



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

Name:	Dr. Han SHI
Organization & country:	China Institute for Greening Industrial Parks, China

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?

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?

Par. 8.27 “This approach assumes that the expected future returns for each ecosystem service are separable.”

The assumption has neglected the synergies and trade-offs between different ecosystem services generated from the same ecosystem asset. For instance, overharvesting ecosystem provisioning services (such as timber harvesting) may well lead to shrinking regulating and cultural services such as water filtering and recreation. On the other hand, enhancing regulating services may also amplify cultural services. When aggregating different ecosystem services of the same ecosystem asset, efforts should be made to better incorporate the interlinkages and interactions between different ecosystem services in the ES accounting.

Paragraph 8.2

There are some brief discussions about “deriving aggregates such as degradation adjusted measures of national income.” (see paragraph 8.2)

It will be very useful to further elaborate on the concept and methods of deriving aggregates.

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?

On the one hand, ecosystem accounting seems to emphasize the difference between its exchange value-based accounting approach and the welfare-based valuation method used in many wealth accountings. On the other hand, most of ecosystem services and ecosystem assets are not traded directly on market and therefore a range of valuation methods (e.g. travel cost method for quantifying the recreation value of urban greenspaces, hedonic method for amenity value of urban greenspaces), which have been commonly deployed in the welfare-based valuation, are adopted for the monetary valuation of ecosystem services and ecosystem assets. Therefore it necessitates some more practical explanations as to how the same valuation methods will generate the exchange values for ecosystem accounting and how it will produce the welfare values for most environmental economic studies.

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

As for the ecosystem services supply and use accounts both in physical terms and monetary terms, the aggregate ecosystem services supply equals the aggregate ecosystem services use.

In reality, the aggregate ecosystem services supply rarely equals the aggregate ecosystem services use, with either ES supply is greater than ES use or ES supply less than ES use.

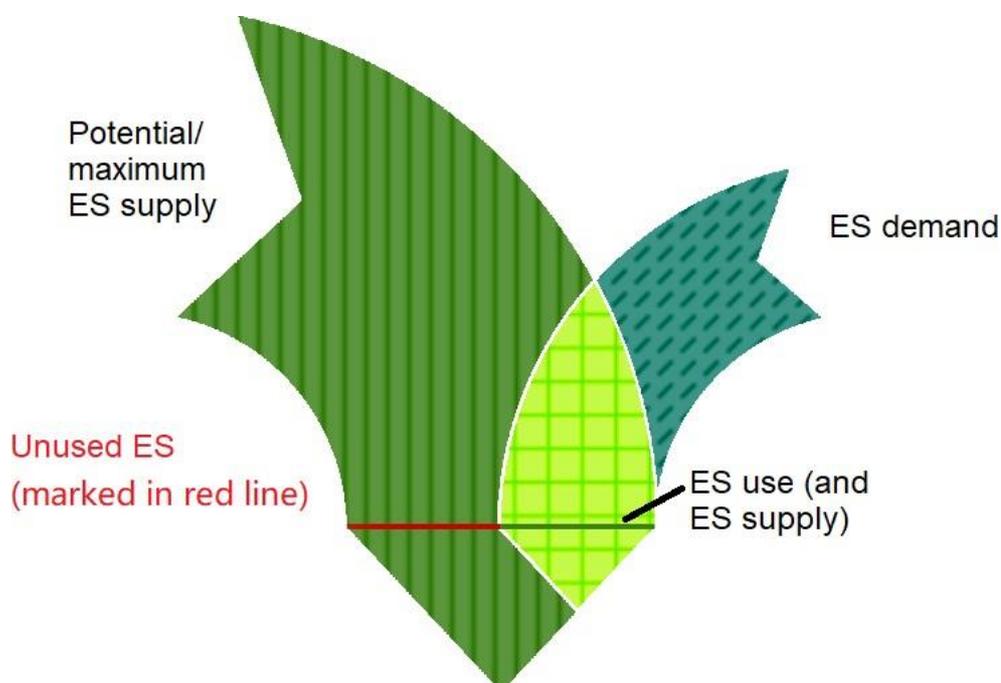


Figure 1 Potential/maximum ES supply exceeds the ES use with unused ES supply

While in ecosystem accounting, ES supply equals ES use. To better reflect the capacity of any specific ecosystem asset which supplies ES, it will be helpful to account the potential/maximum ES supply, which may most likely be greater or smaller than the ES use. The situation when the potential/maximum ES supply is less than the ES use indicates the very ecosystem asset is being degraded due to the ES overharvesting.

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?

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

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?

As described in paragraph 3.8, “ecosystem assets are considered assets on the basis of their biophysical existence and hence are not dependent on establishing flows of benefits or ownership as is required for economic assets in the System of National Accounts (SNA).”

Meanwhile the monetary values of ecosystem assets equal the net present values of expected future returns over the accounting period. Measures in monetary terms may also be related to general socio-economic drivers of change such as changes in economic activity and population growth (see paragraph 10.3).

Case 1: the economic value of the cooling effects and other amenities stemming from an urban park will increase with the growing resident population surrounding the park (before the too many residents cause any harm on the urban park itself). In this case, the monetary values of ecosystem assets are indeed dependent on the flows of ecosystem benefits received by the beneficiary groups.

Case 2: In a region where its population drastically declines, the monetary values of ecosystem assets can keep declining although the ecosystem conditions may remain relatively stable. In accordance with the ecosystem asset monetary accounting method, the ecosystem assets are not sustainable.

In both cases, the extent and condition of the ecosystems basically remain unchanged, but the monetary values of the given ecosystems have apparently varied with the related evolving socio-economic contexts. Do these cases square with the very statement in paragraph 3.8?

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?

It is not clear where urban ecosystems (in particular urban greenspaces and biodiversity) should be entered in the extended balance sheet.

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?

It will be helpful to further develop the concept and methods of deriving aggregates of ecosystem services and ecosystem assets, which it will facilitate the integration of ecosystem accounting and SNA accounting results, and thus promote the mainstreaming of ecosystem accounting practices.