Ensuring the Integrity of Nature-Based Solutions in Climate Change Policy: Guarding Against Greenwashing at COP28

Nature-based solutions, when well-designed and carefully implemented, can significantly contribute to climate change mitigation and adaptation, whilst protecting biodiversity and bolstering resilience. However, their success requires understanding of their effectiveness, potential risks, and the need for inclusive, rights-based governance; poorly designed schemes can have adverse impacts. Crucially, investment in nature-based solutions is not an alternative to phasing out fossil fuels. Scientific consensus underscores that failure to do so will turn the biosphere from a carbon sink to a source due to the heightened frequency and intensity of fires, droughts, floods, and pests in a warmer world. Therefore, we strongly urge Parties and non-state actors at COP28 to establish strong governance for high-integrity nature-based solutions (in line with the IUCN Global Standard[1]) and ensure that they are not misused to justify inaction on ongoing emissions.

Nature-based solutions are "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience and biodiversity benefits"[2].

When considering the role of nature-based solutions at COP28, it is critical to note that a wealth of evidence from science and practice demonstrates that:

A. **Rapid phase-out fossil fuel use is essential for achieving Paris Agreement targets, and is also a prerequisite for enabling nature-based solutions to deliver significant climate mitigation benefits.** Nature-based solutions can reduce greenhouse gas emissions from agriculture, forestry, and land use change (which together account for around 21% of global emissions). They also protect and enhance the carbon stored in soils and vegetation of intact ecosystems and sustainably managed working lands. **Globally, nature-based solutions could reduce peak warming by 0.1-0.3°C**[3], but the current global temperature rise of around 0.2°C per decade[4] shows that eliminating fossil fuel emissions is still the priority for climate change mitigation.

B. Biodiverse ecosystems are the foundation of a thriving economy and ensure the health of the biosphere. **While there are no solutions from nature without phasing out fossil fuels, protecting and restoring ecosystems is essential for a habitable, cooler planet.** This necessitates the protection and restoration of ecosystems in tandem with fossil fuel phase out.

C. **In particular, nature-based solutions play a critical role in supporting adaptation and building resilience**[5]. Restoring and protecting ecosystems and fostering healthy soil and vegetation reduces flood, drought, and landslide risks through enhancing water infiltration and storage, stabilising slopes and shores, and lessening wave energy. Similarly, creating green and blue infrastructure (such as green roofs, urban trees, parks and wetlands) helps to cool and reduce flooding in urban areas. Practices such as agroforestry, deployed in a broader food system context, can reduce sensitivity to climate change by improving or stabilising yields in drier or more unpredictable climates, whilst building adaptive capacity[5].

D. However, **nature-based solutions can only help to address climate change and other global challenges if they are implemented with integrity**. Concerns arise from the misuse of the nature-based solutions concept, leading to greenwashing, human rights violations, and biodiversity threats, particularly when top-down approaches disregard local rights or replace diverse native ecosystems with low-diversity commercial plantations. Nature-based solutions must therefore be designed, managed, and monitored by or in close partnership with Indigenous Peoples and local communities, respecting their rights, incorporating local knowledge, and bringing local benefits. They should also be designed and adaptively managed to provide measurable benefits for biodiversity, which underpins the health and resilience of ecosystems.

For a deeper understanding of the scientific evidence backing these statements, explore the open-access article "Getting the message right on nature-based solutions for climate change."[6] Policy guidelines for sustainable nature-based solutions, endorsed by 47 research, conservation and development organisations, can be found at www.nbsguidelines.info.

To help ensure the integrity of nature-based solutions, a robust COP28 decision would:

1. Emphasise that nature-based solutions must not be misused to justify business-as-usual emissions or delay fossil-fuel phase-out.

2. Strengthen linkages between climate action and biodiversity conservation by fostering greater operational coherence across global environmental governance frameworks, including the Rio Conventions, encouraging synergy among these policy processes to ensure joined up policy and action, for example, by aligning Nationally Determined Contributions (NDCs) and National Biodiversity Strategies and Action Plans (NBSAPs).

3. Recognise the critical importance of biodiverse nature-based solutions for climate adaptation, asking Parties to integrate nature-based solutions comprehensively within their National Adaptation Plans (NAPs) and Long-Term Low Emission Development Strategies (LT-LEDS).

4. Support and enable a rights-based approach to the implementation of nature-based solutions, respecting and championing the rights, knowledge, and leadership of Indigenous peoples and local communities. Encouraging their active involvement in designing, implementing, and managing nature-based solutions will foster social equity and sustainable outcomes.

5. Ensure that investments in nature-based solutions exclusively target projects that adhere to stringent guidelines, with robust monitoring, ensuring social and ecological integrity, thereby avoiding land grabs and the conversion of native ecosystems (including biodiverse grasslands and savannas) into forestry plantations of low ecological value.

6. Regulate carbon markets to prevent the proliferation of harmful cheap offsets. Transparency and adherence to more robust standards, in line with UNFCCC and CBD goals, should govern market operations. Existing markets may require audits for compliance, while new markets should align with these objectives to guarantee consistency and effectiveness in achieving climate goals without compromising biodiversity.

7. Ensure that NDCs are transparent, accurate, and firmly grounded in the best available scientific evidence, explicitly recognising and incorporating the role of healthy, biodiverse ecosystems in both mitigating and adapting to climate change, enabling a holistic and informed approach to climate action.

8. Operationalise Article 5 of the Paris Agreement, recognising the critical role of ecosystems in both mitigating and adapting to climate change.

As nations gather at COP28, it is imperative to integrate nature-based solutions into climate policies, recognising their role as part of a broader strategy for systemic change towards a nature-positive and resilient global economy. However, to prevent greenwashing and ensure the long-term effectiveness of these solutions, we must establish clear standards, enhance monitoring mechanisms, prioritise community involvement, and foster international collaboration. By recognising the importance of these actions, COP28 can set a precedent for the responsible and transparent implementation of nature-based solutions in the global fight against climate change.

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[1] https://www.iucn.org/resources/publication/iucn-global-standard-nature-based-solutions-first-edition

[2] At the resumed fifth session of the United Nations Environment Assembly (UNEA 5.2) held in February 2022 in Nairobi, the Assembly adopted resolution 5/5 of 2 March 2022, entitled "Nature-based solutions for supporting sustainable development". The resolution provides the first multilaterally agreed this definition of nature-based solutions.

[3] https://www.nature.com/articles/d41586-021-01241-2

[4] https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-3/

[5] https://www.science.org/doi/10.1126/science.abn9668

[6] https://onlinelibrary.wiley.com/doi/10.1111/gcb.15513

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