



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

Name:	Dr. Roberto Morabito (Head of the Department for Sustainability, ENEA)
Organization & country:	Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), ITALY.

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?

It seems (from the glossary) that concepts such as “ecosystem degradation” and “ecosystem enhancement” are related to the change in (monetary?) value of the ecosystem asset. Nevertheless, it may be that value – or WTP – is unchanged even if condition, extent or both are reduced (already covered by “revaluations”). We suggest to link degradation and enhancement to physical rather than monetary measures.

More generally, we see a poor linkage between the structure of Chapters 6-7 and the Chapter 10. Only the latter eventually provides some infos on sustainability that, instead, seems missing in the previous chapters. In fact, when looking at actual rather than potential flows (footnote 2 of Chapter 6), it may be hard to deliver policy recommendation to decision makers (what if there is a reduction in actual flow of a given provisioning ecosystem service? Is it good because there is an increase in policy control? Is it bad because the ecosystem from which the services originates has degraded?), even if the proposed framework is appealing from the academic viewpoint given the high level of detail and complexity.

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

- Chapter 6 acknowledges the existence of several consolidated frameworks for ecosystem services classification (MEA, TEEB, IPBES, NESCS and CICES), but in spite of this, a new reference list for ecosystem services is proposed, to be applied within the SEEA EEA. Although the reasons for not adopting one of the already available classifications are explained in §6.39, the advantages of the introduction of another new reference list for ecosystem services are not fully evident, and need further discussion in this Chapter. In particular, it is stated that "The primary criterion for inclusion in the reference list of selected ecosystem services is that the service is considered to constitute a relevant and material ecosystem service in many countries and contexts". Not only this criterion for inclusion sounds too arbitrary, but its adoption may also encourage neglecting ecosystem services important at local level. At this regard, however, in §6.43 it is stated that additional ecosystem services may be included in a set of ecosystem accounts, if they satisfy the definition of ecosystem services and are within the scope of ecosystem services production boundary. Such clarification further highlights the need to better explain the advantages of introducing a new ecosystem services reference list within the SEEA EEA, but it also stresses the need for Annex 6.1 to be exhaustive in elucidating the correspondence between the proposed SEEA EEA reference list and the CICES and NESCS classification systems, in order to avoid confusion and misinterpretations of the reference list itself.

- §6.46: the proposed definition of "Cultural Services" sounds really unclear, it should be revised by taking into account already existing and clearer definitions such as the one adopted by CICES or MEA.

- Comments on Table 6.1. Some of the definitions included in the reference list should be revised, especially considering the need to highlight the correspondence between this

reference list and the CICES and NESCS classification systems, which will be provided in the forthcoming Annex 6.1. Specific comments:

- "Water supply service", described in the Provisioning Services panel. From the text it emerges that this service represents the sum of the "water purification" and "water regulation" services, described in the Regulating and maintenance services panel. The rationale for considering the sum of two regulating services as a separated service, and for placing it in the provisioning service category, should be better explained here, also to allow a better understanding of the proposed treatment for this ecosystem service, discussed under §6.4.4. Furthermore, the inclusion of the "water supply service" among the provisioning services seems not fully coherent with the definition of provisioning services, as currently accepted and as given also in the Glossary.
- The description of the Rainfall pattern regulation services should be revised as follows: "Rainfall pattern regulation services are the contributions **of ecosystems of vegetation** at the sub-continental scale, in particular forests, in maintaining rainfall patterns through evapotranspiration. It is a final ecosystem service."
- The description of the Local climate regulation services should be revised as follows: "Local climate regulation services are the ecosystem contributions to the regulation of ~~ambient~~ atmospheric conditions (including micro and mesoscale climates) through the presence of **vegetation plants** that improves the living conditions for people and supports economic production...."
- The description of the Air filtration services should be revised as follows: "Air filtration services are the ecosystem contributions to the filtering of air borne pollutants through the **deposition and uptake** ~~fixing and storage~~ of pollutants by ecosystem components, particularly plants, that mitigates the harmful effects of the pollutants. It is a final ecosystem service." This because most air pollutants captured by plants are not "fixed" nor "stored": for example, gaseous pollutants, such as tropospheric ozone or nitrogen dioxide, are destroyed on plant tissues through stomatal and non-stomatal processes.
- The table cell including Flood mitigation services and the following empty cell in column 1 should be merged.
- Solid waste remediation: the removal of pollutants (organic or inorganic) by plants, animals and microorganisms from soils should be explicitly mentioned in the description of this service.
- Amenity services: the description of these services seems to mix up definitions from Recreation-related services and some regulating services, such as air and noise pollution regulation. It should be revised to include only visual aesthetics, in order to avoid double counting of ecosystem services.

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?

The proposed text contains very general guidance about possible appropriate treatments for selected ecosystem services, and in this sense it is acceptable. Regarding the treatment of water supply (§6.4.4.), the so called "second approach", i.e. the measure of the aggregate ecosystem contribution by using the volume of water abstracted (by quality of water) as a proxy, deserves further discussion, also considering the inclusion of such "water supply service" among the provisioning services. This discussion is currently demanded to Chapter 7, §7.32, but some more details should be added also here.

Regarding the treatment of abiotic flows, in the first bullet point of §6.87, the possible ecosystem services lost by using the location as landfill in respect to other possible uses should be considered.

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

Minor comments:

- §6.36: change "the maintenance of biodiversity itself will be impact on the types of ecosystem services..."
- Page 9, footnotes 5 and 6: in the links to CICES and NESCS, please change "hiips" into "https"

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?

Click here and start typing (The length of your response is not limited by this text box.)

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

Minor comment: the Reference paragraph is missing.