NAbSA
NATURE-BASED SOLUTIONS
FOR CLIMATE ADAPTATION

FREQUENTLY ASKED QUESTIONS

NATURE-BASED SOLUTIONS FOR CLIMATE ADAPTATION AND RESILIENCE

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NbS concept and definition

IUCN Global Standard for Nature-based Solutions

How to use the Standard

NbS for Climate Adaptation and Resilience

NbS concept and definition

Is NbS a new type of solution? What is new about it?

How much money globally is being invested in NbS at present, and what is needed to meet 2030 targets?

How is NbS different from conservation solutions?

What is the difference between Nature-based Solutions, Nature-derived Solutions and Nature-inspired Solutions?

How are NbS different from Ecosystem Approaches?

Are renewables, like solar and wind, considered NbS? If not, why not?

Whom can NbS be useful for?

How can Nature-based Solutions support renewable energy initiatives?

Could you give me an example of an NbS?

How can NbS support policy convergence?

What are the NbS complementary benefits to traditional development projects?

Overview

Is NbS a new type of solution? What is new about it?

Yes and no! It is informed by decades of work on natural resource management such as ecosystem-based disaster risk reduction and forest restoration. Therefore, it is drawn from tested implementation models and pilots. What is new is its formulation into a concept and a standard. Naming, defining and operationalising this work through a standard can help us utilise it at a rate and scale that can rapidly respond to the sustainability crises we face.

How is NbS different from conservation solutions?

Conservation solutions primarily target the wellbeing of fauna, flora and the physical environment nature occupies. Any benefits to people may be ancillary but are not a targeted outcome when designing the action. NbS is the deliberate and purposeful design of conservation actions to yield both, biodiversity and human wellbeing benefits.

How are NbS different from Ecosystem Approaches?

The Nature-based Solutions concept is grounded in the science and practice of the Ecosystem Approach (EA). The NbS concept's purpose is to outline policy and implementation pathways for how the Ecosystem Approach can be mobilized at scale, to address specific societal needs of food and water security, climate change mitigation and adaptation, human health, socioeconomic development, disaster risk management and for reversing ecosystem degradation and biodiversity loss. NbS are increasingly becoming a recognized pathway to operationalize the EA in addressing societal challenges.

Whom can NbS be useful for?

Sectors across the world which deal with providing human wellbeing needs mentioned above, be it Governments, companies or non-profit organisations. Additionally, NbS is useful for conservation actors to leverage, as it could make conservation interventions longer lasting through local ownership. Local populations involved will highly likely give more value to conservation actions when they simultaneously help meet human wellbeing needs instead of prioritising otherwise.



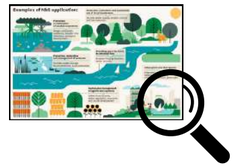
Could you give me an example of an NbS?

Mountain ecosystems are highly affected by climate change, especially through warmer temperatures and changes in the water household. Healthy mountain ecosystems mitigate the impacts of climate change for local communities, wildlife, and populations downstream worldwide. The Scaling up Mountain EbA Project implemented actions, such as restoration of roadside vegetation, restoration of dams and riverbanks in the Himalayas (Nepal), Mount Elgon (Uganda), and the Andes (Peru) to improve the ecosystem functions.

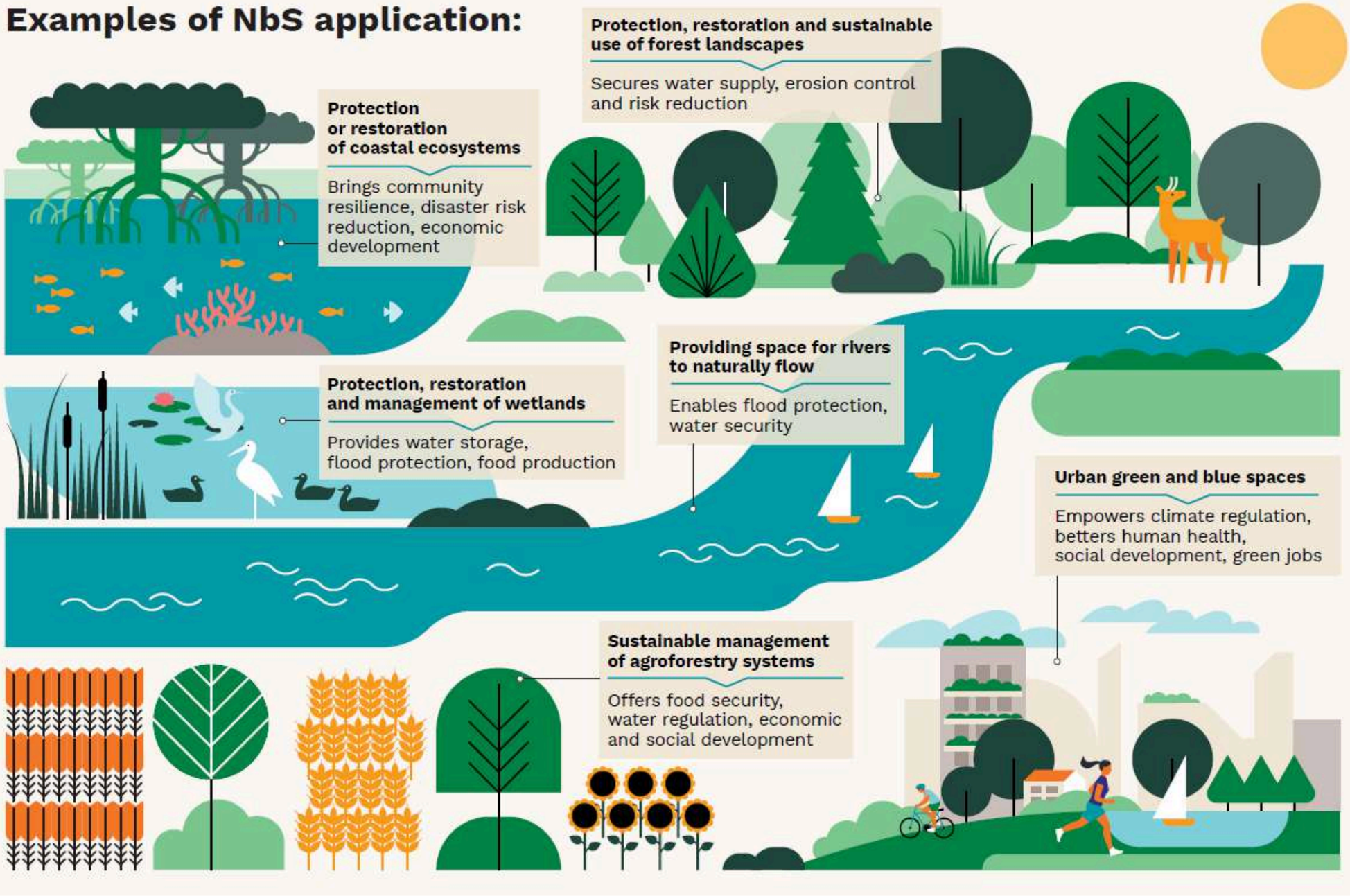
The Save Our Mangroves Now! initiative envisions a world where mangrove habitats and the communities they support thrive together. Focused on the Western Indian Ocean, it brings together governments, conservation experts, and coastal communities to conserve and restore mangroves. Their mission is to promote policies, programs, and investments that rejuvenate mangrove ecosystems, combat climate change, and support local livelihoods.

Scaling up Mountain EbA

Save Our Mangroves Now!



Examples of NbS application:



What are the NbS complementary benefits to traditional development projects?

NbS take action to scale, shifting from site-based approaches to considerations of the larger system surrounding (and thus affecting) the site. These systems could include ecosystems, social systems or market systems. NbS differ in that they drive long-term sustainability of the intervention by embedding them into policy and regulatory frameworks, thereby making them the new business as usual. Additionally, NbS aim to derive development needs because of healthy ecosystems and not at their expense or detriment.

How much money globally is being invested in NbS at present, and what is needed to meet 2030 targets?

“NbS remain severely underfunded. Current finance flows to NbS are US$200 billion, only a third of levels needed to reach climate, biodiversity and land degradation targets by 2030.” (source: UNEP’s State of Finance for Nature - 2023)

What is the difference between Nature-based Solutions, Nature-derived Solutions and Nature-inspired Solutions?

The precision and progress on NbS have to go hand in hand and contribute towards a more resilient and sustainable future. This will allow its right implementation and appropriation and why clarification is needed. Because NbS is being indistinctly used with other concepts.

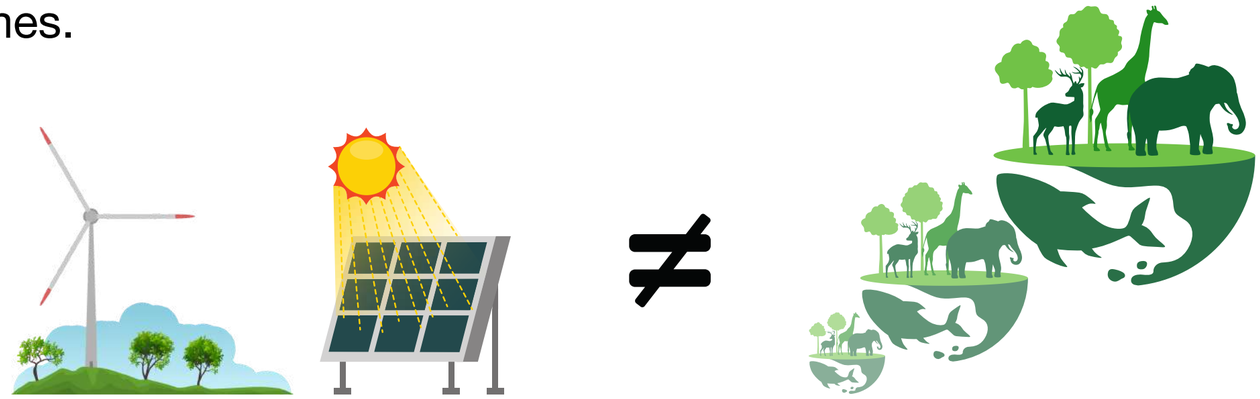
The choice of the term “action” in the definition underlines the need for active solutions for addressing societal challenges. All NbS interventions are solutions that are based on nature - or functioning ecosystems – that benefit people and nature simultaneously, and do not cover actions that derive from or are inspired by nature.

Nature derived solutions, such as wind or hydropower, all of which are derived from nature and help fulfil low carbon energy and many other societal needs through production methods deriving from natural processes. While these approaches are vital, they do not necessarily lead to the improvement of the ecological system or increase biodiversity.

Nature-inspired solutions include innovative design and production of materials, structures and systems that are modelled on biological processes and are nature-inspired - strategies found in nature to solve human design challenges, such as biomimicry.

Are renewables, like solar and wind, considered NbS? If not, why not?

Renewables such as solar and wind are not considered as Nature-based Solutions but rather technologies that derive their principal inputs from nature. While absolutely necessary for achieving climate targets, these Nature-derived solutions are distinct from NbS because they do not require a healthy/well-managed ecosystem. Furthermore, the presence of these technologies does not deliver biodiversity benefits and, in some cases, if poorly designed, can actually result in negative conservation outcomes.



How can Nature-based Solutions support renewable energy initiatives?

While not NbS, renewables such as solar and wind rely on the power of healthy and functioning ecosystems to generate energy. NbS could support such operations as a complementary solution to either mitigate their impact on ecosystems they rely on, or support the efficiency and longevity of the infrastructures. For example, in the context of hydropower NbS could enhance the water security within the power station's watershed, and contribute to the extension of the reservoirs' lifespan. In addition, it can contribute to the reduction in dredging costs, for example by sedimentation control.

How can NbS support policy convergence?

In addition to providing an effective pathway for integrating nature into decision-making and scaling up such efforts, NbS also presents a holistic framework that supports identifying and establishing synergies in policies, commitments, and targets. Given the interconnected nature of societal challenges and the central role that nature plays in addressing them, NbS facilitates the breaking down of institutional silos, encourages cooperation and synergy, and promotes joint actions at various levels. At the international level, NbS has been recognized as a means to foster synergies across international policy processes and to identify and promote joint and coordinated actions under various Multilateral Environmental Agreements (MEAs) such as Nationally Determined Contributions and National Adaptation Plans under UNFCCC, National Biodiversity Strategies and Action Plans Under UNCDB and Land Degradation Neutrality targets under UNCCD.

IUCN Global Standard for Nature-based Solutions

What is the NbS Standard for?

Is the Standard subject to revisions? How often is it reviewed?

Why do we need an NbS Standard? Who can use the Standard?

How does the Standard give project developers and implementers added value?

Who participated in the creation of the Standard?

How does the Standard give investors' added value?

The IUCN Global Standard was launched in 2020 and the UNEA definition of NbS (UNEP/EA.5/Res.5) was adopted in 2022. How does the IUCN Global Standard support the implementation of the UNEA Resolution 5.5?

The Standard is global, does it work for national level decision-making? Does it support context specific project implementation? Is the Standard only for assessing interventions and actions on the ground?

Overview

What is the NbS Standard for?

To provide measurable guidance on design gaps and opportunities of a Nature-based Solution and to improve implementation and capture lessons learned. A user can use it to conduct a gap-analysis with a set of standardised indicators as measures.

Why do we need an NbS Standard? Who can use the Standard?

To support operationalising NbS in a consistent and robust manner that does achieve the foreseen benefits. Additionally, it supports in analysing if a solution is indeed designed with the intention of simultaneous social and biodiversity benefits. The Standard can support targets set by project developers on achieving NbS, i.e. what they want to do and how to progress towards alignment. The Standard facilitates investors and project developers to:

- design and implement effective NbS interventions that are ambitious in scale and sustainability,
- Identify points of strength and areas of improvement and develop action plans for addressing gaps and enhancing alignment,
- screen investment decisions,
- create a common framework for documentation and a shared language for communication amongst stakeholders, and
- facilitate establishing partnerships.

Who participated in the creation of the Standard?

Over 1000 people from different sectors and communities of practice, research and policy participated in the development of this Standard. NbS is an overarching concept, transcending the thematic and sectoral silos we operate in. Therefore, a wide range of expertise (such as ecology, social science, engineering) and different forms of knowledge (traditional, experiential, scientific) was consulted to develop a relevant and robust set of criteria and indicators of the standard.

The IUCN Global Standard was launched in 2020 and the UNEA definition of NbS (UNEP/EA.5/Res.5) was adopted in 2022. How does the IUCN Global Standard support the implementation of the UNEA Resolution 5.5?

1) <u>Global Definition of NbS:</u> The adoption of the resolution “Nature-based Solutions for supporting sustainable development” by the United Nations Environment Assembly in 2022 was a significant milestone in advancing consistent and successful NbS. This resolution provides a multilaterally agreed definition of Nature-based Solutions and is welcomed by IUCN and recognised as the universal definition.

“Actions to protect, manage and restore natural or modified ecosystems, which address societal challenges, effectively and adaptively, providing human well-being and biodiversity benefits“

The IUCN Global Standard was launched in 2020 and the UNEA definition of NbS (UNEP/EA.5/Res.5) was adopted in 2022. How does the IUCN Global Standard support the implementation of the UNEA Resolution 5.5?

2) IUCN Standard and the global definition of NbS: The IUCN definitional and conceptual frameworks for NbS were developed based on a gap analysis and in-depth study on the principles of the existing guidelines and criteria for ecosystem-based and ecosystem related concepts (Cohen-Shacham et al. 2019). This analysis formed the NbS operational framework: Global Standard for NbS. The Standard also benefited from two rounds of public consultations during its development process, collecting 800+ comments from 100 countries from all sectors. Given the high alignment of the IUCN definitional and conceptional framework for NbS and the UNEA resolution 5.5, the IUCN Global Standard for NbS is recognized as the best available operational framework to implement the UNEA Resolution.

For more information about the alignment of the NbS Standard and the global definition of NbS, please refer to IUCN's information paper: Proposing the IUCN Global Standard for Nature-based Solutions as the main operational framework to implement UNEA Resolutions 5/5.

Is the Standard subject to revisions? How often is it reviewed?

The Standard was developed and guided by the ISEAL code of good practice. It is revised once every four years and a new edition would be available at every IUCN's World Conservation Congress. Therefore, the next edition of the Standard will be released in 2025.

How does the Standard give project developers and implementers added value?

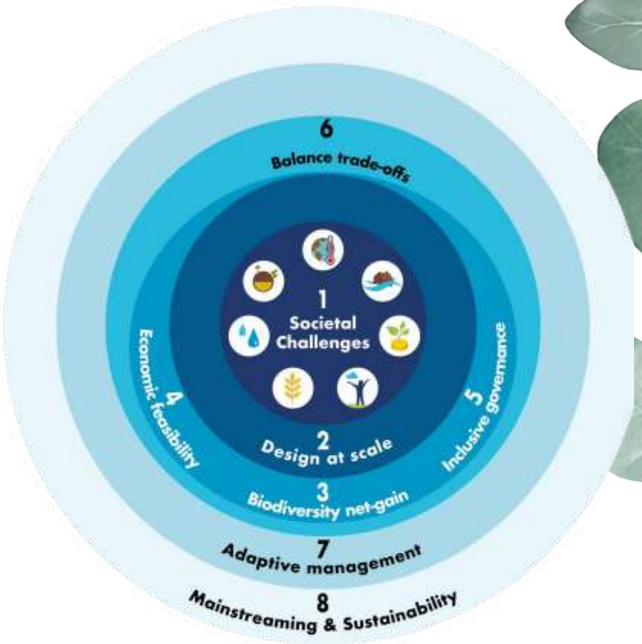
The NbS Standard is a facilitative framework that enables project developers and implementers to analyse the sustainability of their projects. The criteria and indicators of the Standard are developed during a co-creation process, building on lessons learned from decades of actions on the ground. This gap analysis enables the project developers to identify points of strengths and areas of improvement in their project design and implementation, and define corrective measures as needed.

How does the Standard give investors' added value?

Integrating the NbS concept, the investors will be able to meet simultaneous objectives with one solution – positive biodiversity outcomes and benefits derived for people. The Standard supports the investors in smart financial decision-making, enabling the directing of investments towards high integrity and inclusive solutions, and therefore, increasing the possibility of delivering intended outcomes. Also, if a solution is not fully meeting the Standard's benchmarks, the investor will be able to understand what the gaps and needs are to improve.

The Standard is global, does it work for national level decision-making? Does it support context specific project implementation? Is the Standard only for assessing interventions and actions on the ground?

The 8 criteria and 28 indicators of the current edition of the Standard are applicable to numerous contexts, such as policy development, assist in financial decision-making and integrate milestones of effectiveness for concrete actions on the ground. The Standard is a multidimensional and versatile tool that can be utilized across multiple scales; subnational, national and global. It can be applied as a tool to guide procurement requirements, design requirements for interventions to address societal challenges, screening of investment decisions and development of action plans to address gaps. The criteria of the Standard are broad enough that they can be translated to various sectoral and thematic contexts and adapted to various spatial scales.



How to use the Standard

What tools are included in the Standard (e.g. checklists, calculation tools, etc.)?

Scoring your indicators

Is the Standard only usable at the design stage of your interventions?

What information is needed to score an indicator?

Could I work with a selected set of Criteria or Indicators?

Provide rationale: Explain how you reach the selected score for each indicator.

How to start a self-assessment process?

What are some of the main processes for design and implementation of NbS interventions in line with the IUCN NbS Standard?

Overview

What tools are included in the Standard (e.g. checklists, calculation tools, etc.)?

The Standard is accompanied by two additional documents:

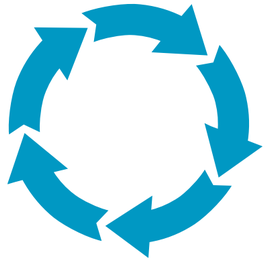
1) a booklet (the guidance document) where the Standard is presented in its criteria and indicators, together with demonstrative case studies and a guidance which narrates what each criterion and indicator mean.

2) Additionally, a self-assessment tool is developed to assist the application of the Standard in a consistent and documented manner. You can access the online self-assessment tool here.

- For support on how to create and log in to your account, please see here: Online Self-assessment Tool Login User Guide.
- For more information on how to operate the platform, please see here: Online Self-assessment User Manual.

Is the Standard only usable at the design stage of your interventions?

The Standard could be applied at any stage of the life cycle of an intervention. It can inform the design of the project. During the implementation phase, applying the Standard facilitates identifying risks and opportunities and taking appropriate measures (in line with Criterion 7: Adaptive Management). Applying the Standard to completed interventions results in collecting lessons learned and informing future interventions.



Could I work with a selected set of criteria or indicators?

The criteria of the Standard are based on an analysis of guidelines and criteria of existing Ecosystem Approaches.

How to start a self-assessment process?

After creating your account on the online self-assessment tool, we recommend the following steps for initiating and completing your self-assessment:

1. Document Exchange: Collect all relevant documentation related to your project to support your assessment. This includes reports, data sheets, and project outlines.
2. Project level kick-off calls and identifying focal points: Organize meetings with your project partners to discuss the assessment requirements and the individuals that will contribute to the assessment process - for example your gender and governance specialist. We advise appointing a focal point for your assessment to coordinate and consolidate inputs.
3. Complete a rough and fast assessment: Please conduct a preliminary assessment using the self-assessment tool, aiming to cover all 8 criteria within 2-3 hours. This rapid assessment will help identify key areas of focus and the interlinkages between various indicators
4. Complete a detailed assessment: After completing the first fast assessment, refine and finalize your assessment by providing detailed rationales and implementation tools.

!!! Don’t forget to save your input into the assessment !!!

Scoring your indicators

The self-assessment's users are relying on their own judgement and understanding of how well they meet the indicator under consideration. The indicators' rating system is based on a traffic light system providing them with four possible ratings: insufficient, partial, adequate and strong. The rating for the indicators under each criterion will define the overall rating for their respective criterion.

insufficient partial adequate strong

What information is needed to score an indicator?

1. Select your indicator score: The self-assessment provides guidance at the indicator level through:
   - a set of “guiding questions”. Under each indicator, you will find a set of questions regarding your intervention to help understand the level of adherence to the indicator. You are also able to find additional guidance and insights on the interlinkages between different indicators and Criteria by hovering over the “i” button in front of the guiding questions.
   - Guidance under each rating: additional guidance for each rating for each indicator is available by hovering over the “i” button for the rating.
2. Provide rationale: Explain how you reach the selected score for each indicator.
3. Tools for implementing: Reference the documentation generated to support the rationale and scoring of the indicator. You may also upload these documents as part of your self-assessment process.

Provide rationale: Explain how you reach the selected score for each indicator.

The design and implementation of NbS interventions are very context-specific and vary based on the scale of the project (which is also defined by the scale of the societal challenge(s) NbS are designed to address), the thematic area, the sector, as well as the ecosystem they rely on, amongst other factors. That is why a set of global Criteria is necessary to guide the context specific design. However, a series of actions can support this process:

- NbS Strategy: Developing an NbS Strategy that outlines the links between the problems, the actions to address these problems and intended outcomes of each action.
- Stakeholder mapping and engagement plan: Given the complex and long-term nature of NbS interventions, it is imperative to establish appropriate governance mechanisms throughout the life-cycle of the project. Mapping stakeholders that directly and indirectly link to the intervention and promoting joint decision-making mechanisms starting from the design stage of the project throughout implementation and monitoring and evaluation phases are one of the necessary steps in NbS design and implementation.

Provide rationale: Explain how you reach the selected score for each indicator.

- Risk Assessment: The IUCN NbS Standard intends to support the long-term sustainability of the interventions by establishing mechanisms that could minimise risk and maximise impact. Therefore, a risk assessment study is necessary to identify potential internal and external risks and their drivers. The NbS approach is promoting a system-based instead of a site-based approach, so the risk assessment should encompass the risks that are posed to the intervention, as well as the risks that the intervention could pose to the social and economic constructs and ecosystems.
- Social and environmental impact assessment: The NbS Standard promotes the identification, documentation and benchmarking of measurable social and environmental outcomes of the NbS intervention. The SEIA identifies these outcomes and conducts baseline assessments for benchmarking purposes. As the project implementation progresses, comparing the monitoring and evaluation.

Provide rationale: Explain how you reach the selected score for each indicator.

- Cost-effectiveness and cost-benefit assessments: Conducting this study to understand the economic aspects of NbS, identifying and documenting all the types of benefits provided (financial and non-financial; economic and non-economic), who receives them, what the costs of provision are, and who bears those costs. This study will also be used as basis for identifying trade-offs and establishing appropriate safeguards.
- Monitoring and evaluation plan: A robust monitoring and evaluation plan designed based on the NbS strategy provides the necessary information for measuring progress and identifying any emerging risks and opportunities during and after the project implementation. This monitoring and evaluation system is designed for the project's life-cycle and should be accompanied by a learning system that can guide corrective actions where necessary.

What are some of the main processes for design and implementation of NbS interventions in line with the IUCN NbS Standard?

Ecosystem-based Adaptation (EbA) are Nature-based Solutions that are designed and implemented to address Climate Adaptation needs. EbA involves the conservation, sustainable management and restoration of ecosystems, such as forests, grasslands, wetlands, mangroves or coral reefs to reduce the harmful impacts of climate hazards including shifting patterns or levels of rainfall, changes in maximum and minimum temperatures, stronger storms, and increasingly variable climatic conditions. EbA measures can be implemented on their own or in combination with engineered approaches (such as the construction of water reservoirs or dykes), hybrid measures (such as artificial reefs) and approaches that strengthen the capacities of individuals and institutions to address climate risks (such as the introduction of early warning systems). But in contrast to NbS, EbA do not focus on social benefits.

NbS for Climate Adaptation and Resilience

What is the difference between Nature-based Solutions, Ecosystem-based Adaptation and Ecosystem Approach?

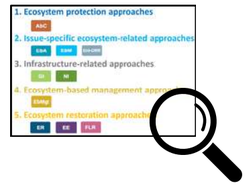
What is the role of climate risks in the design and implementation of NbS?

How can NbS support achieve climate targets?

Overview

What is the difference between Nature-based Solutions, Ecosystem-based Adaptation and Ecosystem Approach?

Ecosystem-based Adaptation are Nature-based Solutions that are designed and implemented to address Climate Adaptation needs. EbA involves the conservation, sustainable management and restoration of ecosystems, such as forests, grasslands, wetlands, mangroves or coral reefs to reduce the harmful impacts of climate hazards including shifting patterns or levels of rainfall, changes in maximum and minimum temperatures, stronger storms, and increasingly variable climatic conditions. EbA measures can be implemented on their own or in combination with engineered approaches (such as the construction of water reservoirs or dykes), hybrid measures (such as artificial reefs) and approaches that strengthen the capacities of individuals and institutions to address climate risks (such as the introduction of early warning systems). But in contrast to NbS, EbA do not focus on social benefits.



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NbS as umbrella for different types of concepts

1. Ecosystem protection approaches

AbC

2. Issue-specific ecosystem-related approaches

EbA EbM Eco-DRR

3. Infrastructure-related approaches

GI NI

4. Ecosystem-based management approaches

EbMgt

5. Ecosystem restoration approaches

ER EE FLR

How can NbS support achieve climate targets?

NbS offers a strong pathway for climate adaptation if integrated in countries' Nationally Determined Contributions, National Adaptation Plans and their Long-Term Low Emission Development Strategies. In the context of climate mitigation, while NbS supports mitigation actions, it should be only complimentary to an ambitious strategy for reducing Green House Emissions.

For more questions please contact us on nabsa@iucn.org.