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 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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Organization & country:	Statistics Estonia

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?

In general the chapters provide a good basis for the development of the extent and condition accounts and are more comprehensive than the material in previous UN SEEA EEA manual. It is a good supportive material and provides definitions that would frame the discussions.

We are of the opinion that the ecosystem assets definition should be cross referenced with the use of the same term in other chapters. If the differences in the meaning of ecosystem assets will remain, these should be explained and if the term ecosystem assets is carrying different meaning the definition of ecosystem assets should be accompanied by the notion of "physical units"/"in monetary values". May be that chapter 3 is not a good location for the explanation of all the terms and definitions.

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

Please describe the logic and the functionality of the levels 4, 5 and 6 of IUCN RLE classification.
Please emphasize the importance and describe the role of level 6 as national classification.
Please describe in which kind of reporting and presentation formats the IUCN Global Ecosystem Typology will be used.

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?

We are currently testing how to record and define the changes, so our comments are still preliminary:
1. As some changes may outweigh each other spatial distribution of the changes is important.
2. Recording of the changes. Please add the links to other major international reportings which are currently used for reporting land use changes in harmonized way: LULUCF reporting.
3. Please elaborate in more detail how the changes in condition may lead to the changes in extent (for example agricultural land- grassland - forestland) if you consider it important to grasp the conversion aspect.
4. In Ch 4. under 4.21 it is written that considering that the length of the accounting period is one year, then one year will also be an appropriate reporting period to record ongoing managed expansions and regressions. However, yearly reporting may not reveal important changes and it may be also not be feasible in many countries.

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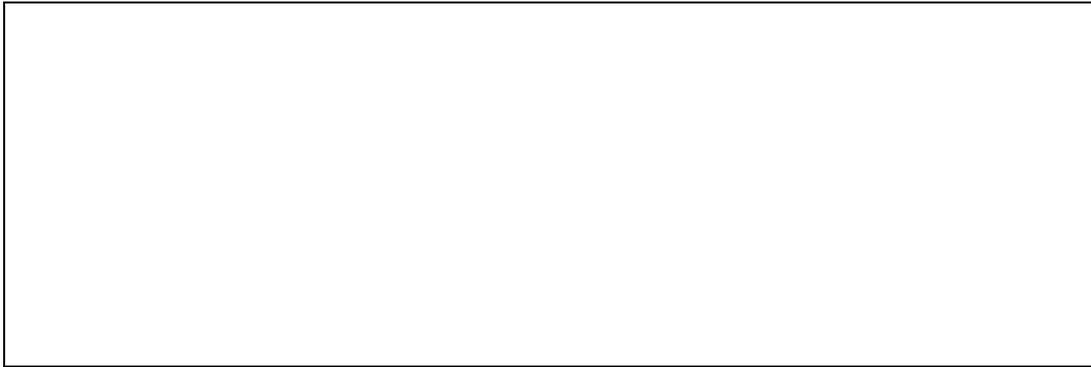
Question 4. Do you have any comments on the three-stage approach to accounting for ecosystem condition, including the aggregation of condition variables and indicators?

We agree on the concepts and definitions of proposed three-stage approach to accounting for ecosystem condition, including the aggregation of condition variables and indicators and we consider them being generally helpful for the future development of the condition account. The general approach is very good, we support the principles of Chapter 5. As a systematic approach, Ch 5 provides a good basis for the creation of EEAs.

We would like to point out that the application of the presented 3-step scheme depends on the availability of data and quality (we do not consider specifically Estonia, but more broadly). Systematic mapping of data availability is an important component of the first step that we want to emphasize. It is worth noting that detailed quantitative data are often not available, especially for larger spatial scales such as national level or regional level. The situation is usually better on a site-by-site basis. It can be said that, for example, indicators reflecting chemical status of ecosystems (see Table 5.1) or soil nutrient data are usually available only for a limited number of sites (that might not be representative on a specific scale) and can often be estimated not through direct measurements but through so-called proxies such as species composition, biomass, etc. These indirect indicators may not be less significant and less meaningful. Thus, a situation where it is possible to select an indicator for each single ECT class should be seen as an ideal situation, as the authors also point out. It should be based on content of available information, not necessarily should one try to find an indicator for each row based on Table 5.1.

We also note that for some biotopes, meaningful status indicators may not be predominantly continuous variables, but discrete or nominal, which are still very good data for status assessment. Eg floristic value in meadows, discrete rating scale. The use of different available types of variables could be further addressed in the standard.

In the case of an aggregate value, it is worth noting that it is difficult to interpret its changes, particularly when deciding about concrete measures needed to improve the status; of course, it is helpful to refer to the basic data which have been the bases for the aggregate value. Environmental decisions can therefore be better made on the basis of the changes in the values of individual components (structural indicators, functional indicators, etc.), the reasons of which are easier to explain and the necessary measures be planned. Aggregation can be done, but preference should be given to the simplest

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possible approach and only for as aggregated as necessary. For example, characteristics can be used to define status/condition classes and to monitor area changes between status/condition classes. In this way, changes can also be linked to the implementation of environmental protection measures that lead to improvements, such as the restoration of ecosystems.

Please be also noted that usually all characteristics may be not relevant for all ecosystem condition types.

Aggregate indicators (Table 5.5) may not always be sufficiently relevant for use in the decision making process and the detailed sub - accounts may be more relevant (5.2).

The use of reference condition and reference levels for specific variables/indicators (incl. discrete variables) should be elaborated further using some concrete examples.

We appreciate that the measurement of ecological integrity has brought into the scope and the normalization and aggregation procedures are proposed with the aim to have the integral measurement approach (ensure ecological integrity).

Please elaborate Table 5.4 further as ecosystem condition indicator account needs more explanation, and the whole logic would be followed more easily it if it would be filled with an example.

Types of the characteristics and reference levels need further guidance and references and insight as well. Denoting favourable and unfavourable condition as 1 (100%) and 0 (0%) as endpoints of a scale should be considered. Favourable is not always the maximum and unfavourable minimum, often there is only a small cap between these two, therefore question arises how to treat values that are above or below the reference values?

Biodiversity and more specifically species diversity aspects need to be integrated as well.

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?

We agree on the concepts and definitions and we consider them being very helpful for the future development of the account. However the development of the condition account and finding the reference condition and boundary values (quantitative values) will ask for good data which may not be feasible in many countries.

In some cases, e.g for grassland, criteria for reliable boundary is difficult to find. These criteria need to be tested in order to figure how well these criteria could be applied in practice.

Ecosystem condition indicators are rescaled versions of the ecosystem condition variables, which are transformed to a common dimensionless normative scale, with the two

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endpoints of the scale representing favourable ("good": 1 or 100%) and unfavourable ("bad": 0 or 0%) values. How do conduct condition measurement on national scale? Please provide examples.

Please elaborate further how the health of the ecosystem can change.

Is it feasible to build the links to SDG-s, if yes please do so!

Can the type "Anthropogenic condition" be used for the urban account as well? If yes, please describe.

How well do urban ecosystems fit under the condition? Is the condition account helpful for defining the urban ecosystems as well?

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

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

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

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

Should there be a coherence between the extent account and the classification applied and the ecosystem classification in supply and use table.   Please elaborate further what is a functionality of the extent account in sense of the defining the provisioning categories in the ecosystem services account. Should the services provided be split by ecosystem classification which is applied for the aggregation of the extent account (Table 5.1 of the TR "Provisional ecosystem services supply and use account and product flows").

We are of the opinion that land and ecosystem ownership is important dimension of extent account and it is feasible also to be compiled on a spatial scale.
Please elaborate a bit more on the description of the ownership dimension in extent account and in asset accounts and the difference between them. Currently in chapter 3.63 both definitions are outlined side by side: " Land ownership, encompassing ownership across all ecological realms, is a key characteristic that provides a direct link between ecosystems, their management and economic statistics" and " Economic assets, including land, can be assigned and classified to institutional units (i.e. corporations, non-profit organizations, government, households) based on ownership". We understand that relevant conventions are discussed in Chapter 11 in the context of integrating ecosystem accounts with the SNA sequence of accounts but under the extent accounts the dimension of ownership and the usefulness of it should be outlined as well.

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

How the links among the accounts function?
You bring in the capacity concept. Please also provide the functionality and the definition of the capacity account and describe the distinction from/links to the condition account.
Please describe more the links between assets and condition as this part is still weak.

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