



System of
Environmental
Economic
Accounting

SEEA EEA Revision: Outstanding issues in Accounting for Ecosystem extent and condition

Presentation for SEEA EEA Virtual Expert Forum

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Context : Links to the revision process

- Chapters 3, 4 and 5 drafted based on material from discussion papers on extent and condition prepared over 2018 and 2019
- It was recognised that some issues would require further consideration and discussion
- Global consultation process from mid-March to end-April received substantive feedback on those issues
- Feedback grouped as concerning
 - > Conceptual and definitional issues
 - > Implementation issues
 - > Drafting issues (including examples)
- Process now commencing to consider the outstanding issues and propose additional text and/or responses to the feedback ahead of a second round of global consultation in October 2020.

Key challenges: It's all connected

- Delineating ecosystem assets (EA)
- Developing general guidance on variables, indicators and reference levels by ecosystem type (ET)
- Establishing approaches to aggregation
 - > Within ecosystem assets (i.e. across indicators)
 - > Across EA of the same ET
 - > Across ET within an ecosystem accounting area
- Clarifying the links to biodiversity concepts and measures
- Linking to measures of ecosystem extent and accounting for ecosystem conversions
- Linking to measures of ecosystem capacity and ecosystem services

Issue #1: Condition indicators

- Recognise that measurement of the condition of ecosystem assets will require the selection of a range of variables covering different aspects of condition.
- Focus in discussion of this issue is how a selection process is best described and what should be the focus of advice in the revised SEEA EEA. Questions include:
 - > Is a minimum list of condition indicators required?
 - > What is the role of the SEEA Ecosystem Condition Typology?
 - > For which ecosystem types?
 - > Who might develop such a list?
 - > What selection criteria could apply (note proposals in draft Chapter 5)

Issue #3: Principles of aggregation

- Recognise that establishing approaches to aggregation is a key consideration for accounting but challenging in ecology. Proposals in Chapter 5 suggest equal weighting of individual indicators and area weighting at higher levels.
- Focus in discussion of this issue is what options can be considered. Questions include:
 - > What alternative aggregation rules could be applied?
 - > What are the implications of applying different rules in different contexts?
 - > What rules should apply at different levels (e.g. within EA, across EA of the same ET, across ET)?

Issue #4: Ecosystem conversions

- Recognise that ecosystem conversions are of high analytical and policy interest. Their measurement involves a combination of considerations across extent and condition accounting with a key focus ensuring the data from the accounts can be meaningfully applied.
- Focus in discussion of this issue is what options can be considered. Questions include:
 - > What approaches to delineating EA and measuring condition will support recording ecosystem conversions?
 - > When conversions occur what should be the entries with respect to condition?
 - > How should the dynamic nature of ecosystems be taken into consideration?

Issue #5: Mosaic landscapes

- Recognise that in many contexts, a landscape (or seascape) will be composed of a range of different ecosystem types. Agricultural and urban contexts are good examples.
- In theory each individual EA could be identified if working at a detailed scale but this might miss telling a wider story of complexity.
- Focus in discussion of this issue is what options can be considered for accounting purposes. Questions include:
 - > Should EA be delineated at a fine scale?
 - > What are the implications for the application of the ecosystem classification principles?
 - > What are the implications for the measurement of ecosystem condition?
 - > What are the connections to the treatment of linear features?

Issue #6: Socio-economic factors

- Recognise that ecosystems function in a nested systems context, i.e. there are direct connections to social and economic systems. Consequently, different patterns of management, ownership and use of ecosystems will influence their extent and condition.
- Chapter 3 concludes that EA should be delineated on the basis of ecological factors.
- Focus in discussion of this issue is on how socio-economic factors are best considered in the ecosystem accounting model. Questions include:
 - > Are socio-economic factors of more importance in some contexts than others and if so what differences in treatment might be applied?
 - > What detail is needed in an ecosystem classification to consider these aspects?

Issue #7: Integration with land accounts

- Recognise that in the SEEA Central Framework both land use and land cover accounts have been defined. Ecosystems reflect a different concept and hence an ecosystem extent account will not equate to a land account.
- Focus in discussion of this issue is on how best to consider the relationship between land accounts and ecosystem extent accounts. Questions include:
 - > To what extent can land accounts provide information to support delineation of EA?
 - > What links can be made between the different classification systems?
 - > How can the complementary nature of these accounts be best explained?

Issue #8: Relationships between BSUs, EAs & ETs

- Recognise that in the initial SEEA EEA a units model was established but that the understanding of the role of different units (and their labels) has evolved
- Different compilation approaches can lead to different understandings of how these different spatial units related to each other both in concept and in practice, leading to confusion in discussion.
- Focus in discussion of this issue is on better understanding the relationships. Questions include:
 - > Is there a preferred focus for measurement for accounting purposes?
 - > What approaches to aggregation and downscaling are relevant?
 - > How can the relationships between the units be best described?



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