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?

In general the definitions and descriptions work well and the boundaries make sense.

Just one detailed point, on 3.32 (Complex mosaics). I don't think regarding a reduction in the extent of green space as a change in condition is right. Essentially the category is at too high a level: it's like saying a change from heathland to scrubland (T3.2) should be recorded as a change in condition. It would be better to recognise that ecosystems in urban areas comprise of different ecosystem assets (of varying degrees of naturalness) and recommend that changes in the extent of these assets should be recorded in the extent account. In any case I note that Annex 5.4 positions the extent of 'minor' ecosystem types as ancillary data, i.e. not as being within the condition account – so Chapter 5 doesn't provide for what Chapter 3 advocates!

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

I very much welcome the high level classification, recognising that it won't be sufficient for most country-level applications.

As above, the category of 'ecosystems in urban areas' is a catch-all and in practice requires subdivisions in order to be meaningful.

As illustrated in the response to Question 1, the same point could apply to other ETs at a high level: changes in extent from one sub-category to another should be recorded in the extent account and should not be seen as a change in condition, as that would then cause problems in reconciling with the more detailed accounts.

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?

Drawing on from the above comments, the key issue would seem to be how to record and present the two together (extent and condition) in a meaningful way. As 4.22 notes, the reason being that the relationship between the two is a key piece of information. It's not clear if this is to be picked up in Chapter 11, but if not, some text and illustrative tables at different levels in the ET hierarchy would be welcome.

On ecosystem conversions, I very much agree with the proposal to define and record them separately. However, I note that the dichotomy between anthropogenic and natural (e.g. 5.87) is not that clearly defined in Chapter 3 (T7 is not formally classed as such) and of course in practice the distinction represents a line drawn on a spectrum between semi-natural and more intensive use.

One minor comment: in the long list of helpful examples given in 5.83, the last one reads a little oddly, as it concerns expected future changes – highly relevant to projecting future flows but not relevant to the standard condition 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?

I think it works OK in theory. It still seems very complex and off-putting – this is not a criticism of the progress made, more an observation that it might need repackaging in order to make it accessible. And how much users will have to rely on practical guidance to help them implement it.

Specifically on aggregation e.g. across different ETs, whether or not they are an admix of natural/anthropogenic: this must depend upon a review of experience. If we have a target "to leave the natural environment in a better state" for future generations, then it doesn't make sense to rule out such aggregations at this stage, although (as with para 5.87) we should be clear about the basis on which such aggregations are made.

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?

Some more concrete examples would be helpful, e.g. 5.24 was a bit surprising: for forest bird species, are we meant to compare just breeding bird species expected in a pristine forest of similar size? The reference condition seems to ignore abundance. I'm not sure Annex 5.5. would classify this indicator as category 1.

For turbidity, the sentence is unfinished: the contrast with the natural reference condition on the previous clause implies that this is an anthropogenic reference condition, but I fancy it is generally viewed as a 'natural' one as well.

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

Only one minor comment, apart from the more general one above that it is currently at quite a theoretical level and hence not always that easy to see where available metrics might fit.

The specific comment is on 5.15. This doesn't seem to mean that there won't be overlaps between variables in different classes? Or that the same variable could feed into more than one indicator?

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

On ecosystem characteristics. First, on 3.64, in addition to ownership, I think it would be worth adding in something on governance. This is featuring in the ocean accounts guidance and is obviously relevant to the marine EEZ part as well.

Second, on 3.66, I am still concerned that these important characteristics – even if there is potentially a large number of them – are not given any space in the guidance in accounting terms. The Ocean Accounts draft guidance does at least set out what an accounting table would look like for governance. I think it would be worth picking out some key ones – especially ownership - and elaborating their treatment. This is probably for Chapter 4 but needs to be flagged here. Otherwise it looks as if we account for extent, condition and services, but don't account give any guidance on accounting for changes in key variables relating to other asset characteristics.

On Annex 3.1, a minor point but I think the description of Human Impact into direct and indirect is less clear cut than might appear: for example, disturbance has a indirect impact on ecosystems but also a direct one e.g. through resource use.

On Annex 3.3, re downscaling. This is a major issue which has more relevance to the flow accounts and to the condition accounts, but I'll say it here anyway. The typical situation is that we have representative sample data for the accounting region as a whole but not sufficient data about each individual asset. The advice in the past has been that we should impute values for each asset, and then aggregate it back up to the region level. This is clearly unnecessary, and risks users assuming that the disaggregated estimates are reliable. Although the basic principle – that there are individual assets which are in a particular location and have a particular condition – is agreed, some advice on the merits and risks of forcing all data down to the EA level would be welcome here. To take the Business Register analogy, we can identify all the relevant ecosystem assets but we don't need to have a census in order to compile effective accounts.

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?

5.11. The reference to characteristics including recurrent interactions between ecosystem assets and human society is fascinating but rather obscure. It could, for example, include most if not all services. Examples please.

Aggregation and disaggregation (e.g. 5.47). As noted above in relation to extent accounts, there is a distinct lack of discussion about the desirability of, and challenges of, estimating values of condition variables at EA level. In practice, many condition variables are gathered from sample surveys which are representative of particular ETs. There seems little point in imputing values for all the non-sampled areas if all we are doing is reaggregating, and some dangers of assuming that any imputation produces realistic values which we can then analyse at a detailed spatial level.

Para 5.23. We seem to have a reasonable range of options for when one might score 100 – but much less agreement about the point at which one might conceivably score a zero. Para 5.25 refers to "unfavourable - see below" but it isn't explicitly discussed. There are some references to zero abundance of species as scoring a zero, and also some discussion of existence of pollutants – but how would one score 100 (= unfavourable) in this case? The issue is important as some commentators have advocated that all land used for agriculture should automatically be assigned zero condition, even if the soil has non-zero carbon, water content etc. and certain valued species are abundant.

Para 5.33. The final sentence is too categoric, in contrast to para 5.35 which accepts that in practice a range of approaches are possible.

Annex 5.4, accessibility. The example and commentary given is misleading. A new highway doesn't directly indicate an improvement or not in the ecosystem asset it connects to, but it might be seen to enhance the capacity of the ecosystem to provide services. The text is looking at the issue from the wrong angle. A more standard example is access points to urban green spaces in relation to the local population, as this ties in directly with SDG 11.7 and is directly associated with the asset in question.

Finally - I'm slightly surprised – but I can't find any reference to the volume of water in a water body. Is the assumption that a loss of condition would show up in other variables? It seems odd to include other volumes in the framework e.g. biomass, but not water stocks. There would seem to be a risk that the accounts ignore important indicators coming from existing monitoring systems.