



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION  
UNITED NATIONS



System of  
Environmental  
Economic  
Accounting

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## System of Environmental-Economic Accounting— Ecosystem Accounting

### *Global Consultation on the complete document: Comments Form*

**Deadline for responses: 30 November 2020**

Send responses to: [seea@un.org](mailto:seea@un.org)

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The comments 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: [seea@un.org](mailto:seea@un.org).

All documents can be found on our website at: <https://seea.un.org/content/global-consultation-complete-draft>

In case you have any questions or have issues with accessing the documents, please contact us at [seea@un.org](mailto:seea@un.org)

## General comments

### **Question 1: Do you have comments on the overall draft of the SEEA Ecosystem Accounting?**

Well done! A major accomplishment. This version is much better written and more comprehensive, consistent and informative than the “Experimental Ecosystem Accounting” of 2012 and “Technical Guidance”. My concern is that it is difficult for non-experts to read. I suggest a short (20-page) “Quick start guide” perhaps as an additional online document. This would focus on the basic concepts and core tables.

## Comments by sets of chapters

### **Question 2. Do you have comments on Chapters 1-2 of the draft SEEA Ecosystem Accounting?**

Para 1.19: “has **been** considered **in** the accounting”?

Para 1.35: Good coverage of related frameworks. Could forward reference to Ch. 13 and others where relevant.

Para A1.6: Important to emphasize that spatial disaggregation of SEEA-CF is possible and a useful input to analysis of pressures on ecosystems.

Para 2.19: Excellent overview of ecological considerations. This should be understandable to ecologists.

Figure 2.3: Excellent elaboration. Better than a table, which might encourage statisticians to fill it.

### **Question 3. Do you have comments on Chapters 3-5 of the draft SEEA Ecosystem Accounting?**

3.12: This is my preference as well, treating marine ecosystems beyond the continental shelf as a “collapsing” of vertical layers into a two-dimensional representation. Treating layers separately would be technically challenging and cause problems with balancing total area.

3.33 “...persistence of the characteristics of an ecosystem asset over time”: “over time” is too general a term. There are many time scales: geological, evolutionary, human...referring to persistence over the accounting period may be too limiting. Perhaps “persistence over the period over which measures are available”.

Table 3.3 could be updated to include the subterranean realm.

Para 4.2: Good use of the term “composition” (mix/combination).

Para 4.6: Good clarification that normally ecosystem extent accounts are compiled from mapped data and can generate both new maps and tables.

Table 4.1 may be interpreted as a template to fill in. The list of ecosystem types (EFGs) is not likely to occur in any country. I’d suggest a more realistic example with ecosystem types that occur in a country. Barring that, at least a footnote mentioning that compilers would need to determine the appropriate EFGs for that EAA.

Table 4.2: Good use of the symmetrical ecosystem type change matrix. The alternative (with positive and negative values) as in the SEEA-CF land cover change is more challenging to balance.

Table 4.4: Useful addition to the suite of tables. Perhaps the role of the economic unit could be emphasized (e.g., owner/manager). We are mostly concerned about which economic unit has the rights to exploitation. That could be mentioned in the description as well. In the case of ocean accounts, rights and uses can be multiple and overlapping (conservation, fishery, transportation, minerals, energy/communications infrastructure...).

Para 5.2: "...structure, function and composition..." is a rather archaic ecological reference and not well defined. I think the term has been replaced elsewhere in the document.

Para 5.11: "...composition, structure and function..." uses the same words in different order. See above.

Para 5.13: Good point. You could emphasize that one point of contention between the resource manager and the conservationist is the question "how much ecosystem do we really need?"

Para 5.33: Good point and reference about the multiple interpretations of "ecosystem function". It should not be confused with "ecosystem process".

Para 5.38: Good list. It emphasizes the "function" of the species (without calling them processes). This links back to the idea of "functional diversity" where many species may have similar functions (but not directly compete). Some have hypothesized (and by the time I finished my thesis, there was no large-scale proof) that losing one species out a group of several with similar function is much less serious than losing the last one that serves that function.

Para 5.39: Good explanation of a complex concept. Perhaps some diagrams in the ecological principles annex would help explain non-linearity.

Table 5.2: This is somewhat detailed. Suggest referring to the paper. If people are that interested, they should go to the source. Also prioritizing in terms of "number of services" is somewhat arbitrary. I would suggest "characteristics that exert the highest influence on priority services". For example, reducing flood risk might be the most important because there are people at risk of getting flooded. This fits with the instrumental idea.

Para 5.79: "Assessment of biodiversity" could be made more precise. There are several types of assessments and not all are "imperfectly nested". For example, assessments may be more qualitative and based on subjective information. I would suggest that this term is referring to quantitative indices of biodiversity.

**Question 4. Do you have comments on Chapters 6-7 of the draft SEEA Ecosystem Accounting?**

Para 6.9: It is important to keep the breadth of the definition to include “other human activity”. Otherwise, ecosystem accounting could be misinterpreted as focussing only on short-term economic benefits.

Table 6.3: Could emphasize the different vectors of pollination services (pollinators, wind, water).

Para 6.133: Could provide more detail on the uses of the complementary concepts of potential supply and capability. Potential supply could be used to make planning decisions about where to locate human activities (e.g., agriculture, tourism) or where locating these could impose undue pressures on the ecosystems. For example, knowing that there is a potential supply of game for recreational hunting could be a signal to protect that area from hunting.

Para 7.26: This is an opportunity to mention that matching entries between these tables is an opportunity to cross-check linked tables.

Para 7.65: Could also mention that beneficiaries may be outside the accounting area (e.g., international beneficiaries of recreation-related cultural services).

Section 7.3.2 (determining ecosystem service measurement baselines): This section may be too detailed for compilers of the accounts. It is important, however, that they understand the concept and ask scientists collecting data how they’ve dealt with baselines.

**Question 5. Do you have comments on Chapters 8-11 of the draft SEEA Ecosystem Accounting?**

Para 9.18: Useful ranked list of preferred valuation methods, but this preference is not always obvious in the subsequent sections. There was a good table in the original discussion paper that was more informative about under which conditions each method could be used. For example, even contingent valuation has its place in assessing WTP for government programs.

Para 9.32: Could clarify the role of “payment for ecosystem services” (PES). It does establish an agreed price between the supplier (farmer) and user (government). Also, is organic farming not altering the price of the goods produced with the assumption that there is a lower consumption of ecosystem services?

Table 9.2 is not especially useful—not many boxes are left unchecked. As in my comment on Para 9.18, I would prefer a table focussed on where these methods should and should not be used.

Para 9.75: Useful mention of uncertainty. This should perhaps be discussed at an earlier part of the document. There are sources of error that are sometimes not communicated resulting in cascading uncertainty (e.g., beginning with interpreting satellite maps).

Para 11.39: Could mention that the spatial approach of the SEEA EA provides a consistent way of representing the location (i.e., within an EA).

**Question 6. Do you have comments on Chapters 12-14 of the draft SEEA Ecosystem Accounting?**

Chapter 12 is an excellent addition to our knowledge on the framing of values.

Table 12.1 could be clearer on what adds to what (i.e., row 1 + row2 = row 3).

Para 12.20 “ecosystem disservices cannot be interpreted in this way”. It would be useful to say why.

Para 12.23 and Table 12.3: Could have numbers in the text to highlight where in the table the concepts apply.

Para 12.33: treatment of restoration costs may annoy ecologists who say you can’t restore an ecosystem. Suggesting a statement to the effect that “...while ecosystems cannot be restored to a perfectly natural state...”

Para 13.14 “...by providing an articulation of the relationship between ecosystems, and the species that comprise them...” species alone are not “biodiversity”. The sentence would be more accurate as “...by providing an articulation of the relationship between ecosystems, and the diversity of the species that comprise them...”

Part 13.16: Similar to above, “importance of different species” is not the same as “importance of the diversity of species”. I would prefer the latter.

Table 13.1: A few of the “relevance” explanations refer to exploiting biodiversity. It’s not the diversity that’s exploited, it’s individual species. Therefore, it would be more accurate to say “...where species are threatened thereby changing the diversity of the ecosystem and its ability to function...”

Para 13.23: To emphasize the biodiversity aspect, could mention that removing top predators, such as sharks, leads to a breakdown of the ecosystem as a whole.

Para 14.14: talking about Section 12.4 and 12.5 or 14.4 and 14.5?

Section 14 (in general): while links to existing frameworks are interesting, they may be less relevant than promoting “better” indicators derived from a comprehensive and integrated framework (i.e., the SEEA EA and SEEA CF). How can we encourage new indicator development activities to think through what they want to monitor and what information would be required?