



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:	This is a collation of comments provided by Gabriela Scheufele. <i>I am a CSIRO economist engaged in environmental-economic accounting. These comments are not the consolidated view of CSIRO as an organisation.</i>
Organization & country:	Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia

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?**

### **Use and non-use ecosystem services**

The term 'use' should be defined such that it explicitly includes 'non-use', otherwise the text contradicts in many sections (see examples below) the recognition of non-use services such as many cultural services (e.g. some spiritual and all habitat and species recognition services). The same is true for the term 'activity'. Perhaps the term 'use' could be expanded to 'use and/or enjoyment' and the term 'activity' to 'activity and appreciation'.

6.7: "In this framing, ecosystem services are the contributions of ecosystems to benefits used in economic and other human activity."

6.9: "The nature of transactions implies existence of a matching supply and use – i.e., in a single transaction of ecosystem services the amount supplied by the ecosystem must equal the amount used by the economic unit."

6.11: "Benefits are the goods and services that are ultimately used and enjoyed by people and which contribute to individual and societal well-being."

6.20: "Definition of users and beneficiaries"

### **Private and public nature of benefits**

6.15: The difference between category ii and iii does not seem to be clear. These categories seem to confound public/private good characteristics with the scale of the provision of the service.

For example, would recreation in a free-access national park owned and managed by the government (a public good) fall under category ii or iii? Is category ii strictly reserved for services that are produced on privately-owned assets? The example given under category ii and iii both produce public good services.

### **Definition of users and beneficiaries**

6.20: "For clarity of expression, all of these economic units may be referred to as beneficiaries of ecosystem services but the economic unit that has the direct connection to the ecosystem, i.e., the unit that is the counterparty in the transaction with the ecosystem, is labelled the user of the ecosystem service."

This definition does not seem to be clear for cultural services.

In nature-based recreation (in the case of visits organized by households) in a national park: who is the user? The government who puts together the natural and human-made inputs (e.g. provides infrastructure and allows free access to a national park, which would arguably comparable to the water bottling company in your example) or the households who use and enjoy ecosystem contributions?

The same question arises for all cultural services including the species appreciation service (I assume this is an existence value). Guidance for these services regarding the user and beneficiaries would be helpful to achieve a consistent use of the accounting framework.

Also, a recreational experience usually contains several ecosystem contributions (e.g. the presence of native bird species, fish species, the presence of a wetland, etc.). for each of these services, there is a contact between a user (the government or re-creationist) and the ecosystem. Are these several services that are bundled into a single recreational service?

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

**Reference list of selected ecosystem services (Table 6.2)**

“Recreation-related services: A distinction is made between local and tourism related services to reflect the type of visitor engaging with ecosystems.”

It remains unclear how the distinction between ‘local’ and ‘tourism’ related services is defined. What defines ‘local’? How is tourism defined? E.g. is recreation undertaken by people who live 8 hrs from the destination and stay there for several days ‘local’ recreation or ‘tourism’? Or does tourism have to involve some sort involvement of tour operators?

“Amenity services are the ecosystem contributions to local living conditions, in particular through the biophysical characteristics and qualities of ecosystems, that provide benefits including recreational opportunities, visual aesthetics and lower levels of air and noise pollution.”

How are recreational services under ‘recreation-related services’ undertaken by ‘locals’ differentiated from recreational opportunities listed under ‘amenity 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?**

**Biomass provisioning services**

6.60: “From a national accounts perspective, if the catch is retained for consumption then it should be included within the production boundary of the SNA and hence the quantity and value of the associated biomass should be included as part of biomass provisioning services. At the same time, there will be a clear connection to the measurement of recreation-related ecosystem services, including hunting, trapping and fishing. In these instances, cultural services may be recorded in addition to biomass provisioning services.”  
It remains unclear how rec fishing services should be recorded. It is often impossible to differentiate the value of the biomass from the value of the fishing experience. If that is the case, would the entire value of rec fishing be recorded under cultural services? If the value of catch and the fishing experience can be separated, should the value be separated under two different categories (biomass provision and cultural services)?

**Aquaculture**

6.59: “Thus, the gross biomass harvested from aquaculture should not be used as a proxy for the ecosystem contribution.”

Wouldn’t some ecosystem contributions still be used in the production process such as abiotic services (ocean water, temperature, etc.) if aquaculture is undertaken in the ocean compared to ecosystem-independent ponds?

**Global climate regulation services**

I think the carbon storage/ retention approach makes a lot of sense.

**Cultural services**

Types of cultural benefits

Paragraph 6.69 should also mention 'habitat and species appreciation' services.

**Water supply and abiotic flows**

"Flows related to the use of ecosystem extent (use of space) for undertaking economic and other activities."

6:85 recognises the unique case that "concerns navigation on rivers where the flow of water supports transportation of people and goods. In this case there may be a contribution of ecosystem processes, primarily concerning water regulation of base flows, that may be recorded as an ecosystem service."

I would argue that recreational fishing and recreation in general is another unique case. Water levels and quality are often very relevant attributes of the recreational experience and should be recorded. These types of services should be allowed to be recorded.

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

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

**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?**

**Determining ecosystem service measurement baselines**

It remains unclear how to define baselines for some cultural services. E.g. Habitat and species appreciation services: are we assuming a worst-case scenario of complete species extinction? Or the complete disappearance of a natural habitat by assuming a hypothetical baseline of a degraded wasteland, potentially (if all habitats on the planet are accounted for) a bare planet? I think this needs more discussion and guidance.