Session 3: Valuing ecosystem wealth, degradation and enhancement

Challenges and Solutions to Measuring the Present Value of Ecosystem Assets

Parallel sessions, Thursday 10 – 11 am

Expert meeting on Ecosystem Valuation in the context of Natural Capital Accounting, 24-26 April 2018, Bonn

Federal Agency for Nature Conservation

United Nations

UN environment

InterSus SUSTAINABILITY SERVICES

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Measuring the Present Value of Ecosystem Assets

1. What are the main considerations in estimating **future flows** of benefits and associated asset lives?

- **changes in demand** (population, income, policy measures & decisions / institutions, and preferences), physical **changes in supply** (political decisions in e.g. fisheries, soil protection, condition changes through natural changes such as climate change) and **price changes** (development of scarcity)
- Uncertainty in projections / forecasting (e.g. IPCC / IPBES scenarios)
- Scenarios (BAU, alternative pathways), if so under clear rules such as …
- Reduce scope of assumptions as far as possible

Measuring the Present Value of Ecosystem Assets

1. What **discount rates** are appropriate for ecosystem assets and what is the relationship to market rates of interest?

- Chosen rates highly influence the results and thus a high degree of transparency on the choice is required (and sensitivity analysis may provide further insights)
- Discount rate for benefits needs to be the same for costs (just one discount rate) *but* they may vary over time
- Do all countries need to choose the same discount rates or do we rather need a standard for how countries choose a discount rate?
- The rates of change in condition (and ecological thresholds) may influence the choice of discount rate …
- A zero discount rate implies that policy measures for ecosystem improvement have the same value irrespective when they are taken
- **At the end, we need principles how to set a discount rate**

Measuring the Present Value of Ecosystem Assets

1. Do ecosystem **assets that supply no final ecosystem** services have a zero value in monetary terms?

- **Yes**, but there will be very few ecosystem assets that this applies to.
- Yes, but it needs a lot of efforts to define the linkages, assess them and value the contributions to improvements. E.g. if there is a intermediary contribution to a final ES that should not be left out.
- However, in bio-physical terms their contribution to other assets needs to be taken into account / be mapped
- **There is a biophysical and a monetary part of ES accounting and both provide information that is relevant for different purposes**
- **Yet, this needs to be clarified further.**

Measuring the Present Value of Ecosystem Assets

1. How should **differences between observed market values** for land **and the present value** of ecosystem services from a given area of land be interpreted?

- We would not expect them to be the same.
- Land has (expected) rents and that determines the value at which it is traded.
- ES accounting covers non-traded / non-SNA benefits and thus the two values are likely different.
- **Our interpretation of the difference in values is: the non-traded benefits of land.**

Measuring the Present Value of Ecosystem Assets

1. Given that these issues have been unresolved for quite some time, what are **needed and realistic next steps** to advance them further?

- Principles need to be set / be advanced for e.g. discounting rates (but differentiated between e.g. ecosystem services)
- Historical discount rate can provide a test case for validation
- IPCC / IPBES scenarios can provide starting points for SEEA-EEA projections
  - Time frames need to discussed in relation to ecological processes
- For informing policy, complexity needs to be reduced as far as possible
- Move on from case studies and applied experimentation