



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 3: Spatial units for Ecosystem Accounting

Chapter 4: Accounting for Ecosystem Extent

Chapter 5: Accounting for Ecosystem Condition

Comments Form

Deadline for responses: 30 April 2020

Send responses to: seea@un.org

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The comment form has been designed to facilitate the analysis of comments. There are nine 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

Question 1: Do you have any comments on the definition and description of ecosystem assets and ecosystem accounting areas and the associated measurement boundaries and treatments?

The proposed version is clear on these aspects.

Question 2. Do you have any comments on the use of the IUCN Global Ecosystem Typology as the SEEA Ecosystem Type Reference Classification?

One crucial aspect is its interoperability with other typologies. **It would be useful to provide correspondences with other references typologies (e.g. EUNIS) to ensure that multiples datasets could easily be interoperated with this typology.**

Question 3. Do you have any comments on the recording of changes in ecosystem extent and ecosystem condition, including the recording of ecosystem conversions, as described in chapters 4 and 5?

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Question 4. Do you have any comments on the three-stage approach to accounting for ecosystem condition, including the aggregation of condition variables and indicators?

Stage 1 is crucial and shall be the main focus of accounting. We suggest to present it as such. It is there where the accounting system could enhance the value of collaboration and harmonization at the international level and enhance the design of existing national statistical systems (better integration, better harmonisation, higher relevance to policymaking, etc.).

Stage 2 will be difficult to harmonize as there may be different accurate reference conditions depending on use. This is not a question which can be settled at this level of genericity.

Concerning stage 3 about the aggregation of condition variable and indicators, methods do not need to be included within a standard methodology. The usual triangle representation of the UNSD puts the production of indicators as a supplementary and distinct stage of accounts. This could be presented as such an be much clearer. This would also avoid difficult choice as any aggregated indicator would have some limits (aggregation and weighting methodologies) and limited scope of relevance (there is extensive literature on the relevance of indices such as the ECU proposed in the ENCA methodology of the CBD, the bottom line being that it is a political and not a statistical issue). As such, the third stage proposed considerably restricts the scope of uses and may impede a clear understanding of the main value added of these accounts: organizing an integrated and spatialized monitoring of the relevant dimensions of ecosystems at national levels. It is important that this third stage remains optional, or presented as a process which does not belong to accounting *per se*.

We suggest to mention this hierarchy, which would help clarifying the main focus of ecosystem accounting and ensure accurate allocation of efforts.

Question 5. Do you have any comments on the description and application of the concept of reference condition and the use of both natural and anthropogenic reference conditions in accounting for ecosystem condition?

This could be left flexible. One important aspect is to maintain the possibility of adopting environmental limits, norms and targets as reference conditions. Ekins and Usubiaga (2019) provide very useful definitions of these concepts which are discussed in the context of the SEEA EEA in Comte, Kervinio and Levrel (2020). This flexibility could maintain the possibility for such accounts to be relevant for monitoring national contributions to global objectives, including the SDGs, and the planetary boundaries. It could also maintain the possibility to build policy-relevant economic accounts based on restoration and maintenance costs.

On the difference between environmental limits, norms and targets, see e.g. Ekins, P., & Usubiaga, A. (2019). "Brundtland+30: the continuing need for an indicator of environmental sustainability". In *What Next for Sustainable Development?*. Cheltenham, UK: Edward Elgar Publishing.

On the application of reference conditions in the context of the SEEA EEA:
Comte, A., Kervinio, Y., Levrel, H. (2020). Ecosystem accounting in support of the transition to sustainable societies – the case for a parsimonious and inclusive measurement of ecosystem condition. CIRED Working Paper, 2020-76.

Question 6. Do you have any comments on Ecosystem Condition Typology for organising characteristics, data and indicators about ecosystem condition?

The main issue is that the structure proposed in chapter 3 does not easily link with ecosystem management issues and does not guarantee a focus on the most relevant dimensions. It also does not align well with existing monitoring frameworks of integrated ecosystem management (e.g. the EU MSFD). **It would be useful to add a paragraph to explain how this typology can accommodate these specific uses.** Otherwise, developing such a statistical system could be seen as a costly and inefficient data acquisition process as compared to the development of ad hoc monitoring framework directly tailored to ecosystem management needs (e.g. FDES, NAMEA).

Another risk is that it may not solve the issue to connect ecosystem condition with ecosystem service capacity within the accounts (an issue which remains largely pending, see Comte, Kervinio and Levrel, 2020).

One problem of not including pressures in ecosystem condition (the opposite choice were adopted in the EU Maes WG) is that information on ecosystem degradation may arrive too late for its use in decision-making. Not all risks are observable on state variables especially when what is at stake is the prevention of them. Just as data is required to assess species extinction risks in the UICN Red List, ecosystem accounts shall be able to provide relevant information about the risks of imminent degradation. This would only be eased by monitoring together pressures (or stressors, or their impacts, see the DPSIR framework) and ecosystem resilience. The accounting system described in this Chapter 5 does not allow for the monitoring of critical natural capital maintenance.

Comte, Kervinio and Levrel (2020) discuss in more detail some limits of this typology.

References

Comte, A., Kervinio, Y., & Levrel, H. Ecosystem accounting in support of the transition to sustainable societies—the case for a parsimonious and inclusive measurement of ecosystem condition. Cired working papers n°2020-76. January 2020.

Question 7. Do you have any other comments on Chapter 3?

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

Question 8. Do you have any other comments on Chapter 4?

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

Question 9. Do you have any other comments on Chapter 5?

The definition of “reference level” is unclear and debatable (5.25). We only understand that the rationale behind this definition is the (accounting) need for calculating comparable indicators, and therefore the reference levels appear as if they had no relationship with the (operational) need for characterizing the status of the ecosystem. On the other hand, the notions of “favourable” and “unfavourable” reference levels are not explained. For many ecosystem assets in practice, the “favourable” reference level will be determined by a policy target and the “unfavourable” reference level by a biological threshold, but this is something that seems to be prohibited according to paragraph 5.28. However, this is later contradicted by the notion of “globally agreed reference conditions” (5.36) and some (good) examples which are provided by the Annex 5.5. Basically, the idea of rescaling normative (favourable or unfavourable) reference levels into continuous and comparable indices may prevent from reasoning in terms of critical thresholds by ecosystem assets, and therefore will not allow for strong sustainability accounting dedicated to the monitoring of critical natural capital.