

NERR092 Appendix 10 Managing Ecosystem Services Evidence Review (MESER)

Natural England's Natural Capital Evidence Handbook helps you come to a strategic understanding about the natural environment in your place using natural capital evidence. This Evidence Information Note helps you access resources related to the [Managing Ecosystem Services Evidence Review \(MESER\)](#).

Background

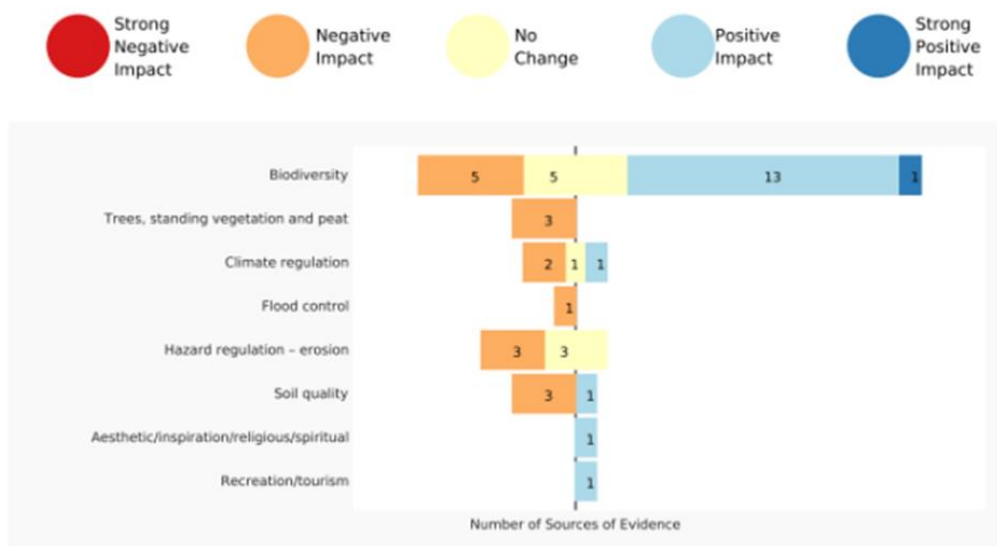
Ecosystem services are the benefits we get from nature. These include a wide range of benefits such as food, energy, clean air and water, regulation of risks (floods, droughts, erosion) and recreation or spiritual benefits. The Managing Ecosystem Services Evidence Review (MESER) tool updates the Ecosystem Services Transfer Toolkit spreadsheet. The tool is a literature review of the effect of land management actions on the provision of ecosystem services.

What did we do?

- Developed a searchable **literature review tool** of how management interventions affect the provision of ecosystem services.
- Designed the tool to be **searchable by ecosystem services, interventions or references**.
- Sorted the evidence by **broad habitat**, based on UK National Ecosystem Assessment (UK NEA 2011), covering: **upland, freshwater, urban, lowland agriculture, coastal and marine**.
- Included management interventions covering **106 different actions**.
- Used **search terms** based on habitats and interventions to search Web of Science. The results were sifted to identify relevant papers.
- Categorised **ecosystem services** to broadly align with UK NEA.
- Provided a list of **references**, with links to the source (where possible), the abstract and a reference summary.
- Assessed the **magnitude of an effect** on an ecosystem service as: strong positive; positive; no effect; weak negative; strong negative.
- Assessed and summarised **transferability** of whether the evidence from a paper is transferable or not.
- Assigned an **evidence type** to each reference, based on Stone (2013).

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Example summary graphic for a management intervention from MESER



Outputs: What is available to use?

- [Managing for ecosystem services factsheets](#) created during the original review in 2014. Each fact sheet summarises the evidence for changes in ecosystem service provision from a land management action in a broad habitat type, for example, increasing urban trees and woodlands.
- [MESER Interactive web tool and user guide](#). The tool can be searched and queried to find evidence of the effects of specific land management actions on ecosystem services provided by upland, freshwater, urban, lowland agriculture, coastal and marine habitats.
- The MESER tool enables the user to create PDF summaries of the evidence on how an intervention in a broad habitat affects the provision of ecosystem services.

What can you use it for?

- Identifying management interventions which could enhance a particular ecosystem service.
- Understanding how management interventions affect the provision of ecosystem services.
- Producing PDF summaries of the evidence for the effect of a particular management intervention on the ecosystem services provided by a specific habitat.
- Linking to the original evidence sources.
- Identifying evidence gaps which could be filled by further research.

References

Stone, D.A. (2013). Natural England Evidence Reviews: guidance on the development process and methods (1st Edition 2013). Natural England Evidence Review, Number 001.

UK National Ecosystem Assessment (2011) The UK National Ecosystem Assessment Technical Report. UNEP-WCMC, Cambridge