



Amend + Panorama Solutions

conservation &
development

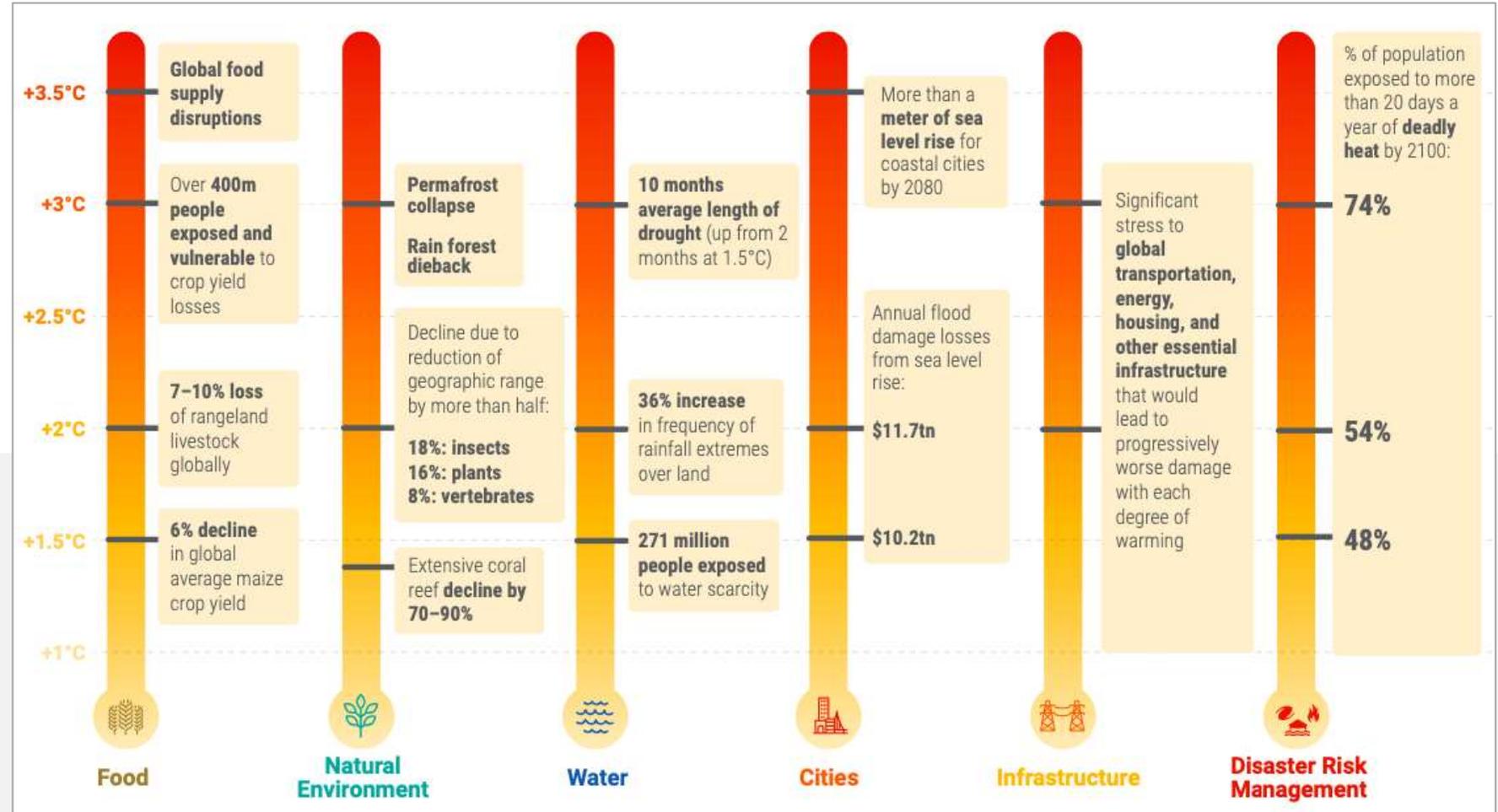
Nature-based Solutions – introduction, concepts and key aspects

Thora Amend, PhD
Conservation & Development

Online training on 'nature-based solutions
for global challenges' in Asia and Pacific

10th, 11th, 17th, 24th of February, 2021

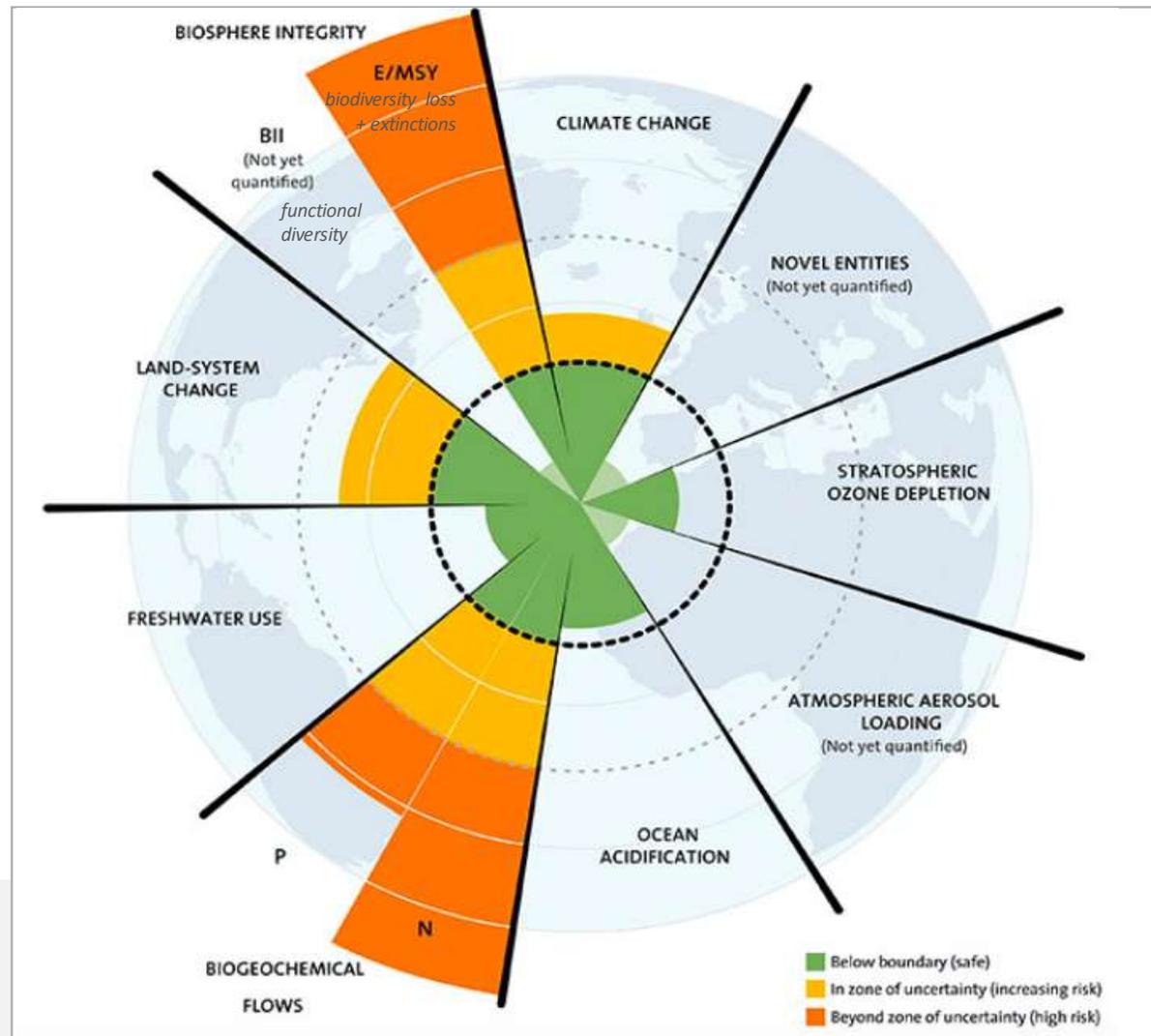
The Need to Act!



The Risk of Catastrophic Events Increases with Temperature

The Need to Act!

Planetary boundaries ecological limits & social foundations



Transformative change → a "safe and just space for humanity to thrive in"

From all countries, as of now not a single country satisfies its citizens' basic needs while maintaining a globally sustainable level of resource use

The Chance to Act!



Nature-based Solutions (NbS) - Definitions



- 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.

IUCN, 2016

Source: IUCN
in: Cohen-Sacham et al., 2016

+ Global Standard for NbS (with 8 criteria, 28 indicators)



- Solutions that are inspired and supported by nature,
- which are cost-effective,
- simultaneously provide environmental, social and economic benefits
- and help build resilience.

European Commission 2015



Important to keep in mind:
the **dual role of biodiversity**
with regard to Nature-based Solutions ...

Biodiversity as a mean
to achieve solutions for
societal challenges



Biodiversity as a goal
maintaining the structure
and functionality of
ecosystems

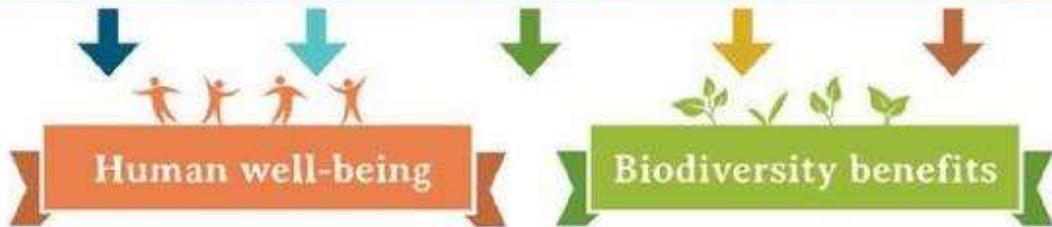
**only healthy ecosystems
can provide services /
Nature-based solutions**

Nature-based Solutions use the ecosystem approach...

NATURE-BASED SOLUTIONS

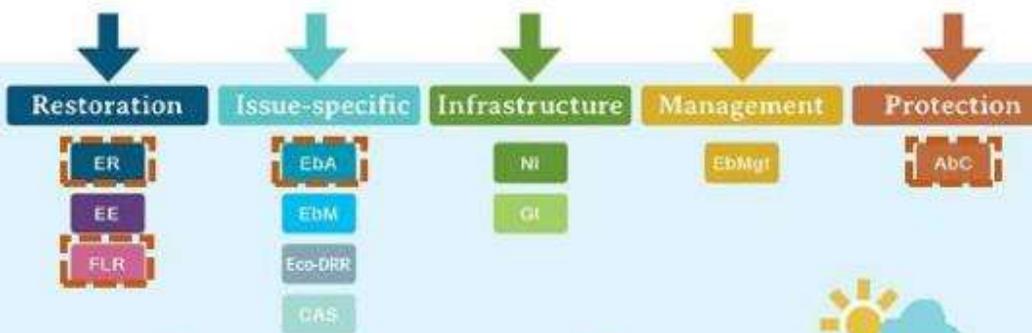


Societal challenges



ECOSYSTEM APPROACH

NATURE-BASED SOLUTIONS



Nature-based Solutions use the **ecosystem approach**...

they can be considered as an **umbrella concept**

covering a **range of ecosystem-based approaches**...

Categories of NbS approaches	Examples
Ecosystem restoration approaches	<ul style="list-style-type: none"> Ecological restoration (ER) Ecological engineering (EE) Forest landscape restoration (FLR)
Issue specific ecosystem-related approaches	<ul style="list-style-type: none"> Ecosystem-based Adaptation (EbA) Climate adaptation services (CAS) Ecosystem-based Mitigation (EbM/REDD+) Ecosystem-based Disaster Risk Reduction (Eco-DRR)
Infrastructure-related approaches	<ul style="list-style-type: none"> Natural infrastructure (NI) Green infrastructure (GI) Blue infrastructure (BI)
Management approaches	<ul style="list-style-type: none"> Ecosystem-based management (EbMgt) Integrated coastal zone management (ICZM) Integrated water resources management (IWRM)
Protection approaches	<ul style="list-style-type: none"> Protected area management Area-based conservation approaches

Societal challenges



Human well-being

Biodiversity benefits

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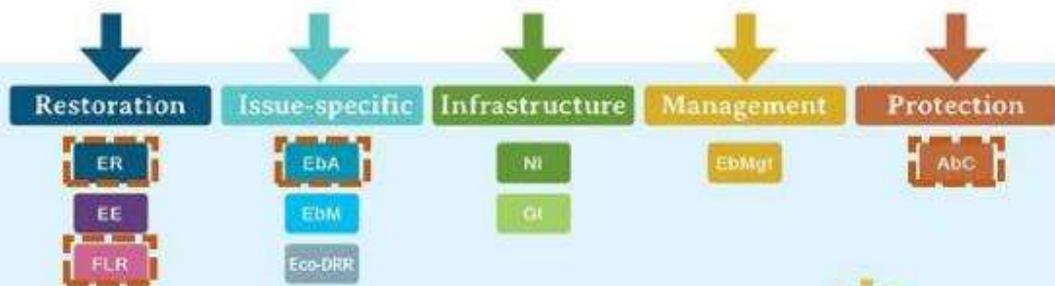
that address specific or multiple **societal challenges**...



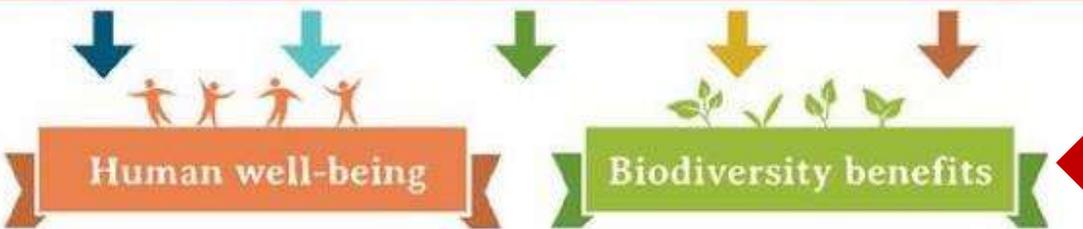
while simultaneously providing **human well-being** and **biodiversity benefits**.

ECOSYSTEM APPROACH

NATURE-BASED SOLUTIONS



Societal challenges



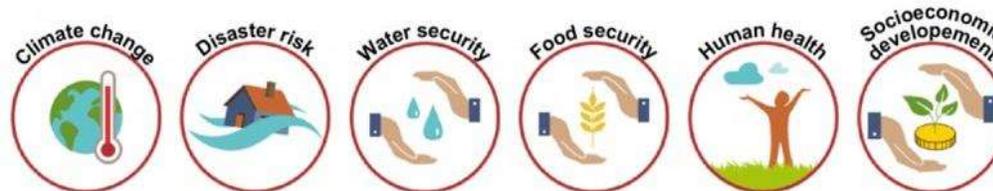
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NbS in international Frameworks

CBD: Global Biodiversity Framework



Under the CBD, NbS were originally discussed as “ecosystem-based approaches”

GBF (August 2020) now includes a number of references to NbS, i.e.

2050 Goal

- **Goal (b)** “Nature’s contributions to people have been valued, maintained or enhanced through conservation and sustainable use supporting global development agenda for the benefit of all people;”

2030 Milestones

- **Goal B.1** “Nature contributes to the sustainable diets and food security, access to safe drinking water and resilience to natural disasters for at least [X%] million people.”

2030 Targets

- **Target 7.** By 2030, increase contributions to climate change mitigation adaptation and disaster risk reduction from nature-based solutions and ecosystems based approaches, ensuring resilience and minimizing any negative impacts on biodiversity.
- **Target 10.** By 2030, ensure that, nature based solutions and ecosystem approach contribute to regulation of air quality, hazards and extreme events and quality and quantity of water for at least [XXX million] people.
- **Target 11.** By 2030, increase benefits from biodiversity and green/blue spaces for human health and wellbeing, including the proportion of people with access to such spaces by at least [100%], especially for urban dwellers.

Global Biodiversity Framework

WWF and major conservation bodies releasing Nature Positive by 2030

“We are causing a catastrophic loss of species and exacerbating already dangerous levels of climate change. In the next year Parties to the United Nations Convention on Biological Diversity (CBD) can deliver the change needed by securing an ambitious new global biodiversity framework that will transform our world to become nature-positive by 2030, for people and the planet. With high level commitment and action on biodiversity we can achieve all Sustainable Development Goals by 2030 and transition to a more prosperous, safe and healthy world now and in the future.”

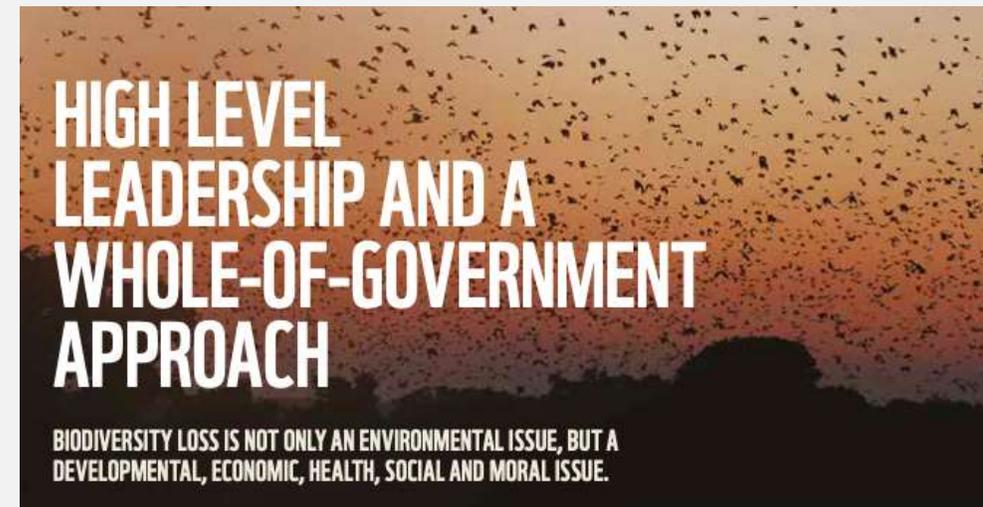


“To create a global biodiversity framework that is a tool for transformative change, we need leadership at the highest level of state or government in both its development and implementation, through a whole-of-government approach.

All government ministries, not just the Ministry of Environment, need to unite behind an ambitious mission, goals and targets that remove the sectoral drivers of biodiversity loss and decrease our ecological footprint.”

Aug.2020

https://wwfint.awsassets.panda.org/downloads/wwf_global_biodiversity_framework_leaflet_aug_2020.pdf



NbS in international Frameworks

UNFCCC: Paris Agreement and NDCs



Countries have started to reflect the contributions of biodiversity to climate mitigation and adaptation in their Nationally Determined Contributions (NDC)

Two-thirds of NDCs state that ecosystems are important and vulnerable to climate change.

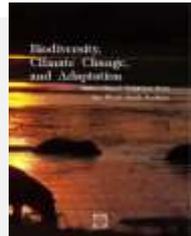
- 42% of signatories to the Paris Agreement include afforestation and/or restoration in terrestrial forest in the mitigation components of their NDCs;
- However, only 19% do the same for coastal habitats.
- Conservation actions in grasslands appear in only 11% of NDCs,
- and for mountain habitats, in only 4%

NbS in the current NDCs generally do not include evidence-based targets

Seddon et al, 2019a + 2019b

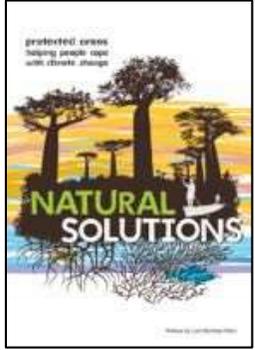
→ Many revised NDCs place even stronger emphasis on NbS !

NbS concept development & international discussions



2008
WB Portfolio Analysis

Early WB & IUCN Origins
built foundation on ecosystem approach for FLR, EbA, EcoDRR, etc.



2015
EU NbS definition by EU Horizon 2020



2009
IUCN UNFCCC Position Paper



2016
Formal definition adopted at IUCN WCC



2018
Rio Conventions Pavilion (UNFCCC COP 24 & CBD COP 14)
NbS as key topic



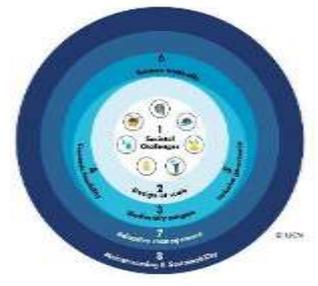
2019
UNGA Climate Summit & NbS Coalition
with 70+ countries & 200 initiatives NbS for Climate Manifesto



2018-2019
IUCN develops a draft global standard through 2 rounds of public consultations



2020
UNGA Biodiversity Summit, NY, Leaders Pledge for Nature with 84+ countries "to scale up NbS on land & sea" & mobilize resources



2020
NbS standard adopted by IUCN council & operationalized



2021-2022
UNEA-5 resolution on NbS



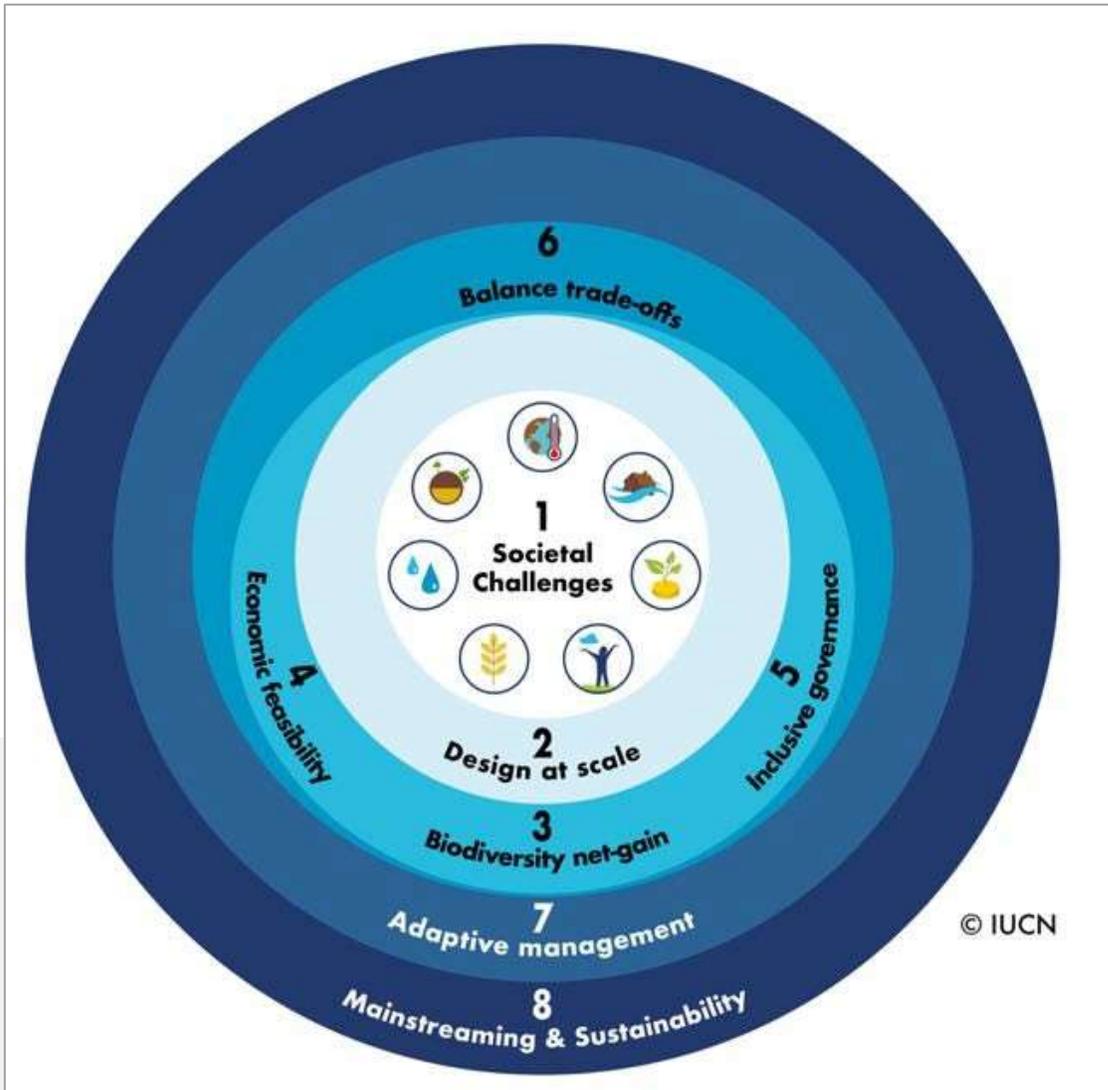
2021
UNFCCC COP-26 UK Nature campaign & NbS, Standing committee on finance, etc



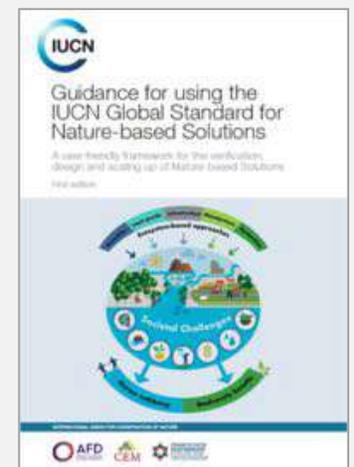
2021 (tbd)
CBD COP-15, China (Post-2020 framework, incl. NbS targets)

2021
NbS standard implemented by IUCN members

IUCN Global Standard for Nature-based Solutions



- Launched on 23rd July 2020
- A facilitative standard for design, verification and scaling up of NbS
- 8 criteria and 28 indicators
- Based on knowledge co-creation: conservation science, social science, traditional knowledge;
- 2 rounds of open consultation, 800+ people across 100 countries, 1000's of comments, each tracked;
- Developed to be compatible with the ISEAL Alliance Code of Good Practice



NbS within EU Strategies and policies (examples)

- **European Green Deal:** NbS as responses to climate change and for healthy and resilient land- and seascapes
- **EU Biodiversity Strategy for 2030 (2020):** NbS = key instrument for climate adaptation and mitigation and for greening cities. €20 bn/yr for nature e.g. via European Green Deal Investment Plan
- **EU policy on international ocean governance (2016)** sets out a series of action with a nature-based solutions recognizing the importance of the oceans and climate nexus; promotion and development of ocean-related action to implement the Paris Agreement, including nature-based solutions.

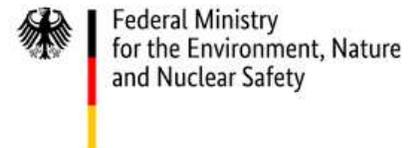


scapes



NbS within BMZ, BMU and GIZ

- **BMU:** Development of an NbS position and strategy (e.g. discussions on definitions, safeguards, → NbS will play bigger role within IKI portfolio but EbA etc. remain important priorities)
- **BMZ:** discussions on NbS on land and sea, NbS Action Track in Global Commission on Adaptation, etc



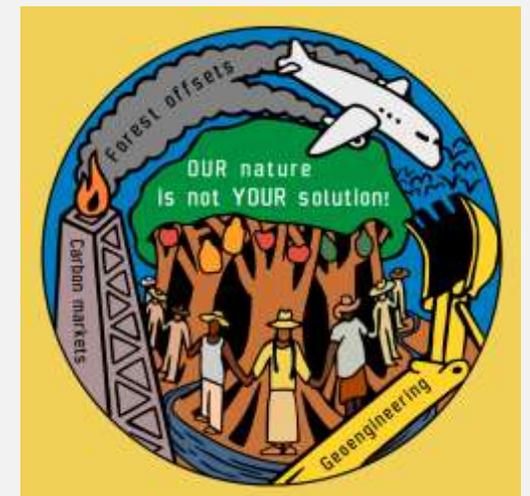
GIZ

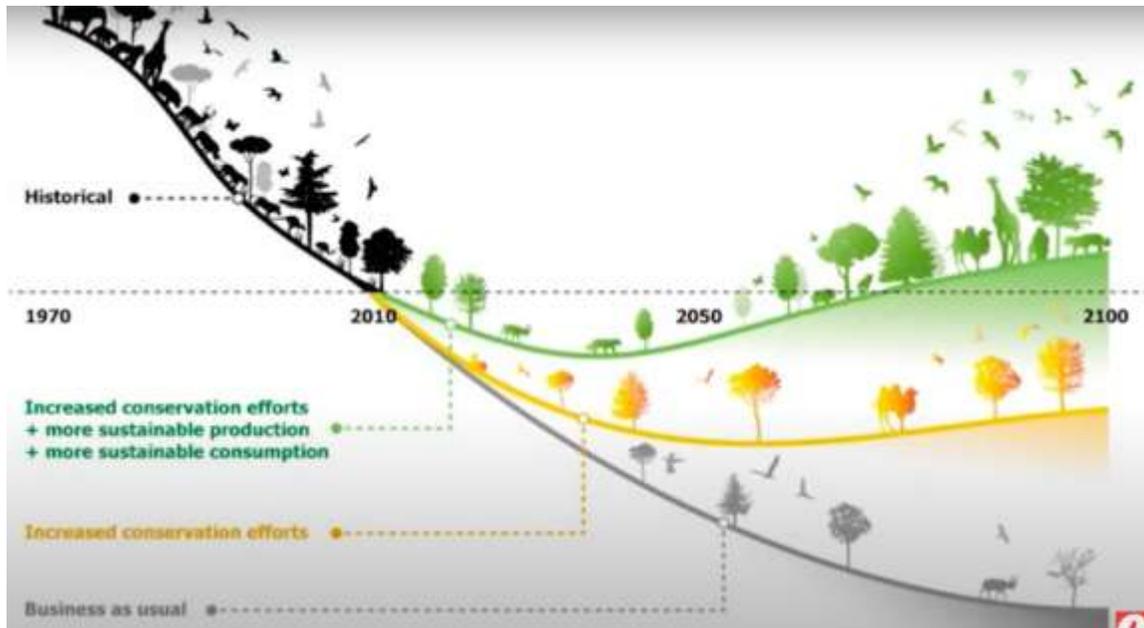
- **GIZ submission on “Finance for nature-based solutions” for the UNFCCC Standing Committee on Finance** (draft position, examples, knowledge products)
<https://unfccc.int/sites/default/files/resource/Deutsche%20Gesellschaft.pdf>
- **NbS Training** developed by SNRD Asia-Pacific and GloBE
- NbS on **IDA Topics & Communities**
- Informal MS-Teams NbS Group of advisors (→ ask Mathias Bertram)



Conclusions

- Currently a **very high political attention** (e.g. UN, UNFCCC, CBD, G20, G7)
 - NbS = **bridge between UNFCCC & CBD** (policies and actions)
 - **NbS = new paradigm but not a new idea** (based on decades of experience with ecosystem-based approaches e.g. EbA, REDD+, ICZM, green & blue Infrastructure)
 - **Opportunities:** better communication, mainstreaming into sector strategies, investments, multi-stakeholder implementation
-
- **Risks:** greenwashing, biodiversity and carbon offsetting, setting aside IPLCs
 - **Applicability & added value** at project level needs **to be tested** (e.g. trial of NbS standard in GIZ projects)





We need to bend the curve of biodiversity loss!

Thank you for your attention!

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"We are standing at a crossroads. The way we steer our recovery out of this pandemic will either lock us into a ,business as usual‘ unsustainable path or will enable our societies to rebuild our relationship with nature and unlock its potential."

Elizabeth Maruma Mrema, CBD Executive Secretary