



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION
UNITED NATIONS



System of
Environmental
Economic
Accounting

System of Environmental-Economic Accounting— Ecosystem Accounting

Global Consultation on the complete document: Comments Form

Deadline for responses: 30 November 2020

Send responses to: seea@un.org

Name:	This is a collation of comments provided by Gabriela Scheufele. I am a CSIRO economist engaged in environmental-economic accounting. These comments are not the consolidated view of CSIRO as an organisation.
Organization & country:	Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia

The comments form has been designed to facilitate the analysis of comments. There are six 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: seea@un.org.

All documents can be found on our website at: <https://seea.un.org/content/global-consultation-complete-draft>

In case you have any questions or have issues with accessing the documents, please contact us at seea@un.org

General comments

Question 1: Do you have comments on the overall draft of the SEEA Ecosystem Accounting?

Congratulations on the complete draft! Thank you for all your effort.

Comments by sets of chapters

Question 2. Do you have comments on Chapters 1-2 of the draft SEEA Ecosystem Accounting?

Chapter 2:

2.84

This section could be interpreted as if there was a choice of whether or not to deduct these costs.

I suggest clarifying the sentence as follows:

“In the monetary valuation of ecosystem services, it is common to express the relevant values being in “net” terms when the costs of supplying the ecosystem service are deducted.” (current version)

“In the monetary valuation of ecosystem services, the relevant values have to be expressed in “net” terms, that is, the costs of supplying the ecosystem service have to be deducted.”

Question 3. Do you have comments on Chapters 3-5 of the draft SEEA Ecosystem Accounting?

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

Question 4. Do you have comments on Chapters 6-7 of the draft SEEA Ecosystem Accounting?

Chapter 6:

6.16:

This section lists recreation services as an example of an SNA benefit. While a recreation service is a SNA benefit if exchanged in a market (e.g. through a tour operator), it is classified as a non-SNA benefit in cases where that is not the case (e.g. free-access recreation in a national park). This statement seems to contradict 6.17 that provides the example of recreation-related recreation within a public park (non-excludable -hence not exchanged in the market).

I strongly recommend clarifying this to avoid confusion.

6.37:

It remains unclear how the logic chain applies to recreation. Are the number of visits the 'factor determining use' or the 'physical metric' of the ecosystem service or both?

Table 6.3 and 6.106:

Spiritual, symbolic and artistic services are categorized as final use values. Given that at least some of them are non-use values, why are they treated differently from the ecosystem and species appreciation services, which are categorized as non-use and not classified as either final or intermediate. I suggest classifying non-use as 'final' ecosystem services in the same way as spiritual services and perhaps include a sentence that explains that 'use' is defined broadly to also include 'non-use'. Leaving the classification blank does not seem to be a useful solution.

6.59:

This section states that non-use values do not satisfy the definition of a benefit. The economic definition of benefit clearly includes non-use value (see the concept of total economic value). I strongly suggest adding that it does not satisfy the accounting definition of a benefit or delete this sentence altogether. Again, at least parts of the spiritual and symbolic services would be non-use. (Why) do they satisfy the definition of accounting benefits?

6.81:

I welcome the new section on links to recreational-related services. I encourage the authors to further clarify how to address cases where only a single value for recreation (e.g. recreational fishing) is available and the value for fish 'caught and kept' (biomass) cannot be separated from service components other than biomass (e.g. value attached to 'catch and release'). Should the value be accounted for under biomass or cultural services? Also, the physical metric for this recreational activity may be number of fishing trips and biomass fished. Should they both be recorded in the physical supply and use tables? I think clarifying this would avoid confusion and potential inconsistencies across accounts.

Table Annex 6.1:

Recreation-related services: Wouldn't households be beneficiaries if the recreation experience is sold by a tour operator? So, the user is the tour operator, the beneficiaries are households. I suggest including households under beneficiaries. Having a blank seems irrational: does nobody benefit from the use of recreational services used by a tour operator?

Chapter 7:

Table 7.7:

I welcome the inclusion of baselines for selected regulating and maintenance services. I encourage the authors to additionally include a baseline for ecosystem and species appreciation services. 5.58 mentioned species extinction. Is that considered as a baseline for the species component?

Question 5. Do you have comments on Chapters 8-11 of the draft SEEA Ecosystem Accounting?

Chapter 9:

9.42:

The sections on the 'travel cost method' are unclear and a bit confusing. I strongly suggest to separate the two methods mentioned in this section: (1) the 'travel cost method' used to estimate a demand function; and (2) the 'consumer expenditure method' that adds up expenditure without any further estimation and modelling procedures. They are very different approaches. So, I strongly suggest moving the sentence 'One way to obtain an equivalent to the exchange value of trips to such sites is to add up all consumption expenditures. This is sometimes referred to as the consumption expenditure approach.' from 9.42 into a separate section under the heading 'consumer expenditure method' (or similar).

9.44:

The sentence 'An alternative approach that may be suitable for aggregate measures of ecosystem services values is to add up all direct consumption expenditures. This is sometimes referred to as the consumption expenditure approach.' seems out of place here. I suggest removing it from this section and combining it with the sentence mentioned under 9.42 (above) under a separate heading 'Consumer expenditure method'.

The sentence 'Note that measures of consumer surplus which are commonly estimated using the travel cost method should not be included in accounting values.' seems out of place here. I suggest moving it under 9.42.

General:

The interpretation of 'consumer expenditure' in the context of recreation is unclear. It could be interpreted in two ways:

1. Consumer expenditure is already accounted for in the SNA. Hence, the estimated exchange value would be a re-allocation within the accounting

system. This interpretation, however, seems to contradict the rest of the SEEA EA (e.g. 2.84, 2.28, 6.16, 7.51, 8.25), which states that human-made and human inputs needs to be deducted to estimate the value-added generated by the ecosystem asset through the provision of ecosystem services. Basically, since consumer expenditure is made-up entirely of human and human-made inputs, the value of the ecosystem service would be zero.

2. Consumer expenditure is interpreted as a proxy for the exchange value reflecting the amount people would be willing to pay additional to the actual consumer expenditure incurred (i.e. doubling the consumer expenditure). Under this interpretation we would assume that if the ecosystem did not exist, these expenses would not be made. Hence, the additional consumer expenditure is interpreted as the exchange value of the ecosystem contributions. Economic theory would suggest, however, that - under this scenario - the quantity of trips demanded would be lower than those currently observed since the 'access fees' are additional to the travel cost – the exchange price is higher since it includes double the consumer expenditure. Therefore, even if consumer expenditure was an appropriate proxy for the exchange value of recreational benefits (over and above the travel expenses visitors have to pay to get there and access the NP), then not adjusting trip numbers to reflect the higher cost will overestimate the exchange value to an unknown extent. The extent of this bias would depend on the price elasticity of demand and could be significant. Furthermore, if consumer expenditure is used as a proxy for the value of the ecosystem service, it may not relate in any significant/informative way to the value of the provided ecosystem services. E.g. the value of a recreational service would be higher if the visitors eat expensive 5 course meals than if they bring a sandwich. Using these values seems problematic. I suggest moving this method into the 'other method' section.

If, nevertheless, it is decided to keep the consumer expenditure method in the recommended method list, I suggest clarifying if the expenditure is a reallocation from the SNA, or if that value is additional to the entry in the SNA. Also, I suggest explaining the limitations outlined above (which should be mentioned in the account tables to ensure that the results are interpreted accordingly).

If changes regarding 9.42 and 9.44 are made, I suggest adjusting table 9.2 accordingly.

Question 6. Do you have comments on Chapters 12-14 of the draft SEEA Ecosystem Accounting?

Chapter 12:

I welcome the inclusion of chapter 12.

12.9/ Table 12.1:

While I think providing an example is great, I think the particular example provided might be confusing.

Potential for confusion is related to the fact that the example, I think, uses the consumer expenditure method (used as a proxy for the service value) to estimate the exchange value for recreation. I would argue that the welfare value is equal to the consumer surplus only, since the expenditure (used as a proxy) is still a cost and would be treated as such in a welfare analysis. But since expenditure is used as a proxy for the exchange value, we basically internalise some of the consumer surplus by transforming it into an exchange value (see slides presented by A. Casparros during the second panel of experts). That is, the welfare value (consumer surplus) is reduced.

The potential for confusion becomes clear if we used an exchange value estimated by the 'simulated exchange value method'. There, the simulated exchange price attributed to the ecosystem service is net of the travel expenditure. Again, we internalise some of the consumer surplus by transforming it into an exchange value. Therefore, (assuming producer surplus is zero, which is reasonable in the case of free-access recreation), the welfare value can never be larger than the consumer surplus.

The sum of expenditure and consumer surplus would be the total benefit in a welfare analysis, which consists of consumer surplus and costs.

I would further argue that adding the exchange value and the consumer surplus would be the correct approach to derive the welfare value if the exchange value of the ecosystem service was the value-added of the ecosystem service earned by, for example, a tour operator (so basically producer surplus generated by the ecosystem service), estimated through, for example, the resource rent method. In that case, I would argue, adding the exchange value and consumer surplus would be correct, since welfare value is typically defined as the sum of consumer and producer surplus.

I suggest revising this section.

12.10:

This section seems to completely contradict the validity of using the simulated exchange value method to estimate an exchange value of non-market benefits (chapter 9), and, more generally, excludes all non-SNA benefits under an open-access regime (public goods and common pool resources listed in chapter 6 (e.g. recreation services in a public park) from being recognised in terms of an exchange value instead of an 'unrealized' value and section 12.11. I recommend revising this section to avoid confusion.

A12.4/ Figure 12.1:

This figure seems only be correct if the exchange value consists entirely of the value of the ecosystem service net of all produced inputs and human inputs. To avoid confusion, I suggest clarifying this.

A12.14:

While there might be a relation between public spending and the value of public goods, this is arguably not the case when using consumer expenditure. The difference is that the 'public hand' who makes the investment in public goods does not consume any ecosystem service or other services, whereas the expenditure of consumers is directly linked to the consumption of produced goods and services by these consumers (e.g. petrol for travel, food). This adds to my comments under chapter 9 regarding the use of the consumer expenditure method (above).