TYPOLOGY OF PUBLICATIONS SUPPORTING THE SEEA IMPLEMENTATION[1]

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1. Background

1.   At its 47th session the UN Statistical commission "[r]equested the Committee of Experts to finalize the System of Environmental-Economic Accounting for Energy (SEEA-Energy) and the System of Environmental-Economic Accounting for Agriculture, Forestry and Fisheries (SEEA Agriculture)".[1] This request from the UNSC brings forth the need to properly frame the various publications in support of the SEEA implementation with respect to type of publication, style, approach and content. Section 2 provides an overview of the various types of international statistical publications in the environmental-economic sphere or closely related to environmental economics. Definitions of the main types of publications are discussed in Section 3 followed by a discussion of criteria for defining international statistical standards and international recommendations in Section 4. It is an update to a paper presented to the second UNCEEA on the same topic.

2. Overview of types of international statistical publications in the area of or related to environmental-economic accounting and supporting statistics

2.   There is a general convergence of terminology used to denote the various publications in the area of environmental economic accounts. Broadly speaking, we can identify three types of frameworks: (a) output frameworks; (b) cross-functional frameworks; and (c) input frameworks. Output frameworks can be further subdivided into systems frameworks and intermediate frameworks. Figure 1 below provides a broad overview of the relationship between major publications in the area of or related to environmental economics.

Figure 1: Overview of the relationship between major publications related to environmental economics
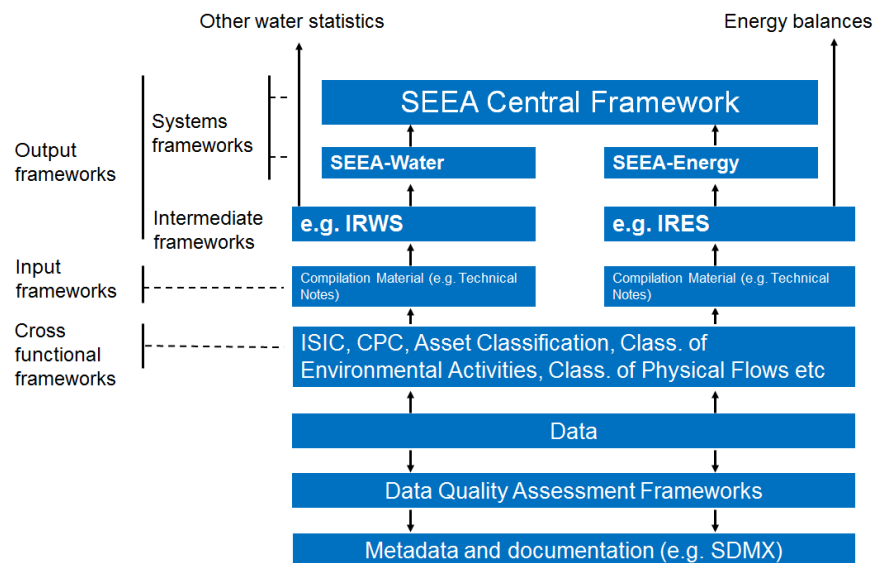
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3.   **Systems frameworks** consist of agreed concepts, definitions, classifications and inter-related tables or accounts integrating broad sets of statistics. They take a system approach to statistics. Examples include the System of Environmental Economic Accounts Central Framework and System of National Accounts. The are usually

4.   **Intermediate frameworks** consist of agreed lists of data items to be collected and published, which are consistent with output frameworks and cross-functional frameworks. They maybe narrower in scope than systems frameworks and present data items at a more detailed level of disaggregation to meet specific analytical and policy needs. An example is the International Recommendations for Water Statistics.

5.   Intermediate frameworks have historically been developed as independent areas of statistics and may cover specific areas of statistics. Increasingly, there have been efforts at the national and international level to harmonize intermediate frameworks with output frameworks to meet the need of national accounting and environmental economic accounting, in addition to maintaining the purpose of addressing specific policy needs. Intermediate frameworks correspond to statistical publications labelled international recommendations. They are either issued as separate publications or presented as part of compilation guidelines or the international statistical standard.

6.   **Output frameworks** which include systems and intermediate frameworks use **cross-functional frameworks** which pertain to agreed classifications (e.g. activities, products and expenditures by purpose), statistical units and sample frames. They include the International Standards Industrial Classification of All Economic Activities (ISIC) and the Central Product Classification (CPC). Output and cross-functional frameworks entail agreed methodology and

7.   **Input frameworks** consist of best practices from countries and provide operational guidance on how to populate the standard tables or accounts of the international statistical standard or collect/compile the data items in the international recommendations. Given the differences in data collection practices and institutional arrangements in countries, they do not entail to international agreement on methodologies but only present best practices.

3. Definitions of main types of international statistical publications

8.   In this section, an attempt is made to define what constitute an international statistical standard, which includes an international recommendation; and guidelines, handbooks or manuals. The difference between the different types of publications is linked to the criteria applied to the statistical frameworks described in Section 4.

9.   The efforts of systematizing the various types of publications and harmonizing different areas of statistics that have historically often developed independently from the international statistical standards lead to the organization of an array of publications in support of the statistical standards. Examples of the suite of selected environmental economic accounting publications is presented in Figure 1 above.

10.   An international statistical standard is an internationally agreed statistical output framework (systems framework or intermediate framework), cross-functional framework, or international recommendations.

11.   A <u>system framework</u> consists of concepts, definitions, classifications and inter-related tables or accounts integrating broad set of statistics. The framework is internally coherent and consistent and externally consistent, to the extent possible, with other international statistical standards.

12.   The <u>cross-functional frameworks</u> constitute the building blocks in support of the organization of the tables and accounts. They provide the conceptual frameworks for classifications, statistical units and sample frames that support the collection and reporting of information.

13.   <u>International recommendations</u> pertain to an internationally agreed intermediate output framework consisting of an agreed list of data items with agreed concepts, definitions and classifications often for a specific well-defined statistical domain. The framework should be consistent with the broader framework of an international statistical standard where such appropriate standard exist. International recommendations differ from international statistical standards because they do not use a system approach which integrates information from different areas of statistics in a common framework. Further they have often a narrower scope and present data items at a more detailed level of disaggregation to meet specific analytical and policy needs.

14.   International statistical standards are established and maintained through a world-wide consultation process involving countries and international organizations to ensure their universal relevance, applicability and feasibility of implementation. When a consensus is reached on all aspects of the statistical framework, it is submitted to the United Nations Statistical Commission (UNSC) for adoption, as are its revisions undertaken at the request of the UNSC.

15.   The major thrust of an international statistical standard is to realize international comparability for a broad domain of statistics by encouraging countries to implement the standard because of its universal relevance at national and international level for policy, analytical and/or administrative purposes. There is the expectation that countries will aspire to implement the standard, in whole or in part, as part of the process of developing internationally comparable and accessible data sets.

16.   A standard should be accompanied by operational compilation guidelines as well as an implementation programme consisting of supporting training materials, workshops and technical assistance programmes to assist countries in basic data collection and compilation for the implementation of the standard.

17.   Whilst UNSC recommends adoption of an international statistical standard, there is no legal framework for enforcing its implementation. However, a data quality framework should be

developed to assess the conceptual compliance with and scope of countries' implementation of the standard which will form the basis for assessing the extent of implementation on a regular basis.

Guidelines, handbooks and manuals

18. Guidelines, handbooks and manuals contain data collection and compilation guidance based on best practices rather than internationally agreed frameworks or methodologies. They belong to the input framework category. The terminology "guidelines", "handbook" or "manual" has historically been used interchangeably; for the ease of reference, the words guidelines and handbook are used in this paper.

19. Guidelines or handbook are intended to provide operational guidance for countries on what is good practice, often involving cases studies and rendering options to reflect the different stages of statistical development of countries. Compilation guidelines, handbooks and manuals are often prepared in support of international statistical standards or international recommendations to provide guidance on implementation.

20. Guidelines or handbook do not have to be submitted to the UNSC before publication although they are often brought to the attention of the UNSC. The expectation on their implementation within countries is not as stringent as for international statistical standards and international recommendations as they often relate to the different situations in countries. When options are provided countries should strive to adopt the preferred methods of collection or compilation.

4. Criteria for defining international statistical standards

21. An international statistical standard should meet the following criteria: a) statistical integration; b) broad institutional process of consultation; and c) relevance. Each of these criteria has national and international applicability.

22. Statistical integration refers to the statistical internal coherence of concepts, definitions, classifications and tables and accounts and external consistency with other statistical standards and international recommendations. The external consistency seeks to establish, to the extent possible, the harmonization among the different types of frameworks in terms of definitions, units, classifications and variables.

23. Broad institutional process of consultation pertains to the national and international consultations of stakeholders to ensure agreement on relevance, utility and feasibility of implementation through advisory committees, city groups and other working groups involved in the process of creating and maintaining the standard for the various statistical (sub) domains. The Statistical Commission is the apex institution of the global statistical system in this consultation process with the authority to adopt international statistical standards and international recommendations.

24.   Relevance is assessed in terms of its universal applicability of the compiled and disseminated data for use of policy planning, analysis and administration. Examples of this use by government, business community, general public and international agencies are the macroeconomic statistics derived from the System of National Accounts.

25.   Care should be taken when drafting international statistical standards to ensure that terms and scope are clearly and unambiguously defined. Concepts should be presented in a consistent and coherent manner to meet the needs of the various user groups.