



DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION  
UNITED NATIONS

**SEEA Revision**

**SEEA Experimental  
Ecosystem Accounting**

**Comment form**

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## Comment form for the Consultation Draft

**Deadline for responses: 1 January, 2013**  
**Send responses to: [seea@un.org](mailto:seea@un.org)**

Your name:	Andrew Harbidge
Your country/organization:	New Zealand Department of Conservation
Contact (e.g. email address):	<a href="mailto:aharbidge@doc.govt.nz">aharbidge@doc.govt.nz</a> , (04) 471 3199

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.

In Part I general comments on the structure and content of the draft document are sought. In Part II any other comments, particularly those of a technical nature should be included.

### **Relevant documents**

Before submitting responses you are encouraged to read

*Cover Note to the Consultation Draft*

*SEEA Experimental Ecosystem Accounting – Consultation Draft*

### **Part I: General comments**

In the box below please supply any comments on the structure of the document, the balance of material and the coverage of the draft including any thoughts on missing content.

Comments on the style, tone, and readability of the text are also welcome.

**Please reference paragraphs numbers or section numbers as appropriate.**

1. Structure – The structure of the consultation draft, with statements of general concepts and principles followed by detailed analysis, is appropriate and user friendly. However, the Annexes could be incorporated into the chapters in the main body of the document to unite the principles with examples of their application.
2. Style, tone, and readability – Although necessarily highly technical in nature, the concepts and structures of the experimental ecosystem accounts are expressed in admirably plain English, with a minimum of jargon and with acronyms clearly

explained.

3. Missing content – The experimental ecosystem accounts, like the SEEA Central Framework, are not linked to any particular social theories or models of political economy, and could therefore be universally applied. However, this also means that the system of accounts is atheoretical in that it lacks any foundation in an explicitly articulated understanding of economy-environment interactions. The lack of a theoretical basis leads to inadequate modelling of environment-economy linkages. A general discussion of the theoretical basis of the experimental accounts, would be beneficial.

## **Part II: Other comments**

In the box below please supply any additional comments including those of a more technical nature.

**Please reference your responses with the relevant paragraph number or section number.**

1. Paragraph A4.28 – Accurate and accessible data is essential for assessing the impact of the New Zealand Biodiversity Strategy. A review of the Strategy in 2005 highlighted the need for the development of key environmental indicators for monitoring and reporting on freshwater terrestrial and marine biodiversity. Biodiversity accounts could be used to track progress towards the key policy targets set out in the New Zealand Biodiversity Strategy.
2. Paragraph 6.45 – Economic valuation of ecosystem services in the form of monetary estimates is a pragmatic (and successful) strategy to communicate the value of biodiversity to decision makers and the public in a way that reflects the dominant model of political economy. Understanding and promoting the contribution of biodiversity and ecosystem services to economic prosperity is a key objective for the Department. A mature ecosystem accounting system could capture and convey the value of ecosystem services and ensure that ecosystem related information is included in national accounting and economic planning.
3. Paragraph 1.42, 2.8, 2.82 and Table 2.3 – A key concern is how the non-linear relationships between asset, services and benefits are addressed. Related to this is resilience (as introduced in paragraph 1.42, 2.8). Paragraph 2.82 and Table 2.3 discuss how changes in ecosystem condition and extent are ‘expected’ to result to changes in ecosystem flow. As this relationship can be non-linear then a clear understanding of that relationship is required in order to arrive at table 2.3. For example a 10% decrease in ecosystem condition may only result in a 5% loss of services, while a further 10% decrease may push the asset past a resilience/tipping point where it rapidly changes regime and a 90% loss of services is experienced. We feel this is an issue requiring further in depth discussion and is a potential research priority area.
4. Table 2.2 and 2.3 – Decreasing resilience (i.e. increased level of risk) and its implications could be better represented in the draft system. Boundaries/limits in asset condition or extent could be articulated, for example in Table 2.2, so the current position and trend relative to them can be understood. This would provide important context for the user of the information, and would have implications for

table 2.3. Related to comment 3.

5. Paragraph 2.5.4 – Time lags. The production of accounts is suggested on an annual basis. Are time lags between changes in asset condition and the expected supply of services a concern, particularly those associated with longer natural cycles?
6. Paragraph 1.23 – IPBES should be listed
7. Paragraph 1.44 – add income equity as an issue of concern (emerging research links wider income gaps to poorer economic, social and environmental outcomes).
8. Paragraph 3.12 – Declining diversity will likely decrease resilience, so threatening the supply of services beyond cultural.
9. Paragraph 2.75 – Limitations of ‘symbolic’ trend information. The data generated by accounts using entries in the form of up and down arrows would be of limited application in policy development and implementation monitoring.
10. Paragraph 2.21 – Ecosystem ‘disservices’. The model of ecosystem services takes no direct account of ecosystem ‘disservices’, such as pests and diseases. The impact of ‘disservices’ such as pests and pollution is crucial to ecosystem management and the flow of goods and services. The absence of a theoretical and accounting basis for disservices from the experimental accounts limits the practical application of this framework. More work is required to understand and account for disservices within the ecosystem accounting framework.
11. Section 5.4 – Non-market valuation mechanisms. For some ecosystem goods and services, prices and costs are not observable but must be taken as implicit or estimated using hypothetical valuation approaches. Generalising from hypothetical estimates of the value of flows of ecosystem goods and services to the value of their underlying stocks creates another layer of uncertainty, while not significantly contributing to reliable estimate of the monetary value of such stocks.
12. Paragraph A4.62, Tables A4.5.1 and A4.5.4 – Importance of non-monetary and qualitative metrics. Valuing and quantifying stocks does not tell us much about their underlying nature; their resilience and the risk of non-linearity and irreversibility thresholds. Frameworks that go beyond simulated market prices and incorporate qualitative and bio-physical measures may support a richer (and potentially even more experimental) assessment of the value of the flows and underlying stocks of ecosystem goods and services.
13. Section 4.3.4 – Reference conditions. Pre-industrial reference conditions may be difficult to verify given the potential lack of complete data. Selecting an ecosystem with minimal human interference as the reference baseline is also problematic, given that there so few such ecosystems. The reference baseline selected may in fact represent the ecosystem in an already degraded state, making comparisons against the baseline reference a potentially inaccurate measure of ecosystem condition.