



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 8: Principles of valuation for Ecosystem Accounting

Chapter 9: Accounting for ecosystem services in monetary terms

Chapter 10: Accounting for ecosystem assets in monetary terms

**Chapter 11: Integrated and extended accounting for ecosystem services and
assets**

Comments Form

Deadline for responses: 6 July 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 twelve 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

Questions related to Chapter 8

Question 1: Do you have comments on the principles proposed to underpin monetary valuation for the revised SEEA EEA, including the use of exchange values and net present value approaches?

No

Question 2. Do you have any suggestions for topics to include in Annex 8.1?

I would urge the annex be very very focused on issued from an accounting perspective and make links to good synthesis already out there, Chapter 5 of the TEEB for instance. I think option and insurance values need to get covered somewhere in Chapters 9 or 10 but also in more detail here. Particularly in avoiding non-linear effects, given the accounts a grounded in marginal linear values.

Question 3. Do you have any other comments on Chapter 8?

Section 8.8 -> The description of welfare values is not quite right to me. I think welfare is approximated using measures that include consumer and producer surplus.

Questions related to Chapter 9

Question 4. Do you have comments on the range of valuation methods proposed for use in estimating exchange values of ecosystem services?

It is not clear how conservation type expenditure on ecosystems gets translated into an ecosystem services value. This could be in the cost-based or preference based approaches, where such expenditure can be a lower bound for society's preference to maintain ecosystem condition and current and future access to associated ecosystem services. I'm not convinced this would all fall under the 'Habitat and species appreciation service' (I know this list is preliminary). This would bring in the notion of this being not just for current but also future use – for me this is an 'option value' and there is a transaction that reflects it as a service that governments and conservation organisations participate in on behalf of the wider public. Please also see answer to question 6 that builds on this.

Para 9.31 - The resource rent method does often generate counter-intuitive values. It may even be negative on the fisheries sector when subsidies are large. It is often the case that market process effectively treat the ecosystem service input as a 'free' contribution to production. So, whilst I appreciate this Para 9.32 is true, I worry it then just perpetuates the issue of market prices not reflecting the value of ecosystem services. This would not be in line with the ambition of the SEEA EEA to my mind. In this context, it would be good to have a similar caveat with respect to economically insignificant values as provided in Para 9.25 for market prices (and thus make this consistent). For example, a pollination service could be close to zero using a resource rent approach but significantly greater than zero using the production change method. When this situation arises, it would be desirable to move to the production change valuation approach if we are going to meaningfully record ecosystem service contributions to economic activity.

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

Minor comments

Para 9.49 – TCM. This paragraph suggests that using the actual costs incurred would deliver an exchange value. So why not just do that rather than use the simulated exchange value, i.e., as per Para 9.41.

Paragraph 9.6 doesn't make complete sense to me. I think the EA must be resident to be in the SUA. Although the example works, but this is for the 'Non-residential units – Exports' user is it not?

Para 9.14 seems a bit out of context, would this not sit better with respect to the physical SUA?

Questions related to Chapter 10

Question 6. Do you have comments on the definitions of entries for the ecosystem monetary asset account including ecosystem enhancement, ecosystem degradation and ecosystem conversions?

For me an issue emerges around how we capture the investments that governments and others make in conservation as an ecosystem enhancement. I think it will be the case that many conservation programmes deliver enhancement (i.e., not just conservation of the present state). To achieve this, I think there needs to be recognition in Chapter 9 in the cost-based or preference based approaches that such expenditure can be a lower bound for society's preference to maintain ecosystem condition and current and future access to associated ecosystem services. I'm not convinced this would all fall under the 'Habitat and species appreciation service' (I know this list is preliminary). For me it is a societal investment in maintain future options, so future generations have a planet with all these different species, so we have resilient landscapes, so we haven't narrowed out future ecosystem service possibilities. Without something like this, it is not clear how public expenditure on ecosystems gets translated into an increase in the monetary value of the asset. I think this is also relevant for ecosystem conversions, for example creation of wetlands from agricultural land.

Generally, these definitions are good, intuitive and understandable.

Question 7. Do you have comments on the recommendations concerning the selection of discount rates for use in NPV calculations in ecosystem accounting?

Para 10.65: I see the rationale for applying market discount rates to provisioning services. But governments may invest in ecosystems to boost food supply and create livelihoods in response to food security and poverty issues. In this case I think there is an argument for using a social discount rate to reflect the greater value of the asset to society. However, I accept this may create integration issues with the SEEA CF, in reality though I would expect the creation of ecosystem service accounts to uncover far greater flows of these types of provisioning services than currently captured. I think the answer is clear in para 10.68 here, that in certain circumstances you would use both. So I think that could be more explicit, have a conceptual sensitivity analysis as well as a numerical one – where appropriate.

Question 8. Do you have comments on Annex 10.1 describing the derivation and decomposition of NPV?

Discount factor in Table 10.2 needs another decimal place. I did find the presentation of Table 10.2 a bit confusing, I think it would help being more specific in the text when referring to t_0 and t_1 as opening and closing periods for the accounts, I appreciate this nomenclature is introduced but it would be good to reinforce it. I think the change in price is not really at the beginning and end of the accounting period, more it is the price in the period – or price during $j=1, j=2, \dots$. As is clear in the table.

The decomposition section is very useful. Degradation for forest in Table 10.4 should be -892 should it not? But again a useful presentation. I liked Table 10.5 too.

While the maths is not particularly complicated, it does take a while to get your head around all of this and I think things could be made a bit easier. For instance, to highlight what the price, volume and area effect terms are – in equation 3. Also the text could be a bit friendlier with respect to the notation (see above with respect to t_0 and t_1)

The example is based on estimating ecosystem service flows for each ecosystem asset. But it is also based on estimating ecosystem service flows for each ecosystem type. So it may be worth acknowledging that where ecosystem service flows are valued in aggregate for a type the approach can also be implemented.

Question 9. Do you have any other comments on Chapter 10?

Table 10.1 / Para 10.7 -. Link to the extent accounts. It would be good to have separate rows for managed and natural additions (reductions). This is a more concrete link to the ecosystem extent accounts – actually this is highlighted in Para 10.24, but not as an integrated recording across both accounts.

Questions related to Chapter 11

Question 10. Do you have comments on the proposed structure of the extended balance sheet that integrates the monetary values of ecosystem and economic assets?

It makes sense – The Annex is very helpful

Question 11. Do you have comments on the approaches to assigning the ownership of ecosystem assets that underpins the structure of the extended sequence of institutional sector accounts?

The first sentence of Para. 11.55 and the sole purposes bit is very important for justifying this approach. This could be emphasised / underlined or something. For the sole purpose proposed, I agree with this approach and like the notion of a public 'ecosystem trustee'. I think it also makes sense in the way that many subsidies are structured, particularly in the agricultural sector. Essentially the public often pay farmers to have biodiverse areas at filed margins etc. because of the public benefits that provides. When we get to Table 11.3 this also then makes a great deal of sense and we get a more useful presentation (from a policy perspective) that the similar table 8.2 in the tech recs.

I would appreciate a clarification of the scenario of subsistence activities, for instance farming / fishing. It seems that would the value of the relevant part of the ecosystem asset as owner would be the agricultural sector. In a subsistence scenario could this also be the households? Or a is a hybridisation possible here? From a food security / poverty alleviation policy perspective a hybrid sector would be helpful. Although I appreciate this may be an issue it is unfair to expect the SEEA EEA to resolve.

Para 11.57 -> Not convinced by the example for national parks. They do often produce quite high SNA benefits in the form of entrance fees.

Question 12. Do you have any other comments on Chapter 11?

The clarifications in Section 11.3 were very helpful.

Combined presentations have been presented as integrated approaches alongside those presented here in the past versions of the SEEA EEA. I think they are useful and hope they will be covered in other chapters somewhere.

