



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?

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

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

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

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

A general concern across Chapters 8, 9, 10

There seems to be an assumption that monetary values of ES can be assigned spatially to EA or ET. This may be difficult to operationalise in practice, especially because different ES likely to be mapped at different scales, and some are provided by landscapes or seascapes rather than individual EA or ET. It may be worth mentioning in Chapter 8 and 9 that mapping of ES and spatially assigning ES to EA or ET is dealt with in Chapter 6. There could perhaps be a paragraph on this that is included in the introduction to both Chapter 8 and Chapter 9.

General comment on Chapter 8

It may be important to state more explicitly in Chapter 8 that ES are a subset of nature's contributions to people (to use IPBES terminology) and that valuation in ecosystem accounting is not intended to be a comprehensive measure of nature's contribution to people (as is stated in Chapter 10, paragraph 10.1).

For example, in Section 8.2.2 on monetary valuation of ecosystem services, it may be worth referring to the fact that ES accounts focus on a subset of instrumental values and are not intended to deal with intrinsic and relational values.

Section 8.2.3 on monetary valuation of ecosystem assets could be clearer that the monetary value of EA reflects only those ES that have been valued in the monetary ecosystem services account.

Comment on paragraph 8.4

Paragraph 8.4 states that having monetary values for ES and EA is expected to assist in mainstreaming discussion of biodiversity.

This reference to mainstreaming biodiversity comes somewhat out of the blue and the statement is likely to be controversial. Some people would disagree with it vehemently and might argue that the opposite is the case – that having monetary values for ES and EA is likely to be harmful for biodiversity. It would be simplest to delete “and assist in mainstreaming discussion of biodiversity” from the paragraph – the rest of the paragraph stands without it, and biodiversity will be dealt with in thematic accounts.

Comment on paragraph 8.17

Paragraph 8.17 states that “ecosystem accounting involves using exchange values to reflect, in monetary terms, the contribution of ecosystem to benefits used in economic and other human activity”.

The phrase “and other human activity” is very broad – it could be taken to mean all human activity. Possible rewording: “contribution of ecosystems to benefits used in economic activity and some other human activity”?

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?

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

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

General comment on Chapter 9, most relevant to Section 9.1

The point could be made more clearly in Chapter 9 (for example in the introductory section) that the ecosystem services account in monetary terms may not be comprehensive for two reasons:

- The ES account in monetary terms can only be as comprehensive as the underlying ES account in physical terms, which for many reasons is likely to include only a subset of ES that are provided by a particular EA (or ET). Not all ES are likely to be mapped and quantified in biophysical terms.
- Even for those ES that have been quantified in biophysical terms in the physical ES account, it may not be possible to determine exchange values (this point is made in paragraph 9.9, but in a slightly oblique way).

The ES account in monetary terms will thus generally represent *only part of the exchange value* of the ES supplied by EA. So even in the narrow sense of exchange values (setting aside welfare values, non-monetary instrumental values, relational values and intrinsic values), the monetary value of ES is likely to be an under-estimate and provide only a partial picture of the value of the associated EA.

Paragraph 9.13 states that “It is important that compilers document the scope of the ecosystem services included in the accounts and highlight ecosystem services that have been excluded from the scope of measurement”. This is a critical point that may need to be referred to elsewhere, including in Chapter 10. It runs the risk of getting lost at the moment.

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?

Comment on Section 10.2.2 Ecosystem enhancement

Paragraph 10.9 defines ecosystem enhancement as “the improvement in the value of an ecosystem asset over an accounting period that is a result of an increase in the condition of the ecosystem asset.”

I suggest the definition should be qualified as follows:

“Ecosystem enhancement is the improvement in the value of an ecosystem asset over an accounting period that is a result of an increase in the condition of the ecosystem asset that in turn has led to an increase in the supply of one or more ecosystem services.”

Not all increases in condition are relevant for all ecosystem services. Because the perspective of the ecosystem condition account is purposefully neutral with respect to specific ecosystem services, it would be useful to make an explicit link here between enhancement, increase in condition and increase in the supply of one or more ES.

In some cases an increase in condition could be associated with a *decrease* in the supply of ES. An example: an increase in the condition of a rangeland could be associated with a decline in grazing services.

In the ecosystem monetary asset account, how would a *decline* in the value of an ecosystem asset over an accounting period that is the result of an increase in condition be dealt with?

Comment on Section 10.2.3 Ecosystem degradation

Paragraph 10.14 defines ecosystem degradation as “the decline in the value of an ecosystem asset over an accounting period that is the result of a decrease in the condition of an ecosystem asset.”

As for the definition of ecosystem enhancement in paragraph 10.9, I suggest this definition should be qualified as follows:

“Ecosystem degradation is the decline in the value of an ecosystem asset over an accounting period that is the result of a decrease in the condition of an ecosystem asset that in turn has led to a decrease in the supply of one or more ecosystem services.”

Not all decreases in condition are relevant for all ecosystem services. Because the perspective of the ecosystem condition account is purposefully neutral with respect to specific ecosystem services, it would be useful to make an explicit link here between degradation, decrease in ecosystem condition and decrease in the supply of one or more ES.

In some cases a decrease in condition could be associated with an *increase* in the supply of some ES. An example: An ecosystem asset might be considered natural in the absence of harvesting. Harvesting resources from the ecosystem asset may result in a decrease in the condition (to, say, an ecosystem condition index of 60%), which might nevertheless represent an indefinitely sustainable level of harvesting. Think of medicinal plants or fish, for example, where the process of harvesting of the resource can impact negatively on the ecosystem’s condition without destroying its ability to provide the harvested resource. Another example could be providing recreation facilities and increased access to an EA, resulting in a decrease in condition (away from natural) simultaneously with an increase in the supply of recreation-related ES.

In the ecosystem monetary asset account, how would an *improvement* in the value of an ecosystem asset over an accounting period that is the result of a decrease in condition be dealt with?

Comment on definition of ecosystem conversions (Section 10.2.4)

The definition of ecosystem conversion in paragraph 10.20 is “Ecosystem conversion refer to situation in which, for a given location, there is a change in ecosystem type involving a distinct change in the ecological structure, composition and function which, in turn, is reflected in the generation of a different set of ecosystem services and different expected future returns.”

Suggest deleting the following part of the definition: “involving a distinct change in the ecological structure, composition and function”. This level of detail is dealt with in earlier chapters and could be confusing to reintroduce here without the context of the discussion in earlier chapters. It is not an essential part of the definition for the purposes of Chapter 10.

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

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

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

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 10?

[Links to the condition account](#)

There are links to the condition account in Chapter 10. It might be important to refer more explicitly to the condition account, including to the fact that the condition account uses a reference condition of “natural” as the default reference condition (except for anthropogenic ET).

It will also be important to align terminology related to condition with Chapter 5 once it settles, especially in relation to changes in condition. Chapter 10 currently refers to: increase/decrease in condition, improvement/decline in condition, loss/gain in condition.

I suggest sticking with increase/decrease in condition, which is the most neutral option, with increase meaning a movement towards/closer to the reference condition and decrease meaning a movement away/further from the reference condition. Chapter 10 could refer to a “sudden large decrease in condition” instead of “loss of condition”.

As highlighted in my comments on sections 10.2.2 and 10.2.3, the relationship between condition and supply of ES is not unidirectional – in some cases a decrease in condition can be associated with an increase in the quantity of an ES supplied. Especially in such cases it would be more appropriate to refer to a “decrease” in condition rather than a “decline” in condition.

General comment on chapter 10, most relevant for Section 10.1 Introduction

In both Chapters 9 and 10 there sometimes seems to be an implicit assumption that monetary values for all ES associated with an EA will be available.

In paragraph 10.1 this is actually explicitly stated in the second sentence: The ecosystem monetary asset account “records the monetary value of ecosystem assets reflecting all of the ecosystem services supplied by the asset”.

This is qualified later in the paragraph: “The estimates provide a measure of the exchange value of the asset and therefore are not intended to be a comprehensive measure of the value of nature”.

However, even this should be qualified further as in practice the ecosystem monetary asset account is likely to reflect the exchange value of some of the ES supplied by the asset – only those that have been valued in monetary terms.

It would be useful to reword the second sentence of paragraph 10.1 along the lines of:

The ecosystem monetary asset account “records the monetary value of ecosystem assets reflecting those ecosystem services supplied by the asset that have been valued in the monetary ecosystem services account”.

(Later in the chapter, in paragraph 10.45, it is made clear that “the scope of returns concerns the set of ecosystem services that is included in the valuation for any given ecosystem asset”.)

In the last sentence of paragraph 10.1 it may be useful to use the IPBES terminology “nature’s contributions to people” rather than “the value of nature”.

Comment on paragraph 10.3

Paragraph 10.3 refers to “socio-economic drivers of change such as changes in economic activity and population growth”.

Suggest rewording this to “economic activity and demographic trends”.

Population growth is one possible driver, but in some cases the driver of change may be decrease in population (for example decreases in rural population as people migrate to urban areas). “Demographic changes or trends” is more inclusive and neutral than “population growth”. There are a couple of other places in the chapters where references to population could be changed to “demographic factors”.

Comment on Section 10.3.2 Scope and definition of returns

In paragraph 10.45, there's a statement that "compilers should include a comprehensive range of ecosystem services in order to best reflect the monetary value of the asset and its changes over time". This seems quite glib given how challenging this is likely to be in practice. Explicitly acknowledgement of the challenge and a repeat of the point in paragraph 9.13 that "It is important that compilers document the scope of the ecosystem services included in the accounts and highlight ecosystem services that have been excluded from the scope of measurement" may be useful here.

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?

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

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?

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

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