



System of  
Environmental  
Economic  
Accounting

## **2019 Forum of Experts in SEEA Experimental Ecosystem Accounting, 26-27 June 2019, Glen Cove, NY**

*Session paper*

*Session 5c: Carbon stocks and flows*

### **Session concept note**

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All documents related to the Forum of Experts can be found on the event website at:

<https://seea.un.org/events/2019-forum-experts-seea-experimental-ecosystem-accounting>

*Disclaimer:*

This paper has been prepared by the authors listed below as part of the work on the SEEA EEA Revision coordinated by the United Nations Statistics Division and in preparation for the 2019 Forum of Experts in SEEA Experimental Ecosystem Accounting, 26-27 June 2019, Glen Cove, NY. The views expressed in this paper do not necessarily represent the views of the United Nations.



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## Session 5c: Carbon stocks and flows

The objective of this session is to obtain clarity on the definition and recording of integrated accounting for carbon stocks and flows and their relationship with ecosystem services in the context of the SEEA EEA. In particular, we would like to advance the discussion on whether we need in addition to carbon sequestration to account separately for carbon storage as an ecosystem service, based on a better understanding of the main policy drivers for these accounts.

1. Introduction and setting the scene for the session (Heather and Bram) (3-5 minutes)
2. Policy demand for carbon accounting (Heather Keith) (15 minutes)  
*This presentation will highlight some of the main reasons for developing the accounts, e.g. informing climate change mitigation and forest management policies. Other issues are: coordination with the UNFCCC carbon accounting framework (both Kyoto and Paris); linkage to REDD+ schemes. How to develop a unified system that would be useful across international conventions?*
3. Country example from the Netherlands (Patrick Bogaart) (10 minutes)  
*This presentation will showcase the thematic carbon account for the Netherlands that was published in 2018. The presentation will also briefly showcase the air emission accounts (SEEA Central Framework) and the bridge tables - (10 minutes)*
4. Defining and valuing carbon related services in the SEEA-EEA – Peter Elsasser (Thunen institute) (15 minutes)  
*This presentation will summarize the main findings from the carbon issues paper that was developed for the expert workshop on ecosystem services, covering both definition, measurement and valuation of carbon sequestration/storage.*
5. Recording options for carbon – Bram Edens (UNSD) (10 minutes)  
*This presentation will illustrate a number of options for recording carbon sequestration/storage and externalities (degradation costs) in the supply and use tables. Illustrating the impacts on accounting aggregates such as output, value added etc.*
6. Discussion in break-out groups of specific questions (25 minutes) *We will form 3 groups / tables, chaired by Heather, Peter, Bram.*

Questions to guide the discussion are:

- Do we need to account for sequestration and storage as separate ecosystem services? Many regulating services, including carbon storage, appear to be benefits derived from the existence of an ecosystem asset that may not have a current transaction value but does have a future benefit. Should these cases be defined as ecosystem services?
- Would inclusion of the value of externalities within the accounting framework help solve the issue for recognizing the benefits of carbon storage, as well as many other assets?

- How can projecting future flows for asset values be achieved in the accounting framework? Is there a need for a mechanism to account for the differing qualities / characteristics / conditions of carbon stocks and their degradation
  - What to do with so-called Harvested Wood Products? The IPPC guidelines propose to net them off when defining sequestration, but this is not ideal from an accounting perspective.
  - Do we agree to use ETS prices where available and use also as “best available estimates” for those sectors not covered by ETS? What potential different valuation mechanisms could be applied to carbon sequestration and carbon storage?
  - What theoretical and technical elements are required to develop integrated carbon accounts? For example, linking the thematic accounts to asset tables, ecosystem services, and natural inputs in the SEEA Central Framework.
7. Report back – Discussion by whole group with the aim of listing advantages and disadvantages of various accounting options for carbon stocks and flows – *(25 minutes)*
8. Wrap-up.