

Workshop Report

Topic:

Biodiversity and Ecosystem Services – The value of options

Initiator:

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Participants:

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Discussion/Results

- Monetary vs. non-monetary evaluation
 - Debate on the need of monetarisation
 - Loss of information vs. ease of communication, multi-criteria results vs. lump-sum

Results: Different approaches towards the aim of biodiversity assessments in ESS: Can they be part of the monetary values (such as e.g. regulating services), or are they better used to describe the sometimes complex consequences of Land-use related decision making (as kind of a non-valuable provisioning good)?

- Several scientific approaches
 - Extensive species inventories as background → key species (endemism, Red List) as indicators
 - Use of umbrella species as indicators for “healthy” ecosystems
 - Use of Flagship species as examples for communication and conservation

Results: Total species diversity is hardly applicable as basis for ESS-assessment, most (all?) projects present use certain identified species groups as indicators.

- From function to service and benefit:

Field of application	Service and benefit of Biodiversity
Conservation	- Compliance to international treaties (red list) - reputation and PR (flagship)
Communication	- stakeholder awareness (e.g. biocontrol, ecol. engineering) - scenario discussion support
Land-use planning	- Multi-criteria impact analyses - monetary valuation in scenario analysis

Results: Biodiversity can be included into various assessment methods for ESS, either as a good in itself; or as a way of communicating impacts or side effect of decision making. It has been noted that there are important crosslinks between Biodiversity and hedonistic ESS (through tourism and recreation) as well as regulating ESS (through intact ecosystems).

- Applicability of a REDD+ Analogue for Biodiversity
 - A novel approach for the monetarisation of Biodiversity has been discussed using similar mechanisms as those used for REDD+ or Carbon emission trading.
 - The approach should offer payments for the protection of Biodiversity (per species/endemic?) especially in the developing world. (see "Ausgleichsflächen" laws in Germany?)

Result: Discussion about beneficiaries and applicability of such a concept or the possibility to adapt existing (REDD+) methods instead. The suggestion was seen as an interesting concept for the monetarisation of Biodiversity, but other concepts might be a more rewarding route to follow.

General conclusion:

Biodiversity assessments are on the fringe of Ecosystem Service Evaluation. There is a multitude approaches and methodological pathways, but only few guidelines on *what* to evaluate *how* and to *what extent* in order to receive comparable results from different assessments. Some examples would be the selection of key or umbrella species in different ecological environments, the comparability of weighted/focussed assessments or the means of communication via multi-criteria assessments or monetarisation.

There seem to be no easy solutions to these topics, as the assessment and evaluation of Biodiversity is so strongly dependant on the ecosystem analysed, with great variations between species composition, habitat structures and surrounding environments on a case to case basis. Thus, solutions and methods that have proven useful under certain circumstances will often not be applicable for the assessment of Biodiversity related Ecosystem Services in other research areas.

Next Steps, ToDo's:

What needs to be done	Envisioned result	Who takes lead	Who is involved	Optimistic deadline
<ul style="list-style-type: none"> Session proposal for GFÖ on ESS and Biodiversity? 	<ul style="list-style-type: none"> Exchange in methods and concepts 	<ul style="list-style-type: none"> UFZ? Tomas? 	<ul style="list-style-type: none"> To be seen... 	<ul style="list-style-type: none">