

Nature-based Solutions in the Post-2020 Global Biodiversity Framework Targets

Summary

- NbS are relevant to the GBF, specifically Targets 8 and 11
- The UNEA-5 adopted a global definition of NbS, which provides an official reference to be used in international agreements
- NbS encompasses a variety of approaches, including Ecosystem-based Adaptation, Ecosystem-based Disaster Risk Reduction and Ecosystem-based mitigation (EbM)
- NbS is only effective for climate change mitigation when combined with ambitious and comprehensive emission reduction strategies aligned with the Paris Agreement net-zero and long term goals
- IUCN Global Standard for NbS helps prevent unanticipated negative outcomes or misuse, and contributes to assessing their effectiveness

NbS – an internationally agreed definition

Largely based on the IUCN definition of NbS¹, the United Nations Environment Assembly at its fifth meeting ([UNEA-5](#)) adopted a global definition of NbS, culminating years of collaboration among countries and civil society, and providing an official reference to be used by Parties to the CBD and other international agreements.

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, resilience and biodiversity benefits

NbS for the biodiversity and climate crises

NbS encompasses a variety of approaches working with nature for societal benefit, including Ecosystem-based adaptation (EbA), Ecosystem-based Disaster Risk Reduction (DRR)², and Ecosystem-based mitigation (EbM). For instance, NbS for coastal and marine habitats includes conservation of mangroves, salt marshes, seagrasses and coral reefs, which reduces exposure and provides natural protection from climate change-related risks. Mangrove ecosystems alone provide flood protection benefits and protect more than 15 million people per yearⁱⁱ. While this measure is an example of EbA, it also falls into the overarching NbS concept.

As an umbrella term, NbS is used to support the communication and mainstreaming of these different approaches across international, multilateral agreements/global frameworks and their audiences. Each of these specific approaches have guidelines and indicators that provide tools for implementation.

The CBD adopted definitions of “Ecosystem Approach” and “Ecosystem-based Approach,” which are foundational frameworks prioritizing sustainable land and water use, and later prioritizing habitat restoration, which led to the formulation of NbS^{iii,iv}.



Oahu, Hawaii. Megan Bobb

¹ IUCN's Definition of NbS: [WCC-2016-Res-069](#): “Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.”

² EbA and Eco-DRR are heavily incorporated into the CBD framework. They are defined in Box 2 and illustrated in Figure 2 of [CBD Technical Series 093](#).



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NbS in international processes

Despite having only recently agreed on a definition, the scientific community had already considered NbS to address the biodiversity and climate crises, notably during the joint workshop of the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)^v in 2021, which concluded that:

- NbS implementation AND overall reduction in human emissions of Greenhouse Gases (GHGs) are necessary for climate mitigation (Summary Point 10);
- Restoring 20% of inhabited or altered land through NbS could prevent food insecurity and allow ecosystem benefits (Summary Point 9);
- NbS can improve the adaptive capacity of ecosystems by restoring and promoting biodiversity; adaptive ecosystems are more resilient to climate change (Summary Point 11); and,
- NbS as carbon offsets is most beneficial under GHG overall strict reduction stipulations and not used to delay mitigation actions in other sectors. The effectiveness of NbS declines under increasing climate change effects (Summary Point 23).

Furthermore, the particular benefits of NbS in both mitigation and adaptation of climate change³ have led leaders internationally to discuss these practices and call for implementation and scaling up of NbS in climate action

policies. Examples of the support of NbS in the policy arena include:

- Explicit recognition of NbS in the [2020 Leaders' Pledge for Nature](#) (September 2020)
- Explicit recognition of NbS in the [G7 Climate and Environment Ministers' Meeting Communiqué](#) (May 2021)
- Explicit recognition of NbS in the [Joint G20 Energy-Climate Ministerial Communiqué](#) (July 2021)
- UNEA recognition of standard definition of NbS and adoption (March 2022)
- Incorporation of NbS in countries' [Nationally Determined Contributions](#) (NDCs)

A global standard

In 2020, IUCN launched the [IUCN Global Standard for NbS^{TMvi}](#), which provides an internationally recognized framework to: i) effectively design NbS, ii) ensure and respond to stakeholders' rights, particularly upholding the rights of indigenous peoples and local communities (IPLCs) iii) increase the scale and impact of NbS, iv) prevent unanticipated negative outcomes or misuse of NbS, and v) help funding agencies, policymakers, and other stakeholders assess the effectiveness of NbS implementation⁴. The Standard should be applied closely to guide the implementation of NbS as part of the post-2020 GBF.

Critiques against NbS and rebuttal

Several criticisms have been raised against NbS concerning 1) distractions from business-as-usual fossil fuel consumption, 2) misuse of biodiversity net gain principles, and 3) intrusion of IPLC resource rights. Critics have cautioned its use in policy without the assurance that NbS will be carefully implemented to protect against such implications.

Carbon Offsets and GHG Emissions

Critics argue that the potential carbon offsets of NbS are touted by corporates to achieve net-zero GHG emissions without any reduction, or even increasing, emissions including from fossil fuel use^{vii}. In addition, there is the concern that companies greenwash their climate action efforts through NbS, enabling continued emissions without scrutiny^{vii,viii}. This is an issue connected to the misuse of nature for a single benefit: carbon. However, it is clear, as stated in the IPCC/IPBES workshop and in the UNEA-5 resolution, that NbS is only effective for climate change mitigation when *combined* with ambitious and comprehensive emission reduction strategies aligned with the Paris Agreement net-zero and long term goals^{ix}. IUCN's membership has expressed overall support on the use of NbS for carbon offsets, with important caveats^{ix}. To contribute to the responsible use of NbS in this context, IUCN is developing specific operational guidance on the

³ See the IUCN NbS Factsheet for COP26: [Top five questions answered on Nature-based Solutions](#).

⁴ See also: [IUCN Motion 073](#) to Promote Global Standard of NbS Internationally.

use of NbS for corporate sector net-zero targets both within and outside their value chain as explained in Table 1:

Table 1. Different ways where NbS could contribute to corporate net-zero targets (draft).

Different ways where NbS could contribute to corporate net-zero targets			
Within the value chain		Beyond the value chain	
By reducing / abating scope 1 ⁵ emissions and scope 3 emissions	By helping inset emissions within scope 3 value chain boundary for AFOLU emissions.	By neutralizing residual emissions of any industry through permanent removal and storage of carbon from the atmosphere.	By enabling additional investment beyond value chain mitigation actions.
Examples			
Through NbS that helps improve land management and sustainable production that generates carbon removals and emission reductions	Implementation of agro-ecological approaches to production systems that generate emission reductions or removals	Carbon credits acquired from markets or investments in projects that follow the NbS standard.	Investments in carbon credit-generating projects that support the global goal of the Paris Agreement and comply with the NbS Standard.

Biodiversity net gain

An overemphasis on tree planting for carbon sequestration and being wrongly advertised as NbS have generated the misconception that NbS can negatively impact biodiversity^{viii}. Climate adaptive ecosystems are that way because of biodiversity, and monocropping campaigns which omit this tenant of NbS can have the opposite effect^x. NbS are applicable to all ecosystems and seek to maintain or enhance biodiversity. The fixation on tree planting can prevent conservation of existing ecosystems^x. To counteract this practice, IUCN Global Standard on NbS requires biodiversity net gain as core principle and criteria of NbS^{vi}. That is, NbS ought to be *diverse* and *relevant* to the existing ecosystems they aim to benefit. As such, vulnerability assessments of current conditions are necessary to determine which measures

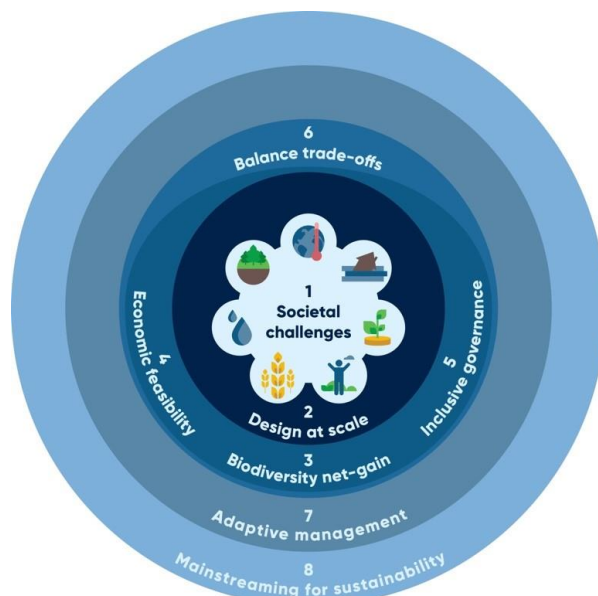
would yield the greatest success. Biodiversity net gain must be observed, taking into account that the implementation measure and outcome may take decades to establish a complex biodiverse system.

Rights of IPLCs

Local communities are often directly affected by NbS, as their livelihood is dependent on access to resources and ecosystem co-benefits. Unfortunately, they may be left out of land-use decisions and only superficially involved as the labourers of implementation^x.

As stewards of their land and its benefits, it is imperative to include IPLCs in the planning and implementation process of NbS^x. The fifth criterion of the IUCN Global Standard states, “NbS are based on inclusive, transparent and empowering governance processes,” and explicitly upholds the Indigenous Peoples to Free Prior and Informed Consent (FPIC). Thus, the criterion excludes ad-hoc interventions by outside actors with goals misaligned with supporting such communities^{vi}.

Furthermore, the definition adopted by UNEA should mitigate subpar NbS incorporation. Specifically, the resolution that defines NbS, addresses NbS implication on local indigenous groups by including the safeguards guaranteed by the Rio conventions.



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It “recognizes that nature-based solutions (...) respect social and environmental safeguards, in line with the three “Rio conventions” (the Convention on Biological Diversity, the United Nations Convention to Combat Desertification

⁵ As in : <https://www.carbontrust.com/resources/briefing-what-are-scope-3-emissions>

and the United Nations Framework Convention on Climate Change), including such safeguards for local communities and indigenous peoples...”



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Post 2020 Global Biodiversity Framework Targets

NbS are closely aligned with the first draft of the Post-2020 GBF. The focus on improving human well-being through the adaptive and resilient characteristics of biodiverse ecosystems directly underpins the 2050 Vision: “By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people,^{xi}”. The GBF also states that it “aims to facilitate implementation (...) primarily through activities at the national level.^x” **NbS provides much-needed actionable guidance for parties implementing the GBF.** Inclusion of NbS in the GBF would streamline approaches such as EbA, EbM, and Eco-DRR globally and ensure biodiversity is at the center of future climate action⁴. Including NbS in Targets 8 and 11 of the Post-2020 GBF necessitates relevant and specific indicators for the targets as well. Suggestions to the text of the Targets 8 and 11 and their corresponding headline indicators are provided below⁶.

Target 8

Minimize the impact of climate change on biodiversity, contribute to mitigation, adaptation and resilience including through nature-based solutions and ecosystem-based approaches, and ensure that all mitigation and adaptation efforts avoid negative impacts on biodiversity.

The recent adoption of a formal UN definition of Nature-based Solutions (NbS) at UNEA-5ⁱ, based on the IUCN definition¹, provides an internationally agreed understanding of this concept and should be accepted in the context of the GBF.

Including the term Nature-based Solutions in this target alongside ecosystem-based approaches provides a strong framework of actions that address all dimensions

of climate change – mitigation, adaptation, resilience and disaster risk reduction.

NbS can be designed for reducing carbon emissions and protecting and restoring ecosystems. NbS must be combined with phasing out fossil fuels and decarbonizing actions to reach climate goals rather than implemented as a standalone action. The potential of NbS should not imply any position or guidance regarding carbon markets driven by carbon offsets purposes. NbS for climate adaptation and mitigation can also contribute to improving the status of biodiversity and supporting rights-based approaches. For example, protected areas and OECMs can constitute effective NbS for climate change and biodiversity loss.

Consider adding to the current headline indicator the attribution of NbS and ecosystem-based approaches to the reduction in GHG emissions.

Target 11

Maintain and enhance nature’s contributions to people through nature-based solutions and ecosystem-based approaches.

Maintaining and enhancing nature’s contributions to people is dependent on maintaining and enhancing the health and integrity of natural and managed ecosystems, which is addressed in other targets, including Targets 1, 2, 3, 8 and 10.

IUCN suggests referring to nature’s contributions to people established by IPBES, which encompass eighteen ecosystem services, to avoid an exhaustive list of ecosystem services.

IUCN supports the reference to Nature-based Solutions (NbS) alongside ecosystem-based approaches to operationalize the target. NbS are designed to optimize ecosystem services tailored to the challenges to be addressed depending on the location.

Consider expanding the current headline indicator to the accounting of all ecosystem services enhanced and improved to quantify the overall nature’s contributions to people¹.

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⁶ See [IUCN Position Paper](#) for the 4th Open-Ended Working Group meeting of the Post-2020 GBF.

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