

ENSURING EFFECTIVE NATURE-BASED SOLUTIONS

- Nature-based Solutions (NbS) are actions to **address societal challenges** through the protection, sustainable management and restoration of ecosystems, benefiting both biodiversity and human well-being.
- Until now, there has been **no agreed framework or standard** as to what constitutes an effective NbS.
- **Misunderstanding and misuse** of NbS have led to applications that cause harm to biodiversity and communities and threaten to erode stakeholders' trust in the approach.
- The **IUCN Global Standard for NbS** is a tool to help governments, communities, business and NGOs implement strong, effective NbS projects that are ambitious in scale and sustainable, prevent misuse and safeguard people and planet.

What is the issue?

Nature-based Solutions are actions addressing key societal challenges through the protection, sustainable management and restoration of both natural and modified ecosystems, benefiting both biodiversity and human well-being. NbS have significant, but currently underutilised potential to help address global challenges such as climate change, human health, food and water security, natural disasters and biodiversity loss. An IUCN report found that NbS projects were not large enough in scale, that the NbS approach was insufficiently integrated into policy, and that more collaborative NbS projects were needed for increased efficiency ([Cohen-Shacham, 2019](#)).

If delivered appropriately, NbS can significantly contribute to addressing multiple societal challenges. For example, NbS have the potential to supply up to 37% of our climate change mitigation needs ([Griscom et al., 2017](#)). They can also reduce the negative effects of the climate crisis on people and nature by decreasing the impact of disasters and providing resilience to communities. Mangroves alone, if healthy and sustainably managed, could reduce annual flooding for more than 18 million people globally ([Beck et al., 2018](#)), averting flood damage totalling up to US\$ 57 billion in China, India, Mexico, US and Viet Nam each year ([Reguero et al., 2018](#)). NbS can also help address biodiversity loss, for example through forest landscape restoration.

Governments, communities, business and NGOs are increasingly embracing the NbS approach. For instance, two-thirds of the governments supporting the Paris Agreement included NbS actions in their national climate plans.



© IUCN

Figure 1: NbS simultaneously support human well-being needs and biodiversity benefits through actions of protection, restoration and sustainable management. The definition serves as a basis for issue-specific and infrastructure-specific approaches to be leveraged as solutions.

However, until now, there has been a lack of clear parameters defining NbS and a common framework. Such a framework is essential in order to increase the scale and impact of the NbS approach, to prevent unanticipated negative outcomes or misuse, and help funding agencies, policy makers and other stakeholders assess the effectiveness of interventions.

Why is this important?

Increased demand and use of NbS has led to cases of misuse of the NbS concept, where even good intentions can result in harm to nature and people. In the worst-case scenarios, misuse runs the risk of damaging biodiversity, eroding the nature that we depend upon for services such as clean water and food.

For example, a tree-planting climate mitigation project using just one non-native species could create poor soils, ultimately degrading biodiversity and making it more costly or impossible to sustain the forest in the future. Similarly, restoring a mangrove forest to reduce the risk of storm damage could be doomed from the start if upstream and downstream processes are not considered. Lack of consideration of water use can lead to restored ecosystems using too much water, creating pressure on local communities. Failure to take into account social and economic factors has meant that even seemingly successful pilot applications of NbS have ultimately not been sustainable outside of the timeframe of a project.



A failed mangrove restoration that did not take into account the sedimentation and erosion processes in the bay. Addressing Criterion 2 of the Global Standard (Design at Scale) would have resulted in a healthy coastal ecosystem reducing storm damage and providing jobs for local communities. © Daisy Hessenberger

If NbS are only implemented as uncoordinated small-scale pilots and applications, their substantial potential to address societal challenges will not be fulfilled. Worse, **weak or mislabelled NbS projects can water down the case for the NbS approach**, de-incentivising its use, eroding donor confidence and misdirecting efforts.

Funders, investors and decision makers need to be confident that the NbS initiatives they support are effective and scalable and consider potential externalities. Yet many may lack the resources or expertise to analyse and evaluate NbS projects.

What can be done?

While evidence of effective NbS exists across different sectors, it needs to be brought together in a robust evidence base and business case to connect the natural capital and finance world to NbS and help secure further resources and interventions.

Even more importantly, there is a **need for a standardised approach** and means of assessing the strength of an NbS. Such a tool will provide guidance

on how to design effective NbS projects to prevent harm to people or biodiversity, and to maximize their potential to address societal challenges within the context of the climate and biodiversity crises.

The **IUCN Global Standard for Nature-based Solutions**, launched in July 2020, addresses this need. It consists of eight criteria and their associated indicators, which address the pillars of sustainable development (biodiversity, economy and society) and resilient project management. These criteria directly respond to the existing gaps found in the [2019 IUCN report](#): scale, policy and complementarity to other interventions. The governance structure of the IUCN Global Standard will be responsible for revising the criteria every four years, enabling improvement and incentivising engagement with the NbS approach across sectors.

Implementers of NbS can use the Global Standard, its user guide and self-assessment tool to consistently **design effective NbS projects** that are ambitious in scale and sustainability, creating a shared language for stakeholders and facilitating innovative partnerships. **Donors and financiers** can invest in NbS with the Global Standard as a **benchmark minimising risks and providing increased security**. All user groups across the public and private sectors can also further engage with the governance structure of the Global Standard, which connects stakeholders worldwide and ensures via feedback that the Global Standard is used for its full potential to mainstream NbS.

With involvement across sectors, the Standard will enable Nature-based Solutions to be implemented worldwide, contributing their full potential to addressing societal challenges.

Where can I get more information?

For more information, visit the [IUCN NbS Standard webpage](#), and consult the following references:

- (1) Cohen-Shacham, E., et al (2016). [Nature-based solutions to address global societal challenges](#). Gland, Switzerland: IUCN.
- (2) International Union for Conservation of Nature (IUCN), Members' Assembly (2016). Resolution 6.069: [Defining Nature-based Solutions, WCC-2016-Res-069](#). Gland, Switzerland: IUCN.
- (3) IUCN (2020). [IUCN Global Standard for Nature-based Solutions, First edition](#). Gland, Switzerland: IUCN.
- (4) IUCN (2020). [Guidance for using the IUCN Global Standard for Nature-based Solutions, First edition](#). Gland, Switzerland: IUCN.