

Spatial Prioritisation: An Approach for Identifying More Impactful Actions on Land

Background

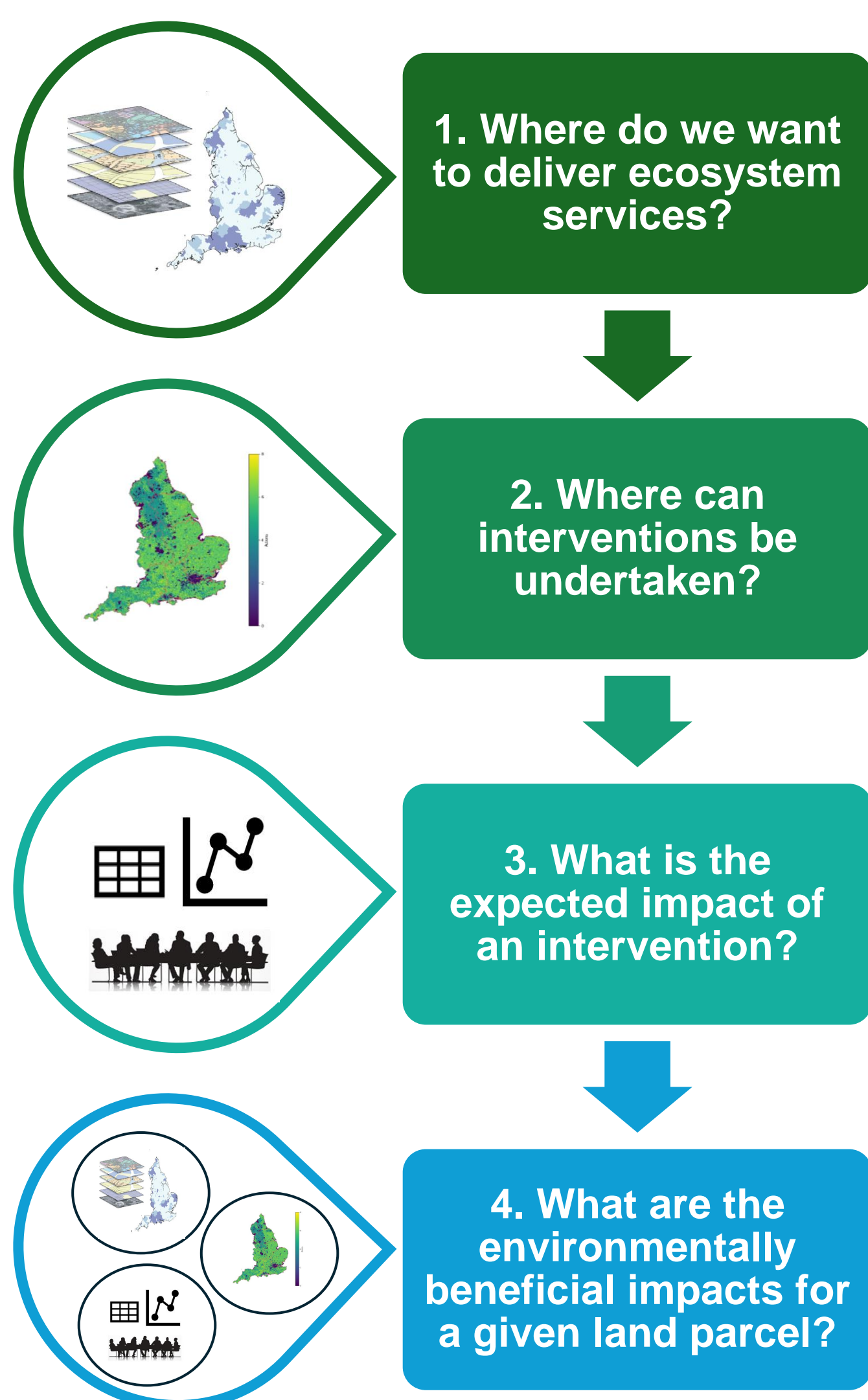
- Since the 1970s, over 40% of species in the UK have declined in abundance¹.
- To tackle this, the UK has committed to various ambitious targets and initiatives.
- However, with many, often competing demands on our land, how do we determine which actions to take and where, in order to achieve greater benefits for people and nature?

Spatial Prioritisation

JNCC is developing a spatial prioritisation approach that uses numerous evidence sources to systematically identify and rank multiple land-based actions on their suitability and potential impact on delivery of multiple ecosystem services. The approach also highlights trade-offs and opportunities where multiple benefits can be realised. It investigates what the *right action to take is, at the right place, at the right scale*.



Analytical Method



Below is a brief outline of the four key steps in the analysis:

1. Priority mapping

- Identify high priority locations where it is important to maintain and increase the delivery of an ecosystem service.

2. Location-based eligibility mapping

- Analyse existing assets, environmental conditions, legal barriers and protected site boundaries to identify feasible intervention locations.

3. Impact assessment

- Evaluate impacts of potential interventions on ecosystem service delivery using Qualitative Environmental Impact Assessment (QEIA)².

4. Multi-criteria decision analysis (MCDA)

- Combine steps 1-3 above to produce a list of options ranked by likely environmental benefits for a given land parcel (policy or local priorities can be included here to help prioritisation).

Applications and impacts

- The analytical process can contribute to balancing the multiple, and sometimes competing, policy priorities, our finite amount of land and limited budget, as well as food production needs.
- By spatially prioritising actions based on demand, eligibility and impact, this evidence-based approach enables those making decisions to consider actions that have greater environmental benefit(s) and are better value for money.

References

1. State of Nature (2019). State of nature partnership. <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-UK-full-report.pdf>
2. Qualitative impact assessment of land management interventions on Ecosystem Services <https://randd.defra.gov.uk/ProjectDetails?ProjectId=21327>