Unlocking Policy Support for Nature Based Solutions

Draft Report for stakeholder feedback

Introduction

Funding from the University of Leeds - Research England Policy Fund, was awarded to iCASP[1] to develop an evidence base to unlock policy to support implementation of Nature Based Solutions (NBS) in England.

The project seeks to identify policy barriers in England to facilitate more widespread use of well evidenced NBS. This summary report presents key challenges identified from our three main activities:

1. Survey of practitioners which received 128 responses
2. Systematic literature review (SLR) of evidence of impacts from NBS activities – over 120 documents were reviewed.
3. Themed stakeholder workshops: 1) Green Finance: Unlocking Green Finance Opportunities; 2) Nature Based Solutions: Identifying key priorities and solutions; 3) Natural Flood Management Community of Practice Monitoring Skill Share Event. There were approximately 150 participants across these three workshops.

Using the information gathered from the above activities, this report suggests improvements in policy to support evidence-based implementation of NBS at national and regional levels for discussion with an Expert Panel of stakeholders. A final report will be presented to policy makers by the end of July 2025.

Nature based solutions use lessons and features from the natural world to protect, manage, and restore ecosystems while providing benefits for both society and biodiversity. For example, using Natural Flood Management (NFM) techniques such as slowing water flow through revegetating bare areas in the hills we might reduce flood peaks in our towns and cities downstream. However, hard engineering solutions (such as flood defences) are often prioritised over nature-based solutions. The Government's 25-year Environment Plan requires step changes in land management to deliver landscape recovery (e.g. via mandatory Local Nature Recovery Strategies), biodiversity net gain, water quality benefits, and net zero commitments.

Key challenges identified

The project has identified many successful examples of Nature Based Solutions in England, including effective activities reflected in accessible evidence. In addition, participants identified examples of support which enhanced their NBS activities including from local communities, volunteers, landowners, access to good practice and research support.

[1] Yorkshire Integrated Catchment Solutions Programme (iCASP) – Making Environmental Science Count

However, key policy issues were identified including obtaining funding from public and private sources; government policy to fully support the 25-year Environment Plan; government support to ease planning processes and frameworks; and the need to build an evidence base for key NBS aims across rural and urban activities. These challenges are explained in more detail below.

Funding

1. Obtaining funding was identified as the key challenge by survey respondents (highest percentage of survey respondents reporting this to be very challenging). Organisations require funding to implement projects, ensure ongoing maintenance, ensure good quality monitoring and evaluation, provide payments to landowners, staff recruitment and training, and long-term core funding. Accessing private sector funding was identified as the key difficulty, encouraged by the government but with little practical support.

2. In terms of UK Government funding, stakeholders reported difficulties obtaining funding for projects which had multiple aims / stacked benefits e.g. a survey respondent noted *"funding cannot often be for biodiversity net gain, and net zero, and flood management"*. Voluntary sector organisations reported significant difficulties accessing any UK government funding, including if they focus on broader activities such as health and wellbeing impacts. There are also significant difficulties for NBS projects to access key UK Government funding streams:

    - Environmental Land Management Scheme (ELMS), Sustainable Farming Initiative (SFI) and Biodiversity Net Gain (BNG) payments and credits for landowners: There are delays, uncertainty, poor transparency and lack of integration which impact on the ease and certainty for landowners to include and maintain NBS measures.
    - Flood Defence Grant-in-Aid (FDGIA): It is difficult to secure funding for NFM because of the need to demonstrate closely defined benefits focusing on reducing the number of properties at flood risk which disadvantages rural areas. FDGIA needs to also recognise water quality, amenity and biodiversity benefits.

Disconnections in policy

3. The UK Government was identified as the main actor to unlock policy improvements in England (e.g. in comparison to regional government / combined authorities / local authorities / public bodies). In addition to more transparent, stable and flexible funding – the UK Government should address the following key issues:

    - ineffective partnerships between government agencies, public bodies, infrastructure and utility organisations to require / enable NBS to take place on public land, and provide funding
    - ineffective policy frameworks to recognise and support multiple / stacked benefits such as Integrated Water Management (e.g. water quality and flood risk), and wider health and wellbeing benefits that support NHS activities
    - complicated and inconsistent planning frameworks (please see below)
    - poorly resourced regional bodies to take forward NBS. For example, there is no clear long-term commitment to NBS, and this is reflected in a lack of resources to

develop and deliver the UK Environment Plan / LNRS and support Local Nature Partnerships[2] (LNPs)

- inappropriate requirements, targets and frameworks which restrict NBS, create confusion, or promote poor quality practices (e.g. stakeholders identified issues relating to tree-planting, BNG requirements for small scale interventions, FDGIA and focus on properties).

Planning framework

4. Planning permission and inconsistent planning frameworks were identified as a significant barrier to implementing NBS. For example, a survey respondent noted **"***Planning permission is not consistent across different local authorities. In many cases NBS is subject to all the requirements that large scale developments must meet which is very often disproportionate to the scale of works and prohibitively expensive".* Some projects have clauses for permitted developments (e.g. depending on funding source / size of land), whereas others need to obtain planning permission / consents, sometimes from different local authorities with different systems and / or with little support due to limited resources. In addition, a legal requirement to mandate SuDS implementation in developments over 100m^2 has not yet been applied (Schedule 3 of the Flood and Water Management Act).

Evidence base

5. A strong evidence base is essential to plan projects, identify risks, measure and communicate impacts, attract funding, and influence government policy: *"Evidence is not yet mature enough to completely inform policy".* In general, the evidence base is growing but there are many gaps. The SLR identified that two sources published in 2025: the NBS and Freshwater Evidence Synthesis[3] and the NFM Evidence Directory[4] - both supported by the Environment Agency - provide a clear and accessible evidence base for some NBS interventions**.** For example, the NBS and Freshwater Evidence Synthesis includes evidence of impacts on flood management, water quality and biodiversity & habitat from a range of interventions in different English catchment types and in both urban and rural landscapes.

   However, ongoing curation of these evidence bases is not yet established (such as filling in evidence gaps; how regularly the evidence base is updated; and processes for bringing in new evidence – especially empirical evidence from the field).

6. Many key desired outcomes from NBS do not have a clear and accessible evidence base: including carbon storage, biodiversity, drought resilience and sustainable cities. Plus, while there is evidence and a clear way forward in some areas of NBS (e.g. upland peatlands[5]), evidence of impacts is not presented in the same accessible way. It is also argued that there is a lack of research on the potential impacts of climate change including on the NBS practices themselves.

[2] Role of Local Nature Partnerships: an overview - GOV.UK
[3] https://www.gov.uk/government/publications/multiple-benefits-of-nature-based-solutions-an-evidence-synthesis
[4] https://www.gov.uk/government/publications/natural-flood-management-evidence
[5] https://eprints.whiterose.ac.uk/id/eprint/224034/

7. Some NBS interventions may have unintended consequences and this needs to be reflected in evidence / considered in project interventions. For example, the NBS and Freshwater Evidence Synthesis states that "*NBS have a wide range of benefits, but these depend on the catchment context in which they are implemented, and by ongoing management and maintenance*". In addition, there is less certainty on the range of impacts from NBS interventions across larger geographical and time scales, and there is a potential for negative impacts from specific poorly planned activities such as tree-planting projects using non-native species and not including ongoing care.

Monitoring and evaluation

8. Connected to evidence, project-level monitoring and evaluation (M&E) was identified as a significant challenge. Strict M&E requirements are a barrier where there is limited funding and survey respondents / workshop participants suggested that there should be less rigorous demands for M&E information from smaller projects using established techniques. However, there is tension given the need to improve the evidence base. A balance needs to be found, but this review identifies a need for continued project monitoring to fill evidence gaps in key NBS areas and for different environmental settings.

Community engagement

9. While there is growing quantitative physical science-based evidence on environmental impacts of NBS projects, "resilient communities" are an essential aim of NBS but there is less consideration of social, health and wellbeing impacts. In building evidence there can be tension around whose knowledge counts, including fear of "experts" excluding community knowledge. There can also be less emphasis on social science-based evidence (which can sometimes be more qualitative and harder to baseline). In some cases, local knowledge is seen as essential to plan projects (e.g. choose sites) but is then excluded in ongoing monitoring and evaluation. Increasing citizen science is a potential solution but this approach can also be top-down if not co-designed with communities. There is also growing interest in finding ways to give nature a voice in decision making.

Initial recommendations for policy makers

1) The UK Government needs to support NBS with a **bold vision and resources**. This could be through committing to the implementation of the Environment Plan and Local Nature Recovery Strategies. This includes:

   - Simplify and strengthen government funding mechanisms (including FDGIA, ELMS, SFI and BNG) to enable long-term NBS projects, plus assess the potential to secure funding from other government priorities such as health.
   - Strengthen coordination and support for private sector investment / Green Finance.
   - Develop consistent, helpful and transparent planning processes / approaches / frameworks to enable and ensure NBS
   - Reassess targets and requirements which restrict NBS or promote poor quality practices

- Establish effective partnerships between government agencies, public bodies, utility companies, and national infrastructure bodies to provide consistent frameworks, allow NBS to take place on public land and provide funding
- Provide long-term support to local NBS partnerships which involve a wide range of stakeholders including local communities

2) **Green Finance**: a) there is a need to support carbon markets including a return on investment for carbon credits; b) support forums to connect projects and potential investors, c) support cost/ benefit analysis (such as a proposed NFM cost/ benefit calculator), d) support Payments-By-Results models (e.g. for landowners), and e) learn from other successful examples.

3) **Planning permission / frameworks:** Appropriate planning requirements should be developed for NBS, consistently rolled out across all local authorities, and planners trained in NBS so that they know what they are dealing with and can manage appropriately. A national planning policy statement for NBS / Environmental Enhancement Projects was suggested as a way forward.

4) **Evidence base.** Independent organisations should be identified and funded to develop and curate a strong and accessible evidence base for key NBS aims and interventions including carbon storage, biodiversity and sustainable cities / urban NBS. This should include both physical and social science-based evidence on environmental, economic and social impacts.

5) **Community engagement:** NBS projects should be co-designed with communities and involve community knowledge. For example, *The White Paper on Peatlands* (Grayson et al. 2025) identifies that *'Community engagement should be seen as a key pillar of peatland restoration that is integral to the restoration process'.*

6) **Local NBS partnerships** supported by government funding should be facilitated to plan and co-design projects, develop evidence, ensure community participation and bring together both rural and urban NBS activities. These need to be resourced and could be organised by different geographical units such as river catchments (catchment-based partnerships) / Local Nature Partnerships / Local Authority Units/ combined authorities.

Next steps

An **Expert Panel** will be assembled to validate and prioritise the key challenges and recommendations and advise how they can be taken forward. The expert panel will comprise of representatives from different elements of NBS, different focus of evidence (e.g. physical and social sciences), different regions of England, and urban and rural environments. It will include survey respondents and workshop attendees. iCASP may also hold a participatory event to further develop the findings and recommendations.

Once finalised, the report will be presented to policy makers locally and nationally. We can correspond with ministerial offices and local MPs, but we would also welcome ideas from our Expert Panel on how to ensure the recommendations are received by the most appropriate people.

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