



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

Name:	Beth Fulton
Organization & country:	CSIRO

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?**

Inside the Glossary for

“Ecosystem characteristics” it would be good to provide marine examples – you can draw on bioregionalisation definitions that have been done either by nations states (e.g. IMCRA in Australia, DFO efforts) or globally (e.g. Sherman LMEs etc)

Why no attempt to include at least some of the major foodweb or biotic habitat flows? Big job potentially, but not infeasible given the extent of ecosystem modelling now done globally (especially in marine space where such foodwebs are arguably more important to the final food provision/harvest step)

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

Missing services (marine perspective)

Pharmaceuticals (also from forest/vegetation)

Oxygen production

Thermal regulation – as part of climate regulation

What about nutrient pumping and distribution in marine systems (where animals mediate nutrient/biomass/feed movement to target species)?

Water purification - this likely covers coastal wetlands and perhaps marine bioirrigation, but what about biochemical cycling and binding in marine environments/seabeds or by bivalves?

Solid waste remediation – this includes marine bioturbation?

Amenity services – Given you mention mental health benefits in the later text then I would mention it in the Table too

Also given in Chapter 7 it clearly states that fish feeding fish is not a provisioning service (for example) I think it would be beneficial to list off some example intermediate services in the Table so people can be clear on how they are handled in terms of the list in Table 6.2

**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?**

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

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

Section 6.58 - How is fish meal and oil production handled? (Or indeed any aquatic feeds given they are moving into algae etc)

Section 6.60 – How is catch and release recreation fishing handled?

How will straddling fish stocks be handled (e.g. species like bluefin tuna that move across the globe during their lifetime)? Similarly, how handle when migration dictates the flow – e.g. nutrient supply to lakes by migrating anadromous fish?

Section 6.62 – How will you hand the transition of the ocean account - C storage is one side, acidification and thus implications for undermining provisioning services is the flip side...

Section 6.89 – Again what about thermal regulation? This has a large abiotic component, but also biologically mediated contributions too (e.g. chlorophyll-based absorption)

Annex 6.1: “Primarily woody biomes, also marine” For the “Factors determining use” wouldn't harvesting practices influence this too?

An additional entry for the Annex on marine would be useful something like

Ecosystem type/s – Fish biomass

Factors determining supply – Ecological: Condition of stocks  
or ecosystem; Human: Ecosystem management

Ecosystem Service – Provisioning

Physical metric(s) – Tonnes biomass harvested

Factors determining use – Harvesting practices

Benefit – Harvested fish

Users – Fisheries producers, including household subsistence fishers

Potential beneficiaries – Food processors, transport, retail, household consumers, animal feed producers

### **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?**

Section 7.3 – In a marine (or indeed even terrestrial context) rather than segregating uses, what about looking at places where you get maximal benefit from co-location? Or particular hotspots of value/service production (mentioned below so perhaps worth highlighting here too)?

Section 7.12 – In the use table, the ecosystem types are shown for the four realms of the IUCN Global Ecosystem Typology that are within scope of ecosystem accounting. This higher-level presentation is used for demonstration purposes only and more detailed classes can be used. The recording of intermediate services by ecosystem type is not applicable for provisioning or cultural services; i.e., all of these services are final ecosystem services and hence cannot be used by an ecosystem type.

Table 7.3 – Worth swapping the wheat for fish? or adding fish as an additional row?

Section 7.33 – Yes but in marine food webs you can have 7 trophic levels of flow before you get to the harvestable product, how is that going to be captured?

Section 7.74 – What about cases where the nutrient breakdown within the water body allows for the growth of a stock that humans harvest (thinking of freshwater fish and river condition or coastal waters and aquaculture or fisheries production, which benefits from avoiding really poor water quality conditions)?