

# SEEA Technical Notes and Core Tables and Accounts

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## 1. Introduction

1. The United Nations Statistical Commission at its 44th session in March 2013 adopted the implementation strategy for the System of Environmental-Economic Accounting (SEEA) Central Framework and, among others, urged the United Nations Committee of Experts on Environmental-Economic Accounting (UNCEEA) to develop technical notes and core tables and accounts.
2. The general purpose of SEEA Technical Notes and Core Tables and Accounts (technical notes) is to summarise, for a given topic, a range of relevant features and considerations within a limited number of pages (e.g. 10-15) to support countries in the implementation of the SEEA. The summary nature is important since the objective is to direct compilers in the right direction rather than to explain all of the relevant implementation and compilation stages. An integrated part of these technical notes is core tables and accounts that provide an overview of the key information and indicators that can be derived from the accounts and constitute the starting point in the development of common reporting tables. The technical notes complement the proposed SEEA Implementation Guide which provides guidance to countries on the steps to take to start the implementation of the SEEA.
3. In 2012 and 2013 some initial work was done on the development of the technical notes by members of the London Group. The Statistical Commission at its last session (March 2014) stressed the importance of finalizing a set of technical notes to support countries in the implementation of the SEEA and requested that the UNCEEA advance this work in close cooperation with Eurostat, OECD Task Force on the implementation of SEEA Central Framework and other existing international initiatives to ensure that the structure and format of the core table and accounts are common although different level of details may be necessary.
4. The aim of this note is to propose a generic structure, timeline and process for the drafting of the technical notes. Guidance is also provided on the core tables and accounts to be included in the technical notes. The technical notes will be submitted to the UNCEEA after having gone through extensive consultations with experts, including the London Group on Environmental Accounting, international organizations and national statistical offices. The relevance and feasibility of the technical notes will also be tested in selected countries. The aim is to finalize the drafting of a set of technical notes by the end of 2014 for the submission to the United Nations Statistical Commission at its next session in February 2015.
5. This paper is organized as follows. In section 2 the work done so far is summarized. In section 3 it is explained what core tables and accounts are and some general guidelines to be used in their construction is provided. In section 4 the template for the technical notes is presented which is directly based on the previous draft template presented to the UNCEEA in 2012. Finally, in section 6 the work process for finalising the technical notes is presented with

regard to prioritization of the topics for the notes, the tasks of the different groups / individuals is described for the drafting process of the SEEA technical notes and a time line.

## 2. Work done so far

6. In 2012 a first draft template for the technical notes was presented at the UNCEEA meeting. This template described a basic structure of the technical notes which should have a common look and feel across different modules. It provided a starting point for the first drafting of the technical notes.
  
7. During the UNCEEA meeting in June 2013 some first draft technical notes were presented for water accounting and land accounting. For the London group meeting in November 2013 'State of the debate' notes providing an overview of existing guidance and current work were prepared for several topics which include important elements for the technical notes. In addition first draft core tables and account for water and energy were presented during the London group meeting. The table below summarises the work done so far and for which topics some first draft material is available.

	State of the debate note	Draft technical note	Core tables included in the draft technical note
Water		X	X
Energy	X	X	X
MFA and waste	X		
Air emission			
Land		X	
Forest			
Environmental protection expenditures	X		
Environmental goods and services	X		
Environmental taxes and subsidies	X		
Minerals			
Aquatic resources			
Tourism			
Agriculture			
Nutrient and phosphorous balances			
Carbon accounting			
Biodiversity accounting			

## 3. Core tables and accounts

8. Following the presentation of the first papers on core tables and accounts during the London group meeting in November 2013 there was some discussion with regard to the nature of the

core tables. This section explains what core tables and accounts are and provides some general guidelines to be used in their construction.

## What are core tables and accounts?

9. The main function of the core tables and accounts is to assist countries in the implementation of the SEEA by making clear to compilers what data is included in the core tables and accounts and what key information can be derived. There is a clear difference between Core accounts and Core tables. Both will be presented and discussed in each technical note.
10. **Core accounts** are the key accounts from SEEA CF that are relevant for the topic of the technical note. For example, the core accounts for the technical note on water accounting are the physical supply and use tables for water and the water asset accounts. In the technical notes these core accounts should be described with regard to the key concepts, structure, accounting identities and classification without going into much detail (with reference to the more detailed description in SEEA-CF or other SEEA manuals).
11. Where possible these core accounts should be presented in a more simplified form (relative to the representation in SEEA-CF) by further aggregating where possible the columns and rows without changing the overall structure of the accounts. For example, the PSUT for water as presented in SEEA CF can be simplified by reducing the disaggregation of water resources in the rows (see table 1.1 in draft proposed core tables for water). The accompanying text should explain where the accounts may be further disaggregated (again with reference to SEEA-CF or other SEEA manuals for more details). It is also important identifying those cells that are either conceptually zero or very unlikely to be measured in most countries. The matrix style of the accounts will generally suggest (to unfamiliar users) that every cell needs a number but in fact this is not the case.
12. The **core tables** provide an aggregated set of data which provides enough information to derive relevant indicators. The data in the core tables directly comes from the core accounts, but is combined with other relevant data sources such as the national accounts and labour statistics. As such, the core tables are not aggregated core accounts although in some cases may look very similar (for example the EGSS table). However, where possible it is recommended to follow as much as possible the structure of the core accounts. This means for example for the water core table to have industries (ISIC), actual final consumption, ROW etc. in the columns, similar as in the water supply and use table.
13. The core tables have three functions:
  - For compilers they provide an overview of the end result of their compilation efforts and help them in deciding what core accounts to compile first.
  - For users of the accounts (i.e. researchers, policymakers, etc.) they present an overview of the key data and indicators that can be derived from the accounts
  - For international agencies they can be used as a starting point in the development of common reporting tables and development of global databases
14. It should be made clear in the text that for new compilers their first focus should be on the compilation of the core accounts from which as a next step the core tables can be filled. In

the text it should also be explained that the eventual aim should be that all data in the core table is populated. However, it is also important to stress that countries may first focus on populating part of the core accounts / core table, depending on policy demands and data availability.

## General principles for constructing the core tables

15. It is not possible to provide one general template for the core tables, as the topics for these tables differ too much. However, some general guidelines may be formulated that can be used in constructing the core tables.
16. *Number of core tables.* The aim is to provide one core table for each technical note. However, this is not always possible. For example, the key results from physical supply and use tables for water cannot be merged with those of asset accounts for water sources in one table. In this case two core tables will be presented.
17. *Physical and monetary data.* Where relevant, the core table combines both physical and monetary data. The structure of these core tables will be based on the combined physical and monetary presentations as described in paragraph 6.5 of SEEA CF. The presentation of physical and monetary information in the same table allows for the derivation of consistent indicators, for example, energy or emission intensities. Using data from combined presentations in economic models permits the analysis of possible trade-offs between alternative water policies and economic strategies.
18. *Keep it simple.* The SEEA core tables must be kept relatively simple, as they primarily aim to assist new compilers and non-statistical users of the data. New compilers might find it intimidating or confusing if the tables contain too much information or are too complex. Keeping the tables simple often conflicts with the notion of trying to put together a broad overview of all relevant data that can be derived from SEEA CF and other related accounts and statistics. In constructing the core tables a compromise has to be found between simplicity and comprehensiveness. The identification of key data points / indicators in the table may be a way of simplifying or providing points of focus in the tables.
19. *Disaggregation.* Similar to the Core accounts the data in the core table is highly aggregated. Depending on a country's situation, rows and columns of the core table should be further disaggregated (e.g. if the mining industry uses significant amounts of water in the production process or discharges emissions to water, it should be separately identified in the core table).
20. *Indicators.* The Indicators and useful aggregates that can be derived from the core table are to be described in the section directly following the description of the core tables and accounts (see below).

## Metadata

21. The provision of metadata for the tables is key to their usefulness. The text accompanying the core tables should also explain the link between the core accounts from SEEA CF (presented in the previous section of the technical note) and the information in the core tables. Additional data sources that are useful for the compilation of the tables and accounts

(primarily data from the national accounts) should be explained. Finally, the key indicators that can be derived from the should be pointed out and explained.

## 4. Template of SEEA Technical Notes

22. The SEEA technical notes should have a common look and feel across different topics. The following template is directly based on the previous draft template presented to the UNCEEA in 2012. The main changes reflect the integration of core tables and accounts into the template.

### 1. Introduction and general description (half page)

Provide a basic understanding of the scope of the technical note including policy relevance and key questions that can be answered.

### 2. Core accounts

In this section the core accounts from SEEA CF are presented and discussed. The relevant accounts from the SEEA CF (the core accounts) are presented and discussed at the appropriate level of industry, product and asset detail. Second

### 3. Core tables and relevant aggregates / indicators

In this section the core table is presented is outlined that takes the key information from the core accounts and also information from other sources (e.g. value added, GDP, population) to provide the basic information set for the derivation of key aggregates and indicators. This section should be linked to the previous section outlining core accounts and the introduction– i.e. the data in the core tables should be able to answer the questions that are posed in the introduction. A link to SDG / Green growth indicators may be useful. This section may also describe some important applications and analyses (and further refer to SEEA Applications and Extensions)

### 4. Compilation

This section should cover a few aspects of compilation. First, a sense of the basic steps in compilation (perhaps a flow chart would be useful) and also a link to the steps in the implementation guide. Second, outlining the key data sources. Third, highlighting the main compilation challenges and pressures points. The aim here is to be summary and point compilers in the right directions for support, wherever possible linking to established materials and guides.

### 5. Extensions and links

This section should note links to other environmental accounts not covered in this technical note. For example, the technical note on air emission accounts might describe the link tot energy flow accounts, the technical note on forests might describe carbon accounting.

This section should also describe ways in which the core accounts might be sensibly extended through additional industry or product detail, geo-spatial extensions, links to social aspects – e.g. by household type.

#### 6. References and links

This section should provide a ready access to relevant materials with weblinks as appropriate. Links to examples of work in countries would also be of considerable benefit.

#### 7. Annex

This section would include a metadata template akin to those done by Eurostat.

## 5. Work process

### 5.1 Prioritization

23. Although quite some work has already been done, the drafting of the technical notes and core tables will still take some considerable efforts. In order to finalize the technical notes before the next Statistical Commission meeting, the number of technical notes that can be finished in time will be limited. Based on these considerations we propose that in 2014 we should focus to draft technical notes and core tables for the following topics:

- Water accounting
- Energy accounting
- MFA and waste accounting
- Air emission accounting
- Land accounting
- Forest accounting
- Environmental Protection Expenditures Accounting
- Environmental Goods and Services Sector
- Environmental taxes and subsidies

24. Carbon accounts and Biodiversity accounts are part of SEEA-Experimental Ecosystem Accounting and thus are not part of the work programme of the Technical Committee on SEEA Central Framework. A technical note on agriculture (including N and P balances) should be developed in accordance with SEEA-Agri which is forthcoming.

### 5.2 Responsibilities

25. Below the tasks of the different groups / individuals is described for the drafting process of the SEEA technical notes

*SEEA technical committee* will provide overall technical guidance to the process by providing general guidelines (this paper), checking and reviewing the technical content of the draft SEEA technical notes and core tables

*London group topic leaders* will collect all relevant material for the topic of their technical note and submit this material to the editor. They will assist the editor when additional questions arise.

*London Group members* will discuss the first draft technical notes during the 20<sup>th</sup> LG meeting

*The editor* collects all relevant material and is responsible for drafting the technical notes and core tables, including revising old drafts based on comments received.

### 5.3 Time line

June 2014 – UNCEEA to review the proposed structure of the technical notes along with draft notes for water, energy and environmental goods and services

July-October 2014 - Editor to draft technical notes with input from London group topic leaders

End of September – Editor finishes the initial drafts of the Technical notes

October 2014 – London group will review and provide comment on drafts of the technical notes

October-November 2014 - Broad consultation on the technical notes

December 2014-Submission of Technical notes to Bureau of UNCEEA for its consideration

### **Specific issues related to certain topics**

- Are the water emission accounts a core table for the technical note on water accounting ?
- Should the technical note on MFA include EW-MFA ? (which as noted in SEEA CF is not fully consistent with PSUT)
- Should the technical note on MFA include only a core table on waste accounts or also the aggregated PSUT ?
- Mineral and natural resources accounting; should this be combined with MFA technical note ?