



System of
Environmental
Economic
Accounting

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

Background paper

Session 3b: Ecosystem condition

Issues note on testing the proposed ecosystem condition framework

Prepared by: SEEA EEA Revision Working Group 2 on ecosystem condition (led by Joachim Maes, EU JRC), in particular Joachim Maes (EU JRC)

Version: 20 June 2019

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.



United Nations



THE WORLD BANK
IBRD • IDA



Issues note on testing the proposed ecosystem condition framework

The three discussion papers on ecosystem condition describe an inclusive framework for accounting the condition of ecosystems. The key elements of this framework are:

1. A value framework placing ecosystem condition on two value dimensions (word views and values) which allows accounting of ecosystem condition under different scientific or stakeholder perspectives.
2. A set of criteria and a typology for ecosystem condition indicators that can be used for a balanced and consistent indicator selection.
3. Options for handling reference values, reference conditions and desired targets, as well as their implications on aggregated indices.
4. A proposal with a set of ecosystem condition accounting tables.

How can the condition framework outlined by the papers be tested?

1. **Word views and value framework:** ecosystem specific definitions or modifications to the general definition of ecosystem condition. For instance in ecosystem types such as urban and cropland, the priority (of policy actions and management) is not on achieving a high level of biodiversity but on productivity or economic development and residence. Under these conditions, how can ecosystem condition be given a meaningful content e.g. by using condition for what (instrumental purpose) and focus on capacity to deliver ecosystem services. In contrast, maintaining the good or excellent condition of natural and intact ecosystems may not need such an instrumental value approach and this can be reflected in more detailed or ecosystem-specific definition for these natural systems.

2. **Criteria for indicators and the typology** set up an operative framework for the selection of ecosystem condition indicators, offering options to compare with other typologies or to test for comprehensiveness. The typology should still be tested for specific ecosystem types (does it work for marine ecosystems?), and further aspects also need to be tested. (Can 'crosscutting' indicators be used to compare the condition of different ecosystem types? Does the typology help identify gaps in data or knowledge?)

3. **Reference values and aggregation:** For individual variables (or indicators) reference values are not necessary to carry out meaningful analysis. Trend analysis in combination with scientific panel assessments or convergence of evidence can then be used without considering reference values.

For classes of indicators (or countries) where the inclusion of reference levels is difficult, or is confronted with opposition for ideological, philosophical, scientific, or policy reasons, ecosystem condition variables can be used and accounted for to assess trends relative to a baseline condition measured at a fixed point in time. This quick and practical solution may, however, come with some drawbacks if the indicators are aggregated or compared across countries (regions), which should be carefully tested.

For classes of indicators (or countries) where reference levels are available through e.g. dose response relationships, empirical evidence, or expert judgement or where information about reference conditions

or the undisturbed or intact state is available (historical baseline, pristine ecosystems), the further development of ecosystem condition indicators with reference levels and aggregation can be used.

Aggregated (headline) indices can potentially deliver highly relevant information for policy, but due to a high number of technical challenges, aggregation is also a highly controversial and contested topic. The technical options should be explored, and their impact on the usefulness (e.g. transparency and interpretability) of the headline indices for policy should be tested.

4. **Set of accounting tables:** Can the accounting tables be used to organise data on ecosystem condition. Can existing accounts adopt this approach. Should all tables be completed or is there a sufficient degree of freedom to select few tables.