Convention on Biological Diversity

Nature-based Solutions from a biodiversity policy perspective

opportunities, concerns and their relationship with other terms under the CBD

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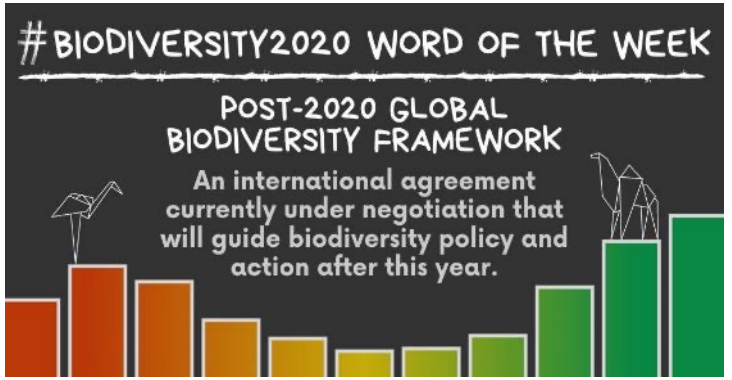
On behalf of

Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection

Nature-based Solutions in the CBD negotiations – supported by many, contested by others, but why?



One reason is because there is a long history of other CBD concepts

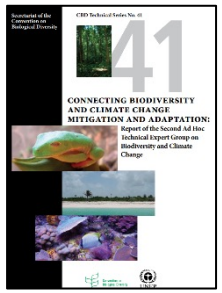
Convention on Biological Diversity


Source: German Ministry for Environment


Source: Mike Murzurakies, IISD

Since 2010
COP 10, Japan
Ecosystem-based approaches for adaptation and mitigation (CBD COP Dec/X/33)

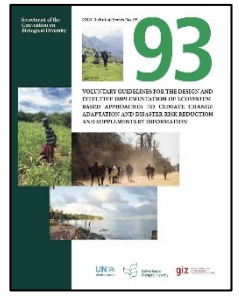
Since 2010
Rio Conventions Pavilions
biodiversity, climate change & land management with NbS as key topic



Since 2009
Ecosystem-based adaptation:
'The use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to climate change' (CBD TS 41)

2016
CBD COP-13, Mexico
Synthesis report on **ecosystem-based approaches for adaptation & DRR** (CBD TS 85) & Review of **ecosystem-based mitigation actions** beyond forests (CBD TS 86)

2018
CBD COP-14, Egypt
Voluntary guidelines for **ecosystem-based approaches for adaptation & DRR** with **principles and safeguards** (CBD TS 93) & Sharm-el Sheikh to Kunming **Action Agenda** promoting **NbS**



2021-2022
CBD COP-15, China & Canada
Global Biodiversity Framework, incl. targets with **NbS & ecosystem-based approaches** &, **Kunming Declaration**)

2020 UN BIODIVERSITY CONFERENCE
COP 15 · CP/MOP10·NP/MOP4
KUNMING CHINA

9 10 14 16 18 20 21 22

Since 2000
COP 5, Kenya
Ecosystem approach & 12 Principles (2004)
'Strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way'
= primary framework for action under the CBD (COP 5 Decision V/6)

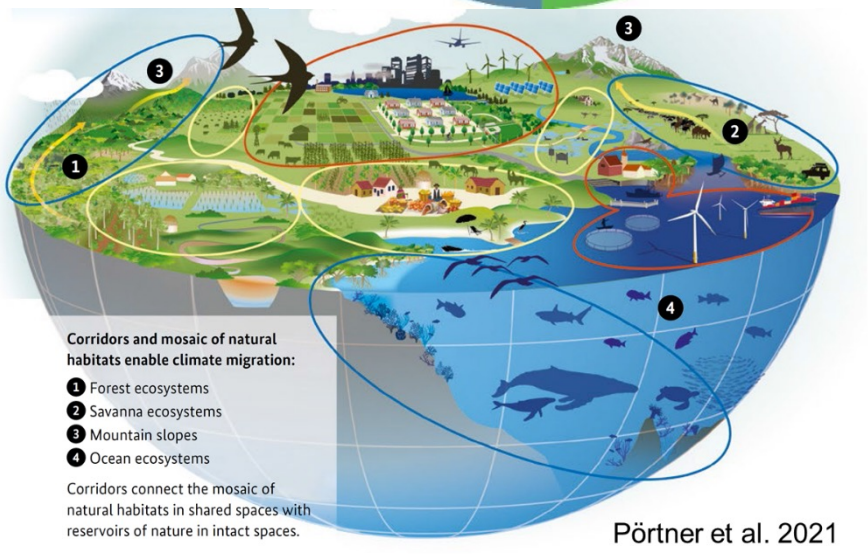
Since 2014
COP 12, Republic of Korea
Ecosystem-based approaches for climate change adaptation & DRR (CBD COP Dec/XII/20

2020
UNGA Biodiversity Summit, NY, Leaders Pledge for Nature with 93 countries "to scale up **NbS** on land & sea" & mobilize resources & **High ambition coalition for nature and people** (100 countries)

2021-2022
UNEA-5, Kenya
Resolution 5.5 on NbS incl. definition, recognizing the ecosystem approach and ecosystem-based approaches

Opportunities (from biodiversity perspective)

- **NbS = "holistic problem solving" approach with and for biodiversity,** building bridges between Agenda 2030 & Rio conventions e.g.
  - **Policies & plans:** Integration of NbS into NDC, revision of NBSAPs & NAPs
  - **Finance:** Joint financing via public, private, international & domestic sources
  - **Action:** Transformative & systemic, using the ecosystems perspective, addressing many issues – including biodiversity loss – in wide range of land- and seascapes areas;
- **Communication & awareness raising tool:** easy to communicate seen as positive by decision makers, business & finance, wider public;
- **Mainstreaming tool:** Integrates, combines & builds upon various established concepts in a "large family", integrating biodiversity into policy and planning is more explicit than in other ecosystem-based approaches



Pörtner et al. 2021

Concerns (not only from a biodiversity perspective)

- **Misuse as carbon offsetting option:** pushed by 'climate community' neglecting need for rapidly phasing out fossil fuel emissions, carbon sequestration limits or tipping points
- **Lack of stakeholder & rightsholder involvement:** privatization & commodification of nature; marginalization of stakeholders & limited involvement of IPLCs; lack of clear reference to fair and equitable sharing of benefits
- **'Tyranny of trees' & focus on restoration only:** Neglecting conservation, overlooking crucial biodiversity values of other non-forested ecosystems; use of non-native species.
- **Lack of adequate monitoring:** need for robust monitoring frameworks that cover multiple benefits (not only carbon)
- **Broadness/vagueness of concept:** oversimplification; inclusion of BECCS, ocean fertilization etc; no clear links with existing approaches.

Source: http://bit.ly/OurNaturelsNotYourSolution


Source: GIZ, Vietnam


Source: PANORAMA Solutions

Comparing NbS with the CBD ecosystem approach

Nature-based Solutions Global Standard & 8 criteria *(IUCN, 2020)*	Ecosystem approach & 12 principles *(CBD, 2004)*
1) Effectively address **societal challenges**	1) Resource management **objectives** a matter of **societal choice**
2) Design informed by **scale**	2) Management **decentralized** to the lowest appropriate level
3) Net gain of **biodiversity & ecosystem integrity**	3) Consider the **effects** (actual or potential) of activities on adjacent & other ecosystems
4) Economic **viable**	4) Recognise potential **gains** from management & manage the ecosystem in **economic context** (market distortions, incentives, internalize costs & benefits)
5) Inclusive, transparent and empowering **governance** processes	5) **Conservation** of ecosystem structure & functioning as priority target
6) Equitably balance **trade offs** between primary goal & multiple benefits	6) **Manage** ecosystems **within limits** of their functioning
7) **Adaptive management** based on evidence	7) Appropriate **spatial & temporal scale**
8) **Sustainable** & **mainstreamed** within appropriate jurisdictional context	8) **Long-term objectives**, recognizing temporal scales, lag-effects
	9) **Change management**
	10) Appropriate **balance** between **conservation & use**
	11) Consider all forms of **information, IPLC knowledge & practices**
	12) Involve **all relevant sectors** of society & science

Based on GIZ, IISD, UFZ (2022) & GYBN (2022)

Conclusion – What is needed?

More trust-building among policymakers, planners, practitioners (in particular within CBD community) including by:

1) **Ensuring the quality, credibility & clear scope of NbS** by operationalizing the **definition** (UNEA 5) making effective use of existing and applied **concepts, safeguards, principles (e.g. CBD), criteria** and **standards** (e.g. IUCN, etc); BECCS, ocean fertilization, etc. are no NbS!

2) **Planning & implementing NbS with, by and for people:** empowering & engaging local people; securing land rights; ensuring decision making; showing that own actions matter; operationalizing core governance principles (e.g. socially inclusive and rights based approaches, benefit sharing, and adaptive management).

3) **Keeping the dual role of biodiversity in mind:** biodiversity as a mean to address societal challenges + biodiversity benefits as a key outome maintaining and increasing ecosystem integrity; e.g. balance between conservation, restoration and sustainable use.

4) **Better evaluating the full range of benefits:** go beyond carbon and measure what matters (e.g. human wellbeing, ecosystem services, resilience, biodiversity); identify, manage, and mitigate trade-offs and conflicts.

Thank you very much for your attention!

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New thematic paper series by GIZ, IISD and UFZ on **synergies** between biodiversity and climate policy frameworks available here:

https://www.adaptationcommunity.net/

adaptation community.net

Backup Slides

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Terms under CBD: Ecosystem-based approach & Ecosystem Approach & Nature-based Solutions

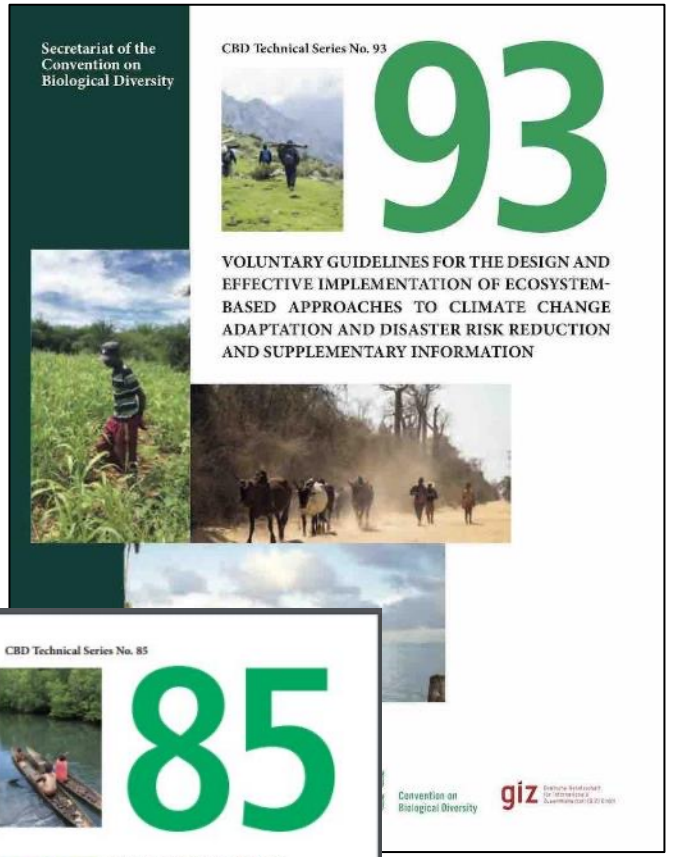
Under the CBD, NbS were originally discussed as "ecosystem-based approaches"

= **Umbrella term** for various ecosystem-based planning and management approaches. In CBD context ecosystem-based approaches for climate change adaptation (EbA) and disaster risk reduction (Eco-DRR) are important.

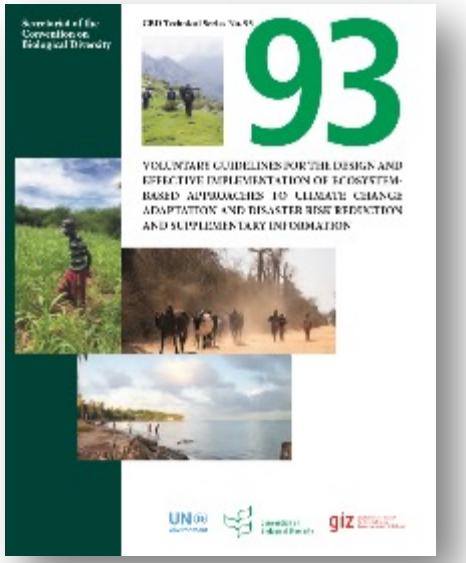
Sometimes mixed up with **ecosystem approach**, described by the Convention on Biological Diversity (CBD, 2000) is ***a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way***

= **primary framework for action under the CBD** and therefore the term ***ecosystem-based approaches*** at present is preferred by many member countries.(CBD, 2004).

But **CBD Technical Series 93 also refers to NbS** as an umbrella concept for various ecosystem-based approaches (e.g. EbA and EcoDRR)



All EbA & Eco-DRR measures qualifiy as NbS



Source: CBD, 2019

https://www.cbd.int/ts/

	Hazard/climate change impact	Ecosystem type	EbA or Eco-DRR intervention options	Outcome
	Drought Soil erosion Erratic rainfall	Mountains and forests	Sustainable mountain wetland management Forest and pasture restoration Restoration of pastures with deep-rooting native species	Improved water regulation Erosion prevention Improved water storage capacity
	Erratic rainfall Flood Drought	Inland waters	Conservation of wetlands and peatlands River basin restoration Transboundary water governance and ecosystem restoration	Improved water storage capacity Flood risk reduction Improved water provisioning
	Erratic rainfall Temperature increase Shift of seasons Drought	Agriculture and drylands	Ecosystem restoration and agroforestry Intercropping of adapted species Using trees to adapt to changing dry seasons Sustainable livestock management and pasture restoration Drought resilience by sustainable dryland management	Improved water storage capacity Adaptation to higher temperatures Adaptation to shifting seasons Improved water provisioning
	Extreme heat Temperature increase Floods Erratic rainfall	Urban	Green aeration corridors for cities Storm water management by green spaces River restoration in urban areas Green facades for buildings	Heat wave buffering Adaptation to higher temperatures Flood risk reduction Improved water regulation
	Storm surges Cyclones Sea level rise Salinization Temperature increase Ocean acidification	Marine and coastal	Mangrove restoration and coastal protection Coastal realignment Sustainable fishing and mangrove rehabilitation Coral reef restoration	Storm and cyclone risk reduction Flood risk reduction Improved water quality Adaptation to higher temperatures

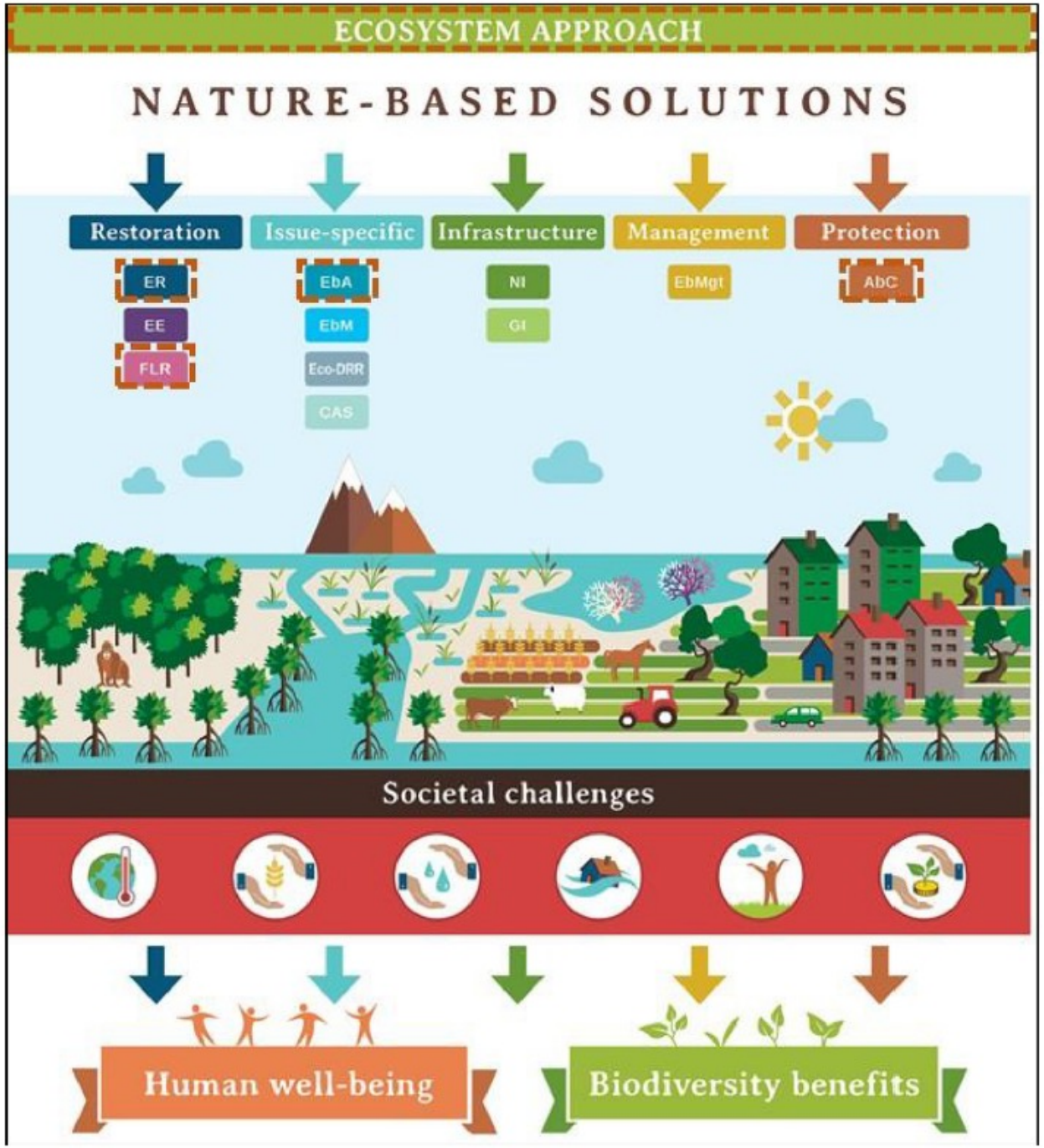


Fig. 1. Conceptual representation of the NbS umbrella for five categories of ecosystem-based approaches (adapted from Fig. 6 Cohen-Shacham et al., 2016). Acronyms used: Ecological Restoration (ER); Ecological Engineering (EE); Forest Landscape Restoration (FLR); Ecosystem-based Adaptation (EbA); Ecosystem-based Mitigation (EbM); Climate Adaptation Services (CAS); Ecosystem-based Disaster Risk Reduction (Eco-DRR); Natural Infrastructure (NI); Green Infrastructure (GI); Ecosystem-based Management (EbMgt); Area-based Conservation (AbC). The approaches in brown dashed boxes are those selected for the comparative analysis. The lower circles represent the societal challenges they address: climate change, food security, water security, disaster risk, human health, and social and economic development.

Source: Cohen-Shacham, E., et al 2019: Core principles for successfully implementing and upscaling Nature-based
Solutions

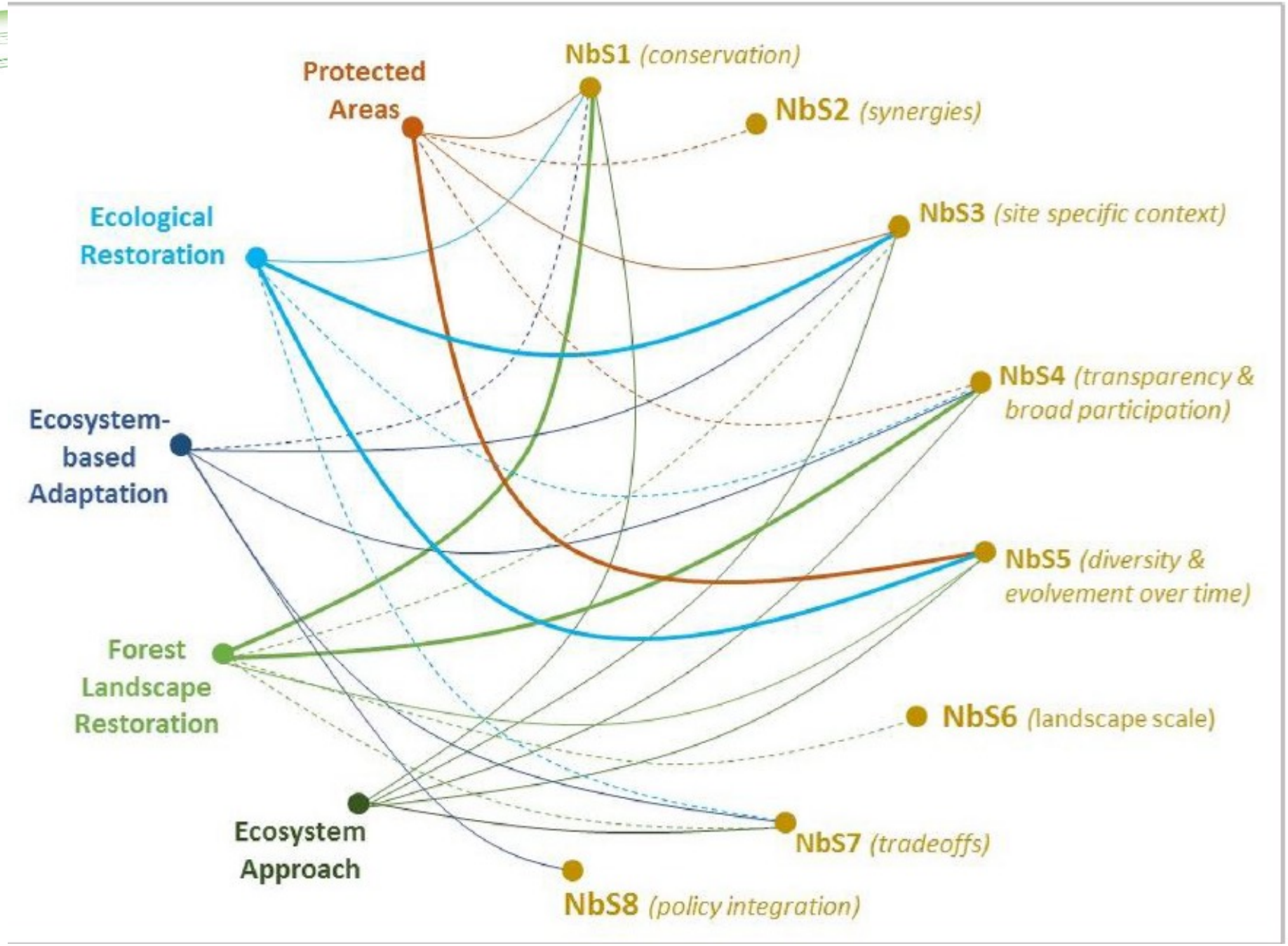


Fig. 2. Extent to which each of the eight NbS principles is included within the principles of the other five analyzed approaches. Line weight represents the number of times the NbS principle is referenced in the principles of other frameworks' (dashed lines = one time, thin lines = two times, thicker lines = three times). Codes for each NbS principle are provided in Table 1.

Source: Cohen-Shacham, E., et al 2019: Core principles for successfully implementing and upscaling Nature-based
Solutions