



Nature-based Solutions Initiative

University of Oxford



Enablers for scaling up high quality Nature-based Solutions in the UK

Alison Smith, Alexandre Chausson and Nathalie Seddon



for
nature
a home

www.naturebasedsolutionsinitiative.org



High quality NbS: the NbS Guidelines

1. NbS are not a substitute for the rapid phase-out of fossil fuels
2. NbS involve protecting and restoring a wide range of ecosystems
3. NbS are designed and implemented by or in partnership with local communities
4. NbS support or enhance biodiversity

(<https://nbsguidelines.info/>)



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Royal Society for the Protection of Birds



International Institute for Environment and
Development



Zoological Society of London



World Wide Fund for Nature



Naturvation
University of Durham



Department of Zoology
University of Oxford



Smith School for Enterprise and
Environment
University



Wildlife Conservation Society



UK Centre for Ecology and Hydrology



Fauna & Flora International



Birdlife International



The Wildlife Trusts



Environmental Change Institute
University of Oxford



World Vision UK



Capitals Coalition



British Ecological Society



Environmental Modelling Group
University of Aberdeen



Chartered Institute of Ecology and
Environmental Management



Wetlands International

...and others (45 signatories so far)

NATURE BASED SOLUTIONS IN UK CLIMATE ADAPTATION POLICY

Alison Smith and Alexandre Chausson

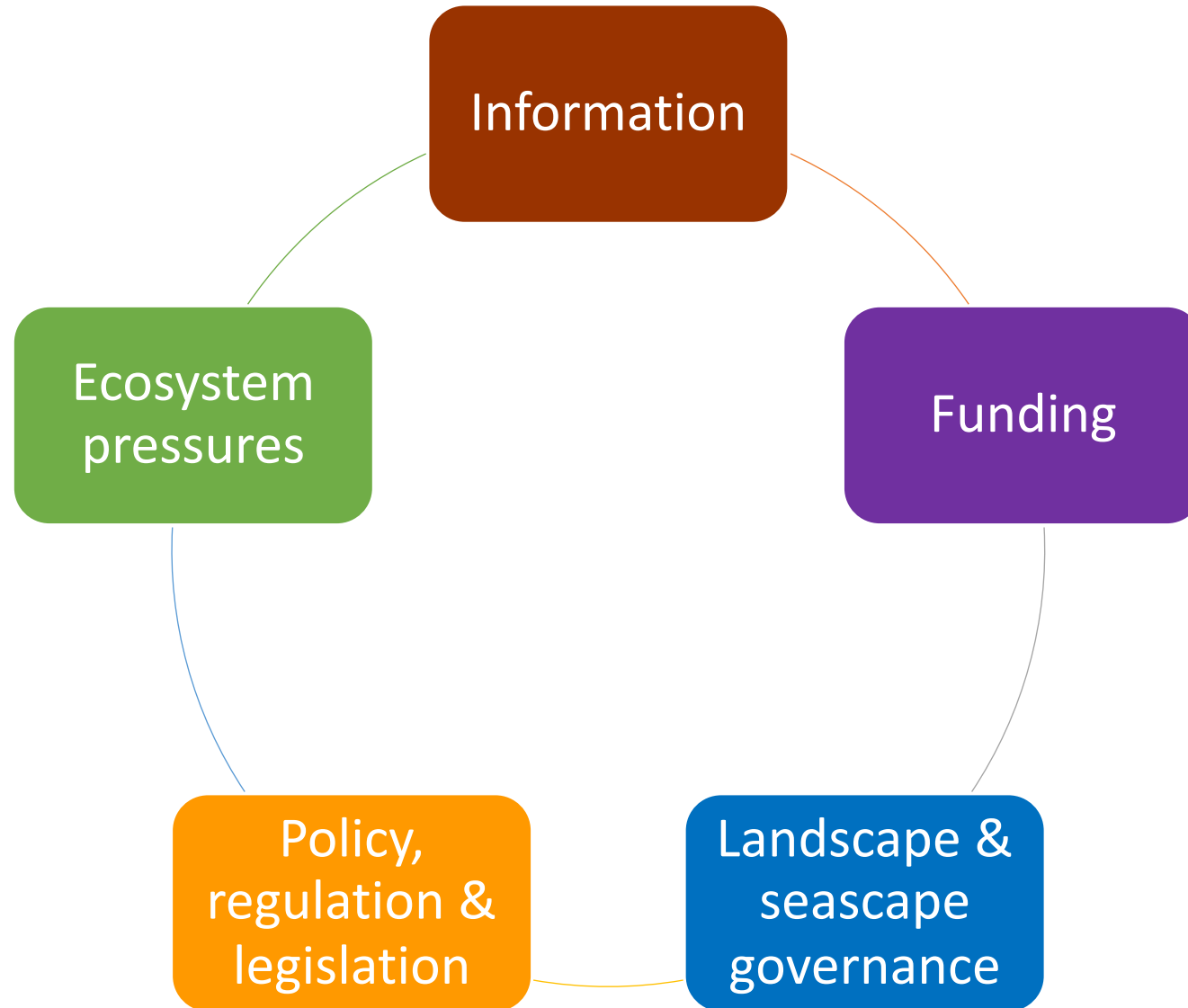
Nature-based solutions could address **33** of the 34 climate risks where further adaptation action is needed and **all 8** of the top priority risks

Practitioner interviews and workshop

- **Barriers and enablers to scaling up**
- **Policy recommendations**



Barriers and enablers to wider deployment of good quality NbS



Information

- Lack of awareness, evidence and metrics on costs and benefits
- Lack of practical skills and knowledge



- Need info hubs, demo sites, training courses, long term monitoring

Funding

- Lack of valuation methodology
- Co-benefits ignored
- Short-termism in decision-making
- Need for 'certainty'
- Lag before benefits seen



- Need funds for larger scale demos

Landscape & seascape governance

- Diverse stakeholder priorities, values, demands
- Benefits disaggregated across multiple beneficiaries
- Land use trade-offs, stakeholder conflicts



- Need collaborative governance

Policy, regulation & legislation

- Conflicting policy goals
- Complex, inappropriate regulations
- Bias towards engineered solutions



- Need good standards and strong, well-resourced strategies

Pressures on ecosystems

- NbS integrity at risk from climate change, pollution, invasive species
- Unsustainable economic growth



- Need stronger regulations and incentives to protect ecosystems

Five recommendations for wider uptake of high quality NbS

1. Integrate a wider range of NbS into National Adaptation Plans

Some NbS were broadly supported in the last NAPs:

Natural Flood
Management



Peat restoration



Urban trees



Five recommendations for wider uptake of high quality NbS

1. Integrate a wider range of NbS into National Adaptation Plans

Others were not well supported

Seagrass and kelp



Agroforestry and agroecology



Rewilding and natural regeneration



Five recommendations for wider uptake of NbS for adaptation

1. Integrate a wider range of NbS into National Adaptation Plans
2. Mainstream NbS by developing coherent policies across all sectors

Examples of lack of joined-up policy

Seagrass restoration is treated the same as damaging activities such as aggregate extraction. Licenses can cost **£10,000**.

Similar licensing and planning barriers for beneficial use of dredging material (e.g. for saltmarsh restoration) and leaky dams for natural flood management

- Licensing fees could be capped or removed for NbS projects that follow good practice in pre-approved areas



© Alex Mustard / WWF

Joined up policies

- **Set up cross-departmental working groups** with shared visions, targets and action plans.
- **Encourage a participatory landscape approach** involving all stakeholders, to balance multiple objectives and manage trade-offs.
- **Promote synergies and avoid trade-offs between climate adaptation, mitigation and food security:** support agro-ecology, and highlight the need for dietary change to free up land for NbS.
- **Integrate NbS into nature recovery networks and strategies.**
- **Recognise NbS as essential climate adaptation infrastructure** in national infrastructure strategies.
- **Streamline regulations and licensing** to support good quality NbS.

Five recommendations for wider uptake of high quality NbS

1. Integrate a wider range of NbS into National Adaptation Plans
 2. Mainstream NbS by developing coherent policies across all sectors
 3. Fund high quality NbS
- Fund implementation, but also knowledge exchange and monitoring

e.g. lack of information for farmers is a major barrier for agro-forestry and agro-ecology.



© Stephen Briggs

Farm education centres can help



© Ian Boyd; FarmED

Funding

- **Reform funding and procurement mechanisms** so it is mandatory to consider NbS alongside conventional engineered options, and to take into account their wider benefits.
- **Increase funding for research, demonstration, and long term monitoring** to build the evidence base on NbS costs and effectiveness and thus unlock private investment.
- **Fund knowledge exchange networks, advisory services and information hubs**
- **Develop blended finance options** that use public funding to leverage private funding. E.g. the UK Infrastructure Bank could help to fund up-front costs of NbS.
- **Ensure that different funding sources can work together** (agri-environment, woodland grants, biodiversity gain, net zero), and **develop mechanisms for stacking and bundling benefits** such as carbon, flood reduction, water quality and biodiversity.
- **Address chronic underfunding of delivery and regulatory bodies** such as Natural England.
- **End perverse subsidies for damaging activities** (e.g. fossil fuel extraction).

Five recommendations for wider uptake of high quality NbS

1. Integrate a wider range of NbS into National Adaptation Plans
2. Mainstream NbS by developing coherent policies across all sectors
3. Fund high quality NbS
4. Set standards for high quality and resilient NbS

Very important!

Over-simplistic targets and weak standards could lead to poor quality interventions that under-perform or even cause damage.

The IUCN Standard



IUCN Global Standard for Nature-based Solutions

A user-friendly framework for the verification, design and scaling up of NbS

First edition



Standards: Biodiverse green roofs vs thin sedum mats



Standards: multifunctional SuDS



Standards: tree planting safeguards

Where not to plant trees (usually)

- Semi-natural habitats
- Peat (even shallow peat)
- Floodplains – better to restore as meadows. Reconsider opportunity maps and grants for trees on floodplains
- High grade farmland (except agroforestry)

Plantations of non-native species are not NbS as they generally do not support native biodiversity



Standards

- **Apply the NbS guidelines and the IUCN Standard**
- **Design NbS to deliver measurable benefits for biodiversity**
- **Set safeguards for NbS involving tree-planting** (not on peat, high grade farmland, semi-natural habitats or floodplains)
- **Set a minimum standard for green roofs** equivalent to GRO 'Biodiverse Green Roofs'
- **Adopt higher standards for sustainable drainage systems (SuDS)**. High standards already apply in Wales, although the biodiversity criteria could be improved
- ✓ **Include an agro-forestry standard in agri-environment schemes** to help farmers understand good practice
- **Support knowledge-sharing networks to spread good practice** such as an agroforestry network
- **Design NbS for climate resilience** by selecting appropriate sites, a diverse mix of suitable species, enhancing connectivity and applying adaptive management

Five recommendations for wider uptake of NbS for adaptation

1. Integrate a wider range of NbS into National Adaptation Plans
2. Mainstream NbS by developing coherent policies across all sectors
3. Fund high quality NbS
4. Set standards for high quality and resilient NbS
5. Measure and monitor NbS delivery
 - Define suitable indicators and metrics
 - Improve the monitoring of biodiversity impacts, which are rarely measured
 - Strengthen institutional capacity for monitoring

Nature-based solutions in UK climate adaptation policy

Alison Smith, Alexandre Chausson and Nathalie Seddon

Five recommendations for scaling up high quality NbS

- ✓ Integrate a wider range of NbS into National Adaptation Plans
- ✓ Mainstream NbS by developing coherent policies across all sectors
- ✓ Fund high quality NbS
- ✓ Set standards for high quality and resilient NbS
- ✓ Measure and monitor NbS delivery

Thank you!

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