



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION  
UNITED NATIONS



System of  
Environmental  
Economic  
Accounting

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## 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](mailto: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](mailto: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](mailto: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?**

Much of this short chapter draws on standard economic theory and national accounting concepts and seeks to apply these to ecosystem assets and service flows. Illustration of how this might be done in practice is promised in later chapters.

Theoretically, the principles of monetary valuation are well laid out. Some concrete examples in 'Boxes' would help the reader, though.

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

Examples of practice in some countries could be provided either by way of insert boxes (see comment above) or a special annex to this chapter.

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

Paragraphs 8.12 and 8.13 concerning, respectively, estimations of transaction flows and asset stocks could be re-cast to make the distinction even clearer.

The chapter ends rather abruptly with paragraph 8.23. It seems to be in mid-flow where the topic of price deflation is introduced very briefly without any clarity about how this might be applied to ecosystem services. Indeed, the distinction between price and volume seems very difficult if not impossible to implement in the case of ecosystem services.

### **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?**

The five main estimation methods are well outlined. Some practical applications and examples could help either by way of references in the literature or material in a special annex.

The discussion of opportunity cost of alternative uses (9.43) and Simulated Exchange Value (SEV) in 9.44-9.45 is not clearly spelt out. The examples used seem similar in principle – the estimated value of an alternative use of ecosystem assets.

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

The supply and use table (9.1) is sufficiently detailed and comprehensive. We suggest that the content and format of Table 5.1 used in the SEEA-EEA Technical Recommendations would provide a more exact overview of how services and economic units are related. By using a more detailed Table such as that used in the Technical Recommendations document some of the points raised in paragraph 9.13 are better addressed.

We concur with the statement in 9.25 that observed prices may not be appropriate estimates of exchange value in some cases (e.g. paid access to public parks).

Paragraph 9.54 makes an important point – “In practice, the technique that is applied will depend on data availability.”

### **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?**

The separation made in 10.10 and in 10.16, conceptually, between revaluations (based on unit price) and reappraisals (based on demand for an ecosystem service) is a little unclear especially since price is not typically observable. It is not obvious that this distinction can be made. Examples of how and where such distinctions have been successfully attempted and implemented would be of assistance.

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

The specification of social discount rate is unclear. It is not spelt out or exemplified. One solution suggested in the draft is to pick market rates for long term government issued bonds. However, such a value would be artificially low especially in the case of high-risk biodiversity loss. In these circumstances a way of approaching this problem is to add an arbitrary amount (say two percentage points) to the long-term government bond issues in the case of agreed ecosystem asset types. Variations in estimates of NPV should be published by way of sensitivity analysis (a point made in 10.68 but which could be moved up earlier in this discussion). The use of an economy-wide deflator (e.g. that for GDP) seems reasonable on the basis of opportunity cost or forgone national income. However, use of GDP price deflators is problematic in the case of a number of countries due atypical compositions of investment and trade flows.

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

It is well explained. A key challenge for countries is to estimate appropriate prices as well as discount rates.

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

In annex 10.1 p (price) and q (quantity) should be spelt out. What is the meaning of capitalised Q in equation 3? (cumulative?)

### **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 examples given in the extended Table 11.1 and in the annex 11.1 are clear and very useful.

**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 rationale for assigning ownership of ecosystem assets is not clear. The designation of ecosystem trustees when an ecosystem service yields non-SNA benefits and its separation from legal or economic ownership of an SNA benefit producing ecosystem asset lacks analytical value. Even if the distinction is conceptually useful it is far from clear that most countries would be readily able to account for institutional ownership of such assets.

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

It should be 'benefit' and not 'benefits' in 11.26 (citation from SEEA-CF)  
'11.29 In ecosystem accounting, a broader set of economic benefits is recognised, referred to as ecosystem services.' Benefits and services are conflated here.  
Reformulation is suggested.