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**SEEA EEA Revision**

**Expert Consultation Comment Form**

**Working Group 5: Valuation and accounting treatments**

**Deadline for responses: 13 September 2019**

**Send responses to:** [**seea@un.org**](mailto:seea@un.org)

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| Your name: | Click here and enter your name |
| Your country/organization: | Click here and enter your country/organization |
| Contact (e.g. email address): | Click here and enter your contact information |

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).

The comment form has been designed to facilitate the analysis of comments. There are ten guiding questions in the form, please respond to the questions in the indicated boxes below.

The following papers are the subject of this review and were distributed together with the review request:

* *Discussion paper 5.1: Defining exchange and welfare values, articulating institutional arrangements and establishing the valuation context for ecosystem accounting;*
* *Discussion paper 5.2: A framework for the valuation of ecosystem assets*

All papers can be also found at 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)

**Question 1: Do you agree that the primary task of monetary valuation in the SEEA EEA is recording values specified as economic, as expressed in Figure 2.1 and Table 5 in the Discussion Paper 5.1?**

*Background for the question:*

*Discussion Paper 5.1 concludes the following at the end of Section 2. The term ‘value’ is used in a variety of ways in everyday use, but it also has specific meanings in the natural and social sciences and in common usage. Different typologies can be used to categorise these meanings into different types of value; which will be relevant to different research assessment and policy issues.*

*The discussion paper concludes that for the purposes of ecosystem accounting, and to be compatible with values recorded in the SNA and the SEEA Central Framework, monetary values in the SEEA EEA will need to be anthropocentric, instrumental, quantifiable and monetised, to ensure the results are fit for the purpose of (macro-)economic policy making. The scope of the monetary accounts of the SEEA EEA would hence focus in the first place on economic values of ecosystem services and assets, while recognizing that other complementary values exist, such as ecological values, whose discussion may be supported using biophysical information contained in other SEEA EEA accounts.*

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**Question 2: For the measurement of economic values, the SEEA EEA has framed the conceptual discussion by contrasting (i) exchange values required for national accounts and (ii) welfare values estimated in environmental economics. Ongoing discussion among experts in national accounts and environmental economics has forged a deeper understanding of the different perspectives on value and associated prices. This understanding is reflected in both Discussion Papers 5.1 (section 3) and 5.2 (sections 2 and 3) in which a clear relationship between the relevant concepts is described. Do you agree with the characterisation and explanation of the links between exchange and welfare values presented in the papers?**

*Background for the question:*

*Discussion paper 5.2 reviews the theory of environmental economics and national accounts. Welfare economics proposes to evaluate the benefits realised by two agents from participating in an exchange by adding up the buyer’s consumer surplus (that is, the difference between her maximum willingness to pay (WTP) and the price) and the seller’s producer surplus (that is, the difference between the price and her minimum willingness to accept (WTA)). However, the SNA values goods traded in the economy multiplying the prices observed by the quantities transacted. In national accounting, prices observed in market transactions are regularly called exchange prices. In the context of national accounts, care is often taken to express that “value” is not welfare related, as the transaction based nature of the accounts excludes consumer surplus.*

*In order to find common ground, the discussion papers argue that first, it is important to recognise that the use of the accounts relies on the application of welfare theory for their interpretation. Second, it is important to analyse these questions in a temporal context, i.e., with respect to changes over time. For instance, it is well-established that changes in net national product (NNP) are a first-order approximation of changes in welfare under certain assumptions.*

*Focusing on flow values, Discussion Paper 5.1 argues that focusing on welfare measures for ecosystem services would be inconsistent with the level measurements provide by national accounts for goods traded in markets. This would not allow comparing values in level terms to determine the contribution of ecosystems to economic activity. Assuming that the goal is maintaining consistency with SNA, estimating values obtained by multiplying prices times quantities applies also for ecosystem services.*

*On the other hand, with a particular focus on pricing assets and measuring changes in the value of assets in the context of ecosystem accounting, Discussion Paper 5.2 concludes that the core concepts of asset valuation and price in (welfare) economics and national accounting are largely consistent. In theory, there is general agreement that the value of an asset is the net present value of the income flows that it provides and the price, or marginal value, of an asset is the change in net present value provided by an additional (marginal) unit of that asset.*

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**Question 3: Discussion Paper 5.1 concludes that Total Economic Value (TEV)[[1]](#footnote-1) is not a suitable framework to use in the context of SEEA EEA. Do you agree with this conclusion? If so, does there remain a need to explain how SEEA EEA relates to it (or possible interpretations of it), given that it seems widespread? Does the IPBES framework of instrumental, relational and intrinsic value (as described in Table 4, Section 2 of Discussion Paper 5.1) provide communication advantages for the SEEA EEA?**

*Background for the question:*

*The TEV framework has become a popular approach (e.g., TEEB, 2016) to estimate the ‘total’ economic value of an ecosystem or specific environment. However a number of criticisms have been formulated, such as (1) confusion about the typology it uses (e.g., direct use, indirect use, and non-use), for instance, authors seem to disagree where option values are situated; (2) that TEV mixes flows and stocks, e.g., direct use values are normally identified as flows, whereas existence, bequest and option values are stock values, and indirect values may be changes in stocks, or resource flows used to manage stock; and (3) partly as a result of the above, that there is risk of double counting.*

*Discussion paper 5.1, Section 2 concludes that TEV framework is not a suitable for defining ecosystem service values, especially as part of a process to incorporate ecosystem service and ecosystem asset values in an extended SNA and SEEA frameworks (although other parts of the paper do refer to TEV categories).*

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**Question 4: Monetary valuation of ecosystem services requires the use of non-market valuation methods. In the application of these methods, it is necessary to make assumptions as to the institutional context. The conclusion of Discussion Papers 5.1 and 5.2 is that such assumptions should reflect the most realistic institutional context. Do you agree with this conclusion? Can you think of any institutional contexts in which non-market valuation is not realistic, to the extent that it would invalidate use for the purpose of assessing exchange prices for accounting?**

*Background for the question:*

*Issue paper 5.1 describes this issue as follows in its conclusions of Section 3. When goods and services are traded in regular markets, prices and quantities are observable. When goods and services are not traded in one particular local market, but they are traded elsewhere, the approach proposed by the SNA is to use prices of the same good or service in similar markets, in which case the assumed institutional context is implicit in the choice of similar market. However, for some goods, such as open-access recreation, there are no markets where the same or similar items are traded in sufficient numbers and in similar circumstances. One possible solution is to simulate the price and the quantity that would have been observed if a similar good would have been traded in a market, assuming the most realistic institutional context.This situation is also apparent in some non-market valuation technique linked to observed market prices, e.g., production function techniques, hedonic pricing.*

*The challenge of determining the institutional context can be significant however because for some ecosystem services, such as open-access recreation, there are no markets where the same or similar items are traded (currently) in sufficient numbers or in similar circumstances.*

*By way of example, for iconic recreational sites probably the most appropriate institutional context is defined by monopolistic competition, with price discrimination among iconic nature-based recreational sites but without price discrimination among consumers. For non-iconic and relatively homogeneous greenspaces, the most appropriate institutional context may be that of perfect competition, ideally coupled with a consideration of the potential carrying capacity of each site.*

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**Question 5: Do you have any comments on the overview of valuation methods presented in Table 4.1 of the Discussion Paper 5.1? (e.g., in terms of scope – are we missing anything, the typology of inductive and deductive methods, alignment with national accounting principles, and how the methods are being applied)**

*Background for the question:*

*In Discussion paper 5.1, Table 4.1 provides a summary of methodological approaches for valuing ecosystem services and their typical applications (provisioning, regulating or cultural services).*

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**Question 6: Accounting can help support many different types decisionmaking. Discussion paper 5.1, Figure 5.1 illustrates, in the context of value transfer approach, that the requirements for precision and reliability for the valuation of ecosystem services will differ depending on the type of decision making context. What do you see as the most likely decision making contexts in which the accounts will be applied (e.g., awareness raising, accounting/monitoring, priority setting, instrument design, liability/compensation setting) and do you agree with the relative ranking applied in Figure 5.1 in terms of precision requirements for each context?**

*Background for the question:*

*See Discussion paper 5.1, Figure 5.1. Primary valuation studies, including their accuracy and reliability, are frequently designed to address specific policy purposes. When such studies are used for the secondary purpose of value transfer in accounting, the reliability in the value transfer is determined by the primary studies. Challenges facing accounting for ecosystem services are in theory no different from those facing the determination of any other economic value, such as exchange prices, through a transfer (or even primary data). However, the combination of factors, including (i) a policy demand for estimation and mapping ecosystem services over large scopes and scales, (ii) spatial heterogeneity in ecosystems and institutional use regimes, and (iii) a tendency of primary studies to report average values per unit area rather than per household, lead to a unique set of challenges, especially for spatial valuetransfer, and ipso facto for ecosystem accounting. The extent to which benefit transfer techniques are suitable will depend what magnitude of extrapolation errors are deemed acceptable, which will depend on the decision context (i.e., the types of policy applications we see for the accounts).*

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**Question 7: Do you have any comments on the proposals in Discussion Paper 5.1 to show alternative valuations, such as, welfare-based values or unrealized values (i.e., valuations obtained under alternative / hypothetical instituitional regimes different from the current regimes in place) in the form of supplementary tables?**

*Background for the question:*

*Discussion Paper 5.1, Figure 6.2 illustrates the possibility that instead of ignoring valuation information, that is not aligned with SEEA valuation principles but is nonetheless potentially policy relevant, could still be captured in supplementary tables. The organization of relevant information in supplementary tables would make it possible for policy-makers to evaluate trends, conduct benchmarking and assess ‘distance-to-policy’ targets in the economy in light of a ‘dashboard of plural value indicators’. It would also recognise the logic of using a common set of biophysical data to underpin the application of different valuation concepts.*

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**Question 8: Which criteria do you think would be most important to take into account to distinguish between different tiers in valuing ecosystem services? Do you agree with the way different valuation methods are categorized in Table 7.1?**

*Background for the question:*

*Discussion paper 5.1 proposes to present valuation methods in the form of tiers differentiating recommended valuation methods based on data availability and technical requirements. In a first step, methods have been divided into A. undisputed, B. conditional and C. rejected methods. In the latter category are methods that would not provide exchange values. In a second step, these methods have been classified according to different tiers (inspired by the IPCC guidelines for national emission inventories).[[2]](#footnote-2) Countries that are data scarce and have low technical capacity could start applying tier 1 methods, using global data sources and at higher resolution. Countries with higher technical capacity and national data sets could start applying tier 2 and (eventually) tier 3 methods. These tiers apply to individual ecosystem services, so different ecosystem services in the same country could be assessed based on differently tiered methods.*

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**Question 9: Discussion paper 5.2, section 3, identifies a range of important components that are relevant in the measurement of the value of ecosystem assets namely, the scope of income, net depreciation, discount rates and the resource allocation mechanism. Do you have any comments on the discussion of these components and their relative importance in deriving net present values for accounting?**

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**Question 10: Do you have any other comments on the draft papers?**

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1. <https://www.researchgate.net/figure/The-Total-Economic-Value-TEV-framework-for-valuation-of-ecosystem-services-adapted_fig2_258104227> [↑](#footnote-ref-1)
2. “The 2006 IPCC Guidelines generally provide advice on estimation methods at three levels of detail, from tier 1 (the default method) to tier 3 (the most detailed method). .. Properly implemented, all tiers are intended to provide unbiased estimates, and accuracy and precision should, in general, improve from tier 1 to tier 3. The provision of different tiers enables inventory compilers to use methods consistent with their resources and to focus their efforts on those categories of emissions and removals that contribute most significantly to national emission totals and trends.” Based on: <https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/0_Overview/V0_1_Overview.pdf> [↑](#footnote-ref-2)