



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION  
UNITED NATIONS



System of  
Environmental  
Economic  
Accounting

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## 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](mailto:seea@un.org)**

Name:	Leon C Braat
Organization & country:	Co-Editor-in-Chief Ecosystem Services Journal (Elsevier Publ), The Netherlands; Retired Senior Researcher & Policy Advisor (from Wageningen University, The Netherlands)

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](mailto: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](mailto: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?**

No comments. Clear and consistent.

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

No comments. Clear and consistent.

**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?**

Most is clear.

Regarding the exclusion of abiotic flows from “ecosystem services”, there is a case to be made about some abiotic flows which result interactions from non-living system systems (atmosphere, waterbodies) with living systems.

The provisioning of purified drinking water includes purification by living elements in soils and non-living elements in soils and deep ground layers. Similarly, the provisioning of clay for bricks, sand for concrete etc, involves the combination of abiotic (energy) flows (sunlight, rain, wind), and ecological work by living (aquatic plants, tree-roots) and non-living elements in river (tributary) ecosystems.

I suggest to include a note in the chapter that this exclusion of abiotic flows from ecosystem services is still being researched. We have published a few papers in the Ecosystem Services Journal on this topic.

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

No comments.

**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?**

The principle of equating supply and use volumes (weights) is understandable for the physical components. However, beware of the loss of useful energy in all flows which stretch over time and space (2<sup>nd</sup> law of thermodynamics). This means that upon arrival in the place and at the time of use, either energy had to be added to prevent losses, or quality may be affected (e.g. when fruit is transported, it has to be cooled at energy cost, or it depreciates and quality is lost).

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

No comments