

Short Note on the Progress in Developing Global Databases for SEEA

Introduction and summary

This note provides a short overview of the progress made in developing Global Databases for SEEA-accounts (Area C), since the 2016 meeting of the UNCEEA. In an annex to this note, the previously agreed objectives, approach, outputs and timetable are summarized. Although progress has certainly been made, it showed to be more problematic to set up the various contact groups, and to organize (physical) meetings, as a consequence of which certain delays in the intermediate goals had to be accepted. On the other hand, the timetable for development of Global Data Structure Definitions (DSDs) still looks feasible. At the end of this note, a number of issues are put forward for discussion at the 2017 meeting of the UNCEEA.

Main progress

A contact group for Area C has been established, with representation from the Eurostat, FAO, OECD, UNECE, UNSD, and World Bank. The group had a teleconference on February 6, 2017, to discuss and agree upon the main objectives. One of the concrete proposals was to set up a Technical Group to discuss existing data flows, and to put forward proposals for the templates¹, which can subsequently be used for the further development of Global Data Structure Definitions (DSDs). In respect of the latter, as noted in the annex, the Ownership Group on SDMX for Macro-Economic Statistics agreed in its December 2016 meeting to take the development of Global DSDs for SEEA on board. This was considered very important, because of the expertise of the Ownership Group in organizing and developing DSDs in the area of national accounts.

It took slightly more time than expected to set up a Technical Group, with the appropriate experts from the contents side and from the technical side, and to organize a meeting where most people could participate. In the end, the meeting took place on June 6 – 7, 2017, in Paris (including teleconferencing facilities). The following organizations were represented: Eurostat, FAO, OECD, UNECE, and UNSD. The main objective of the meeting was to launch the work on global DSDs for SEEA, starting with the priority accounts identified by the UNCEEA at its June 2016 meeting: air emission accounts (AEAs), energy accounts, material flow accounts (MFAs), water accounts and land accounts. The intention is to use SDMX to collect existing data, disseminate official and estimated data, and encourage SEEA implementation at the global level.

¹ The term 'templates' may create some ambiguity. While some use the term in the sense of 'questionnaires' for collecting detailed SEEA information, others use the term as something closer to 'core tables' in the SEEA technical notes (which rather collect a few aggregates and derived indicators). Here, and also more specifically related to work on the development of Global DSDs, templates refer to the first definition, i.e. tables which include the full set of SEEA-data to be collected for a certain account..

The Technical Group first identified the relevant institutions interested in the work on Global DSDs for SEEA. It also constructed a diagram covering SEEA and some non-SEEA data flows. Finally, the group had a first go at the statistical concepts and high-level DSDs (without describing the content of the relevant dimensions, and without optimizing the total number of DSDs to take advantage of similarities among them) for Air Emission Accounts (AEAs), Material Flow Accounts (MFAs), energy accounts and land use accounts. As Eurostat currently collects seven types of SEEA accounts from the countries in its constituency (of which the transmission of six is mandatory), Eurostat has already developed pilot DSDs for AEAs, MFAs and environmental taxes. The first two were used as a starting point for the work of the Technical Group. The next meeting of the Technical Group will take place in the first half of July. It is still considered feasible to finalize the Global DSDs, including the underlying templates, by the end of 2017, possibly running into the first half of 2018.

Also noteworthy in respect of the development of Global Databases is the work that is done by the UNSD and the OECD on the development of methods to compile SEEA-accounts for energy and air emissions for missing countries. Concrete methodology is being tested on the basis of the actual SEEA-aligned results for a number of countries.

Less progress is being made on the agreement of sharing responsibilities for the collection and compilation of SEEA-accounts across international organizations. This process is complicated by a number of reasons: (i) the absence of standard procedures for collecting data, comparable to those in well-established areas such as national accounts; (ii) the need for international organizations to estimate statistics for missing countries; (iii) the absence of clear mandates for international organizations to collect nationally available SEEA-data, apart from Eurostat, the OECD and some other specific arrangements; and, last but certainly not least, (iv) the need to align existing data collection and estimation initiatives across international organizations. To agree on sharing responsibilities among international organizations, one must have clarity about the (future) objectives of the organizations involved when it comes to collecting and estimating SEEA-data. It does, however, not interfere with the more technical aspects of the work on Global DSDs.

Issues for discussion at the UNCEEA

In relation to the development of Global Databases for SEEA, the following issues are put forward for discussion at the 2017 meeting of the UNCEEA, of which the first three issues have been put forward by the Technical Group:

- i. It goes without saying that priority will be given to the finalization of the DSDs for the five priority accounts already identified by the UNCEEA. But, given that the next meeting of the UNCEEA will take place one year later, it is considered useful to already reflect upon the development of additional accounts in a second stage.

- ii. Although not part of the mandate of the area C, the UNCEEA may want to give consideration to the extension of the development of DSDs to some non-SEEA statistics, such as air emission inventories and land cover statistics. This may either or not be done in a separate project or work stream, in close cooperation with relevant organizations. In this respect, please also note that developing DSDs for air emission inventories could encourage the UNFCCC to improve its data dissemination.
- iii. Should indicators (e.g. emission intensities) also be included in the DSDs? Note that, even if international organizations prefer to compile indicators by themselves, including indicators in the DSDs could be useful for the final dissemination of the global SEEA databases, and it would be more efficient to include them as soon as possible. If included, this would be limited to standard indicators and be linked to the templates that still need to be developed and agreed upon.
- iv. Does the UNCEEA consider it worthwhile to explore the possibilities of extending the mandate of, for example, the UN agencies to collect nationally available data, via the UN Statistical Commission, in areas not yet or not sufficiently covered and for countries not covered by already existing international data collection processes?
- v. Does the UNCEEA consider it useful to engage (more directly) with other international organizations, which are also involved in the compilation of databases on environmental accounts (or close substitutes)?

Annex

AREA C: Development of Global Databases for SEEA

- Area Lead: OECD
- Members of the group: Eurostat, FAO and UNSD

A.1 Background and main objectives

The aim of the project is to develop globally consistent databases for SEEA-related environmental-economic accounts, in order to provide coherent data sets that can support integrated policy making at national and international level, including the implementation of the SDGs. This is to be done in a way that is cost-efficient for countries compiling the data as well as international organizations collecting and further processing the relevant data, including the use of SDMX-standards for the exchange of data between countries and international organizations.

A.2 Approach

The approach taken is a pragmatic one, and draws as much as possible upon existing global datasets and on established international arrangements to minimize the response burden on countries. It starts with a small set of priority accounts that will be expanded progressively, as more data become available. Such a step by step approach produces short-term benefits, thus creating a momentum for the active engagement of the relevant partners, and providing opportunities for quickly disseminating internationally comparable data for policy and research. As agreed at the 2016 UNCEEA meeting, priority will be given to energy and air emissions accounts, and economy-wide material flows, possibly along with water and land accounts to arrive at an appropriate balance of relevance developed and developing countries.

The process will need to be managed by a small group of international organizations that have expressed interest in contributing to this project: Eurostat, FAO, OECD, UNSD, and possibly others. The group will function under the umbrella of the UNCEEA. At the start, the OECD will take the lead in moving things forward.

In relation to the development of the Global Data Structure Definitions (DSDs) for the exchange of data using the SDMX-format (see below), the Ownership Group on SDMX for Macro-Economic Statistics has agreed, at its meeting held on 13 December 2016 (Luxembourg), to take on board the development of the SEEA-related DSDs, as a consequence of which it is possible to make use of the expertise that has been created in the process of developing DSDs for national accounts, balance of payments, etc.

A.3 Outputs

To arrive at an efficient development of databases for SEEA-accounts, a number of conditions need to be fulfilled and tasks carried out:

- Development and agreement among international organizations on the templates used for the compilation of national data for the relevant SEEA-accounts, including proper consultation with the countries producing the accounts.

- Development and agreement on the tools to facilitate the use of existing data to compile estimates for countries that do not (yet) compile the relevant data themselves (e.g., energy and air emission accounts).
- Development of Global Data Structure Definitions (DSDs) in line with the SDMX-requirements. Here, one could envision a two-track approach, whereby the templates are first transformed in an Excel-format. A gradual implementation of SDMX could then be implemented once the DSDs have been developed, whilst the actual use of SDMX could be enhanced, in a transition period, by providing tools to automatically convert the Excel sheets into SDMX-compliant datasets.
- Agreement among international organizations on the distribution of responsibilities regarding the collection, validation and further processing of national data, as well as – when applicable – the estimation of the relevant SEEA-accounts. The principle that every country only engages with one international organization for the processing of their data should be applied² ³. In this set-up, the relevant international organization also takes care of the further distribution of data across the other interested international organizations, once available for international dissemination⁴. As an example, in the area of national accounts, Eurostat (and the ECB) have assumed responsibility for the EU- and EFTA-members, the OECD for their non-EU member countries and key partners, while the IMF and the UNSD are responsible for the remaining countries. But it is clear that one could think of alternative arrangements, also depending on the type of accounts.

The timeline for the initial development of templates and DSDs for the priority accounts is initially set at the end of 2017. However, this may show to be a far too ambitious planning. The development and agreement on the templates may be agreed relatively quickly, but the subsequent development of Global DSDs may take more time, and run well into 2018.

There are no direct financial implications for the completion of the above project. However, especially the compilation of global DSDs does require human resources for the organizations most directly involved, both content-related skills and technical skills.

² The process described here assumes, in the case data are being compiled by a country, an intermediate validation step by one international organization. In the longer term, using SDMX and built-in validation checks, one could envision an automatic pull-mechanism from the countries' web-services into the various international databases.

³ This should not preclude any direct engagement by any of the international organizations with their member countries.

⁴ Obviously, this requires further agreement on the timeliness and the criteria for validating and further processing the national data.

A.3 Roadmap

Output	Responsible parties	Timeline
Set-up of a more detailed work plan	OECD	February 2017
Assessing availability of information for the priority accounts	All involved	February 2017
Development and agreement on templates (to be put forward to UNCEEA)	All involved	May 2017
Agreement on sharing of responsibilities for collection (and possibly compilation) of priority accounts	All involved	May 2017
Creation of Excel-sheets for agreed templates	To be agreed	September 2017
Development of Global DSDs	To be agreed	December 2017, but more probably June 2018
Further elaboration of (technical) arrangements across international organizations	All involved	In accordance with the above deadline