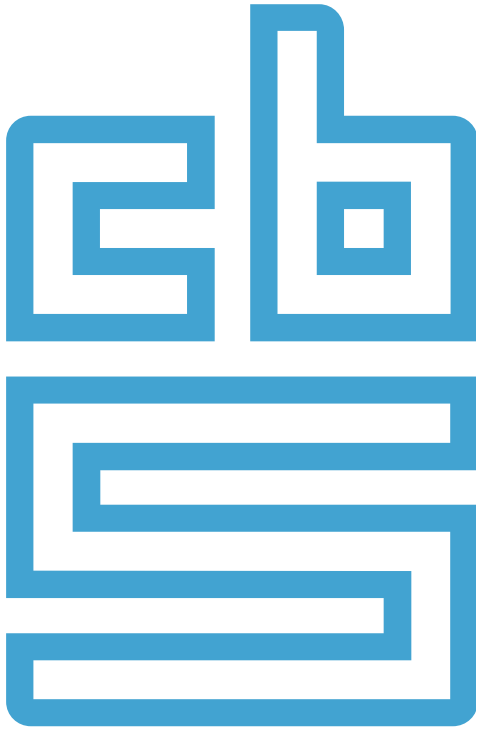


Session 3a: Spatial areas

Overall goal of this session

a) Present and discuss main outcomes of the expert review
b) Identify issues of agreement and issues of disagreements/misunderstanding that need further discussion
b) Discuss key outstanding issues
c) Propose options for testing

Outline of the session

11:30 – 11:40 **Introduction and objectives** of this session, plan for this session (Sjoerd)

11:40 – 12:30 **ET Reference classification**

Lunch 12:30 – 13:30

13:30 - 14:00 **ET Reference classification** (continued)

14:00 – 14:45 **Urban accounting**

14:45 – 15:30 **Atmosphere / marine**

SEEA-EEA WG1 on spatial units

Summary of responses to the Expert Consultation

SEEA-EEA WG1 Members

SEEA expert meeting

Expert review

Expert review 3 discussion papers: May 2019

7 questions:

1. The design criteria for a ET classification
2. the review of classifications
3. The five options for a reference classification
4. Treatment of the atmosphere
5. Treatment of the marine environment
6. Delineation of urban areas and treatment of their ecosystem assets
7. Other issues

Ca. 24 responses

Q1: Question 1: Do you agree with the design criteria for an ecosystem type classification?

Q2: Do you have comments on the findings from the review of existing classifications?

General comments

The reviewers **generally support the design criteria** formulated in the discussion paper. They do have issues with particular criteria and with the way in which criteria interplay within a classification.

Q1/ Q2: Some main comments

- Reviewers doubt the feasibility of developing an ecosystem type classification that meets all six design criteria.
- It may be necessary in the SEEA to restate /reinforce the value of having an ecosystem type classification
- The requirement that it should be possible to spatially delineate – i.e. map – classification units needs clarification.
- Is it always possible to assign discrete spatial units to discrete ecosystem types? Reviewers remark that mutual exclusivity is difficult to achieve.
- How should the classification deal with the spatial scale of the ecosystem type classification (or the mapping resolution) and the homogeneity of ecosystem units identified on a map?
- Should land ownership and management be used to classify ecosystem types?

Q3: Of the 5 options for a reference ecosystem type classification scheme, which do you prefer?

- Most support for **Option 1** (IUCN RLE)
- Considerable support for linking with USGS/Esri mapping product (Options 2,3)
- … and SEEA-EEA-specific refinements (Option 3)

Q3: Main arguments

1. IUCN RLE
   - \+ Conceptually sound, theoretical foundation
   - \+ Scalable; Can accommodate local classifications
   - – *Not mapped, data issues*
   - – *Concerns regarding anthropogenic ecosystems*
2. USGS/Esri
   - \+ Great data availability
   - – *Concerns regarding anthropogenic ecosystems*
3. bridging
   - \+ By definition most comprehensive
   - \+ Allows for proper treatment of anthropogenic ecosystems
   - – *Less established methodological rigor*
   - – *New process*

Q3: comments

- Many struggle with tension between ecological principles and suitable data.
- Preference for building upon existing systems
- Need for adequate treatment of strongly anthropogenic areas (incl. grassland)

ISSUES OF AGREEMENT (?)

- For SEEA EEA we need an ET reference classification
- The ET classification should have a clear ecological base
- Design criteria are ok (maybe with some small adjustments / explanations)
- Option 1,2 or 3 preferred options (**not** habitat or land cover)
- Guidance is needed to link the reference classifciation to other classification sustems and national available ET classifications

Issues for Disucssion

1. What to do with ownership/ land use /protection status ?
2. How to converge to 1 option ?
3. What is is number of clssses to be inlcuded in the reference classifciation ?
4. What should/could be tested (the coming months)?

Q4: Do you agree that the atmosphere should be considered part of other ecosystem assets?

Two options are proposed:

1. The atmosphere as a part of ecosystem assets
2. The atmosphere as a separate unit

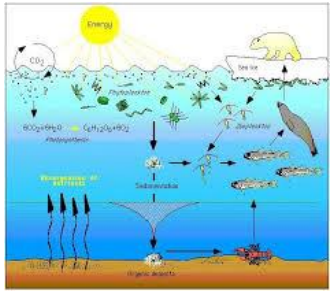
Of the 18 experts that addressed this question 12 experts preferred **option 1**, 3 experts preferred **option 2**, and 3 experts were **inconclusive**.

Discussion

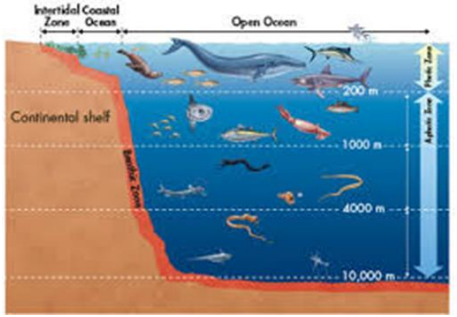
- Based on the expert review, can we agree with option 1 ?
- Should we expand this argument to the subsoil ? If yes, could we indicate how deep down ecosystem extends ?

Q5: Should the spatial approach also be applied to all parts of the oceans or should we distinguish different ecosystem assets also in a vertical direction ?

Option 1: each area of the seas/oceans belongs to one single ecosystem asset



Option 2: The water column and underlying sediments may belong to different ecosystem assets



Q5: main comments

Of the 20 experts that addressed this question 4 experts preferred **option 1**, 6 experts preferred **option 2**, and 4 experts were **inconclusive**.

→ Interestingly, 6 experts suggested a **stepwise approach**, starting with the 2 dimensional delineation of ecosystems, followed (once more experience has been built) by disaggregation of ecosystem assets in a vertical direction.

Discussion

Can we decide on the preferred treatment of the ocean ?

→ Could the stepwise approach be proposed? i.e. in principle we stick to the 2D approach, however fir the deeper part of the oceans we allow for the 3D approach

Q6 Urban

- To what extent should the SEEA EEA provide guidance for countries on the delineation of urban EAA boundaries?
- For ecosystem accounts focused on urban areas, would you prefer the approach of reporting the relative significance of urban green/blue as part of the extent tables or as part of the condition of the broader urban area? Why?
- Which of the described structural and functional characteristics of urban areas do you consider to be most important for an urban ecosystem typology and how might they be most logically ordered in a hierarchical structure?
- Do you have specific comments on the scale or size of urban ecosystem assets that should be separately identified in a set of ecosystem accounts for urban areas?

Q6: General response

Mixed responses to three of the questions:

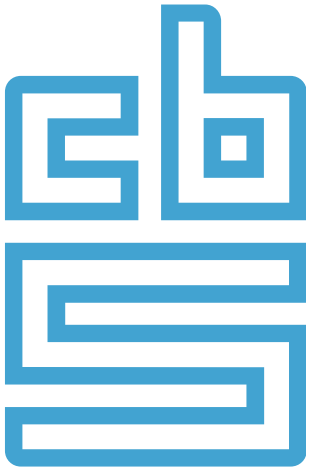
- Guidelines on the EAA should not be issued, they should be very flexible if issued, or they should be provided to encourage comparability.
- Mixed response with regards to where information on urban green/blue extents should be reported (i.e. extent or condition tables). Opposing arguments include that:
  - it is important to delineate the area of each urban green/blue type, it is logical to report these extents in the extent table, and it provides the ability to report the condition of these urban blue/green assets in the condition tables
  - urban/blue green is a condition indicator of the whole urban area, reporting on urban/green areas in the condition table simplifies the urban ET class.
- Some indicated general agreement with the suggested sub-type characteristics (use, density, asset type etc.) for an urban ET hierarchy, some indicating that access and ownership are also important, and others suggesting that only a single (i.e., urban built-up) or possibly two-level urban ET class structure is needed.

Q6: General response

- General acknowledgment that data resolution has a major impact on the compilation of urban/green extents and that the highest resolution data available be used in urban areas given that they are price rich.
- Some agreement was expressed that classes for urban green/blue areas should not duplicate natural and semi-natural sub-types.
- Some clarification may be required on whether SEEA EEA was concerned with all green space in urban areas or only green space that is publicly accessible.

Q7: Any other comments?

- Definitions
  - ‘Ecosystems’ vs ‘Ecosystem Types’
  - Wetland definitions (vs RAMSAR)
- Naturalness
  - Need to include info on human interventions
  - Gradient between pristine nature and 100% artificial (managed & secondary forests; heathland; novel ecosystems) -> Ecological aspects should dominate
- Spatial issues
  - Ecotones ⇒ also important for urban fringes
  - Linear features (streams, hedgerows etc.) ⇒ separate vector layer?
  - Watersheds as accounting areas?



Facts that matter