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

General comments on Chapters 8-11:

- The chapters seem to be technically and theoretically sound. However, our techniques and theory will still struggle with this task. The chapters highlight the incredible complexity of the challenge before us to create a system that generates comparable data and a replicable process at a national, regional and global scale. There are many judgement calls where reasonable people with the requisite experience and training could arrive at substantially different numbers. These documents should be transparent about this likelihood.

- In particular, it is important to be clear about what is not to be measured or what will be only partially measured such that the direction, likelihood magnitude of bias and the recommended vs not recommended uses of the information found in the tool. For example, in this exposition 'exchange value' should never be reduced to 'value,' as the latter includes the consumer surplus and the latter does not. Further we should not confuse total economic value with capturable economic development potential. Due to the public goods aspects of environmental management and the uniqueness of some environmental goods (implying inelastic demand and high consumer surplus) they are quite likely to diverge importantly and have implications for policy decisions and budget allocations.

- The ability to meaningfully capture value spatially (although popular) on a broad scale using benefits transfer approaches is perhaps overstated. Both demand and supply drive value. Supply side features can be site specific in important ways (e.g., views, habitats, connectivity, threshold effects, micro-climates, neighborhood effects). To the extent that demand is the driver, it can move, get wealthier and more plentiful over space and time, making the derivation of per hectare present values more challenging particularly when production function approaches are infeasible. Attributing ecosystem service value to a particular location whilst employing an ecosystem service valuation approach may create some big challenges in double counting, attribution of value added and distributing value spatially along the ecosystem service supply chain.

- While this is substantial work in the right direction, this approach may deliver a systematic undercount of the value of biodiversity and ecosystem services at least because:

    - Where there is no market valuation it will use a cost/transaction approach
    - There is likely an incomplete/inconsistent connection between exchange value and welfare.

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?

- There is no mentioning of the shadow pricing in Ch.8. It can be added to 8.17.
- Neither there is anything on accounting for externalities; that is, when the indirect effects of the production affect the consumption and production opportunities of other goods and services, e.g., pricing for unintended consequences.

- There is a need to say something about valuation and pricing of intangible assets, such as clean air or 'a natural harmony and balance of species.' Generally, there is nothing about public goods. (8.8)

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

- The validity of the exchange value approach depends critically on Annex 8.1 and making the connection/bridge between welfare and market exchange value.
    - Suggestion Annex 8.2.a include a section viii on Public goods and property rights institutions.
    - Suggestion Annex 8.2.a.ii might include additionally Producer Surplus to parallel iv.

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

- Sorting out the concerns expertly detailed in 8.26 and 8.27 presents substantial challenges.
- Under what conditions will cross country comparisons of the value of ecosystem services valid for international policy making due to the dependence on income and population as drivers of value? Would a relative value (as a proportion of national median per capita income?) be more appropriate for such comparisons/syntheses/analyses?

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?

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

- Ch. 9 addresses two groups of the ecosystem services – provisioning and regulating, and to some extent the third group – cultural services.
- There is no much about valuation of the 'supporting' services – nutrition cycling, soil formation, water cycling, etc.
- 9.21 on Convergence validity, a great way to discuss comparability mentioned in Chapter 8. If we think about the value of (a college?) education example and we employ the three (or more) approaches of cost, depreciated replacement value and expected value there is no reason we would arrive at the same number because they measure different dimensions of the same valuation problem. This is a particularly big problem with public goods and nonmarket values.
- Table 9.1 As a result, are the sums valid or are we adding apples and oranges to see the size of the pile of fruit?
- Global public goods (e.g., carbon) should have the same unit price worldwide. That is, they contribute the same to human welfare no matter where they are found and should not be allocated/managed based upon local willingness to pay. What about biodiversity? UNESCO World Heritage Sites? Who decides the scale of the public good and, therefore, how it should be valued? In no case does it indicate what it would cost to preserve, which would be the difference between the accounting cost and the budget/finance markup. Both are important. Let's be clear the SEEA EEA tries to measure the former and not the latter.

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?

- Measuring ecosystem capacity is important.
- Equally important is to make a distinction between capacity, capability, potential supply and the ecosystem service flow for both, tangible and intangible services.

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

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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?

- There is a need to define who is responsible to provide/calculate the discount rate, particularly 'social discount rates'. For example, in the context of climate change, social discount rates seem to be (very) important in deciding how much today's society should invest in trying to limit the impacts of climate change in the future that affect the future generations

- 10.13 If an expenditure or activity is recorded as an ecosystem enhancement at a, say, 4-digit (relatively fine) code level, could a program at the 2-digit (more course) level be recorded as ecosystem enhancing in a partial attribution (e.g., % of total project expenditure dedicated to ecosystem enhancement in the Central Framework? There has been resistance to partial attribution as subjective. However, it is no more subjective than a 0-1 attribution and is more a matter of data granularity and the cost of data collection than subjectivity vs objectivity.

- 10.16 How to deal with the lumpiness of non-marginal changes. Risk, resilience, stability, threshold effects, etc probably would benefit from more attention than 'catastrophic loss' and recalculation in order to improve the policy relevance and usefulness of the accounts.

- Present values determined over different time periods (and perhaps different exchange rates) are not strictly comparable according to the practice of cost benefit analysis. All values must be normalized to the same temporal length to be comparable. There are a number of ways to do this.

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?

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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?

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

-A good understanding of the non-SNA benefits is crucial for the extended accounts.

In the example provided, there is a line on air filtration, but nothing on other non-SNA benefits, such as the forest's watershed function, water collecting, water storing; or a value of habitat for wild life, …