



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:	Francisco Guillén/Raúl Figueroa
Organization & country:	INEGI/Mexico

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?

The principles embodied in the SEEA EEA fully respond to a market vision, which is functional in terms of those services that are used in economic products in terms of their added value, however those services that intervene as part of intermediate consumption remain marginalized with this type of methods.

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

The use of methods that capture No-SNA values would be very useful to be able to capture all the ecosystem services that intervene in the production process.

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

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

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?

A warning must be included on the implications of market prices to ecosystem valuation, discouraging the interpretation of ecosystem valuation as putting a price on the environment. The market price approach that SEEA-EEA privileges, while allowing comparability with SNA data, introduces the risks of market fluctuations (supply and demand shocks).

Paragraph 9.31 could be linked to paragraph 9.57 to include the case of subsistence agriculture when estimating the residual.

Regarding benefit transfer, the meta-analysis with a country approach should be privileged over global approaches.

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

Even though this ecosystem account concerns the supply and use of ecosystem services, there should be caution with the words used for the concepts, since SNA already uses “Supply and Use Tables”, where intermediate consumption, value added and output are included. The similarities and contrasts with SNA supply and use tables should be included, as well as other concepts such as SNA “institutional sectors” and SEEA-EEA “economic units”.

Both in subsection 9.3 and 9.4, when approaching the aggregation across ecosystem services, guidance should be included, in order to avoid double accounting and to address the difficulties in disaggregating ecosystem service. For example, soil regulation services as well as pollination are implicitly included in the food provisioning service (valued with the resource rent).

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 elaboration of the ecosystem monetary assets account requires recording the changes in the monetary value of the ecosystem assets during an accounting period. This requires considering five types of changes: ecosystem enhancement, ecosystem degradation, ecosystem conversions, other changes in the volume of ecosystem assets, and revaluations as a result of price changes.

Ecosystem enhancement refers to the increase in value of assets due to an increase in the condition of the ecosystem asset. These improvements are mainly due to the restoration, rehabilitation and recovery of ecosystems. We consider that not all improvements in value should be recorded as ecosystem improvement, only those improvements that result from an increase in the condition of ecosystems and from which increases in future flows of services from the ecosystem. We agree that improvements in value attributable to changes in expected demand for ecosystem services and changes in unit prices should be recorded as upward revaluations.

Ecosystem degradation refers to a decrease in the condition of ecosystems, which translates into a decrease in the net present value of the expected future returns of the assets of an ecosystem. The degradation of an ecosystem asset is due to different factors such as the extraction and harvesting of natural resources, pollution and emissions. We believe that not all decreases in value should be recorded as ecosystem degradation, only those that can be reasonably anticipated should be recorded. Degradation due to large-scale events should be recorded as catastrophic losses.

Ecosystem conversions refer to a change in the ecological function of ecosystems that is reflected in the generation of a different set of ecosystem services and therefore different expected future returns. We consider that these conversions should be recorded as a reduction in value in the ecosystem asset that was transformed and an addition in the ecosystem asset that emerged.

The two types of other changes in the volume of an ecosystem asset are catastrophic losses and reappraisals. Reappraisals should be recorded when updated information on expected future returns emerges allowing a reevaluation of the expected condition of ecosystem assets or future demand for ecosystem services.

Finally, we consider that revaluations refer to changes in the value of ecosystem assets during an accounting period that are solely due to movements in the unit prices of ecosystem services.

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

The first step in estimating the net present value is to calculate the expected future returns. The second step is to calculate the discount of these returns to their present value. The selection of an appropriate discount rate is the fundamental question for this calculation. For some ecosystem assets linked to provisioning services, a marginal, private and market-based discount rate may be used. However, for other types of ecosystem services with strong public good characteristics, the use of social discount rates may be considered more appropriate.

In this sense, we agree that for ecosystem provisioning services and other services that contribute to SNA benefits, individual market-based discount rates are relevant. On the other hand, for ecosystem services that contribute to non-SNA benefits, a social discount rate must be used, which must come from processes determined by the government and must be used in decision-making. In the event that there is availability of social discount rates, the market rates for long-term government-issued bonds are relevant.

Whether they are market discount rates or social discount rates, we agree that a constant rate must be used during the life of the asset, mainly decreasing discount rates. It is also necessary to consider that the discount rate must include an estimate for expected inflation.

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

We agree with the equation that describes the derivation of the NPV to calculate the value of the assets of an ecosystem based on the future services and the useful life of the asset. This equation indicates that to estimate value over time we multiply prices and quantities. The value of each ecosystem service is assumed to be separable, and therefore the overall value of the assets can be obtained by adding up all the ecosystem services. Assumptions need to be made about future benefit streams that can be derived from ecosystem services. Additionally, we have to make assumptions about the discount rate. We also consider that in order to compile the entries in the monetary account of ecosystem assets it is necessary to distinguish between changes due to prices and changes due to volumes.

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?

In general, we agree on the proposed structure.

In paragraph 11.19 it is mentioned that “the extended balance sheet is also capable of supporting the identification of environmental assets, which are essential and, therefore, are not substitutable”. In this sense, it is suggested to extend the comment, since it is not clear how these issues can be identified.

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?

We agree with property allocation approaches.

As proposed in paragraph 11.69, we consider that at some point it will be relevant to consider other frameworks for measuring aspects of well-being, particularly those related to a healthy environment, since the relationship between a healthy environment (well-being) and the current coverage of the SNA must be reflected in the economic accounts.

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.)