

Wise Use of Wetlands as Nature-based Solutions (NbS)

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What are wetlands?



Wetlands ecosystems can be found from the mountains to the coast where it is not deeper than 6 metres at low tide.



Inland Wetlands

Lakes, marshes, peatlands, rivers, streams and aquifers.



Coastal Wetlands

Mangroves, tidal flats, sea grass beds and coral reefs.



Human-made Wetlands

Rice fields, fish ponds, reservoirs, ditches and canals.



Wetlands provide ecosystem services that safeguard lives and livelihoods

*Flood regulation
Water purification*



Coastal defence



*Water provision
Water storage*



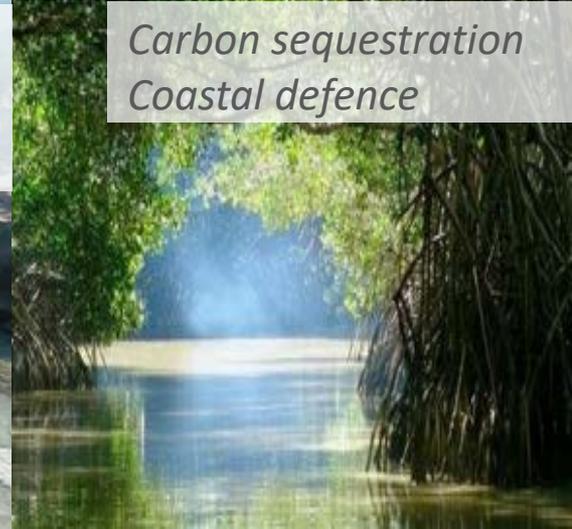
*Fisheries,
livelihoods*



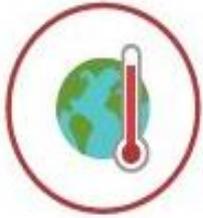
*Water conveyance
and navigation
Cultural services*



*Carbon sequestration
Coastal defence*



Nature-based Solutions in wetlands can address societal challenges



Climate change

Food security

Water security

Human health

Socioeconomic development

Disaster risk reduction

Ecosystem degradation & biodiversity loss

What are Nature-based Solutions?

IUCN defines Nature-based Solutions as:
“actions to protect, sustainably manage and restore natural or modified ecosystems, that address societal challenges (e.g. climate change, food and water security or natural disasters) effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”



What is the scope of Nature-based Solutions?



Nature-derived
solutions



Nature-inspired
solutions



Nature-based
solutions

NbS in wetlands can be combined with other approaches



Hybrid approaches, utilizing a combination of natural and grey infrastructure

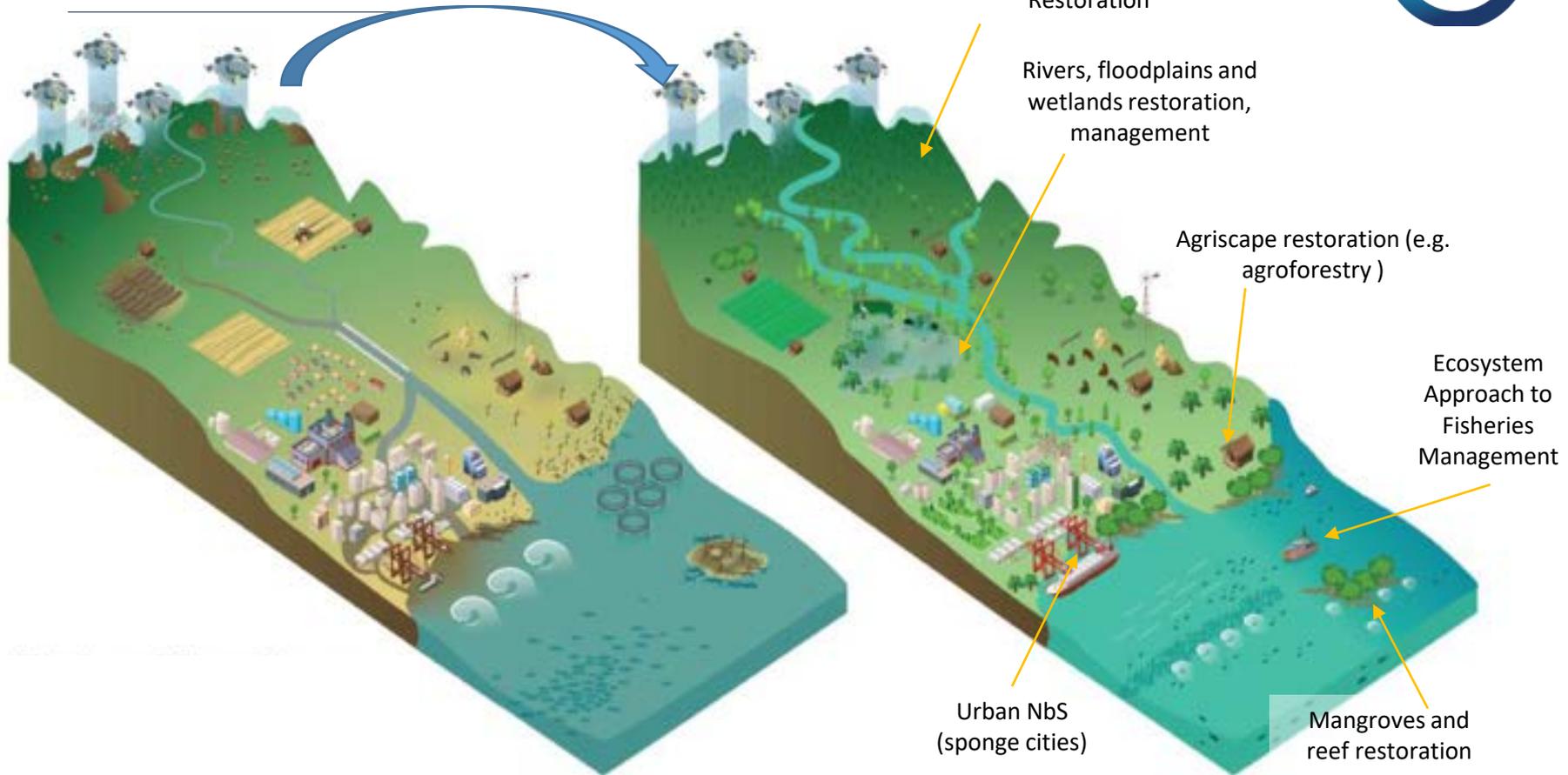


Natural infrastructure



Grey infrastructure

Applying NbS at a basin-level scale



Benjakitti Park, Bangkok

- Urban NbS in Bangkok
- Restoration of land formerly owned by the Tobacco Authority of Thailand
- Expansion of a public park to develop a multi-functional wetland
- NbS criteria:
 1. Societal challenges: human health, disaster risk reduction
 3. Biodiversity net gain
- Funded by the Australian Water Partnership



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NEWS BANGKOK LIFESTYLE

**A REVIEW OF BANGKOK'S NEW
WETLAND PARK**

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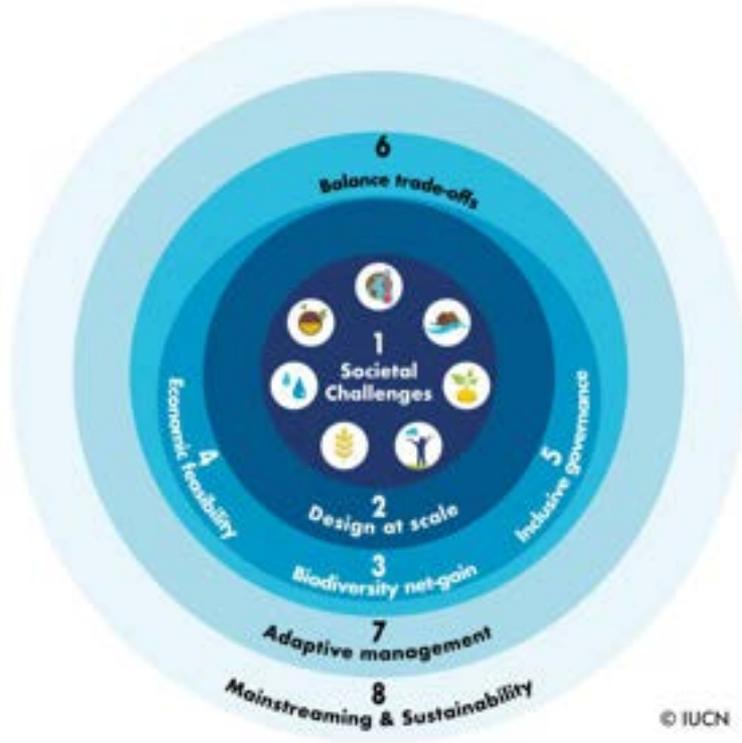
Kaper Estuary, Laemson Marine National Park, Kraburi Estuary, Thailand

- Unique transboundary mangrove wetland
- Vulnerability Assessment conducted with local communities:
 - Coral reefs at risk- affecting local fisheries
 - Erosion threatening property
 - Increased storm intensity- infrastructure damage
- Developing a site Management Plan with climate adaptation options:
 - Restoring mangroves and seagrass
 - Reforestation in upstream watersheds
 - Promoting alternative livelihoods



A global standard to facilitate NbS

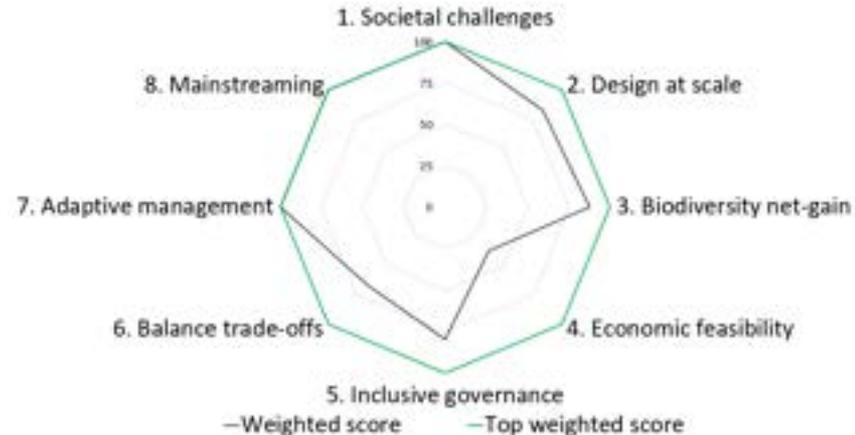
- A **facilitative standard** for design, verification and scaling up of NbS
- Based on knowledge co-creation: conservation science, social science, traditional knowledge
- ‘Crowd-sourced’ drafts through two rounds of open consultation, 800+ people across 100 countries, 1000’s of comments, each comment and response tracked



What does the standard look like?

1. A user-friendly booklet containing the 8 criteria and 28 associated indicators
2. A background document with scientific grounding, guidance, means of verification and suggested tools.
3. A self-assessment tool in the form of an excel sheet where users can enter if they have fully, partially or not met individual indicators. Output is percentage match, traffic light indications of compliance strength and a circumflex chart highlighting gaps.

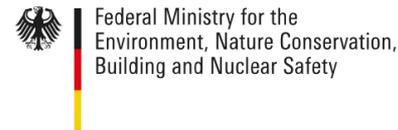
Criterion	Absolute Criterion Score	Maximum Criterion Score	Weighted score	Top weighted score	Your Criterion %age
1. Societal challenges	6	6	100.0	100.0	↑ 100.0%
2. Design at scale	5	6	83.3	100.0	↔ 83.3%
3. Biodiversity net-gain	7	8	87.5	100.0	↑ 87.5%
4. Economic feasibility	3	8	37.5	100.0	↓ 37.5%
5. Inclusive governance	8	10	80.0	100.0	↔ 80.0%
6. Balance trade-offs	4	6	66.7	100.0	↔ 66.7%
7. Adaptive management	6	6	100.0	100.0	↑ 100.0%
8. Mainstreaming	6	6	100.0	100.0	↑ 100.0%
Total	45	56	655.0	800.0	↔ 81.9%



NbS in wetlands are gaining attention on the world stage



- The Ramsar Convention organised a side event at **UNFCCC COP26** titled: “Financing wetlands conservation and restoration for climate benefits”
 - Underscored the need to **scale-up financing from the public and private sector** to strengthen the conservation and restoration of wetlands and address climate change
 - Wetlands International Japan led a side event on “Nature-based Solutions in Asia: Role of wetlands for climate change and disaster risk reduction” at the **IUCN World Conservation Congress**.
 - Panellists shared experiences on NbS implementation in wetlands throughout Asia
- Funding available for **upscaling NbS**



A scenic view of a mangrove forest at sunset. The foreground is dominated by a large, gnarled tree root, likely from a mangrove tree, which is dark and textured. The background shows a body of water, possibly a bay or lagoon, with a small boat visible in the distance. The sky is filled with soft, golden light from the setting sun, with some clouds catching the light. The overall mood is serene and contemplative.

Questions?