

# Introduction, Concept and Key Developments

Thora Amend, PhD, Conservation & Development

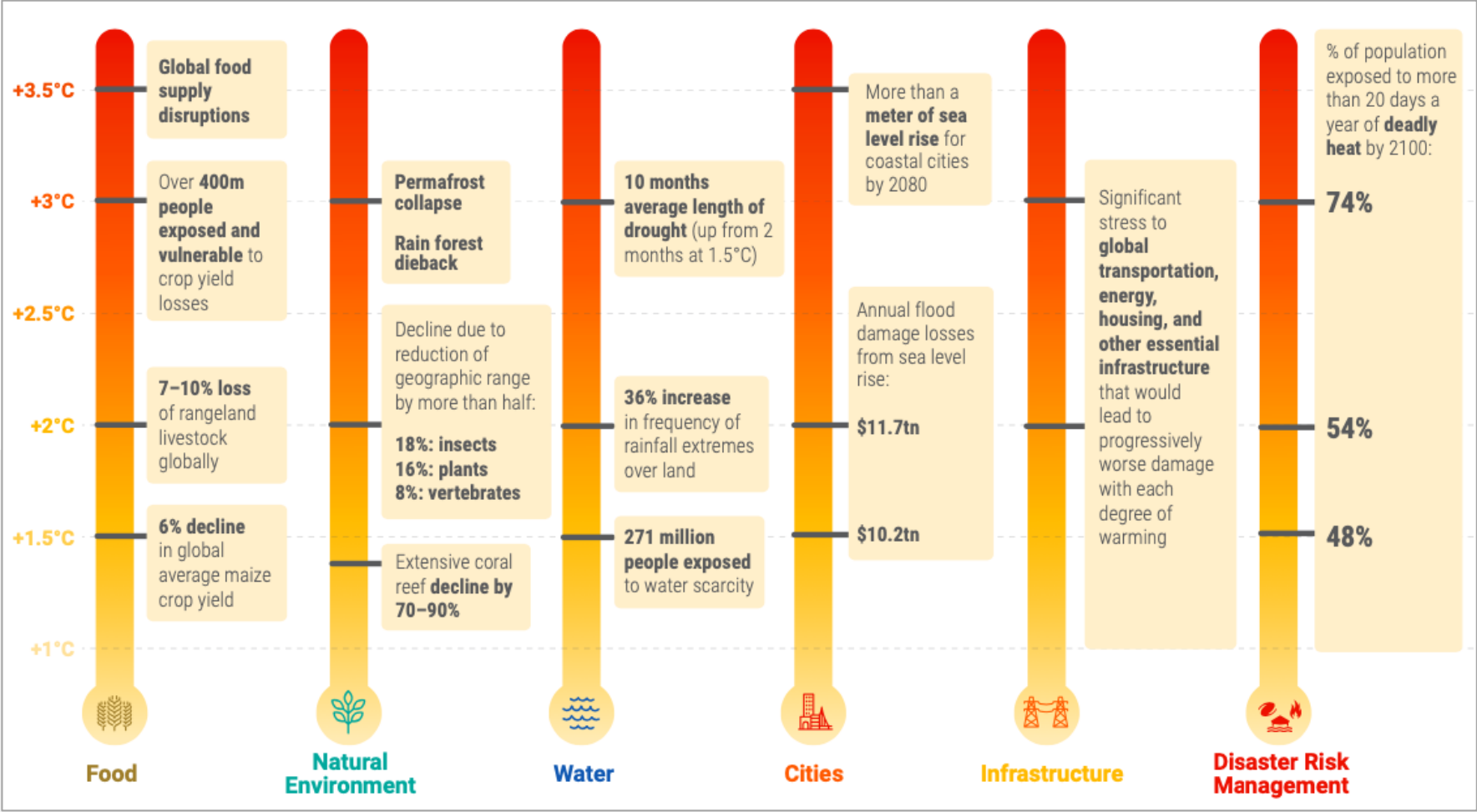
## Nature-Based Solutions

From planning to successful governance and implementation

conservation  
development

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

# The Need to Act!

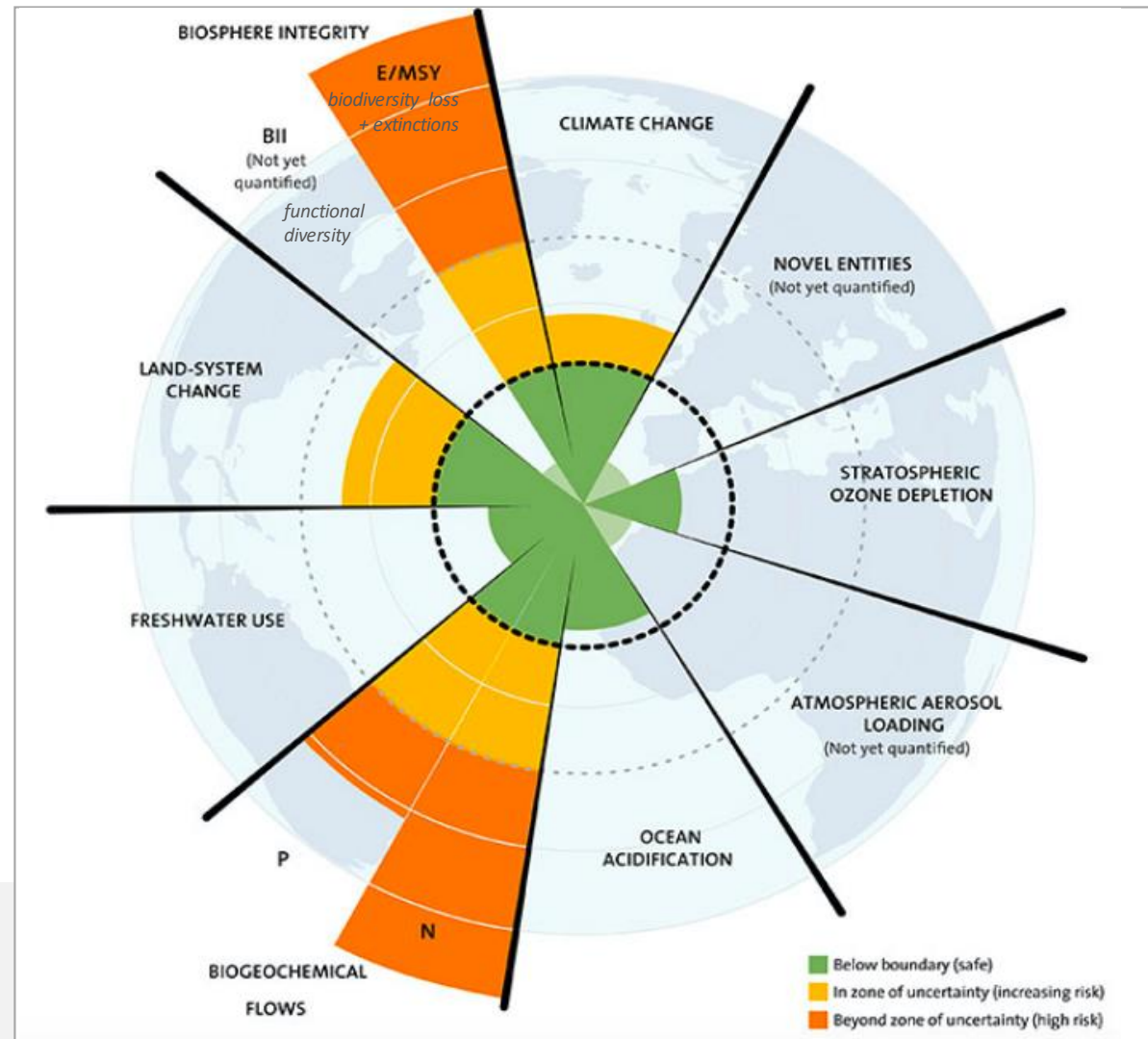


The Risk of Catastrophic Events Increases with Temperature



# The Need to Act!

## Planetary boundaries ecological limits & social foundations



### Planetary Boundaries

Estimates of how the different control variables for seven planetary boundaries have changed from 1950 to present. The green shaded polygon represents the safe operating space.

Source: Steffen et al. 2015 /  
Stockholm Resilience Center, 2009

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**

## ECOSYSTEM APPROACH

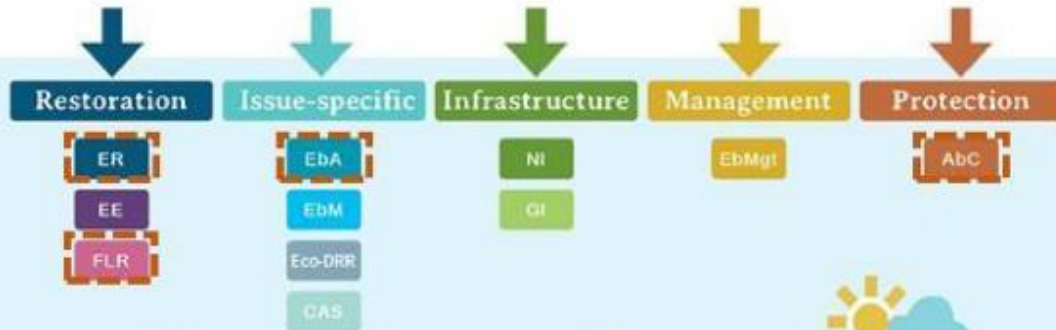
Nature-based Solutions use the **ecosystem approach**...

### NATURE-BASED SOLUTIONS



## ECOSYSTEM APPROACH

### NATURE-BASED SOLUTIONS



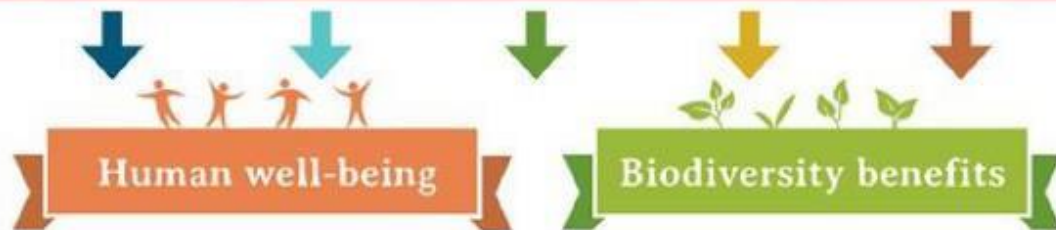
Nature-based Solutions use the **ecosystem approach**...

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

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

Categories of NbS approaches	Examples
<b>Ecosystem restoration approaches</b>	<ul style="list-style-type: none"> <li>Ecological restoration (ER)</li> <li>Ecological engineering (EE)</li> <li>Forest landscape restoration (FLR)</li> </ul>
<b>Issue specific ecosystem-related approaches</b>	<ul style="list-style-type: none"> <li>Ecosystem-based Adaptation (EbA)</li> <li>Climate adaptation services (CAS)</li> <li>Ecosystem-based Mitigation (EbM/REDD+)</li> <li>Ecosystem-based Disaster Risk Reduction (Eco-DRR)</li> </ul>
<b>Infrastructure-related approaches</b>	<ul style="list-style-type: none"> <li>Natural infrastructure (NI)</li> <li>Green infrastructure (GI)</li> <li>Blue infrastructure (BI)</li> </ul>
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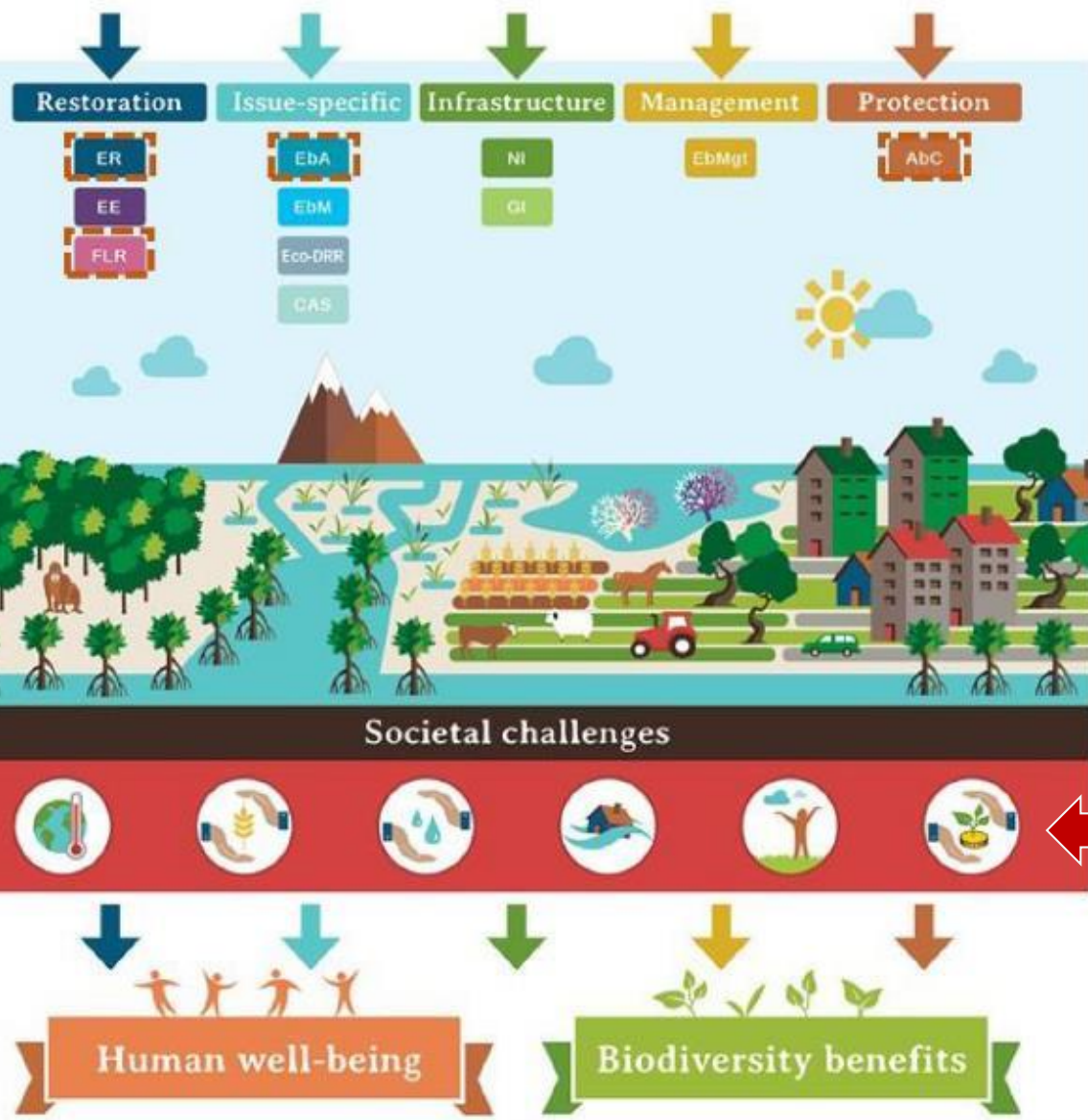
### Societal challenges





## ECOSYSTEM APPROACH

### NATURE-BASED SOLUTIONS



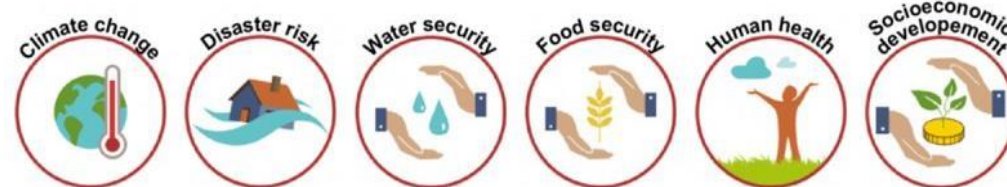
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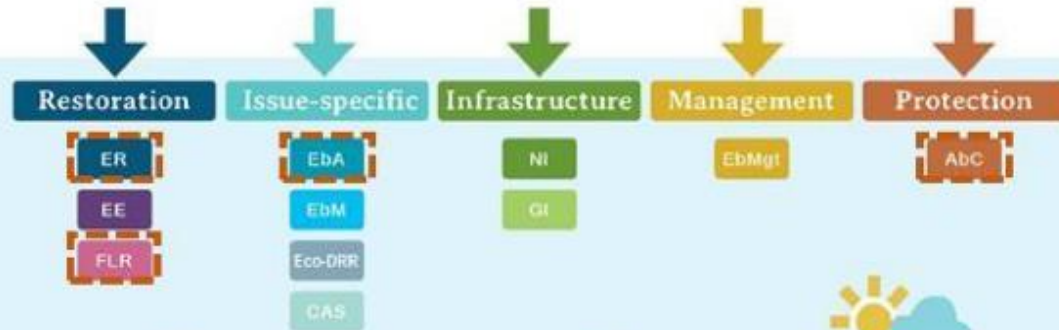
that address specific or multiple **societal challenges**...



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

## ECOSYSTEM APPROACH

### NATURE-BASED SOLUTIONS



### Societal challenges



Human well-being

Biodiversity benefits

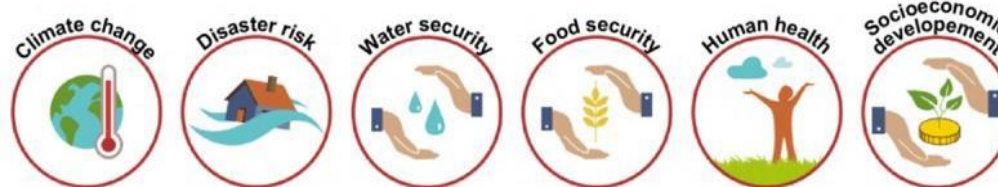
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# NbS in international Frameworks

## 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.”

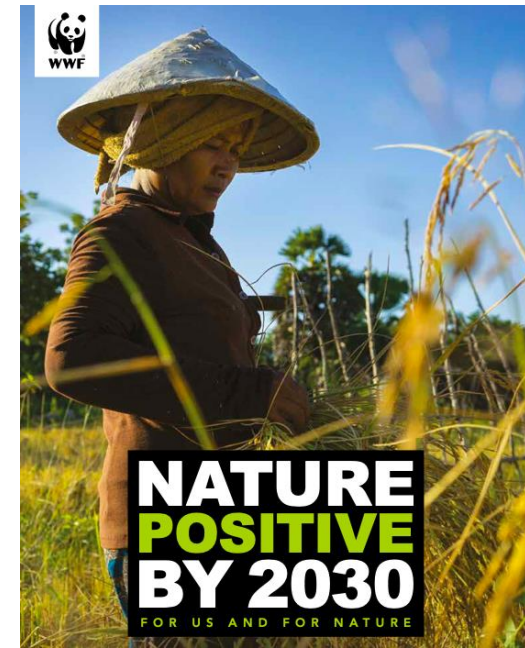
### 2030 Targets

- **Target 7.** By 2030, increase contributions to climate change mitigation adaption 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](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

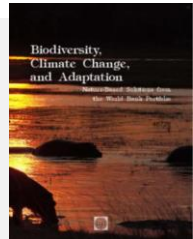
*Seddon et al, 2019a + 2019b*

→ Many revised NDCs place even stronger emphasis on NbS !

Seddon, N.; B. Turner, P. Berry, A. Chausson and C. Al Girardin (2019a): Grounding nature-based climate solutions in sound biodiversity science. In: *Nature Climate Change* 9:2, pp. 84-87.

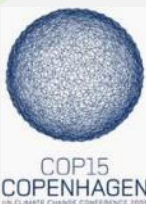
Seddon, N.; S. Sengupta, M. García-Espinosa, I. Hauler, D. Herr and A. Raza Rizvi (2019b). *Nature-based Solutions in Nationally Determined Contributions: Synthesis and recommendations for enhancing climate ambition and action by 2020*. Gland, IUCN and Oxford: University of Oxford.

# NbS concept development & international discussions

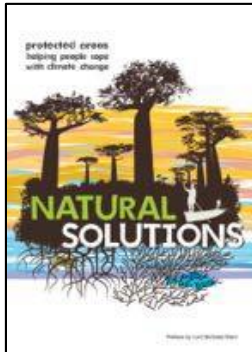


**2008**  
WB Portfolio  
Analysis

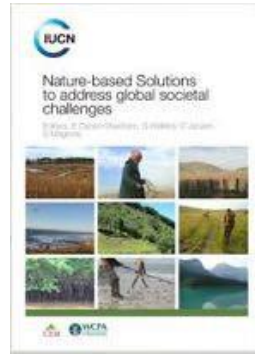
**Early WB & IUCN Origins**  
built foundation on  
ecosystem approach for  
FLR, EbA, EcoDRR, etc.



**2009**  
IUCN UNFCCC  
Position Paper



**2015**  
EU NbS definition by  
EU Horizon 2020



**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

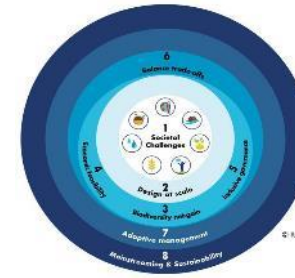


**2018-2019**  
IUCN develops a draft  
global standard through  
2 rounds of public  
consultations



**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**  
NbS standard  
implemented by  
IUCN members



**2021-2022**  
**UNEA-5**  
resolution on  
NbS



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

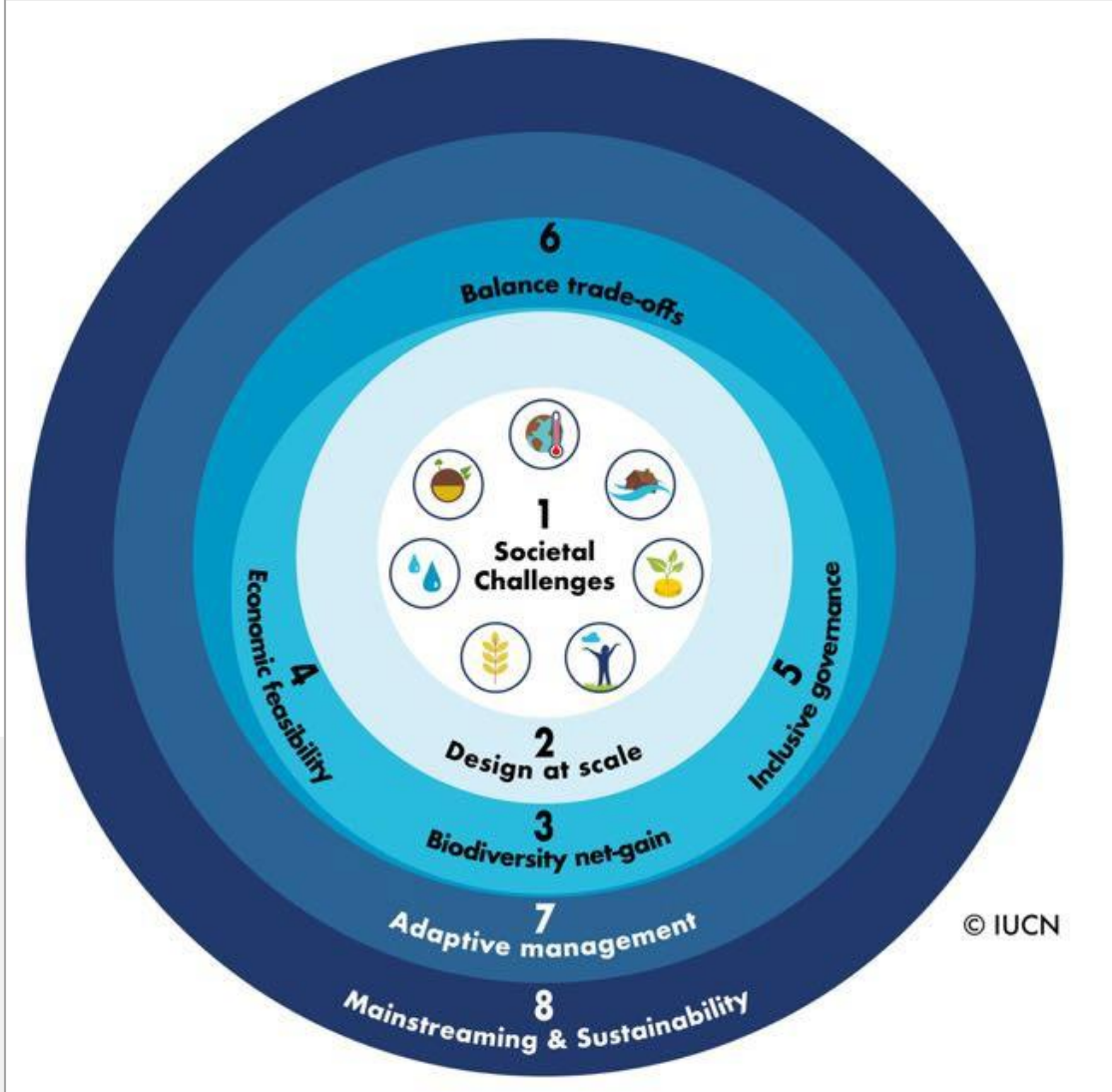


**2021 (tbd)**  
**CBD COP-15, China**  
(Post-2020  
framework, incl.  
NbS targets)

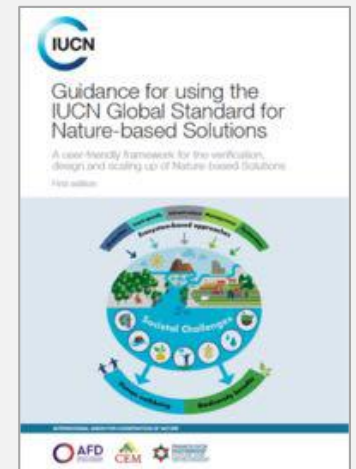




# IUCN Global Standard for Nature-based Solutions



- Launched on 23<sup>rd</sup> 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





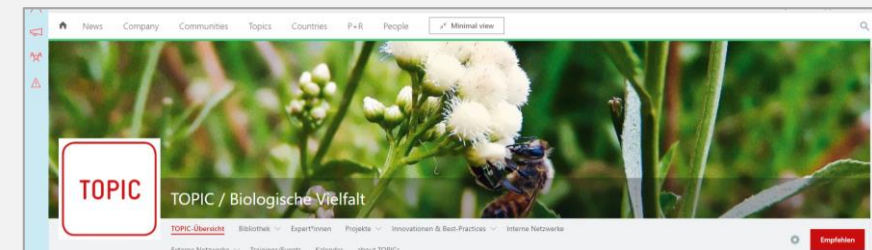
# NbS within BMZ, BMU and GIZ

- **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

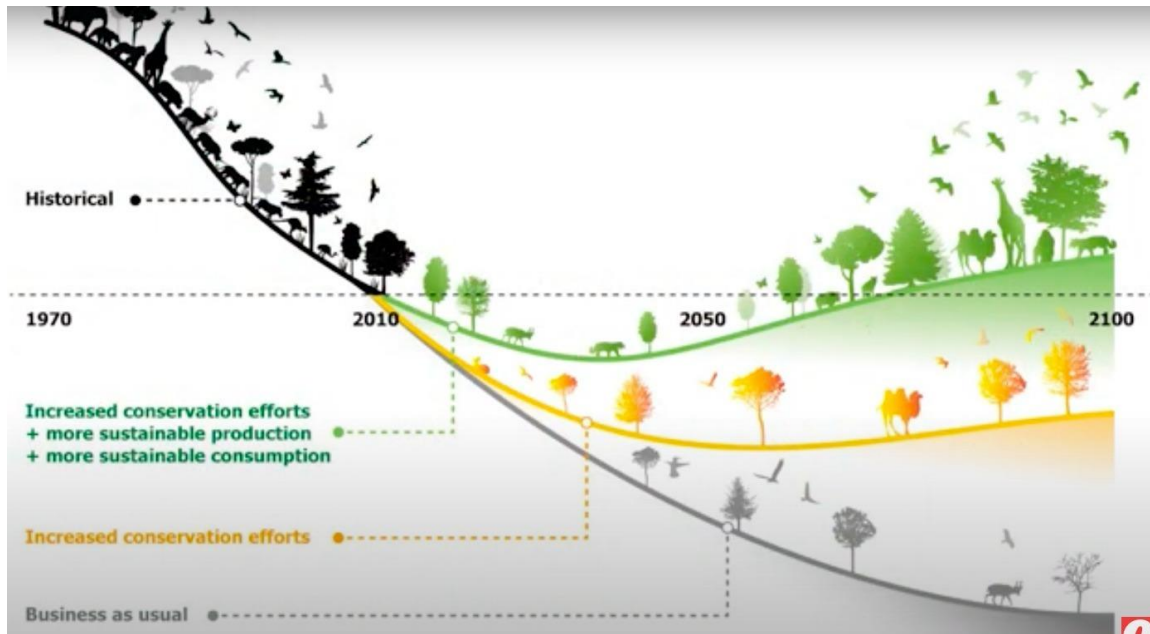
- **GIZ submission on “Finance for nature-based solutions” for the UNFCCC Standing Committee on Finance** (draft position, examples, knowledge products)  
<https://unfccc.int/sites/default/files/resource/Deutsche%20Gesellschaft.pdf>
- **NbS Training** developed by SNRD Asia-Pacific and GloBE
- NbS on **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*