



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?**

Discuss situations in which a model is used to generalize (potential) physical ecosystem service supply without verifying whether there is ecosystem service use, and hence the basis for a (simulated) exchange price  $>0$ . This is a possible GIS modelling fallacy that might occur in the case of some regulating services (e.g. runoff regulation, water purification, soil erosion control).

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

C. Connection between welfare and exchange value. Exchange values are approximations of welfare values for marginal changes and linear demand. But they are not good approximations for non marginal changes in ecosystem services – resulting from significant changes in ecosystem extent-condition – which are the situations in which ecosystem accounting are most important for policy.

What are the guidelines for defining marginal versus non-marginal changes in ecosystem condition-extent, i.e. situations in which accounting prices in period  $t$  would need to be revised in  $t+1$ . How are substitute ecosystem assets defined? If an EA is facing depletion within an accounting area, but it is present in a neighbouring accounting area, is this considered a marginal or non-marginal change? What are the implications for marginal costs and prices, depending on the identification of substitute EA?

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

National accounting is agnostic about the kind of market in which exchange prices are generated (could be a monopoly).

Considering 9.67:

“The values provided by ecosystem services are often strongly dependent on the biophysical, economic and *institutional context* (my emphasis), which makes it difficult to assume that value estimates of specific services apply also in a different context. “

and

*10.3.6 Expected institutional arrangements*

“In general, the starting assumption for accounting purposes would be that the current institutional arrangements will continue to apply. “

- provide some recommendation on the market (institutional) context specificity of exchange values. This groundwork is needed for chapter 9 reference to benefit transfer/value generalization. Do national accountants require accounting price data to be from within the accounting area (institutions)? If so this limits a common practice in benefit transfer to overcome shortages of ecosystem service valuation within smaller countries by relying on international meta-analytic benefit transfer (drawn from studies from many countries outside the accounting area).
- provide guidance on current institutional conditions – if any – which invalidate the use of exchange prices (e.g. illegal or unconstitutional posited market institutions). This may define the field of action of simulated exchange values in chapter 9.

### **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?**

Figure 9.1 Simulated exchange values is based on data from stated or revealed preferences. I

9.44 Defining simulated market value as the opportunity cost of foregone income from a posited market assumes that the institutional reference condition is a market. Does ecosystem accounting give any consideration to the feasibility or legality of the posited simulated market?

Counterfactual: in some ecosystems markets are unconstitutional (e.g. everyman's right of access to recreation areas, )

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

Section 9.5.1 *Spatial variation and the use of benefit transfer methods*

*Consider renaming this section "spatial variation and value generalization for the purposes of ecosystem accounting".*

The SEEA EEA 2012 framed benefit transfer as another class of valuation of ES. In the revision benefit transfer methods should be framed as a continuum of approaches to greater or lesser generalization of pre-existing value estimates from within or outside the accounting area.

The spatial sensitivity of value generalization required depends on the purpose of ecosystem accounts, with a gradient of generalization error being acceptable for different purposes (e.g. awareness raising, trend detection, sector attribution/within specific geographic areas). Acceptable value generalization error for the purpose of ecosystem

accounting should be addressed, at least if change/trend detection is a declared purpose of ecosystem accounting.

Value generalization is also an issue faced by ecosystem service mapping and physical supply-use accounts so links to a parallel section on physical value generalization in chapters on ecosystem service modelling is needed.

Clear links should be made to introductory chapter describing the primary (and possibly secondary) purposes of the system of ecosystem accounts. (NB! integrating ecosystem service contributions to economy in the system of national accounts is an intermediate technical purpose, rather than a policy-support purpose).

### **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?**

*“Ecosystem conversions refer to situations 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.”*

Recognise that ecosystem conversion can be the result of sufficient ecosystem enhancement or degradation.

**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?**

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

**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?**

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

**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.)