



Recommendations for enhancing ambition for Nature-based Solutions to climate change impacts in the Nationally Determined Contributions

A. Recommendations for the research community

Researchers from the natural and social sciences and economists are encouraged to work together to ensure that current momentum for Nature-based Solutions (NbS) is informed by the best available evidence. In particular, researchers need to:

- 1) **Build a strong evidence base** for the socio-economic and ecological effectiveness of NbS, compared to other adaptation options, to facilitate the development of targets, costed plans, and mainstreaming of NbS into national policy, where appropriate (see below).
- 2) **Align definitions around NbS and establish consensus terminology** for different types of nature-based interventions as well as for monitoring and evaluation.
- 3) **Engage in two-way knowledge exchange with end-users of their research.** In particular, they would benefit from joining communities of practitioners and policymakers to ensure stakeholder knowledge needs are understood, addressed and communicated in the most suitable format.

B. Recommendations for practitioners

Practitioners implementing NbS projects across the globe have considerable understanding of how nature can support human adaptation to climate change. They are encouraged to:

- 1) **Share knowledge widely on what makes NbS effective for people and nature**, as well as **share learning on failure.** Of particular importance to share is knowledge on the types of action, scales and/or social-ecological contexts in which NbS do *and do not* help people adapt whilst also supporting biodiversity, and the enabling conditions for scaling-up.
- 2) **Ensure that this knowledge informs the development of robust targets** for nature-based adaptation and shapes the redrafting of the NDCs in 2020 and beyond.
- 3) **Consult with local, including indigenous, communities** and ensure that traditional knowledge of NbS informs both scientific investigations and policy formulation on the effectiveness of NbS.
- 4) Work closely with practitioners from different sectors and with researchers **to align standards or principles about “good NbS” to climate change adaptation** and communicate these clearly to decision-makers in business and government.

C. Recommendations for national governments

Building on growing global recognition of the importance of ecosystems and biodiversity for addressing climate change mitigation and adaptation, national governments are encouraged to:

- 1) **Rank NbS alongside other key elements of sustainable development** and incorporate NbS in development planning processes.
- 2) **Fully integrate NbS in future NDCs** without lowering the level of ambition in other sectors.
- 3) **Increase investment in NbS actions that address both climate change adaptation and mitigation while supporting biodiversity.** This would enable integrated climate, development and biodiversity agendas and action plans. To this end, countries could **prioritise the protection of intact ecosystems.**
- 4) **Increase investment in NbS actions in all naturally occurring ecosystems**, not only terrestrial forests. Currently, high level multilateral pledges for nature focus on forests, but other ecosystems such as peatlands, mangroves, estuaries, seagrass, natural grasslands and soils, are often as rich or richer in carbon and support high levels of biodiversity.
- 5) **Avoid investment in large-scale afforestation with monoculture or low diversity commercial tree plantations, especially non-native species.** These generally have lower or less stable rates of carbon sequestration, little or no biodiversity value compared to restoring natural ecosystems, release much of their stored carbon when harvested, and are often more susceptible to damage and loss from pests, diseases, drought, fire and climate change than primary intact natural forests
- 6) **Align NDCs with other national plans and international processes**, such as National Adaptation Plans and National Adaptation Programmes of Action, as well as with other relevant international policy processes outside UNFCCC and the Paris Agreement, with common frameworks and indicators for reporting and tracking NbS-related actions under these.

D. Agencies revising NDCs

To help to help track the level of ambition for NbS for climate change adaptation more systematically, revised or new NDCs would benefit from including information on:

- 1) **Ecosystem dependencies**, i.e. ways in which human communities benefit from healthy, functioning ecosystems including the biodiversity they support and are supported by.
- 2) **Adaptation synergies and linked benefits of mitigation actions**, and vice versa.
- 3) **How NbS actions address specific vulnerabilities to climate change**, i.e. whether they reduce exposure and sensitivity to the impacts of climate change such as flooding, erosion or droughts, and/or whether they increase resilience and adaptive capacity.

Those revising NDCs are also encouraged to include **measurable nature-based adaptation targets and indicators** that:

- 4) Are drawn from the **best available knowledge of the effectiveness** of NbS from science and/or local expertise and consultation.
- 5) Encompass **wide range of naturally occurring ecosystems**, not only forests, but also grasslands, wetlands, peatlands, drylands, coastal and marine ecosystems.
- 6) **Support biodiversity** and reflect the **quality of ecosystems protected or restored** (not just the extent).

These guidelines arise from the analysis of Seddon et al. (2020) . The list is not exhaustive; we hope it will evolve and be refined with feedback from you. So please do in touch:

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Reference: N Seddon, E Daniels, R Davis, R Harris, X Hou-Jones, S Huq, V Kapos, G M. Mace, AR Rizvi, H Reid, D Roe and S Wicander (2020) **Global recognition of the importance of nature-based solutions to climate change impacts.** *Global Sustainability*. In revision.