

The Ecosystem Approach, Ecosystem-based Approaches and Nature-based solutions

Angela Andrade

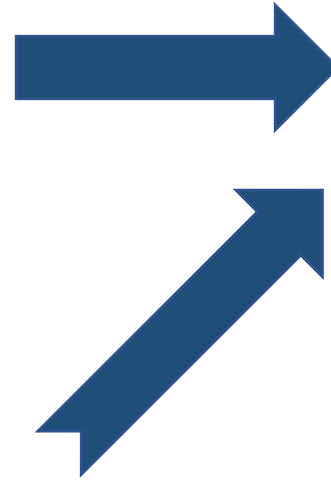
Chair, IUCN Commission on Ecosystem Management

Senior Climate Change and Biodiversity Policy Director- Conservation International Colombia

Nature based Solutions- Oxford 2022

Concepts towards Conservation and Sustainable Development

The Ecosystem Approach



Nature-based Solutions

Ecosystem-based Approaches



The Ecosystem Approach

Strategy for the integrated management and restoration of land, water and living resources. It promotes conservation and sustainable use in an equal, participatory, and decentralized manner. It integrates social, economic, ecological and cultural aspects in a geographical area defined by ecological limits.

(CBD 2000)

"Ecosystem" means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit". (Article 2 of the Convention)

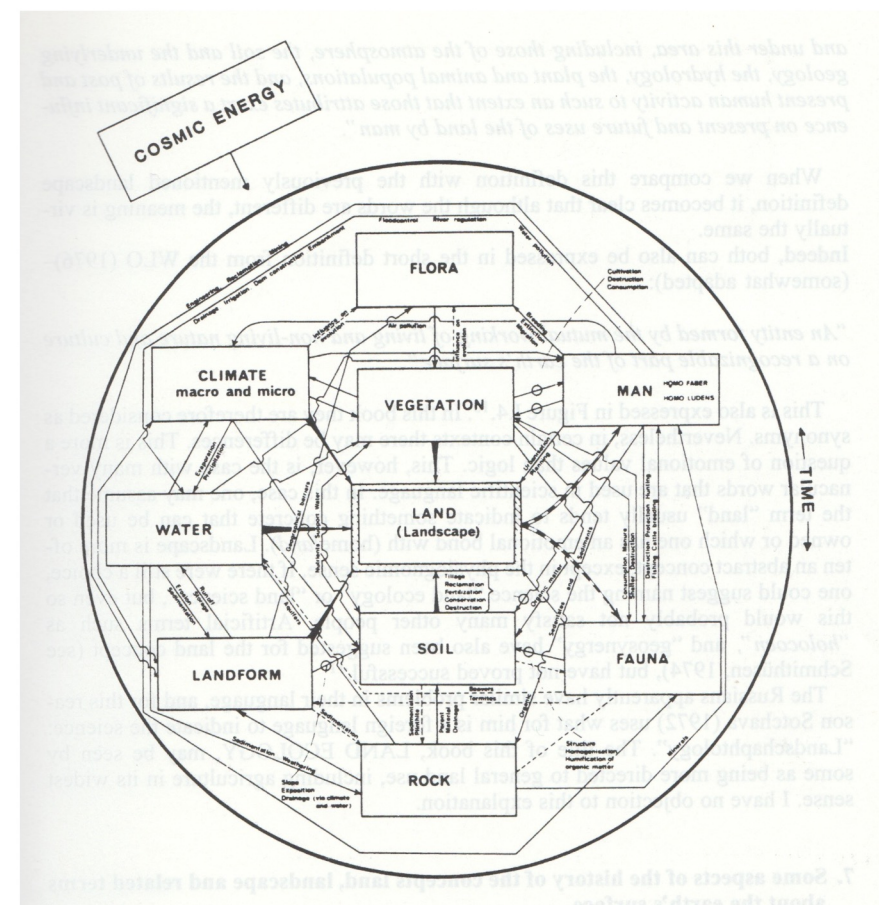
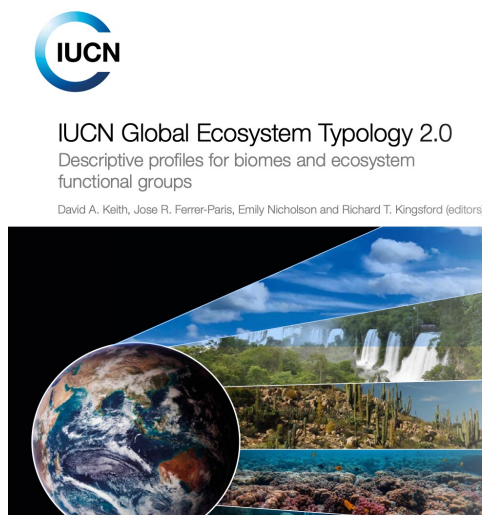


Ecosystems

Ecosystems are made up of living components (biotic complexes and assemblages of species), the abiotic environment, the processes and interactions within and between the biotic and abiotic, and the physical space in which these operate.

Ecosystem types are differentiated from one another by a degree of uniqueness in composition, structure, and ecological processes and function. Although there is inherent uncertainty in applying discrete ecosystem categories (and therefore spatial boundaries to natural continua.

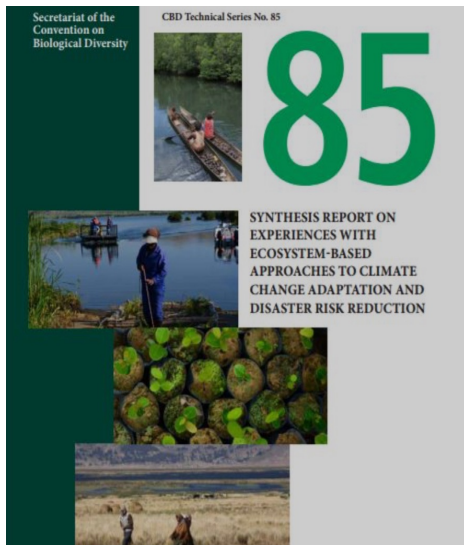
(Nicholson et al, 2020)



(Landscape as an Ecosystem. Zonneveld, 1995)

Ecosystem-based Approaches

Ecosystem-based Approaches to Climate Change Adaptation (EbA) is the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change **(CBD, 2009 & 2010)**.



Making Ecosystem-based Adaptation effective – A framework for defining qualification criteria & quality standards

About the FEBA partnership
The Friends of EbA (FEBA) group is an informal network of over 30 organisations with an interest in promoting collaboration and knowledge sharing on Ecosystem-based Adaptation through joint events and initiatives, as well as the development of position papers and technical documents on EbA. This document is an output of the FEBA Working Group on EbA Standards & Guidelines.

Key messages

- Ecosystem-based Adaptation as a nature-based solution links biodiversity and ecosystem conservation approaches with sustainable socio-economic development as part of an overall adaptation strategy. EbA is gaining significant importance in the context of climate change (UNFCCC Paris Agreement, NDC, NAP) & biodiversity conservation policies (CBD Strategic Plan 2011–2020, Aichi targets).
- A common understanding among policy makers and practitioners about what qualifies as EbA is relevant, to avoid incorrect re-packaging of “business-as-usual” conservation or development approaches.

The Friends of EbA network (FEBA) encourages decision makers and practitioners to use this assessment framework as a common set of qualification criteria and standards in the context of implementing EbA within the UNFCCC Paris Agreement and NDC commitments as well as the national adaptation planning processes.

Assessment framework

Part 1: What qualifies as Ecosystem-based Adaptation?

What is EbA?
Ecosystem-based adaptation is ...

- the use of biodiversity and ecosystem services ...
- as part of an overall adaptation strategy ...
- to help people to adapt to the adverse effects of climate change.

CBD, 2009 (emphasis added)

Ecosystem-based Adaptation ...

3 elements

- A** ... helps people to adapt
- B** ... makes active use of biodiversity and
- C** ... is part of an overall adaptation strategy

5 qualification criteria

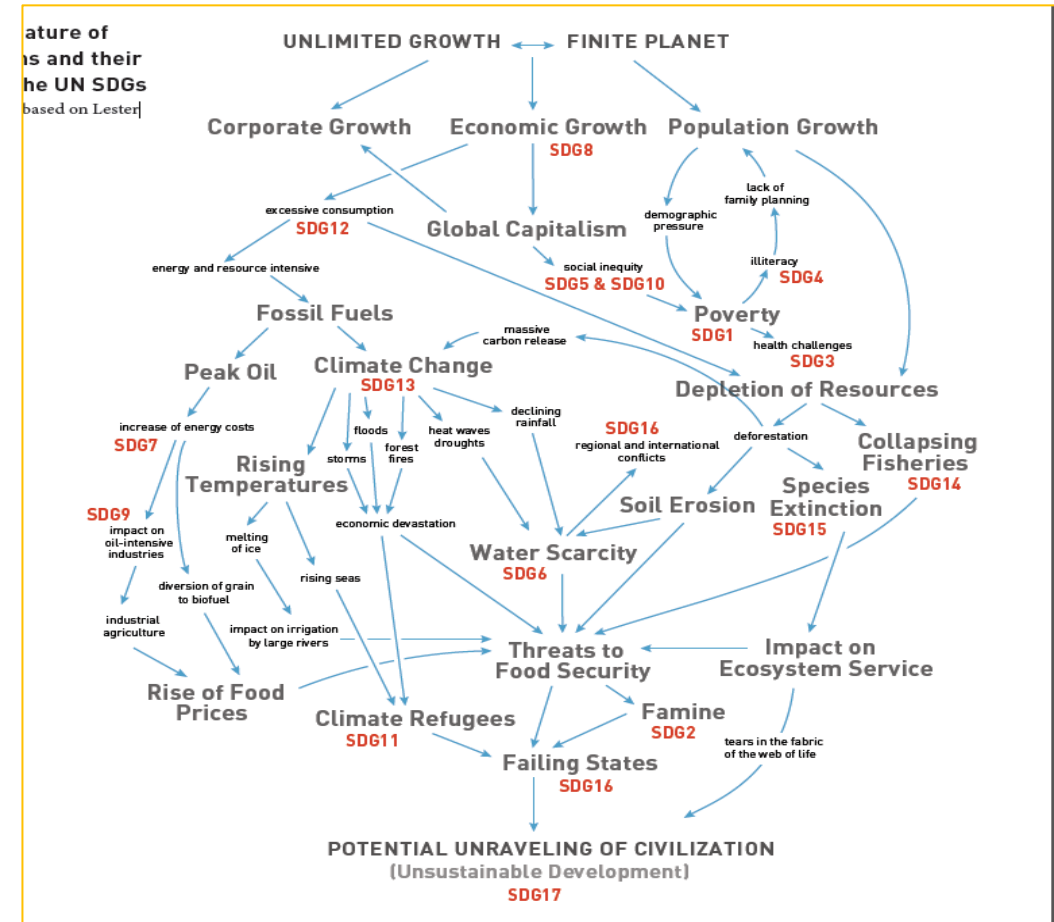
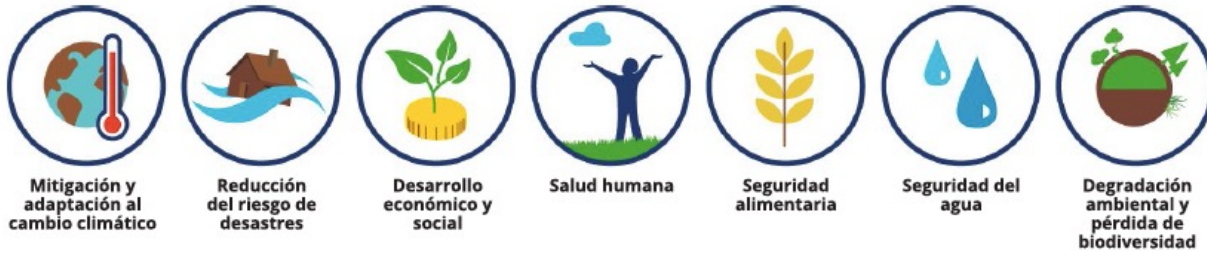
- 1 Reduces social and environmental vulnerabilities
- 2 Generates social benefits in the context of climate change adaptation
- 3 Restores, maintains or improves ecosystem health
- 4 Is supported by policies at multiple levels
- 5 Supports equitable governance and enhances capacities

Part 2: What makes Ecosystem-based Adaptation effective?

20 Quality standards (only 5 illustrated here as examples)

Quality standards	Continuum of EbA quality	Example indicators
1.1 Use of climate information	Very strong Strong Weak Very weak Not at all	• Depth of information about future climate change used • Quality of climate data sources
2.1 Quantity & quality of social benefits compared to other adaptation options	Very high High Medium Low Very low	• Quantity of monetary & non-monetary benefits provided (e.g. income, resource access, reduced risks) • Quantity & quality of provisioning ecosystem services (e.g. water, food, fuel, regulating ES) e.g. erosion prevention, extreme event buffering, climate regulation) as well as supporting and cultural ES • Extent of physical asset damage or destruction avoided (e.g. Saverl health index) • Extent of avoided deaths and injuries (e.g. Saverl health index)
3.1 Appropriate scale of management	Very strong Strong Weak Very weak Not at all	• Size of the area (e.g. in ha) under management
4.2 Multi-sector & multi-stakeholder engagement (communities, civil society, private sector)	Very high High Medium Low Very low	• Level or % of civil society engagement in policy discussions • Level or % of private sector engagement in policy discussions • n of sectors involved • n or % of people participating in activities
5.3 Status of indigenous and local knowledge and institutions	Respected and incorporated Respected Not respected or incorporated	• n or % of indigenous or local people represented in the governance structure

Global Societal Challenges



The systemic nature of global problems and their connection to the UN SDGs *Fritjof Capra (2018)*, based on *Lester Brown (2008)*

Nature-based Solutions

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

IUCN Definition, 2016 Resolution 069

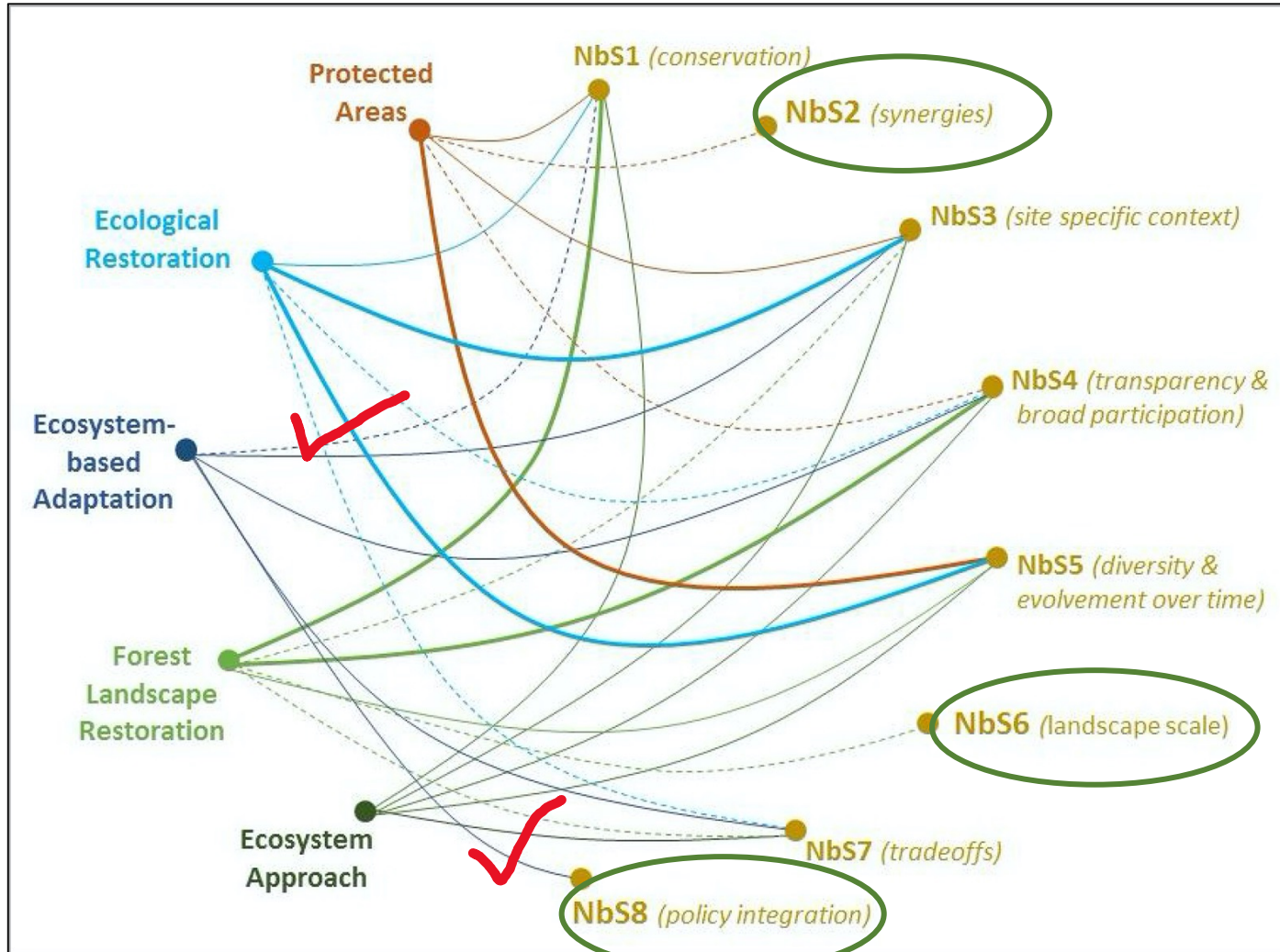


At the core of NbS is the web of life,
including people and their culture.



(IUCN, 2020)

Nature-based Solutions- Principles



(Cohen-Shacham et al, 2019)

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Core principles for successfully implementing and upscaling Nature-based Solutions

Emmanuelle Cohen-Shacham^{a,b,c}, Angela Andrade^{a,c}, James Dalton^d, Nigel Dudley^{a,d}, Mike Jones^{a,e}, Chetan Kumar^a, Stewart Maginnis^d, Simone Maynard^{a,b}, Cara R. Nelson^{a,j}, Fabrice G. Renaud^{a,j}, Rebecca Welling^d, Gretchen Walters^{d,k,l}

^aCommission on Ecosystem Management, International Union for the Conservation of Nature, 28 Rue Mauverney, 1196, Gland, Switzerland
^bThe Smithson Museum of Natural History, Tel Aviv University, Israel
^cConservation International-Columbia, Carrera 13 No. 71-41, Bogotá, Colombia
^dInternational Union for Conservation of Nature, Nature-Based Solutions Group, 28 Rue Mauverney, 1196, Gland, Switzerland
^eSchool of Earth and Environmental Sciences, University of Queensland, St Lucia, QLD, 4072, Australia
^fEquilibrium Research, 47 The Quay, Cumberland Road, Bristol, BS1 6DQ, United Kingdom
^gSwedish Biodiversity Center, Alnäs väg 8, 750 07, Uppsala, Sweden
^hAustralian Rivers Institute, Griffith University, Queensland, Australia
ⁱDepartment of Ecosystem and Conservation Sciences, Franke College of Forestry and Conservation, University of Montana, Missoula, MT, United States
^jSchool of Interdisciplinary Studies, University of Glasgow, Dumfries Campus, Bankend Road DG1 4ZJ, United Kingdom
^kDepartment of Anthropology, University College London, WC1E 6BT, London, United Kingdom
^lInstitute of Geography and Sustainability, University of Lausanne, Lausanne, Switzerland

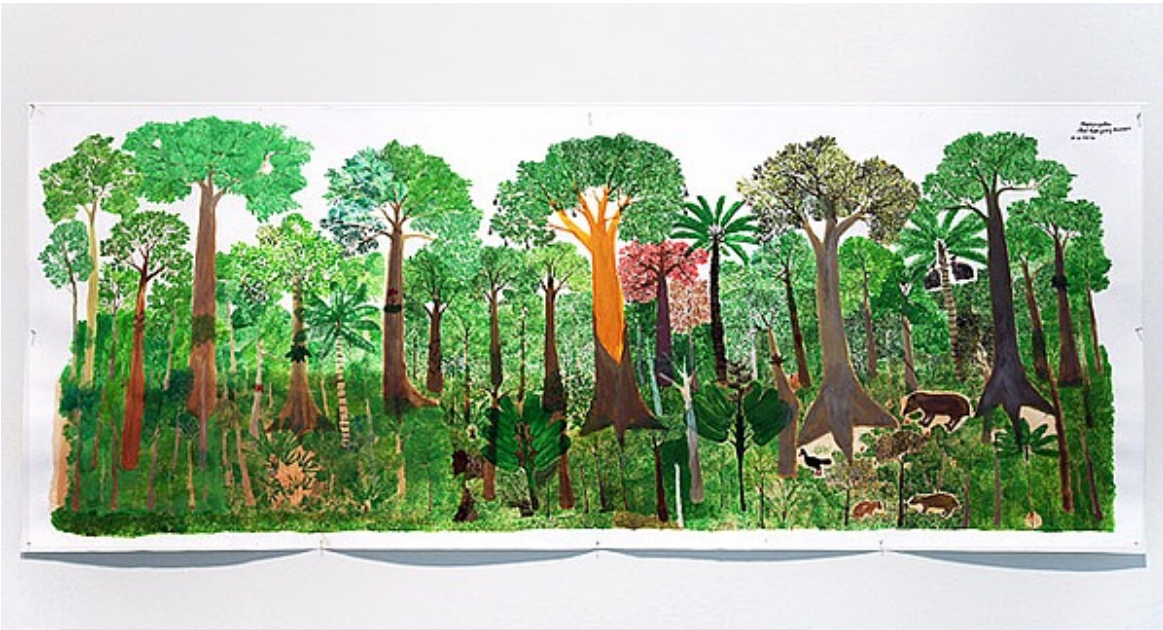
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ABSTRACT

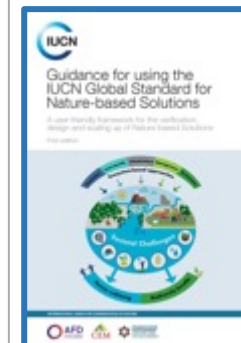
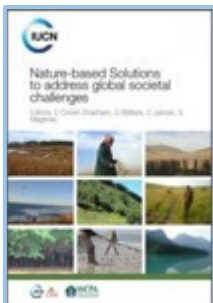
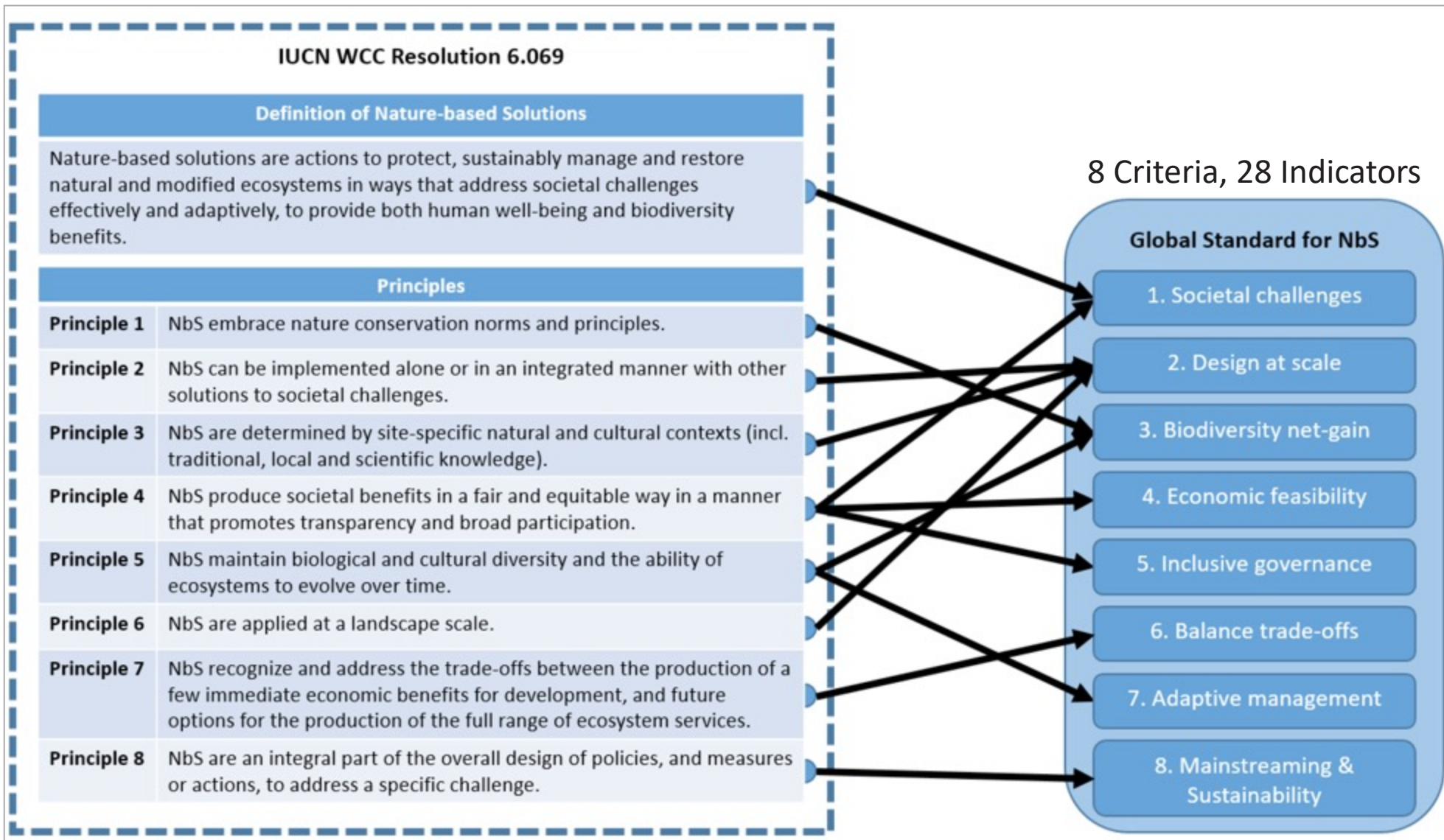
Despite substantial increases in the scope and magnitude of biodiversity conservation and ecological restoration, there remains ongoing degradation of natural resources that adversely affects both biodiversity and human well-

Nature and Culture

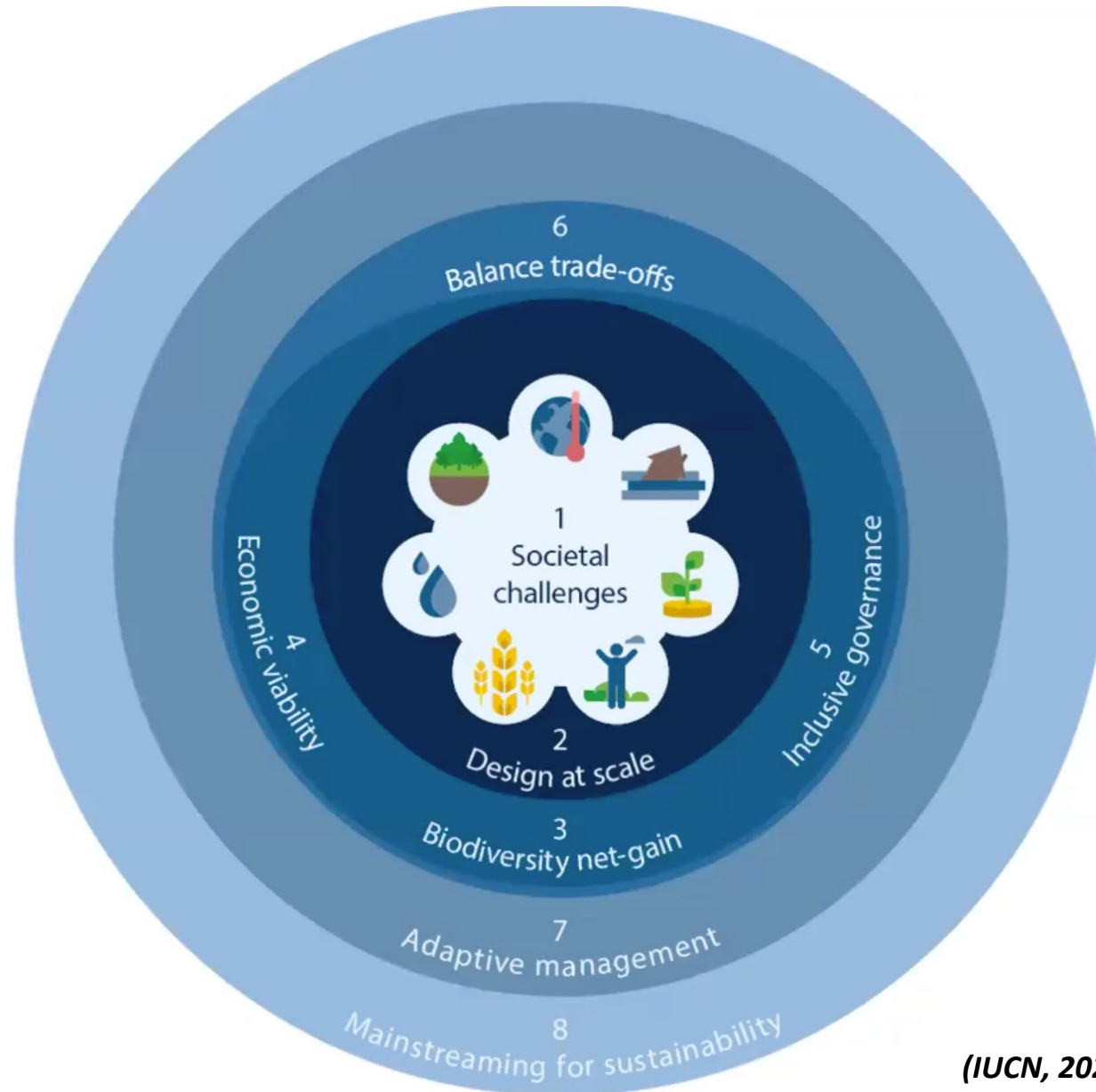


Abel Rodriguez, Fundación Tropenbos

The NbS operational framework

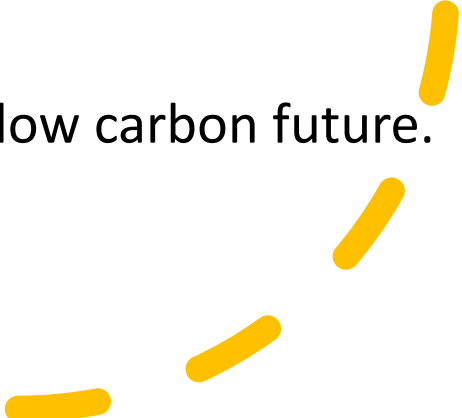


The IUCN Global Standard



(IUCN, 2020)

Key contributions of Nature-based Solutions

- Move from conservation interventions to the SDG agenda.
 - Based on transdisciplinary knowledge and knowledge co-creation.
 - Understand multiple value of nature and culture.
 - Include safeguarding Nature: Nature-positive solutions / Biodiversity net gains.
 - Include safeguarding society.
 - Recognize the importance of high-quality interventions.
 - Rethink financing / value, beyond market-based approaches.
 - Identify synergies and tradeoffs.
 - Provide the best approach to transition to a low carbon future.
 - Avoid potential perverse impacts.
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GRACIAS

Angela.Andrade@iucn.org
aandrade@conservation.org