DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS

System of Environmental Economic Accounting

System of Environmental-Economic Accounting 2012 – Experimental Ecosystem Accounting Revision

First Global Consultation on:

Chapter 6: Ecosystem services concepts for accounting

Chapter 7: Accounting for ecosystem services in physical terms

Comments Form

Deadline for responses: 20 August 2020
Send responses to: seea@un.org

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The comment form has been designed to facilitate the analysis of comments. There are six guiding questions in the form, please respond to the questions in the indicated boxes below. To submit responses please save this document and send it as an attachment to the following e-mail address: seea@un.org.

All documents can be also found on the SEEA EEA Revision website at: https://seea.un.org/content/seea-experimental-ecosystem-accounting-revision

In case you have any questions or have issues with accessing the documents, please contact us at seea@un.org

Questions related to Chapter 6

Question 1: Do you have comments on the concepts and definitions for ecosystem services, benefits, and associated components of the ecosystem accounting framework?

General comments:
The conceptual framework distinguishes benefits from both SNA and non-SNA benefits. When linking these welfare perspectives in terms of accounting, a useful formulation concerns the distinction between outputs and outcomes. In the context of ecosystem accounting principles, an ecosystem services framework addresses the supply of ecosystem services to users and recognizes that ecosystem services contribute to benefits. Although ecosystem accounting does not require recording non-SNA benefits, their description is necessary to identify and measure relevant ecosystem contributions. Ultimately, measuring ecosystem services is linked to the concept of individual and public well-being. In an economic framework, well-being is usually described in terms of well-being and utility, which in turn can be related to the consumption of goods and services as well as getting benefits.

Overall, the chapter is well-prepared summary of the key issues and principles and we think substantial progress has been made in this area.

Specific comments:
Para 6.58
We support the proposed treatment of intermediate services as the focus of ecosystem service accounts should be on final ES. There will be interest to analyse or record intermediate services too in various cases, so their recognition is appropriate. To make their role in the SEEA framework clear we propose that this be complemented with a proposal on how to record them. For example in a separate flow diagram; or as an optional column to the left of the supply and use table?

Question 2. Do you have comments on the content and descriptions in the reference list of selected ecosystem services?

General comments:
The reference list of selected ecosystem services and related descriptions is structured around the three categories: provisioning services; regulating and maintenance services and cultural services. The reference list is not intended to provide a complete classification system for ecosystem services. It is expected that a complete and internationally agreed classification system for ecosystem services will be developed.
There are examples where the fuzzy boundary between two ecosystem services, such as provisioning and regulating and maintenance services, leads to ambiguity. “Water supply services”, which are defined as the combined ecosystem contributions of water purification and water regulation to the supply of water. Otherwise, water purification and water regulation services are part of "regulating and maintenance services".

Specific comments:
Table 6.2:
We believe that among the Biomass provisioning services those that support energy use are insufficiently recognised. Some of that kind of biomass could fall under 'non-timber forest products' but these are generally understood to cover mushrooms, berries etc. Furthermore, there is straw and harvest residues in agriculture, plus energy grasses or short-rotation coppice on farmland (these are not 'crops'..)
So we propose to include a 2nd level category for 'Energy provisioning biomass'. As most other categories at this level also relate to a specific purpose.

Question 3. Do you agree with the proposed treatments for selected ecosystem services described in Section 6.4 for biomass provisioning services, global climate regulation services, cultural services, water supply, and abiotic flows?

General comments:
For wind or sun/solar energy, which are not included in the definition of ecosystem services and are therefore considered as abiotic flows. These abiotic flows can be relevant to the assessment of ecosystem services and the use of specific ecosystems. For example, when producing solar or wind energy, the installation of solar panels or wind turbines will be reducing the potential for a given location to produce ecosystem services.
Recreational services by definition include overlapping with economic activities such as tourism. When a recording of the service is made in quantity or visits or visitors. How to distinguish between local and tourism-related services to reflect the type of visitor interacting with ecosystems (terrestrial, marine, and water). If they are the final ecosystem services or not. According to the UN and Word Tourism Organisation "tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes. Tourism" refers to all activities of visitors, including both "tourists (overnight visitors)" and " same-day visitors".

Specific comments:
Para 6.75 & 6.76
Overall we find the described approach to distinguish biotic and abiotic components of water supply is correct and in line with SEEA principles. We also think the proposal for a service on rainfall pattern maintenance makes sense. However, the contribution of ecosystems to water supply as provisioning service is difficult to identify and relies on regulating and maintenance services. Is it appropriate to use these for identifying the level of a provisioning service? How is that to be seen in a double-counting perspective?

The approaches in para 6.76 seem analogous to the crop provisioning question. In both cases the actual ecosystem contribution is difficult (if not impossible) to identify. For crops we are more comfortable with the proxy as there will be no crops 'without ecosystem' (minus special cases); whereas water (supply) is primarily abiotic in our view. We recommend adding a differentiated 'health warning' to make it explicit both solutions are proxies only.

Question 4. Do you have any other comments on Chapter 6?

General comments:
Ecosystem processes and characteristics that reflect biological, chemical, and physical interactions between ecosystem components are observed and measured but are not flows of ecosystem services as defined in ecosystem accounting, as they require a link to the user. In this conceptualisation, ecosystem services are the contribution of ecosystems to benefits used in economic and other human activities. Ecosystem services are recorded as flows between ecosystem assets and economic units; where ecosystem assets are defined as the contiguous spaces of specific ecosystem types.

Specific comments:
Para 6.81
One relevant cut-off is point for identifying what counts as ecosystem service or as abiotic flow which is not explicitly described is the timeframe of generation of biomass (briefly mentioned in para 6.82 though), of particular relevance to peat.
In the context of CICES and elsewhere we have discussed timeframes of 30 yrs (one generation) or 100 years (one long life) as potential cut-off points. We recommend including this as a general principle as this issue was also brought up in the chat of the last SEEA EEA forum on ES, with peat considered to be of biotic origin..

Para 6.87
We support the principles described for the identification of users for water purification services. However, we understand the concern that the link to the polluting actors be ignored somehow therefore. Hence we propose that it could be noted that the polluter-pays-principle applies (where adopted by governments) independent of the treatment of polluters in accounts. Thus the responsibility of users/managers/owners of ecosystem assets to maintain these in good condition according to environmental legislation or the wider common good is in no way meant to be questioned by following the accounting convention in the application of ecosystem accounts.

Questions related to Chapter 7

Question 5. Do you have comments on the proposed recording approaches for ecosystem services supply and use tables described in section 7.2?

General comments:
Accounting for the supply and use of ecosystem services is highly dependent on data and resources available for the compilation and assessments. This information can inform analysis of the relative importance of specific ecosystems, support analysis of trade-offs between different ecosystem services in spatial planning and land management, and provide information to delineate areas for specific land uses, including conservation and protection. Physical data underpin the monetary valuation of ecosystem services and demonstrate the nature of the expansion of the SNA production boundary used in ecosystem accounting. More generally, they support the inclusion and discussion of broader, non-private benefits of ecosystems.

Question 6. Do you have any other comments on Chapter 7?

General comments:

The clarity in defining ecosystem services more broadly by avoiding duplication in classifying ecosystem services and identifying abiotic flows that are not considered ecosystem services. Any approach chosen requires that linkages between ecosystem services be recorded once and that no double counting is allowed. Registering water supply is considered a final ecosystem service and it may be appropriate to record flows of related ecosystem services, such as water flow regulation and water purification as intermediate services. Alternatively, these input services may be considered as final ecosystem services and water supply as an abiotic flow.

In the examples given in Tables 7.2;7.3;74 ecosystem services contribute to benefits and cover a wide range of services provided to economic units, both households and farmers, as businesses. It would be relevant to give an example where the government would benefit from ecosystem services and use them in a complementary table – "Basic services physical supply and use account".