



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?

As it is mentioned in this chapter, ecosystems assets and services are not traded directly on markets. Therefore, to produce monetary valuation estimations of exchange values some imputation criteria and techniques are needed.

Although the SNA describes two approaches for estimating and imputing the exchange value, it is very important for countries to fully grasp this applied to the EEA field, so we would suggest to include more examples of the replacement cost approach and the discounted present value of expected future returns, from the perspective of ecosystems assets and flows. These examples can be based on real exercises and case studies.

We would also suggest to explain more deeply the link between the valuation calculations and the consideration about ecosystem assets being complex, and interacting producing units ("factories") who supply outputs of ecosystem services to various users while flows of ecosystem services are considered analogous to flows of capital services supplied by produced assets. We find it difficult to match the latter with the definition of ecosystems from the Convention on Biological Diversity.

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

We do not have any suggestions.

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

Again, from the text it is not clear enough how to estimate the exchange values of ecosystem assets over the changes through an accounting period, mainly including ecosystem enhancement, degradation, conversions and revaluations of the ecosystems.

We strongly suggest that some specific examples of these kind of estimations would help to understand the concept that each EA provides a number of ecosystem services to different users.

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?

We find this chapter very exhaustive and complete.

All the items of the ecosystem service supply and use account in monetary terms are clearly detailed and explained. The summary of techniques for imputing exchange values for ecosystem services presented in Figure 9.1 shows all the possible alternative to obtain unit prices consistent with the exchange value concept.

In this matter, our only concern is related to the reference that:

- i. entries in the monetary account are recorded in line with the definitions, treatments and measurement boundaries for ecosystem services in physical terms and
- ii. that the accounts record transactions in different types of ecosystem services between ecosystem assets and economic units.

From our experience working with countries, we know that in order to fulfil both criteria there is a huge demand of basic data at the ecosystems level, but these data sets are still not available in many developing countries.

At the same time, a lot of imputations will be necessary and it would probably make difficult comparing different ecosystems accounts.

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

No comments.

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?

1. For damages that occur separately the allocation of values is probably not a problem.

But we wonder what would happen when an event involves impacts on quantities and prices simultaneously or consecutively?

For example: forest fires that (i) destroy timber resources and (ii) deteriorate the physical conditions of the land surface. The first impact implies a decrease in value due to "catastrophic losses", and the second, a decrease due to a fall in the sale price of the land (re-evaluation). The same applies to other events and accidents, such as spills affecting water bodies, biodiversity, etc., which directly reduce the value of the asset and lead to a fall in the expected rental or sale price.

How it would be expected that the practitioners solve this statistical problem? Is there any recommendation for these cases of simultaneity? Does it make sense to separate the effects, particularly in the absence of market prices?

2. Perhaps this following question might seem quite elementary:

If for example improvements increase the useful life (durability) of the asset, how would this process impact both the conceptualization and the recording of the improvement?

For example, a cleaning or decrease of pollution of a water body such as a lake or coastal marine waters, this will yield higher production rate of the fishing biomass within a given magnitude (Δ).

Then the calculation of the NPV is only to be influenced by the Δ in N (the useful life), or should the increase in the value of the more productive asset also be considered (estimated) since its new price could be higher (revaluation)?

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

We know that the impact of the chosen discount rates is crucial in calculating NPV. Therefore, we suggest explaining in more detail the advantages and disadvantages of using different types of rates: social or private and descriptive or prescriptive. Similarly, recommendations based on available international experience and good practices would be very useful. We think that section 10.3.7 is not entirely sufficient to elucidate how to come about choosing a particular discount rate.

The higher the discount rate the more we implicitly underestimate the value of future and vice versa.

One important question that could perhaps be discussed in the text is if SEEA EEA should or should not use the same types of fees as the System of National Accounts and why.

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

We think that the examples in section 10.1 are very clear about the calculation sequence. However, the complexity remains from a previous point we have introduced: how are practitioners to determine the list of services that an asset can provide? What is included and what is excluded is key to the valuation and NPV calculations.

Since there are many types of assets and each asset can provide a variety of services - some linked to System of National Accounts products and others not - it would be very useful to provide a list of possible services as a general reference for the practitioner.

Also, please include a discussion on if and when are such services standardized, and are there recommendations for them.

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

No comments.

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?

The example in section 11.5.3. and Table 11.4. is very illuminating of the differences between:

- (i) The standard supply/use account,
- (ii) The supply/use account with links to the System of National Accounts, and
- (iii) The full offer/use account, i.e. including those services non-SNA.

It allows to see directly both (i) the transaction flows (offer and use) and (ii) the effect on the value added of the services not visible in the accounts.

This clarity is less so when it comes to Table 11.3. above. We suggest greater simplicity in the explanatory text.

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?

It is very clear with the creation of a government sub-sector "ecosystem trustee". This is a good formal solution for allocating non-SNA items that are nationally owned. No further comments.

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

No comments.