



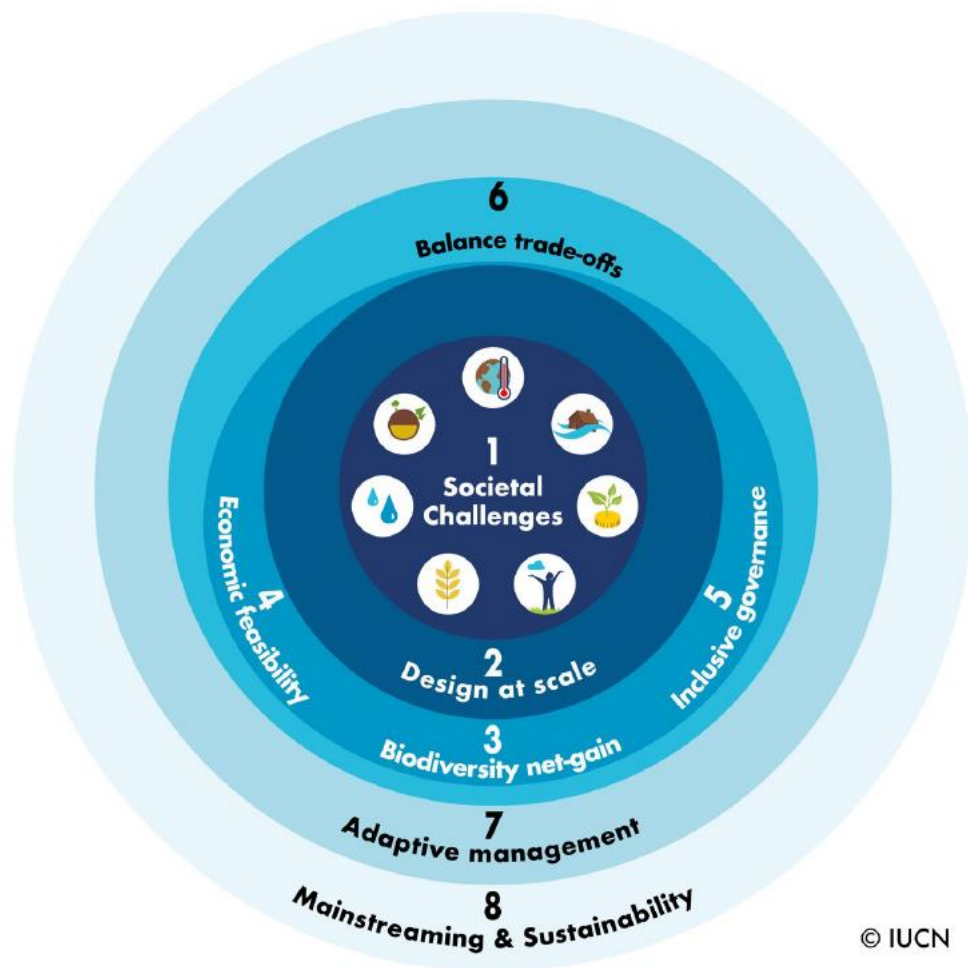
# IUCN Global Standard for Nature-based Solutions

A user-friendly framework for the verification, design and scaling up of NbS

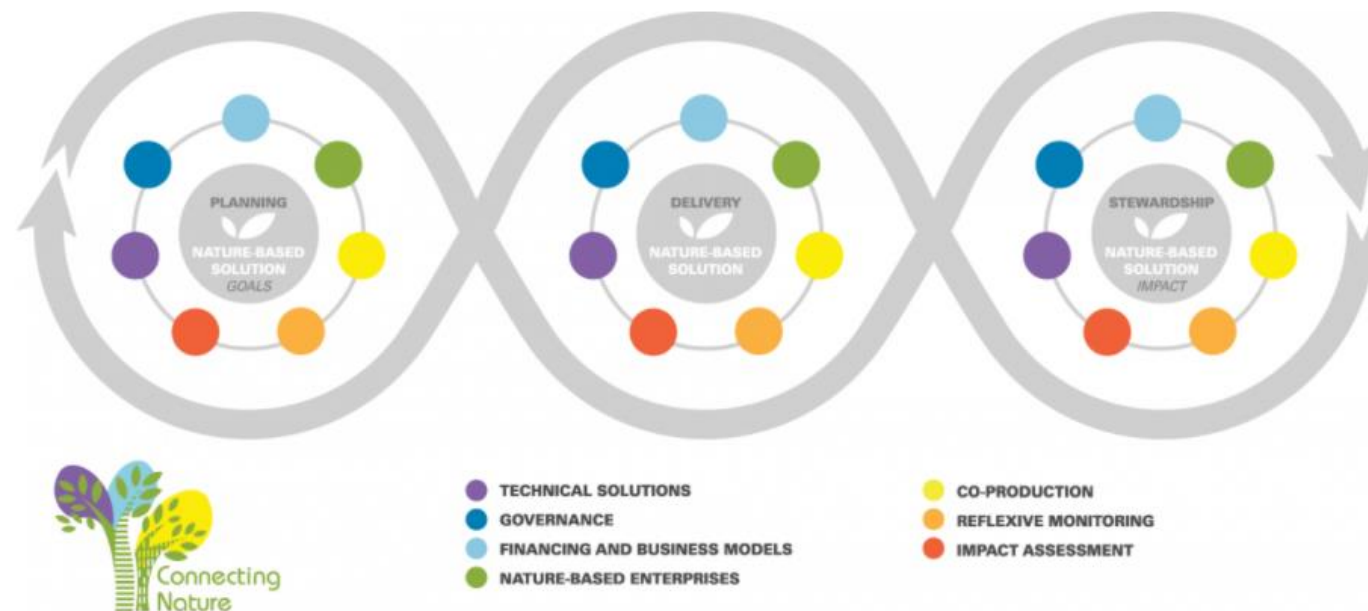
First edition



## IUCN Global Standard criteria for NBS

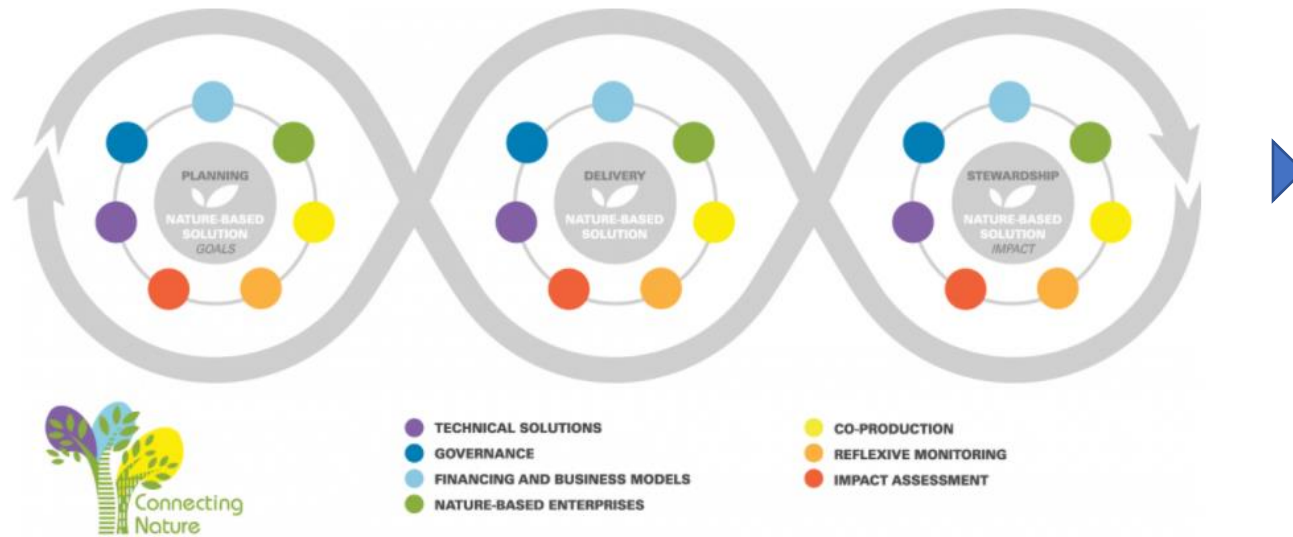


## CONNECTING NATURE FRAMEWORK



The IUCN have developed a series of criteria for defining and implementing nature-based solutions. Whilst developed independently from this IUCN initiative, the Connecting Nature Framework has many synergies with these criteria and represents a resource to help those implementing nature-based solutions to achieve these criteria.

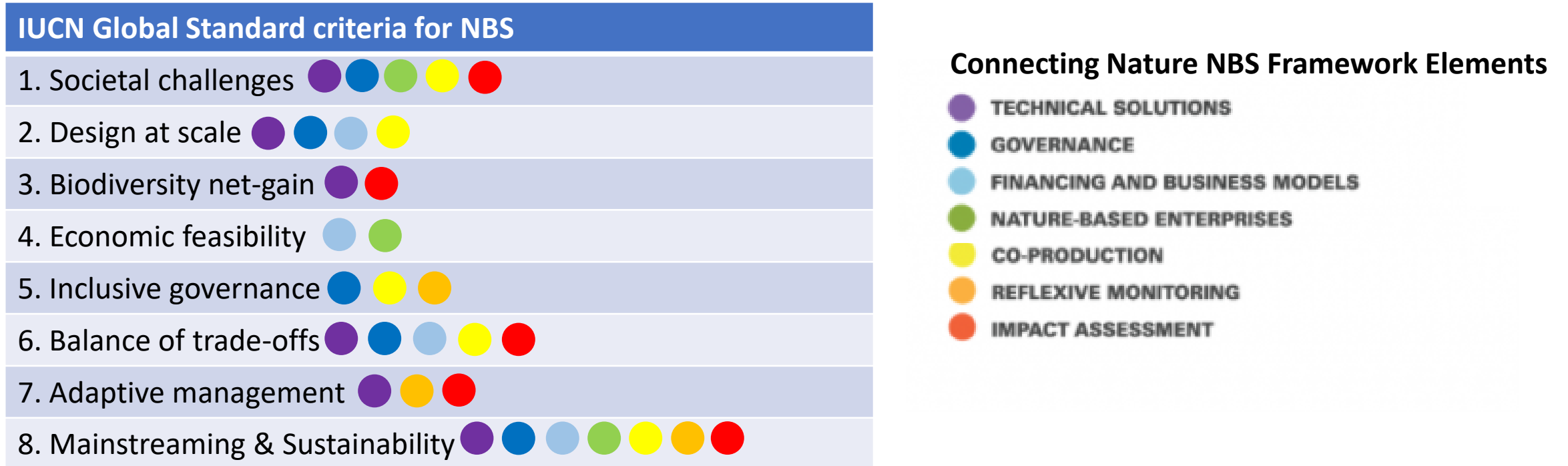
## CONNECTING NATURE FRAMEWORK



The Connecting Nature Framework is designed to support practitioners in mainstreaming nature-based solutions in cities. It is structured around seven Elements: technical solutions, governance, financing & business models, nature-based enterprises, co-production, reflexive monitoring, and impact assessment. Each one of these Elements comprises guidance and approaches to support cities in transitioning towards a situation whereby nature-based solutions are embedded in urban planning and being delivered at scale in relation to local needs and context.

Each Element includes resources that would be valuable for stakeholders wanting to ensure their nature-based solutions are aligned with the IUCN Global Standard Criteria. The following slides outline which Framework Elements could be beneficial for developing nature-based solutions that meet each of the IUCN Indicators for evaluating adherence to the Global Standard Criteria.

# Summary



The Connecting Nature Framework Elements do not map exactly onto the IUCN Global Standard Criteria. Nevertheless, each criteria has synergies with at least one of the Elements. The diagram above summarises the synergies between the Elements and each IUCN criteria.



## Connecting Nature NBS Framework Elements



## IUCN Global Standard criteria for NBS

### Criterion 1: NbS effectively address societal challenges

Guidance:	Indicators
<p>The purpose of this Criterion is to ensure that the NbS is designed as a response to a societal challenge(s) that has been identified as a priority by those who are or will be directly affected by the challenge(s). All stakeholders, especially rights holders and beneficiaries of the NbS, must be involved in the decision-making process used for identifying the priority challenge(s) (Criterion 5).</p>	<p><b>1.1 The most pressing societal challenge(s) for rights-holders and beneficiaries are prioritised</b>            Guidance: The NbS intervention must address clearly specified challenges that have significant and demonstrable impacts on society. Identification of the most pressing societal challenges is best informed by a transparent and inclusive consultation process (Criterion 5), as opinions may differ between external stakeholders and local populations and vice versa.</p>
	<p><b>1.2 The societal challenge(s) addressed are clearly understood and documented</b>            Guidance: Establishing a clear understanding and rationale of the challenges to be addressed, and ensuring these are documented, is important for future accountability and optimising those strategies to contribute to human well-being outcomes (1.3). An NbS often yields multiple societal benefits, such as job creation or increased flow of ecosystem services, and the societal challenges these additional benefits address should also be documented.</p>
	<p><b>1.3 Human well-being outcomes arising from the NbS are identified, benchmarked and periodically assessed</b>            Guidance: NbS must deliver tangible and substantive benefits to human well-being. Specific, measurable, attainable, realistic and timely (SMART) targets should be used as appropriate, as they are important for accountability and informing adaptive management (Criterion 7).</p>

### Relevant and supporting CN Framework Elements



## Connecting Nature NBS Framework Elements



## IUCN Global Standard criteria for NBS

### Criterion 2: Design of NbS is informed by scale

Guidance:	Indicators
<p>The purpose of this Criterion is to encourage NbS designs that recognise the complexity and uncertainty that occur in living dynamic land/seascapes. Scale applies not only to the biophysical or geographic perspective but also to the influence of economic systems, policy frameworks and the importance of cultural perspectives.</p> <p>NbS design will be informed by what stakeholders know about the interactions between different aspects of a land/seascape using a three-scale framework that considers the parts within the land/seascape; the land/seascape itself; and the wider environment around the land/seascape. One example would be households within villages within a local authority area. Understanding the interactions which affect attributes like cultural values, laws, soils, forests and water are important in this regard, as they are relevant to the assessment of the risk of undesirable change, or the probability of creating desirable change.</p> <p>NbS design seeks to maintain the productive capacity of ecosystems as well as the production of benefits necessary for human well-being.</p>	<p><b>2.1 The design of the NbS recognises and responds to interactions between the economy, society and ecosystems</b>  Guidance: The success of an NbS will be determined not only by the quality of the technical intervention but, critically, how well the interactions between people, the economy and the ecosystem are understood and responded to. For the solutions to be durable and sustainable, the design of NbS requires a “systems” framing that acknowledges and addresses these types of interactions and builds them into the decision-making process.</p>
	<p><b>2.2 The design of the NbS is integrated with other complementary interventions and seeks synergies across sectors</b>  Guidance: NbS will seek to work with and compliment other types of interventions, such as engineering projects, information technology, financial instruments, etc. Such complementary actions will inherently require the identification of synergies across different sectors according to the specifics and context of each situation.</p>
	<p><b>2.3 The design of the NbS incorporates risk identification and risk management beyond the intervention site</b>  Guidance: NbS has the potential to either positively or negatively impact, or be impacted by, stakeholders, interests and ecosystems outside the immediate intervention area. For the solution to be durable and sustainable, such types of interactions both within and around the intervention area need to be understood and accounted for in the decision-making processes. Appropriate risk management options should be incorporated into the intervention design.</p>

## Relevant and supporting CN Framework Elements



## Connecting Nature NBS Framework Elements



## IUCN Global Standard criteria for NBS

### Criterion 3: NbS result in a net gain to biodiversity and ecosystem integrity

Guidance:	Indicators
<p>NbS are derived as goods and services from ecosystems, therefore strongly depend on the health of an ecosystem. Biodiversity loss and ecosystem change can have significant impacts on the functioning and integrity of the system. Therefore, NbS design and implementation must avoid undermining the integrity of the system and instead, proactively seek to enhance the functionality and connectivity of the ecosystem. Doing so can also ensure the long-term resilience and durability of the NbS.</p>	<p><b>3.1 The NbS actions directly respond to evidence-based assessment of the current state of the ecosystem and prevailing drivers of degradation and loss</b>  Guidance: To develop a solution using nature, one must have a well-founded understanding of the current state of the ecosystems concerned. The baseline assessment needs to be broad enough to characterise ecological state, drivers for ecosystem loss and options for net improvements, making use of both local knowledge and scientific understanding where possible.</p>
	<p><b>3.2 Clear and measurable biodiversity conservation outcomes are identified, benchmarked and periodically assessed</b>  Guidance: In order to inform the design, monitoring and assessment of an NbS, targets for enhancing key biodiversity values should be established. For each NbS, the type of target may differ; for example, the target could be the percentage of ecosystem area restored or the return of a keystone species.</p>
	<p><b>3.3 Monitoring includes periodic assessments of unintended adverse consequences on nature arising from the NbS</b>  Guidance: Ecosystems are complex with interdependent components and processes. There will always be a level of uncertainty in how they will react to specific interventions or other external changes. Therefore, NbS should be designed and monitored to minimise and mitigate unanticipated risks that might undermine the ecological foundations of the solution itself.</p>
	<p><b>3.4 Opportunities to enhance ecosystem integrity and connectivity are identified and incorporated into the NbS strategy</b>  Guidance: Utilising NbS can provide an opportunity to enhance biodiversity conservation and ecosystem management efforts in ways that other types of intervention, in isolation (such as engineering), will not be able to achieve. If solutions are to be implemented close to natural ecosystems that are managed explicitly for conservation outcomes, the NbS should be designed to enable greater ecosystem connectivity. Furthermore, they could be designed to re-introduce lost components of an existing ecosystem, for example, by deliberately choosing formerly existing species of vegetation when restoring.</p>

## Relevant and supporting CN Framework Elements





## IUCN Global Standard criteria for NBS

### Criterion 4: NbS are economically viable

## Connecting Nature NBS Framework Elements



## Relevant and supporting CN Framework Elements

### Guidance:

The return on investment, the efficiency and effectiveness of the intervention, and equity in the distribution of benefits and costs are key determinants of success for an NbS. This Criterion requires that sufficient consideration is given to the economic viability of the intervention, both at the design stage and through monitoring the implementation.

For NbS to be sustainable, there must be strong consideration of the economic aspects as, most likely, long-term gains must be balanced against short-term costs, with short-term actions developed within the context of long-term (over generations) goals and plans.

If the economic feasibility is not adequately addressed, NbS run the risk of being short-term projects, where, after closing, the solution and benefits provided cease to exist, potentially leaving the landscape and communities worse off than before.

Innovative and evidence-based tools for the valuation of nature, along with ideas for NbS contributions to markets and jobs, encourage creative (blended) financing of NbS, thereby increasing the likelihood of their long-term success.

### Indicators

#### 4.1 The direct and indirect benefits and costs associated with the NbS, who pays and who benefits, are identified and documented

Guidance: Identification and documentation of the main benefits derived, including their direct and indirect, financial and non-financial elements are key components for assessing the economic feasibility of the intervention, over time. This information should be differentiated according to who receives the benefits and who bears the costs.

#### 4.2 A cost-effectiveness study is provided to support the choice of NbS including the likely impact of any relevant regulations and subsidies

Guidance: Investing heavily in upfront costs without considering the longer-term economic and financial sustainability can negatively impact the intervention's viability. A cost-effectiveness study not only enables an examination of the upfront and recurring costs against the anticipated longer-term benefits of the proposed intervention(s) over time but also allows key (or hidden) assumptions to be made explicit, tested and verified.

#### 4.3 The effectiveness of the NbS design is justified against available alternative solutions, taking into account any associated externalities

Guidance: A key attribute of an NbS is that it is capable of addressing at least one societal challenge in a manner that is both economically viable and efficient. This means that the cost-effectiveness and affordability of the solution must be tested against viable alternatives. Alternative solutions may include a different nature-based solution (for example watershed catchment management rather than floodplain management), a different combination of conventional and nature-based solutions, or substitution of the nature-based solution entirely with a more conventional approach such as engineered infrastructure.

#### 4.4 NbS design considers a portfolio of resourcing options such as market-based, public sector, voluntary commitments and actions to support regulatory compliance

Guidance: The fact that NbS simultaneously offers multiple benefits to different stakeholders may place limits on some sources of financing, thereby undermining the interventions long-term viability. For example, private investors may not wish to bear the cost of delivering public goods or public authorities may be reluctant to cover costs for benefits that will accrue privately. This may require a resourcing package that integrates a range of financial mechanisms. Sources of investment can include public-sector grants, incentives and low interest loans, private-sector loans and equity, blended public-private partnerships as well as philanthropic and voluntary contributions or combinations of the above, reflecting an equitable distribution of both the risks and returns.





## IUCN Global Standard criteria for NBS

### Criterion 5: NbS are based on inclusive, transparent and empowering governance processes

Guidance:	Indicators
<p>This criterion requires that NbS acknowledge, involve and respond to the concerns of a variety of stakeholders, especially rights holders.</p> <p>Good governance arrangements are proven to not only reduce an intervention's sustainability risks, but also to enhance its social 'license to operate'. Conversely inadequate governance provision for otherwise well-intended actions can adversely affect the legitimacy of benefit and cost sharing arrangements.</p> <p>At a minimum, NbS must adhere to and align with the prevailing legal and regulatory provisions, being clear on where legal responsibilities and liabilities lie. However, as often is the case with natural resources, basic compliance will need to be complemented with ancillary mechanisms that actively engage and empower local communities and other affected stakeholders.</p>	<p><b>5.1 A defined and fully agreed upon feedback and grievance resolution mechanism is available to all stakeholders before an NbS intervention is initiated</b>  Guidance: Feedback and grievance resolution mechanisms can include formal, legal or informal non-legal complaint systems that operate according to a clear set of procedures, roles and rules for receiving complaints and providing a remedy. Effective grievance resolution mechanisms are characterised by their acceptance and legitimacy among affected stakeholders, transparency, accessibility and adherence to rights-based approaches. They should operate in a predictable and equitable manner, and be based on engagement and dialogue.</p>
	<p><b>5.2 Participation is based on mutual respect and equality, regardless of gender, age or social status, and upholds the right of Indigenous Peoples to Free, Prior and Informed Consent (FPIC)</b>  Guidance: In order that governance arrangements function effectively, all affected stakeholders need to be equipped with the right information at the right time and the inputs they provide need to be meaningfully addressed. In doing so, a conscious effort is required to ensure that traditionally excluded groups are actively brought into the process in a manner that upholds their dignity and encourages their participation. This is particularly the case when an NbS intervention operates or impacts on the lands and territories of indigenous peoples, where their right to self-determine interventions and outcomes should follow established FPIC protocols.</p>
	<p><b>5.3 Stakeholders who are directly and indirectly affected by the NbS have been identified and involved in all processes of the NbS intervention</b>  Guidance: Stakeholder mapping and analysis identifies those who may be directly and indirectly, positively or negatively, affected by the NbS. This allows the intervention to afford opportunities to affected stakeholders to engage with and participate in the design and implementation, advocate clearly to uphold their own rights and interests, and where necessary, prevent further marginalisation.</p>
	<p><b>5.4 Decision-making processes document and respond to the rights and interests of all participating and affected stakeholders</b>  Guidance: It is important that transparent and accessible documentation records key steps in NbS decision-making procedures. This helps enhance accountability and provides a strong basis for recourse in the case of any disputes or disagreements. Specific attention should be paid to noting which stakeholders were involved in decision-making and the role they played. This is particularly important where extreme inequity persists so that processes can be adapted to encourage meaningful and effective participation.</p>
	<p><b>5.5 Where the scale of the NbS extends beyond jurisdictional boundaries, mechanisms are established to enable joint decision-making of the stakeholders in the affected jurisdictions</b>  Guidance: Ecosystems do not follow political and administrative borders. Where appropriate, transboundary cooperation agreements between relevant authorities underpin NbS planning and implementation across frontiers to help ensure coherency and consistency of approach and desired outcomes.</p>

## Connecting Nature NBS Framework Elements



TECHNICAL SOLUTIONS



GOVERNANCE



FINANCING AND BUSINESS MODEL



NATURE-BASED ENTERPRISES



CO-PRODUCTION



REFLEXIVE MONITORING



IMPACT ASSESSMENT

### Relevant and supporting CN Framework Elements



## Connecting Nature NBS Framework Elements



## IUCN Global Standard criteria for NBS

### Criterion 6: NbS equitably balance trade-offs between achievement of their primary goal(s) and the continued provision of multiple benefits

#### Guidance:

Trade-offs in land and natural resource management is inevitable. Ecosystems provide a wealth of different benefits and not everyone values each of them in the same way. While trade-offs cannot be avoided, they can be effectively and equitably managed. This Criterion requires that NbS proponents acknowledge these trade-offs and follow a fair, transparent and inclusive process to balance and manage them over both time and geographic space.

This involves a credible assessment, full disclosure and agreement among the most affected stakeholders on how the trade-offs should be addressed. Fair and transparent negotiation of trade-offs and compensation among potentially affected parties for any damages or trade-offs to local opportunities and livelihoods provides the basis for successful long-term NbS outcomes.

Critically, it is important to recognise that trade-offs have social and ecological limits beyond which point certain values or benefits can be lost in perpetuity. This means that safeguards will be necessary to ensure, *inter alia*, that the integrity of ecosystems and the long-term stabilising properties of ecosystem services are not exceeded.

#### Indicators

##### 6.1 The potential costs and benefits of associated trade-offs of the NbS intervention are explicitly acknowledged and inform safeguards and any appropriate corrective actions

Guidance: All trade-offs are accompanied with an associated set of costs and benefits which may be subject to change over the entire NbS lifecycle. A key function of NbS safeguards is to ensure that necessary trade-offs do not negatively impact the most disadvantaged elements of society or, equally, that they are denied access to the intervention's benefits. It is therefore important that the costs and benefits of trade-off arrangements are fully understood, widely shared among affected stakeholders, and periodically revisited (6.3)

##### 6.2 The rights, usage of and access to land and resources, along with the responsibilities of different stakeholders, are acknowledged and respected

Guidance: The legal and customary rights to access, use and control management over land and natural resources, particularly of vulnerable and marginalised groups, needs to be respected and upheld. Rights, use and responsibilities of stakeholder groups in relation to the NbS should be analysed and assessed, using appropriate tools and by building upon the outcomes of stakeholder analysis or mapping (5.3). This is particularly important when dealing with Indigenous communities, where Free, Prior and Informed Consent (FPIC) must be used (5.2).

##### 6.3 The established safeguards are periodically reviewed to ensure that mutually-agreed trade-off limits are respected and do not destabilise the entire NbS

Guidance: Where risk is unavoidable, safeguards must be in place and periodically reviewed to anticipate and avoid adverse consequences of interventions, especially considering that inequity in trade-offs may change over time and that not all stakeholders may be equally affected. Therefore, NbS design and strategy needs to be explicit about whose benefits and whose costs will be addressed, including when and how this will be reviewed. Safeguards may be put in place for biodiversity (e.g. setting aside a certain area for protection or limiting the timing of fishing) and for people (e.g. procedural – grievance mechanisms, consultation obligations, right to appeal or substantive – contracts, legal and regulatory provisions).

## Relevant and supporting CN Framework Elements





## Connecting Nature NBS Framework Elements



## IUCN Global Standard criteria for NBS

### Criterion 7: NbS are managed adaptively, based on evidence

#### Guidance:

This Criterion requires that NbS implementation plans include provisions to enable adaptive management as a response to uncertainty and as an option to effectively harness ecosystem resilience. A degree of uncertainty is inherent when managing most ecosystems due to their complex, dynamic and self-organising nature. This also means that ecosystems have greater resilience which confers a wider range of options to respond to unanticipated social, economic or climate events.

The foundation of adaptive management is the evidence-base provided by regular monitoring and evaluation, drawing on scientific understanding as well as indigenous, traditional and local knowledge. By proactively adopting an adaptive management approach, the NbS can continue to be relevant through the lifecycle of the intervention and the risk of redundancy and stranded investments minimised.

#### Indicators

##### 7.1 A NbS strategy is established and used as a basis for regular monitoring and evaluation of the intervention

Guidance: An NbS strategy, at its most basic, includes the reasoning behind the NbS, a precise articulation of the intended outcomes and clear understanding of how these should be achieved through the actions taken. It should be informed by the prevailing economic, social and ecological conditions, and clearly state the assumptions as to whether and how they are expected to change.

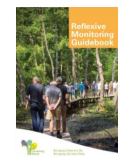
##### 7.2 A monitoring and evaluation plan is developed and implemented throughout the intervention lifecycle

Guidance: A monitoring and evaluation plan is a key requirement to understand whether the NbS strategy effectively delivers the intended outcomes and, thereby addressing the societal challenge; and, whether risks or unexpected impacts mean a change in strategy or action is required. Where NbS have synergies with other interventions or approaches, these should be included in the monitoring and evaluation (M&E) plan. Observed and sustained deviations from the key elements of the NBS strategy (7.1) should trigger an adaptive management response (7.3).

##### 7.3 A framework for iterative learning that enables adaptive management is applied throughout the intervention lifecycle

Guidance: Learning based on evidence should drive NbS management. Furthermore, iterative learning is essential in informing adaptive management actions, in order to respond to the factors influencing NbS interventions. For this Criterion, indicators 7.1 and 7.2 provide a continuous feedback loop to learn and adapt the NbS intervention. Ideally, iterative learning is institutionalised so that it carries on even after the NbS intervention ceases.

## Relevant and supporting CN Framework Elements



## Connecting Nature NBS Framework Elements



## IUCN Global Standard criteria for NBS

**Criterion 8:** NbS are sustainable and mainstreamed within an appropriate jurisdictional context

## Relevant and supporting CN Framework Elements

Guidance:	Indicators
<p>This Criterion requires that NbS interventions are designed and managed with a view to long-term sustainability and that they take account of, work with and align with sectoral, national and other policy frameworks.</p> <p>There are various approaches to mainstreaming NbS; however, all rely on strategic communications and outreach. Audiences to consider include individuals (e.g. the public, academics), institutions (e.g. national government, start-ups, businesses, and organisations) and global networks (e.g. Sustainable Development Goals, Paris Agreement).</p>	<p><b>8.1 The NbS design, implementation and lessons learnt are shared to trigger transformative change</b>            Guidance: Transformative change can be characterised by scaling up (policy or programmatic mainstreaming), scaling out (expansion at the geographical or sectoral level) or replication of the NbS. Consequently, it is important that the process of design and implementation captures, documents and makes available lessons learnt to individuals and stakeholders interested in replicating the process. This includes decision makers, investors and other NbS users from the public and private sectors.</p> <p><b>8.2 The NbS informs and enhances facilitating policy and regulation frameworks to support its uptake and mainstreaming</b>            Guidance: The implementation of NbS is subject to a range of pre-existing policies, laws and sectoral regulations, some of which may not be consistent or mutually reinforcing. In some situations, inconsistent policies and regulations may limit the effective rollout of NbS or, worse, actually contribute to the loss of important ecosystem functions over time. In such situations, it is important to a) be aware of policy, regulatory and legal limitations and b) work with local and/or national decision makers as well as other key stakeholders, to highlight such obstacles and identify effective responses or other enabling solutions.</p> <p><b>8.3 Where relevant, the NbS contributes to national and global targets for human well-being, climate change, biodiversity and human rights, including the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)</b>            Guidance: NbS can make significant contributions to national economic, social and conservation targets and help achieve national commitments to international processes on climate change, human rights, human development and biodiversity. Making these linkages explicit, documenting and communicating them, help further reinforce the profile and role of NbS nationally, secure broad-based and durable political commitment as well as societal support, thereby enhancing the long-term sustainability of the intervention.</p>





# Upcoming NBO webinar series

Welcome to  
the Connecting Nature  
Enterprise Platform





# Blending formal and ecological NBS design to benefit nature and people

[NBO webinar 19/01/2022]

## Take-home messages:

- Designing for nature and people is not a trade-off, but a **trade-on**. It should be viewed as an opportunity, not a challenge.
- Designing-in **niches and spaces** for wildlife means you can limit potential conflicts and create landscapes that are good for people and biodiversity and give people an opportunity to experience and enjoy nature.
- Designing **strategically and creatively**, we can bring nature into our everyday life in a meaningful way inside our cities.
- Understanding and replicating locally typical natural, semi-natural, and novel ecosystems can be an effective way to deliver this. **Include structure and complexity** for visual impact and biodiversity benefits.
- Ensure there is a **focus on co-creation** - see people as part of the process not part of a problem. It is important to understand not only the ecological function, but also what the public wants. Then develop innovative solutions that blend these needs.

## Presentations



## Upcoming NBO webinars

**Financing and entrepreneurship support for scaling Nature-based Solutions in cities:** Seed session at TNOOC - 31.03.22 @15.00-16.30 GMT led by Esmee & Isobel

**Overcoming barriers for co-producing Nature based Solutions: what capacities do you need?":** the week commencing 16th May 2022 led by Carien (DRIFT)



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