

Nature-based Solutions to Climate Change

Key messages for decision makers in 2020 and beyond

13 February 2020

To the Rt Hon Alok Sharma MP

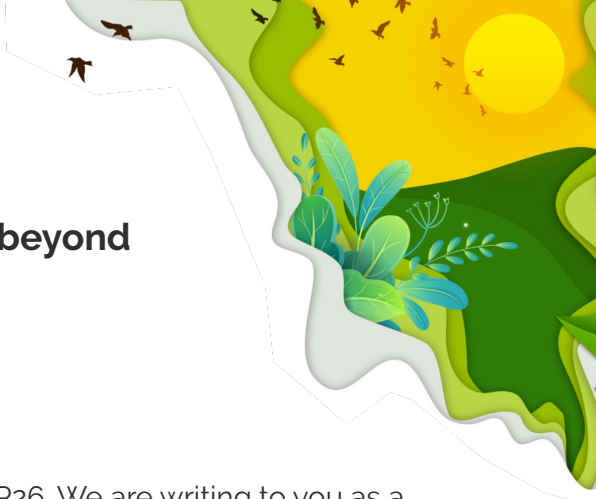
Many congratulations on your appointment as President of CoP26. We are writing to you as a group of UK-based research, conservation and development organisations to offer our support in the development of your programme of work for Nature-based Solutions (NbS). In particular, we invite you to consider some clear definitions and guiding principles around NbS and their implementation that should ensure they benefit the climate, nature and people, and to encourage the adoption of such guidelines by other Parties to the UN Framework Convention on Climate Change (UNFCCC).

The potential of NbS to address the climate and biodiversity crisis is an important element of an overall strategy as they can be low-risk and cost-effective. Therefore, we welcome the new attention that is being focussed on this previously neglected area and are excited about the opportunities offered both by the Glasgow UNFCCC CoP26 and the upcoming CBD CoP15 summit.

We are also committed to ensuring that the evidence-base underpinning the application of NbS is rigorous, and will use this year to improve our common understanding of what NbS are and how they can best be implemented.

On the basis of our shared understanding of the current evidence from science and practice, we all agree that sustainable, successful NbS:

1. Play a vitally important role in helping us to mitigate and adapt to climate change ^[1,2], **but are not a substitute for a rapid fossil fuel phase-out** and must not delay urgent action to decarbonise our economies ^[3]
2. **Involve the protection and/or restoration of a wide range of naturally occurring ecosystems on land and in the sea.** Currently, high level multilateral pledges for nature focus on forests ^[4], but other ecosystems are also rich in carbon and biodiversity and support the livelihoods of millions of people ^[5,6]. It is essential to prevent inappropriate tree-planting on naturally open ecosystems such as grasslands, savannas, and peatlands ^[7]. Meanwhile, freshwater, coastal and marine habitats play vital roles in storing carbon ^[8,9] and shielding humans from climate change impacts ^[9,10].



The world's remaining intact ecosystems and biomes are hotspots for both biodiversity and carbon storage ^[11], while also protecting people from climate change impacts ^[12,13]. Yet many of these areas lack effective protection or are poorly managed ^[11]. Degradation of ecosystems (e.g. through logging, drainage, road construction) significantly reduces carbon storage ^[14,15] and increases vulnerability to climate-related hazards such as fire ^[16]. **It is critical that we avoid turning ecosystems from carbon sinks into carbon sources.**

3. **Are implemented with full engagement and consent of Indigenous Peoples and local communities, apply robust social safeguards, and are designed to build human capacity to adapt to climate change.**

Indigenous Peoples and local communities play a key role in tackling the biodiversity and climate crises ^[17,18], but ecosystem protection and restoration will only yield benefits if livelihoods and human rights are recognised, respected and upheld throughout ^[19]. Just institutions will support larger scale, sustainable, and resilient NbS, at a crucial moment for the global response to climate change.

4. **Sustain, enhance or support biodiversity**, i.e. the diversity of life from the level of the gene to the level of the ecosystem. **Biodiversity plays a vital role in the healthy functioning and resilience of ecosystems** ^[20]. It secures the flow of essential services ^[21], reduces trade-offs among them (e.g. between carbon storage and water supply ^[22]), and **builds human capacity to adapt to climate change** in urban and rural areas ^[2,23].

While commercial forestry is needed, **successful NbS avoids large-scale tree-planting with single, non-native species or low diversity plantations**. Compared to mixed-species natural forests, low diversity plantations typically store less carbon ^[24], compromise water availability ^[22], have lower biodiversity value ^[25], are more susceptible to pests, diseases, fire and climate extremes ^[26,27], and can exacerbate poverty ^[28].

We also recognise the evidence for the value of **sustainable land and fisheries management in helping to reduce greenhouse gas emissions while enhancing soil and ocean health** ^[29,30]. Sustainable management can include nature-based practices such as agroforestry while supporting agricultural biodiversity, reducing waste and harmful impacts of fertilizers and pesticides, and building fairer supply chains ^[31,32].

We will be working with others over the course of 2020 and beyond to build a broad-based coalition in support of robust principles for NbS which can be applied across all sources of public and private finance, and to emerging policy frameworks. We hope that UK governments will support us in considering these evidence-based guidelines and in advocating them to others.

Signatories



Nature-based Solutions Initiative,
University of Oxford



Royal Society for the Protection of
Birds



Environmental Change Institute,
University of Oxford



Zoological Society of London



International Institute for Environment
and Development



Fauna & Flora International



Wildlife Conservation Society



World Wide Fund for Nature



Birdlife International



Environmental Modelling Group,
University of Aberdeen



British Ecological Society



Capitals Coalition



UK Centre for Ecology and Hydrology



Smith School for Enterprise and
Environment, University of Oxford



Department of Zoology, University of
Oxford



Naturvation, University of Durham



Environmental Investigation Agency



World Vision UK



Chartered Institute of Ecology and
Environmental Management



The Wildlife Trusts

If you would like to add your organisation as a signatory to this letter please contact
Nathalie Seddon: nathalie.seddon@zoo.ox.ac.uk

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