

The Economics of Ecosystems & Biodiversity



6th of October, 2011

Science for the Environment, Aarhus

Reflections on the ecosystem services concept (from a TEEB perspective)

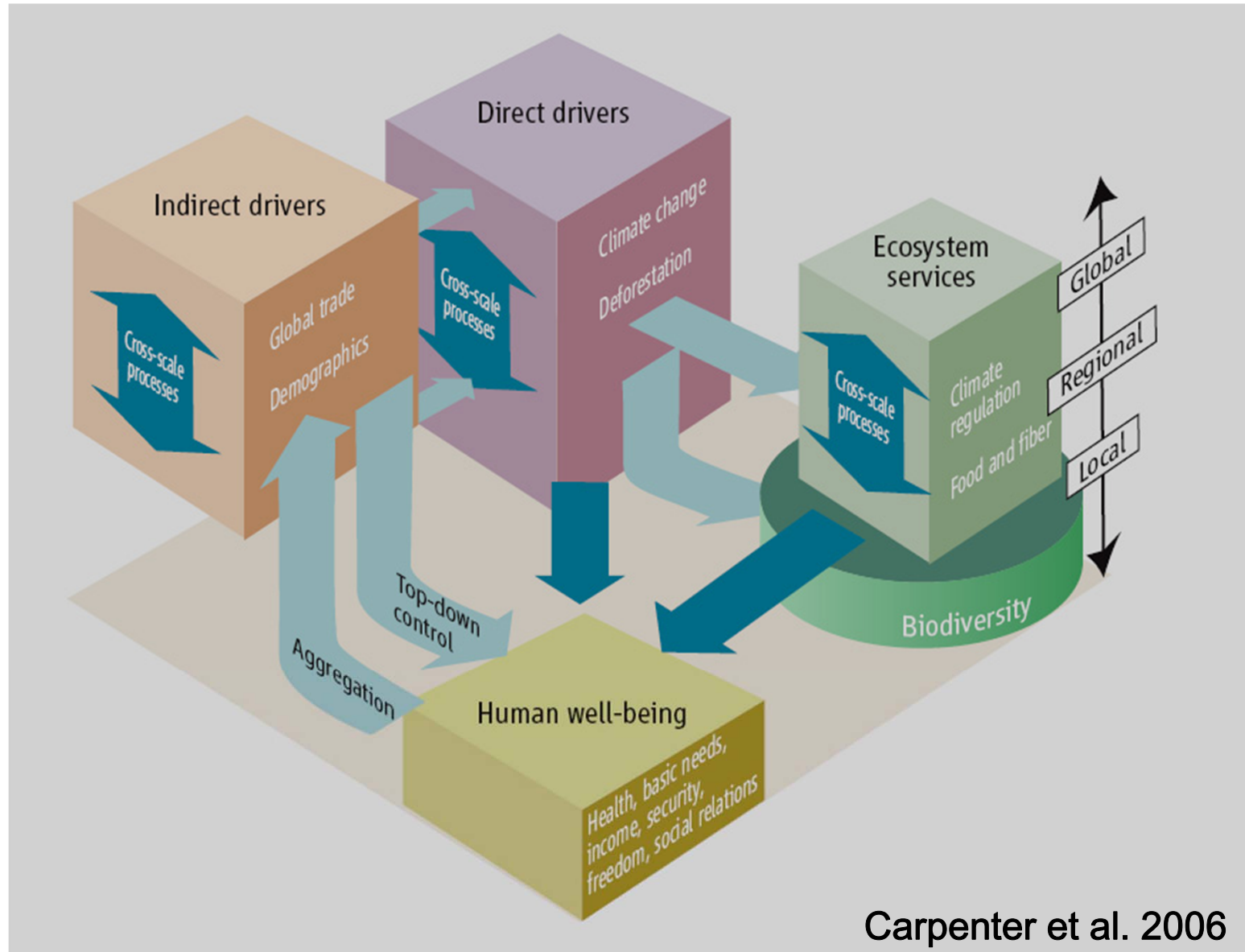
Carsten Neßhöver



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ES approaches (MA 2005)

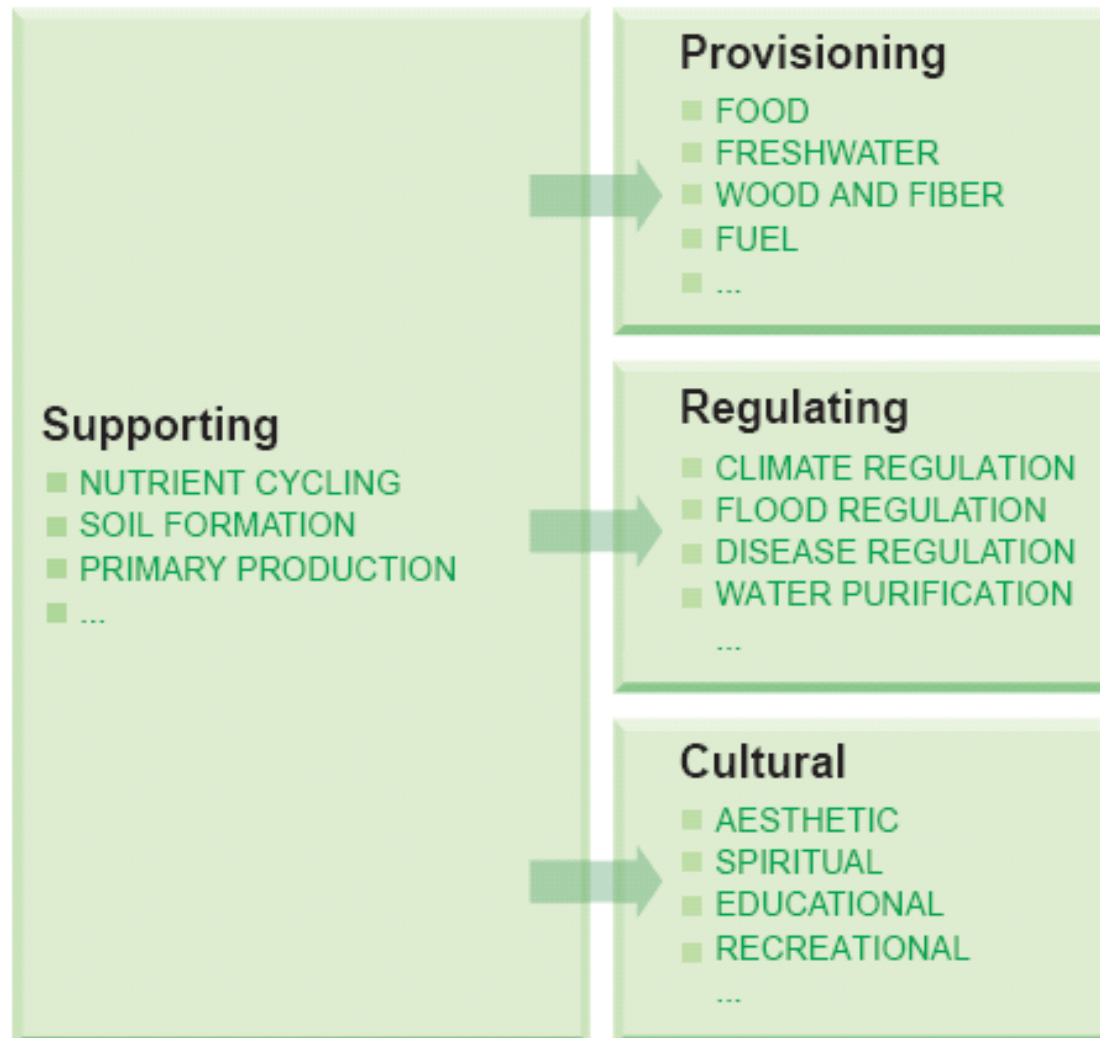


Carpenter et al. 2006



ES approaches (MA 2005)

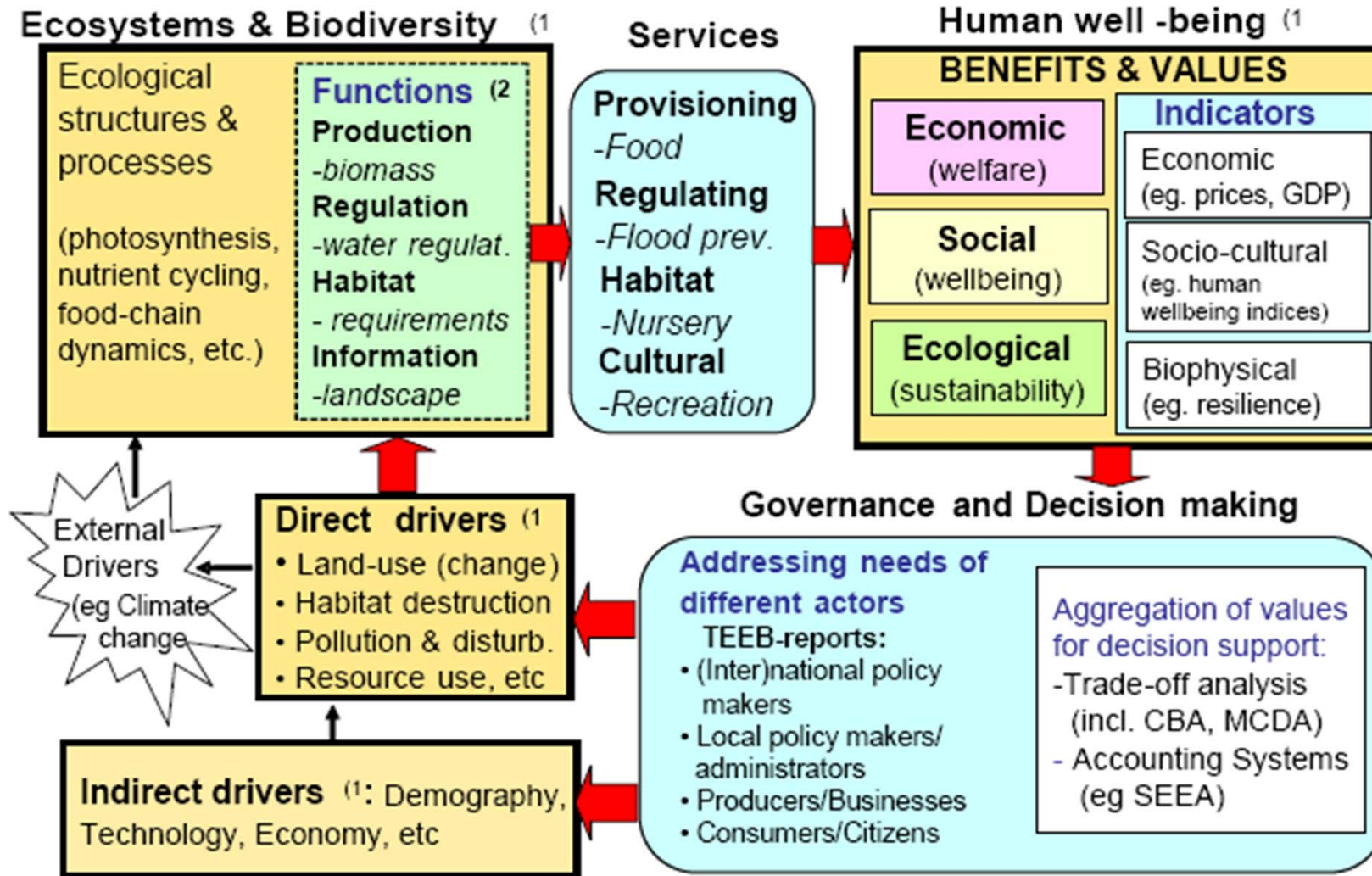
ECOSYSTEM SERVICES



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ES approaches (TEEB 2010)



¹⁾ The four bold-lined boxes coincide with the overall MA- Framework

²⁾ subset of ecosystem processes & components that is directly involved in providing the service

UK NEA (2011)

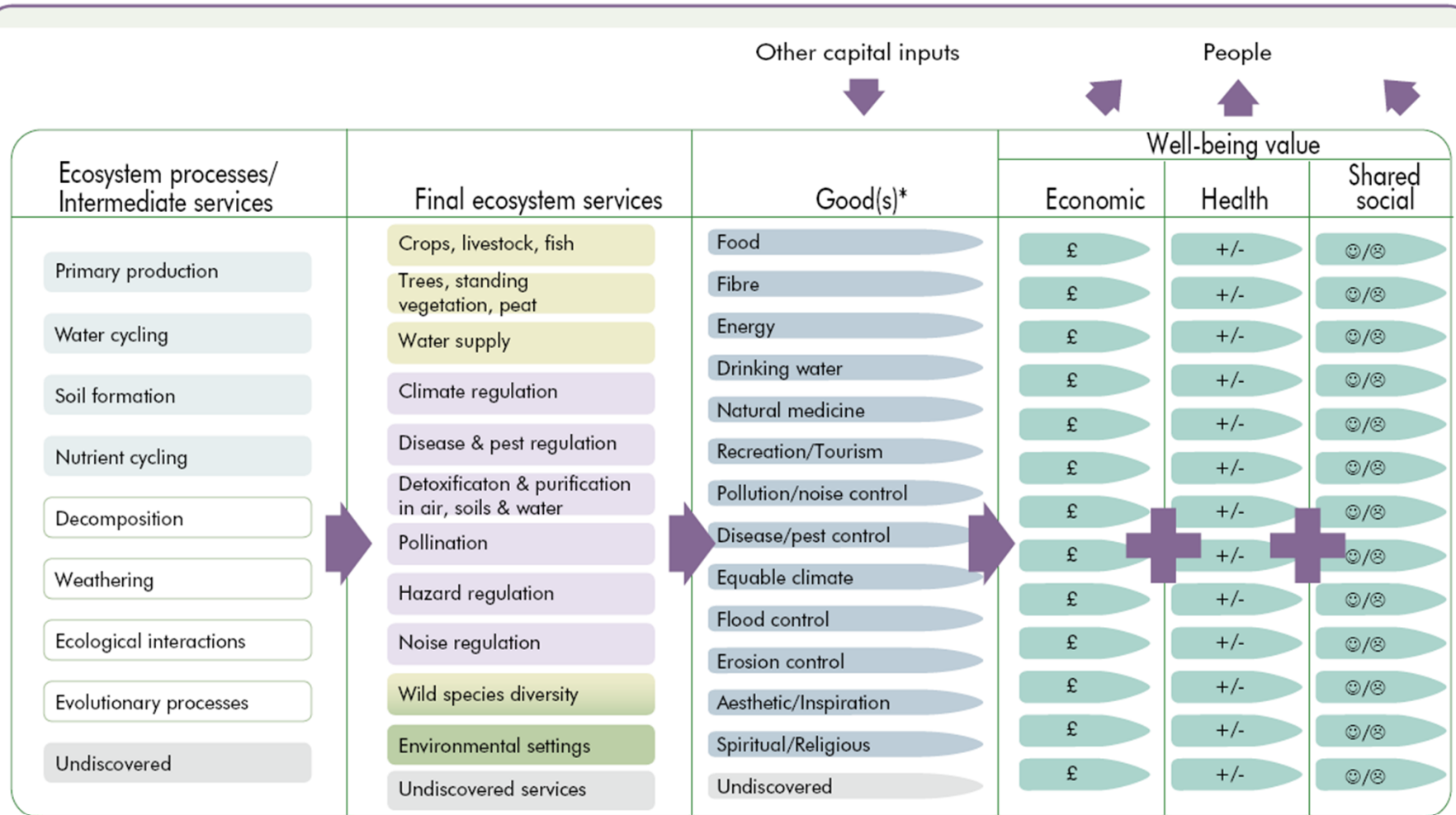
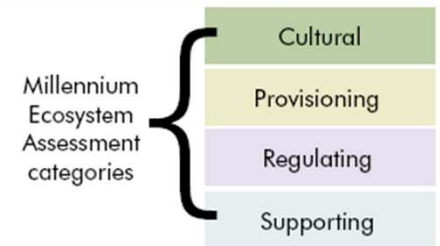


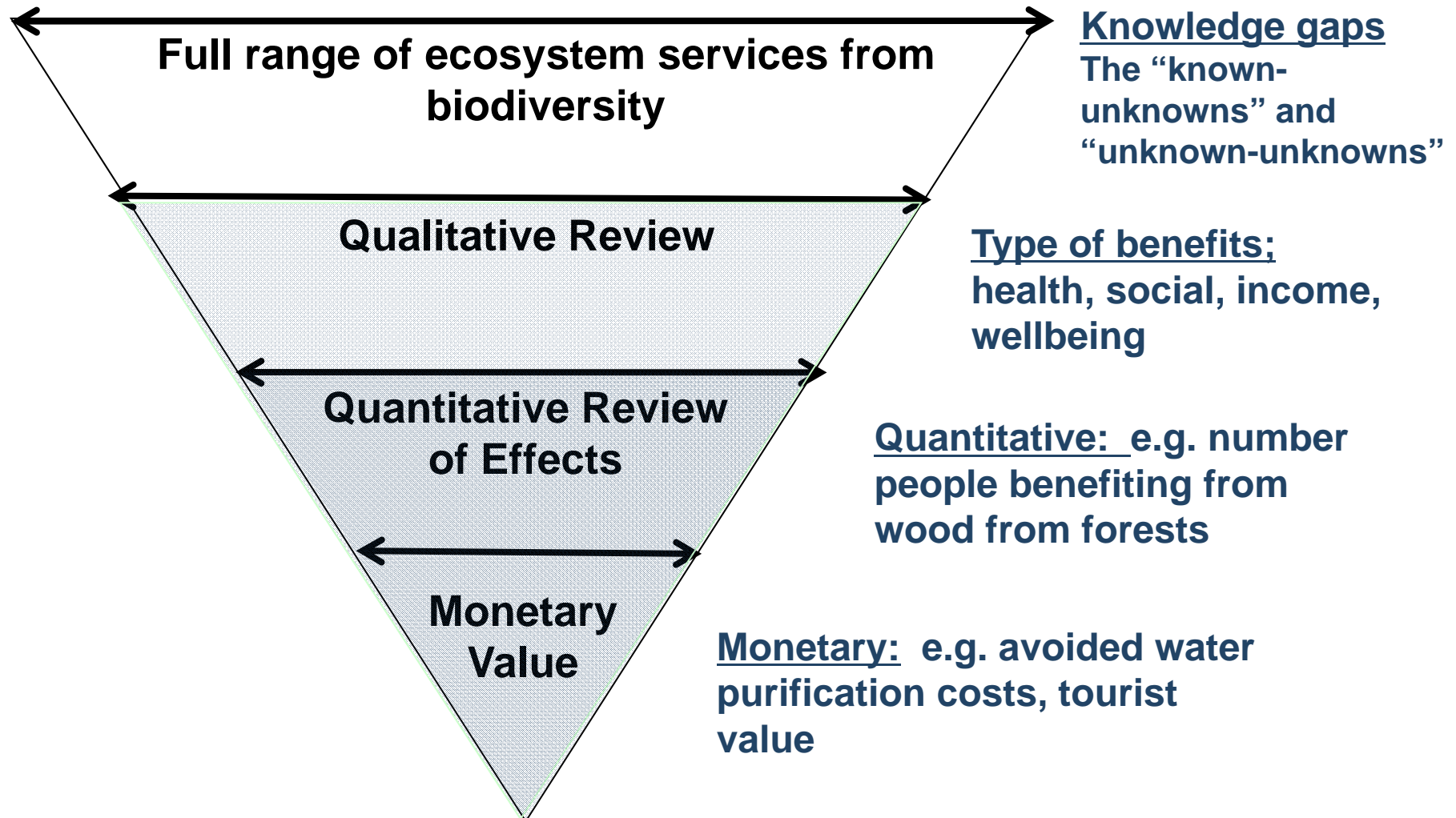
Figure 10 The full set of ecosystem processes, services, goods/benefits and values used in the UK NEA. Note that some ecosystem services can be both intermediate and final services. For simplicity, in this figure, services are shown only in the most final position that they occupy. Services such as pollination and climate regulation that also play important roles further back in the chain are not represented here. Cells with no colour are ecosystem processes/services that were not in the Millennium Ecosystem Assessment classification. *Note that the term good(s) includes all use and non-use, material and non-material outputs from ecosystems that have value for people. Source: adapted from Fisher *et al.* (2008).



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Different levels on values and valuation

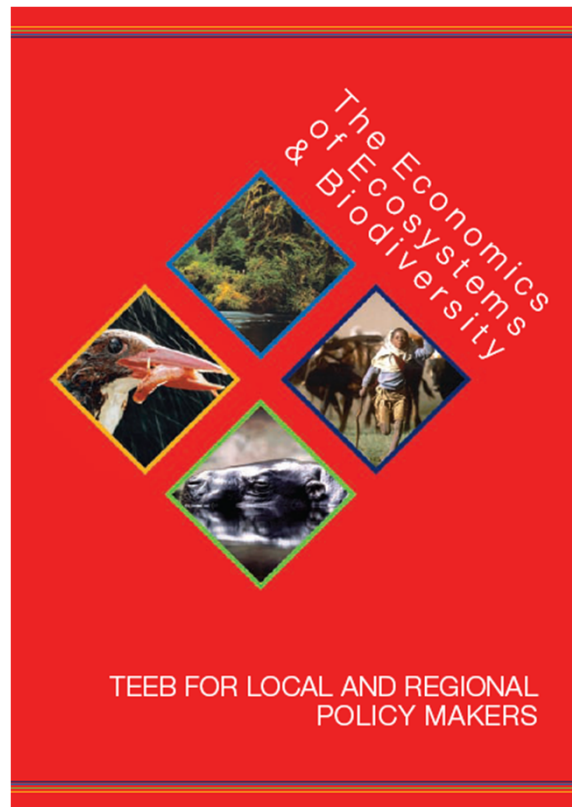




The approach for the local & regional level

Six steps for effectively appraising ecosystem services

This approach is not a fixed recipe. It is intended to guide policy makers in designing their own processes:

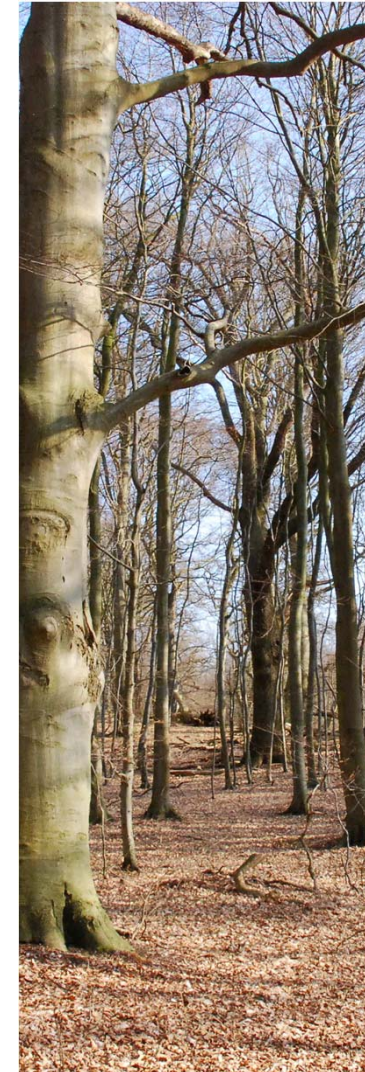


1. Specify and agree the policy issue with stakeholders.
2. Identify which ecosystem services are most relevant.
3. Define the information needs and select appropriate methods.
4. Assess ecosystem services.
5. Identify and appraise policy options.
6. Assess distributional impacts of policy options.



Future challenges für the ES concept

- Improve the biophysical knowledge base („Baseline“)
- Clearly communicate the chances but also the trade-offs and problems of valuation and economic approaches („Context“)
- Explicitly address the ethical dimension of the approach („Value systems“)
- Further consolidate the approaches to multiple ecosystem services and link with existing policy frameworks („Operationalization“)



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