



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?

Globally well done and clear. Annex 3.3 needs more revision.

The terms function/functional/processes are fundamental in chapter 3. Despite the content of Annex 3.1, there remains some vagueness in their definition. For instance, in p. 16, five processes are presented. Are these processes or factors regulating processes (see “Ambient environmental conditions”)? P. 16, line 13: Should we read “Ecosystem functioning refers to the processes...” or “Ecosystem functions refer to the processes...”?

3.9: Conceptually, the fourth dimension should be added too: temporal dimension. Else natural evolution is not considered. This could lead to erroneous conclusion.

3.13, last sentence: Descriptions of an EA should be seen as the third dimension.

3.16: Dealing with ecosystem services is more specific than dealing with landscape elements like forests, farmland, infrastructure or urban areas. Under an ecosystem service perspective, old growth forests do not equal plantations and small scale agriculture does not equal highly mechanized farmland. Changes have to be better defined.

3.23, iii, lines 1-3: Given the explanation in the second sentence, should we read: “*The EAs should be geographically and conceptually exhaustive, i.e. comprehensive across ecological realms.*”

3.23, iv: What means conceptually mutually exclusive? The explanation deals only with the idea of geographically mutual exclusiveness.

p. 8, second bullet, about linear features being ecologically linked to surrounding landscape: Not separately identifying them requires justification. For instance, could not relationships within a hedgerow be stronger than outside of the hedgerow? This choice reflects a stance on spatial scale.

3.26: Climate change as driver of forest management practices can lead to proactive interventions regarding natural environments. Former naturally regenerated forests are now planted with species from the south. Thus the various forest services can be maintained for the future.

3.39, lines 4-5: Alternatively, simplifying the statistics may restrict uses.

3.40: Should the SEEA recommend that there be an attempt at reconciling (or making correspondences between) existing or new national ecosystem classification with the SEEA Ecosystem type reference classification? This seems like an important and potentially difficult exercise.

3.45, lines 7-9: Could there be examples given of “transitional areas”? Otherwise, this remains abstract.

3.57, lines 7-8: “... except to distinguish where they can be used to highlight differences in ecological functioning.” This sentence is unclear.

Annex 3.1, p. 17: Could the word “controls”, as a noun, be replaced by “characteristics” or other more conventional word?

Annex 3.1, p. 16-17: The description of habitat and biotope, biome and ecotones is very clear. In comparison, the description of ecosystem functions and ecoregions is more difficult to grasp.

Annex 3.1, p. 18: Time as driver is strange. Time operates on all other drivers. Could it be replaced by stability or frequency of events, such as forest fire?

Annex 3.3, p. 25, line 1: Considering ecosystem types as spatial areas, on the same level as EAs or EAAs, is confusing.

Annex 3.3, p. 25, lines 29-30: Integration of data from national accounts or surveys, which often have no or imprecise spatial reference, poses specific challenge. Should more be said about this?

Annex 3.3, p. 25, line 44: Depending on the grid resolution, attributing data to the grid cells could also increase the quantity of data.

Annex 3.3, p. 26, lines 11-13: The use of a reference grid reduces the precision, rather than the accuracy, of the data. Larger grid squares introduce a higher level of imprecision (rather than inaccuracy).

Annex 3.3, p. 26, line 27: Instead: "... the EAs may be compiled (by ecosystem type) in the ecosystem extent account using either ..."

Annex 3.3, p. 26, par. 5, last sentence: The use of a vector format is relevant in general to be able to associate data to spatial units within a geographic information system. (There is a dot missing at the end of the sentence.)

Annex 3.3, p. 26, par. 6 is confusing. The reference grid could and should often be in a vector format (this should be stated at the beginning of the section). Only one value can be recorded in each cell of a raster layer. Hence a raster grid cannot be used to integrate various data layers. So it is not exact that "[in] a vector-based approach, typically, one EA is represented by one BSU". In addition, at lines 2-3 of this same paragraph, we read that an ecosystem extent account may be in either a raster or a vector approach, which is erroneous, since the ecosystem extent account is a table (not a map).

One additional advantage of a reference grid approach could be stated: such an approach allows for easily compiling ecosystem extent accounts for various EAAs within a country.

Annex 3.3, p. 28, line 18: The "register" is a register of EAs, not BSUs.

Annex 3.3, p. 28, 2nd and 3rd lines from the end: Is the expression "benefit transfer" the right one?

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

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

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?

4.12, lines 4-5: If the ecosystem extent accounts are based on maps, being able to record the net change implies that total additions and total reductions can also be presented.

4.14, line 1: “Generally, additions to one ET will be matched by an entry for reduction in **other ETs...**”

4.21 and 4.22: Would it be possible to give practical cues on how to acquire data on annual changes in extent and condition as it might be very challenging particularly for a large territory and considering important seasonal changes? In addition, would it be possible to give practical cues on how to acquire data on historical ecosystem extent/condition (par. 4.23)?

General comment on section 4.2.3: It is the ET change matrix (table 4.2) that shows ecosystem conversions (not the ecosystem extent account). The ecosystem extent account only shows additions and reductions in one given ET, it does not show the conversions from one ET to another. Hence, par. 4.24 should be adjusted and ET change matrix be presented at the beginning of the section.

Table 4.2 is upside down (horizontal text is upside down).

Table 4.2: Replace “Opening Extent” with “at beginning of the accounting period” and “Closing extent” with “at the end of the accounting period”. Replace “Opening” with “Opening extent” and “Closing” with “Closing extent” as these lines correspond respectively to the lines “Opening extent” and “Closing extent” in the Ecosystem extent accounts.

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?

Could the finality of obtaining an ecosystem condition index be justified in more length from the onset, as this is a sophisticated process to undertake? In addition, it seems the ECI value could be sensitive to many methodological choices (for instance, the choice of indicators, choice of reference level values, choice of weights). This downside of the approach should be mentioned and if there are ways to minimize this problem, they should be put forward.

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?

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

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

5.18: The sentence "...selection of variables should prioritise those that reflect a role in ecosystem processes, and hence contribute to whole-ecosystem functioning, ..." suggests that the ECT class "Functional state characteristics" should be prioritised, which is not coherent with the rest of the message in the chapter. The examples are not so helpful to understand the recommendation.

5.77: Should overexploitation be taken into account at the step of ecosystem services accounts (diminishing flow of services over time)?

Annex 5.2, p. 22, lines 1-2: What means "(required by spatial consistency)"?

Annex 5.2, p. 22, lines 4-5: "...or abundance **of** individual species..."

Annex 5.2, p. 22, line 5: "...on highly **specialized** functional groups ..."?

Annex 5.2, p. 22, line 21: Annex 5.3

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

3.11, lines 1-2: "The interaction between the land surface and its ecology, and the atmosphere is limited **by** the atmospheric boundary layer."?

3.12, lines 9-10: "... that are in no direct interaction **with** the surrounding ecosystems, ..."

p. 7, note 2, line 6: Replace "in" with "is".

3.36, lines 3-4: Should we read: "... only the area of ocean **within** the continental shelf should be included in the extent account."?

3.52: Double words at line 2.

p. 18, line 13: Missing dot.

p. 20, line 3: "... and vary reasonably **predictively** ..."

p. 20, line 12: Uncomplete sentence.

p. 25, line 33: "... 10 m grid **size** ..."

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?

5.24, lines 4-6: "...expressed as the percentage of the number **of** bird species ..." Also, add dot at the end of the sentence.

5.43: "...the value of the variable that can be measured at the location of the EA ..." The word "measured" creates confusion as there is, precisely, no measurement taken at that location.

5.50: "...whose differences may not be apparent in the descriptor provided **in the account.**"

5.75: Please consider revising the last sentence: "...so they can be quite appropriate for condition accounting than the connected flows ..."

5.83: "...wetland restoration through **in** a conservation program ..."

5.85: Part of this explanation should figure in chapter 4 where it is not so clearly stated.

Annex 5.3, p. 23, line 15: "The identification **of** an adequate set of ..."

Annex 5.3, p. 23, line 34: What is DP 2.1?

Annex 5.3, p. 26, line 9: Acronym "ECI" is not in chapter 3.

Annex 5.4, p. 27, line 20: "...can also **be** considered as a pressure ..."

Annex 5.6, p. 32, line 24: There is a missing word.

Annex 5.6, p. 34, line 37: There is an error in the wording of the sentence.