Session 2: Advances in ecosystem accounting concepts and methods – WG3 Ecosystem Services definition

Lars Hein, Wageningen University, reflecting on papers prepared by Giles Atkinson, David Barton, Luke Brander, Benjamin Burkhard, Alejandro Caparros, Gem Castillo, Neville Crossman, Brynhildur Davidsdottir, Bram Edens, Peter Elsasser, Eli Fenichel Simon Ferrier, Silvia Ferrini, Beth Fulton, Carlos Guerra, Rocky Harris, Emil Ivanov, Laurence Jones, Steven King, David Nbowak, Stoyan Nedkov, Carl Obst, Rosimeiry Portela, Stefan Reis, Jane Turpie, Grazia Zulian, et al.
Process followed

- Close collaboration with WG 4: Cross-cutting issues
- Bottom up approach to defining ecosystem services
- 10 individual working papers
  - Provisioning services (cropping, fisheries)
  - Water (purification, mitigating extreme events, supply)
  - Sediment/soil retention
  - Air filtration
  - Carbon sequestration
  - Recreation
  - Habitat
- Position paper with many of the authors of these individual papers
Generic Logic chain

- Ecosystem asset
- Service
- Benefit

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<th>Enabling factors</th>
<th>Asset</th>
<th>Service</th>
<th>Benefit</th>
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<td>Background concentrations</td>
<td>Reduced pollutant exposure giving health benefits</td>
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<td>Reduced pollutant concentrations / better air quality</td>
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<td>No economic inputs</td>
<td>Reduced pollutant exposure reducing building maintenance costs</td>
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<td>Behavioural and other responses affecting flood benefits</td>
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Benefit fully reflects the service so can be used to value the service.
Conceptual model: regulating services

Ecosystem asset

Service

Benefit

Labour, intermediate inputs, produced capital

Ecosystem (extent, condition)

Air filtration

May be in a different location

Benefit: Reduced exposure to pollutants
Conclusions from evaluating 10 position papers

- Well-motivated and detailed logic chains developed for 10 papers
- There are some differences in the individual logic chains. Over time, these need to be synchronised in order to reach an internally consistent SEEA ecosystem services definition
- For some questions related to defining ecosystem services there may not be a single best answer; different options have different advantages and drawbacks
- A range of cross-cutting issues are being discussed
Next steps

▪ Session 3 (after lunch): discuss conceptual models and key questions for provisioning, regulating and cultural services

▪ Further engagements (expert forum, consultations)

▪ Finalise position paper
  ● Points of broad agreement
  ● Options for other aspects (advantages and disadvantages of these options)

▪ Further discussions in order to develop
  ● A clear definition for a set of (at least) 10 ecosystem services
  ● Basis for a typology of ecosystem services