

Disseminating global SEEA databases on the UN SEEA website

I. Introduction

At the fiftieth session of the UN Statistical Commission, the Commission “Recognized the importance of drawing attention to existing SEEA databases, official SEEA statistics and estimated SEEA accounts through the SEEA website” [E/CN.3/2019/15].

As significant progress has been made the UN Committee of Experts on Environmental-Economic Accounting (UNCEEA) in developing global databases for the priority accounts of energy, material flow, land and air emission accounts, these databases should be showcased at global level and made more accessible. They could subsequently be expanded by water accounts. Developing a common dissemination platform would provide a “one-stop- shop” for SEEA data at a global level, which can then be more easily used for monitoring the Sustainable Development Goals (SDGs), Green Growth or Green Economy policies, and supporting policy coherence and analysis.

The SEEA website (seea.un.org) is the main platform of the UN Committee of Experts on Environmental-Economic Accounting (UNCEEA); it reaches over three thousand users a month. In its communication strategy, the UNCEEA identified the SEEA website as the most appropriate tool for communicating and providing access to detailed accounting data and disseminating associated infographics and data visualizations.

This discussion note proposes a way forward for disseminating SEEA priority accounts¹ through the SEEA website, taking into consideration the roadmap towards establishing global databases. The work is divided into several phases depending on the type of accounts considered (official, estimated). Given that not all countries compile SEEA accounts, there are several aspects to the establishment of global SEEA databases. For example, it requires the collection of official accounts from countries as well as the establishment of estimates for countries who do not compile the accounts. Furthermore, the method of collection of official accounts will differ according to whether the accounts are disseminated through regional/international databases or individual country databases.

¹ Only the five priority accounts identified by the UNCEEA (air emissions, energy, water, material flow and land cover change accounts) are considered in this document. However, it should be noted that the dissemination of other global databases that are aligned with the SEEA could also be considered in due course, such as the global dataset for water-related ecosystems (<https://www.sdg661.app/>).

II. Three categories – three phases of implementation

The data to be disseminated through the SEEA website fall into three categories of accounts. These categories are listed in order of difficulty of implementation and provide a basic order with which to structure the process for disseminating data on the SEEA website.

- 1) Official SEEA accounts, compiled, disseminated and hosted by international organizations (Eurostat, OECD, UN Environment, FAO)
 - a. Eurostat: Air emission accounts, physical energy flow accounts, material flow accounts
 - b. OECD: Air emission accounts (based on Eurostat and on accounts from other OECD countries)
- 2) Estimated SEEA accounts, produced, disseminated and hosted by international organizations.
 - a. UN Environment: Global material flow accounts
 - b. FAO: Land cover change accounts
 - c. OECD: Air emission accounts for selected countries; material flow accounts (based on Eurostat and UN Environment; + material footprints forthcoming)
 - d. UNSD: Energy accounts
- 3) Official SEEA accounts, produced, disseminated and hosted by national statistical offices as a part of the regular statistical production process

This note discusses the process for establishing category one and two accounts. Category three accounts are not addressed here; before dissemination of these accounts can happen, custodian agencies need to collect these accounts from national statistical offices. However, the nature of this data collection is agency-specific. For example, the custodian agencies may undertake data collection in different ways, depending on their resources and the mix of countries that produce official SEEA accounts for their priority area. Thus, category three accounts will not be elaborated here.

In addition, it should be noted that at least initially, the core accounts in the SEEA technical will form the starting point of what is to be disseminated. In particular, at the [11th Meeting of the UNCEEA](#), it was recognized that data compilation and dissemination following the core accounts of the SEEA technical notes would provide a useful starting point for data compilation and dissemination.

III. Phase I: Dissemination of official SEEA accounts

Phase I covers the dissemination through the SEEA website of existing SEEA databases hosted by international organizations. As noted in the document, “Principles for the creation and

maintenance of global SEEA databases on the SEEA website”,² it is proposed that data dissemination between international organizations is done through SDMX, using the SEEA Data Structure Definitions (DSDs).

As UNSD is custodian agency for the physical energy flow accounts, energy will be the first account to be disseminated on the SEEA website. This requires:

- 1.1 Finalization of SEEA DSDs—expected Summer 2019
- 1.2 Testing of DSD transmission and building of UNSD database for physical energy flow accounts
- 1.3 Dissemination of physical energy flow accounts through UN Data.

Once the process has been streamlined for energy, UNSD will proceed with putting air emission accounts on UN Data.³

Since user accessibility is not the main strength of UN Data, phase I will conclude with the construction of a custom dissemination platform for the SEEA website. It is proposed that the development of the platform starts with the construction of a “SEEA Data Explorer”. The data explorer will allow users to look at detailed SEEA tables for individual countries as well as compare different countries across various aggregate indicators. Please see Annex I for a first mock-up of one possibility.⁴

Given resource constraints, it is likely that this work will take place over a period of nine months, from Q4 2019 to Q2 2020. A potential timeline is below.

² “Principles for the creation and maintenance of global SEEA databases on the SEEA website” was produced by OECD for the 14th Meeting of the UN Committee of Experts on Environmental-Economic Accounting. It can be found at: [https://seea.un.org/sites/seea.un.org/files/unceea - principles for the creation and maintenance of global seea databases.pdf](https://seea.un.org/sites/seea.un.org/files/unceea_-_principles_for_the_creation_and_maintenance_of_global_seea_databases.pdf)

³ <http://data.un.org/>

⁴ While data visualizations will be an integral part of the platform, engaging visualizations and infographics will require data for all countries over time, which is an ongoing effort (category 4) in section II). Thus, a dedicated space for data visualizations will be added at a later date.

Activity	9/2019	10/2019	11/2019	12/2019	1/2020	2/2020	3/2020	4/2020	5/2020	6/2020
Development of user interface for energy										
Development of user interface for air emissions										
Development of front page and graphics										

IV. Phase II: Dissemination of estimated SEEA accounts

Phase II will involve disseminating estimated SEEA accounts which are currently available from international organizations. Following the “Principles for the creation and maintenance of global SEEA databases on the SEEA website”, estimated SEEA accounts should only complement official SEEA accounts. The former should not replace or duplicate the latter. Currently, the following estimated SEEA accounts are available:

- [Estimated air emission accounts](#) (OECD)
- [Global material flows](#) (UN Environment)⁵
- [Land cover](#) (FAO)⁶, with a land cover change account to be released in Fall 2019

Currently sea.un.org contains links to these databases. The intention is to integrate these databases into the SEEA website itself and enable users to search for and extract related data directly from the SEEA website. However, links and references to the original databases will be included.

The timeline of this phase will be informed by the experience under phase I. It is suggested to commence with estimated air emission accounts, as the infrastructure needed for transmission will already be in place. It is expected that this phase could take considerable effort and time, depending on how much of the source database is integrated. For example, the FAO land cover database and UN Environment global material flow databases include data visualization components.⁷

⁵ It should be noted that UN Environment will gradually replace estimates with data from official national MFA accounts, and use estimates only to fill data gaps.

⁶ See also OECD: http://dotstat.oecd.org/Index.aspx?DataSetCode=LAND_COVER.

⁷ See <http://www.fao.org/faostat/en/#data/LC> and <http://www.materialflows.net/>

V. Questions for the Committee

1. Does the UNCEEA agree with the overall process laid out above to integrate the various datasets compiled by the various agencies on the SEEA website?
2. What are the views of the UNCEEA on how the databases should be displayed? (Annex I provides one such example).
3. The Committee is asked to consider the extent to which the various datasets compiled by the various agencies should be disseminated through the SEEA website. In particular, certain databases (MFA and land) contain visualization components. The SEEA website could provide access to these visualizations through a hyperlink, or they could be integrated into the SEEA website itself.

Annex I

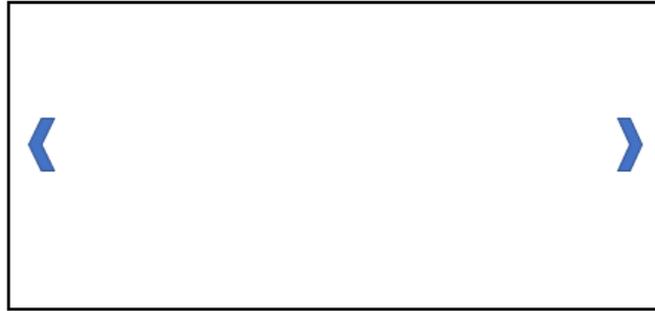
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Home » Data

Data



SEEA Data Explorer

Currently, the SEEA Data Explorer is available for SEEA Energy and Air Emission accounts. Choose an account and data query type:

Energy

- Country profile
- Energy aggregates

Air Emission

- Country profile
- Air Emission aggregates

Other SEEA Databases

- UN Environment International Resource Panel Global Material Flows Database
- Regional databases for the EU
- Air emission accounts for Annex-I (OECD)

*Mock up of a potential front page at the end of Phase I. Data visualizations to be presented in the scrolling box. A separate, interactive data visualization subsite could be incorporated at a later date.

Home » Data

Energy aggregates

Country	Aggregate	Year
<input type="checkbox"/> China	<input type="checkbox"/> Net domestic energy use	<input type="checkbox"/> 2018
<input type="checkbox"/> Brazil	<input type="checkbox"/> Energy efficiency	<input type="checkbox"/> 2017
<input type="checkbox"/> Mexico	<input type="checkbox"/> Total energy use	<input type="checkbox"/> 2016
<input type="checkbox"/> UK	<input type="checkbox"/> Gross energy supply	<input type="checkbox"/> 2015
<input type="checkbox"/> Tajikistan*	<input type="checkbox"/> Net energy supply	
	<input type="checkbox"/> Gross energy use	
	<input type="checkbox"/> Net energy use	

*denotes estimate

	China	Brazil	Mexico
Net domestic energy use_2018			
Net domestic energy use_2017			
Energy efficiency_2018			
Energy efficiency_2017			

Home » Data

Energy physical supply and use table: Country profile

Country	Table	Flows	Economic activity	Year
<input type="checkbox"/> China <input type="checkbox"/> Brazil <input type="checkbox"/> Mexico <input checked="" type="checkbox"/> UK <input type="checkbox"/> Iran*	<input checked="" type="checkbox"/> Supply <input type="checkbox"/> Use	- Energy from natural inputs Natural resource inputs Inputs of energy from renewable source Other natural inputs + Energy products + Energy residuals	<input type="checkbox"/> Agriculture, Forestry, Fisheries <input type="checkbox"/> Mining & Quarrying <input type="checkbox"/> Manufacturing <input type="checkbox"/> Etc.	<input type="checkbox"/> 2018 <input checked="" type="checkbox"/> 2017 <input type="checkbox"/> 2016 <input type="checkbox"/> 2015

*denotes estimate

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Show table

United Kingdom, 2017 Supply Table

	Economic activity		
	Agriculture, forestry, fisheries	Mining & quarrying	Manufacturing
Energy from natural inputs:			
Natural resource inputs			
Inputs of energy from renewable source			