensure an appropriate quality and comparability for use at international level. When countries produce their own accounts and calculations, the results obtained may differ. This needs to be clearly explained and documented, and taken into account when using the results and communicating them to a broader audience. Depending on the topic, an additional quality assurance with countries could be envisaged.

Dissemination and communication

SEEA-based data can be disseminated both at global level (via UNSD and the UNCEEA, or other IGOs) and by the various author organisations such as UN regional agencies, FAO, the World Bank, OECD, Eurostat, the European Environment Agency, etc.). Main dissemination tools include web-based data portals and databases, headline indicators and country profiles, as well as flyers, brochures and the policy reports that use SEEA-based data.

While it is common to group data from accounting under a common header in statistical databases, communication and dissemination is usually done by theme and by country, not by tool. What counts is the information value of the data and the messages conveyed by the indicators and the associated policy analysis. This raises the question of how to disseminate and communicate SEEA-based data, beyond simply providing easy access to the data.

Issues for discussion

The issues to be discussed by the UNCEEA relate to (a) the datasets that should be given priority; (b) the type of international cooperation that would be needed; (c) the assistance that could be given to countries; and (d) next steps.

a. Priority datasets

Which SEEA-based datasets could "easily" be brought together to establish an international core database and/or data portal?

- Which topics and accounts could be given priority in the short term (i.e. the next 2-3 years)? Does the Committee agree on moving forward with core tables on material flows, energy, and air and GHG emissions?

- Which topics and accounts could be considered in the medium term (i.e. the next 3-5 years)?

b. International cooperation

- How could international organisations best collaborate to
  - Ensure that the SEEA-based core data that they maintain can be brought together at international level and be made easily accessible?
  - Ensure that source data for international use continue to be collected and compiled in a coherent and cost-effective manner?

- What would be required to coordinate international activities? Can existing Inter-Secretariat Groups and cooperation arrangements be used to coordinate international work on SEEA-based data sets and source data (e.g. the Inter-Secretariat Working Group on Environment Statistics, InterEnerStat, OECD/UNEP/Eurostat collaboration on material flows)? Would a new Inter-Secretariat Working Group be useful?

- What would be required to assure the quality of international SEEA-based data, in particular those based on calculation models and conversion factors.

c. Assistance to countries

- How could the SEEA core tables be best used to help countries get started and establish simplified accounts in key areas? What other tools would be needed to assist countries (e.g. simplified builders, bridging tables)? How could the Technical notes evolve to assist countries?

d. Next steps

- What are the next steps to be taken as regards the selected priority datasets?

- What would the roadmap for the longer term?

Table 1. Simplified overview (based on the *Briefing note on possible global SEEA databases*)
(to be further developed)

Topic and account	Availability	Data sources	Methodology	Agencies involved
Low hanging fruits: available accounts and datasets with mature methodologies				
Material flow accounts: economy-wide (direct flows)	EU countries OECD countries Other countries	• Reporting by countries, legal basis • Extension of EU data set; calculations based on international source data	• Mature • Uses Eurostat methodology	Eurostat OECD UNEP-IRP
Energy accounts	EU countries	• EU: Energy balances and reporting by countries, legal basis (cf IEA/Eurostat annual energy questionnaires)	• Close to mature • PEFA builder (requires additional input data)	Eurostat
	Other countries	• Other countries: could be estimated based on energy balances (cf IEA/Eurostat annual energy questionnaires)	• To be further explored • PEFA builder could be simplified for broader use	IEA UNSD
Air and GHG emission accounts	EU countries; CAN; AUS; progressive extension to other OECD countries	• EU: Reporting by countries • Other OECD countries: use of national databases when available; calculated estimates for other countries	• Mature EU methodology; used by OECD • Estimation methods for other countries to be further explored: inventory based (limited number of countries) or energy and national accounts or input-output based	Eurostat OECD (FAO: agriculture)
Other accounts and datasets (feasibility medium to long term)				
Material flow accounts: economy-wide (indirect flows)	All countries	• Calculated estimates	• Under discussion	Eurostat, OECD, UNEP-IRP
Environmental tax revenues (macro-level)	EU countries; Selected OECD countries	• Reporting by countries; EU: legal basis	• To be reviewed	Eurostat, OECD
Waste generation by industry	EU countries; Selected OECD countries	• Reporting by countries	• To be reviewed	Eurostat, OECD, UNSD
Water use by industry	EU countries; Selected OECD and other countries	• Reporting by countries	• To be reviewed	Eurostat, OECD, UNSD
Material flow accounts: by industry	Selected countries	• Could be estimated by using IO models / MRIOTs	• To be further explored	(Eurostat, OECD, …)
Environmental expenditure	EU countries; Selected OECD countries	• Reporting by countries; EU: legal basis	• To be reviewed	Eurostat, OECD