



IUCN support, tools and data for GBF headline indicators

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IUCN roles across GBF headline indicators

GOAL A: The integrity, connectivity and resilience of all ecosystems are **maintained, enhanced, or restored**, substantially increasing the area of natural ecosystems by 2050.

GOAL B: maintain and enhance nature's contributions to people.

Custodian / Co-custodian

- A.1 – Red List of Ecosystems (RLE)
- A.3 – Red List Index (RLI)
- T 6.b – IAS legislation (SDG 15.8.1 equivalent)

Based on:
Ecosystems
Species

Global Data Provider

- A.2 – Extent of natural ecosystems (GET & Global Ecosystem Atlas)
- T 3.1 – Protected areas & OECMs (KBA data; WDPA contribution)
- T 6.1 – IAS rate of establishment (GRIIS / ISSG data reporter)

Technical Guidance & Tools

- Red List, sRedList, STAR, GET, KBA
- Standards: OECMs, NbS, Connectivity, Green List
- Support to NBSAP alignment, indicator development, capacity building

Ecosystem approach across the GBF

GOAL A: The integrity, connectivity and resilience of all ecosystems are **maintained, enhanced, or restored**, substantially increasing the area of natural ecosystems by 2050.

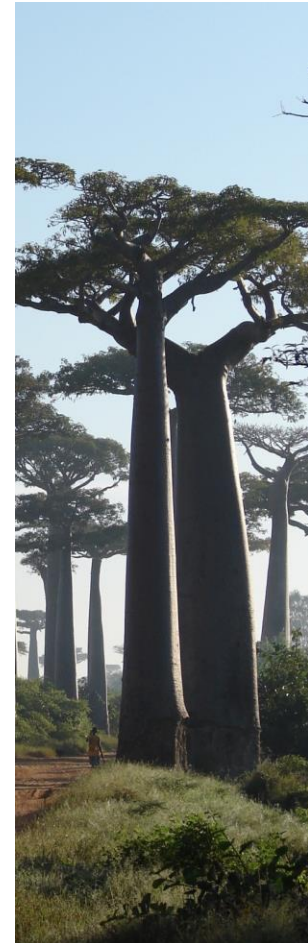
GOAL B: maintain and enhance nature's contributions to people.

Multiple targets address ecosystems, especially Target 1, Target 2 (restoration), Target 3 (30x30)

Ecosystem-related headline indicators make a **set**

- **A.1** Red List of Ecosystems
- **A.2** Extent of natural ecosystems
- **B.1** Services provided by ecosystems
- **T2.1** Area under restoration
- **T3.1** Coverage of protected areas and OECMs

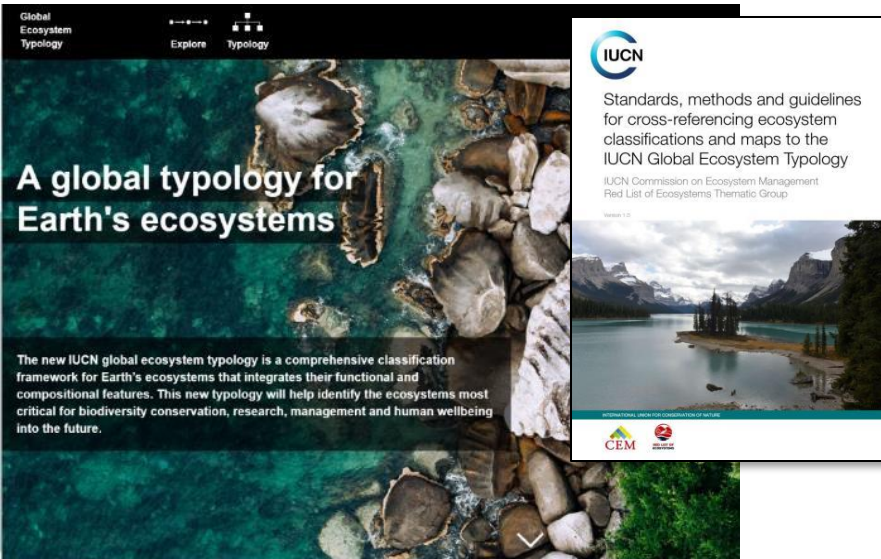
...If reported consistently across indicators and countries:
Global Ecosystem Typology



Global Ecosystem Typology

- Supports consistent global reporting across indicators and countries
- **Does not replace national data on ecosystems**
- Harmonizes existing national data by cross-referencing (to level 3)

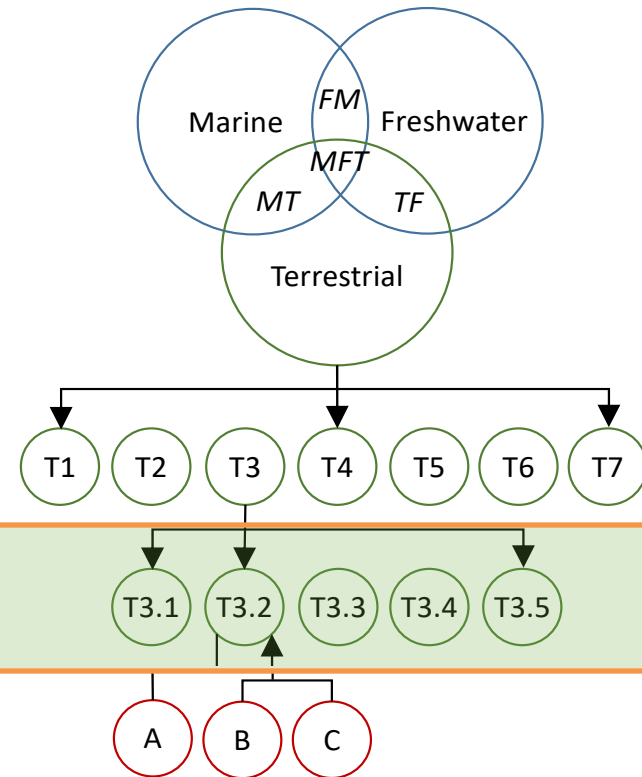
<http://global-ecosystems.org>



1. Realms

2. Biomes

3. Ecosystem functional groups



National ecosystem types



Keith et al. (2022) *Nature*

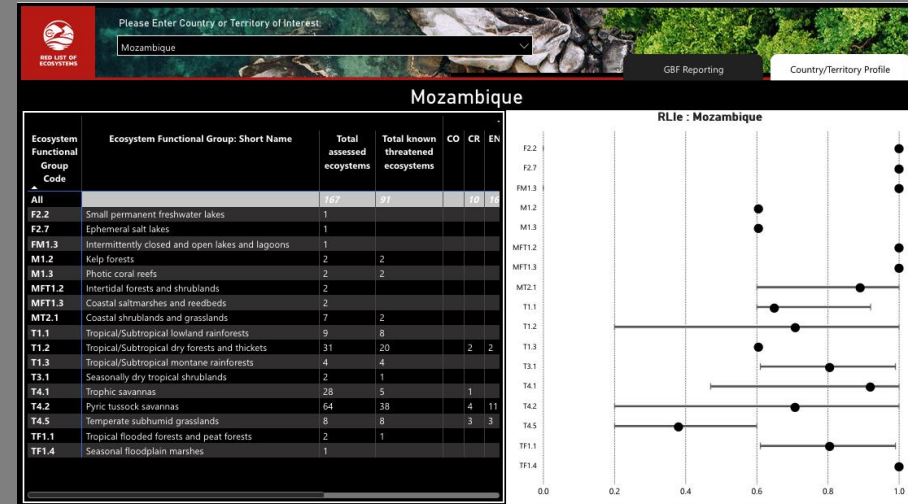
A.1 Red List of Ecosystems



- **Goal A:** The **integrity, connectivity** and **resilience** of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of **natural ecosystems** by 2050.
 - The aggregate risk of collapse of sets of ecosystem types, reported by ecosystem functional group (IUCN Global Ecosystem Typology)
 - Risk of ecosystem collapse is a function of change in ecosystem area & integrity
 - Red List of Ecosystems is IUCN's global standard

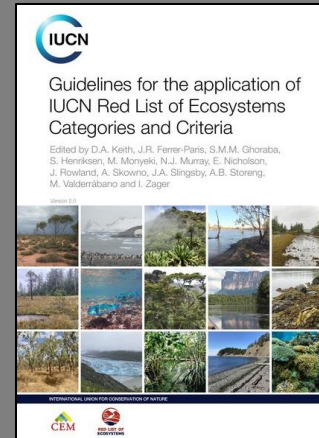
Data sources

- National Red List of Ecosystems assessments
- Red List of Ecosystems inventory (global, regional and national, ~5000 assessments)
<https://iucn.org/red-list-ecosystems-inventory>
- Beta database on the Red List of Ecosystems website: iucnrl.org (~500 assessments)



Support available to Parties & focal point

- iucnrle.org
- IUCN Guidelines
- Free online courses:
 - FutureLearn
 - IUCN Academy



Future Learn Subjects ▾ Courses ▾ Degrees For Business

Online Courses / Nature & Environment

IUCN Red List of Ecosystems: The Global Standard for Assessing Risks to Ecosystems

This course introduces the IUCN Red List of Ecosystems and its successful use and policy impact through real-world case studies.

★★★★★ 4.6 (80 reviews) 7,683 enrolled on this course

The image is a screenshot of a course page on the Future Learn website. At the top, there is a navigation bar with the Future Learn logo and links for Subjects, Courses, Degrees, and For Business. Below this is a breadcrumb trail: Online Courses / Nature & Environment. The main heading of the course is 'IUCN Red List of Ecosystems: The Global Standard for Assessing Risks to Ecosystems'. Below the heading is a short description: 'This course introduces the IUCN Red List of Ecosystems and its successful use and policy impact through real-world case studies.' Further down, there is a star rating of 4.6 based on 80 reviews, and a note that 7,683 people are enrolled in the course. At the bottom of the screenshot is a photograph of a healthy coral reef with various types of coral and several yellow and black striped fish swimming in the water.

A.1 Red List of Ecosystems

A.2 Extent of natural ecosystems



- The extent of natural ecosystems as a proportion of overall area, tracked over time.
- Element of Goal A refers to:
 - *“substantially increasing the area of natural ecosystems by 2050”.*
- Elements of Target 1 that refer to:
 - *“addressing land and sea use change”,*
 - *“to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030”.*
- The indicator can be disaggregated into different natural ecosystem types.

Data sources

- National ecosystems maps
- National Ecosystems Accounts
- Global Ecosystems Atlas
- Red Lists of Ecosystems
- Global Ecosystem Typology
- Land cover data (global or national)



GLOBAL
ECOSYSTEMS
ATLAS



Global
Ecosystem
Typology



WorldCover



System of
Environmental
Economic
Accounting



RED LIST OF
ECOSYSTEMS

A.2 Extent of natural ecosystems



Support available to Parties & focal point

- UN Standards for Ecosystem Accounting
- Guidelines for Developing National Ecosystem Maps (*open for comment*)
- Global Ecosystems Atlas
 - Global Synthesis Map (<https://globalecosystemsatlas.org/atlas>)
 - Data Catalogue (<https://globalecosystemsatlas.org/data/sources-catalogue>)
 - Technical Resources (<https://github.com/Global-Ecosystems-Atlas#resources>)
- More tailored support from the Atlas
 - Country Engagement Specialist: Falko Buschke (fbuschke.ext@geosec.org)

A.2 Extent of natural ecosystems





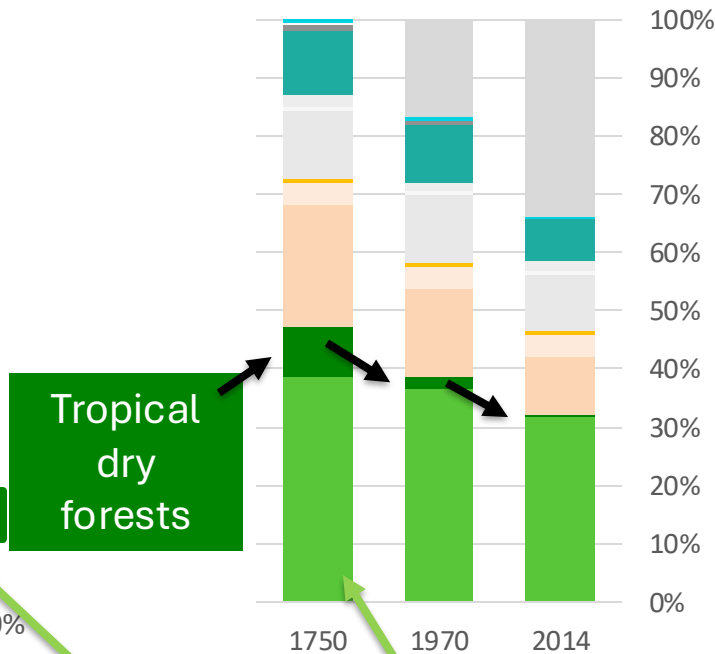
Colombia: indicative headline indicators



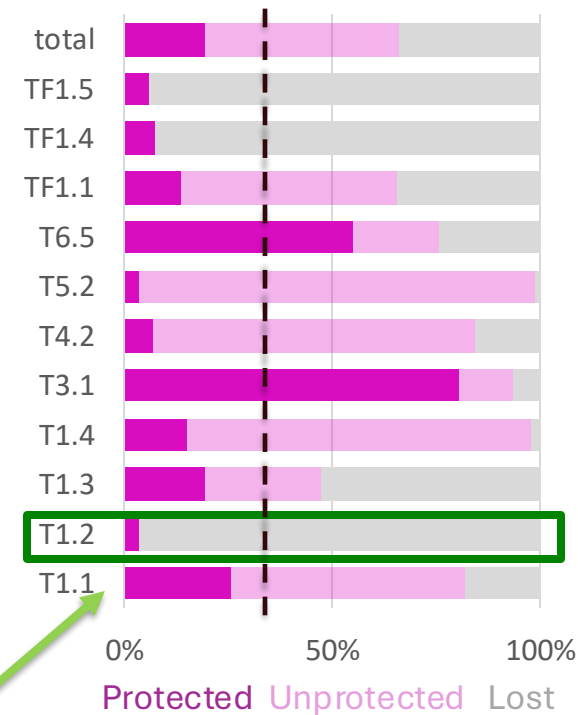
A1 Red List of Ecosystems



A2 extent of natural ecosystems



3.1 protection



Tropical lowland rainforests

A.3 Red List Index

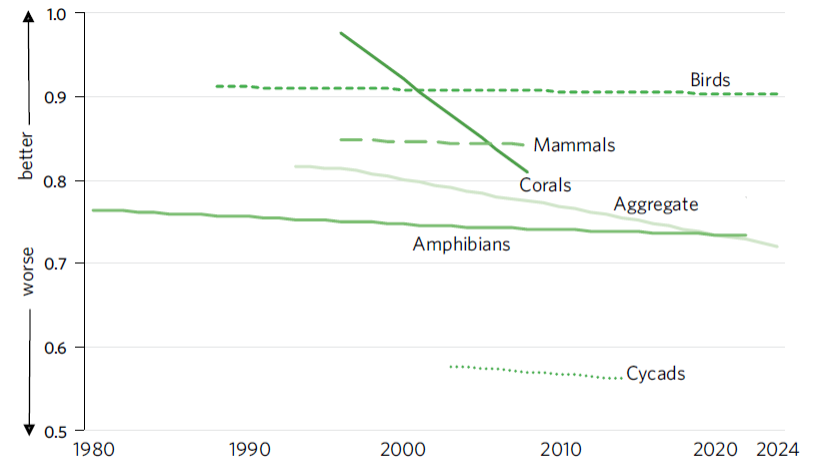


- The aggregate extinction risk of a set of comprehensively assessed species groups, tracked over time
- Element of Goal A refers to:
 - *“Human induced extinction of known threatened species is halted, and, by 2050, the extinction rate and risk of all species are reduced tenfold”*
- Elements of Target 4 that refer to:
 - *“Ensure urgent management actions to halt human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk”*
- The indicator can be disaggregated into different species groups (taxonomic, thematic), threats, & habitats
- Also links to Species Threat Abatement & Restoration (STAR) metric

Data sources

- IUCN Red List of Threatened Species (<https://www.iucnredlist.org/>)
- National and Regional Red Lists (<https://nationalredlist.org/national-red-list-project>)
- Linked through SISconnect tool – for endemics, global and subglobal Red Lists are the same

Red List Index of species survival, 1980–2024



Note: A Red List Index value of 1.0 means that all species are categorized as of "Least concern"; hence, none are expected to become extinct in the near future. A value of zero indicates that all species have gone extinct.

A.3 Red List Index



Support available to Parties

Guidance documentation

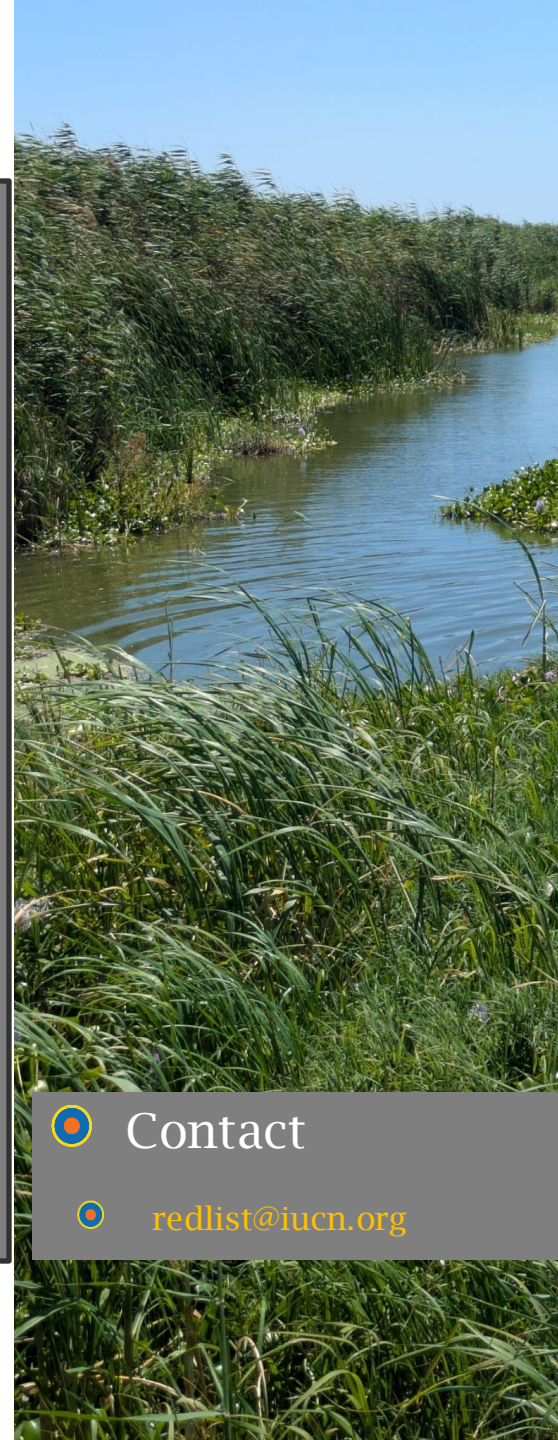
- Red List Guidelines (<https://www.iucnredlist.org/resources/redlistguidelines>)
- Red List National & Regional Guidelines (<https://www.iucnredlist.org/resources/regionalguidelines>)
- Red List Index National & Regional Guidelines (<https://www.iucnredlist.org/resources/bubb2009>)
- Indigenous & Local Knowledge (<https://www.iucnredlist.org/resources/ilk>)
- Appropriate Use (<https://www.iucnredlist.org/resources/guidelines-for-appropriate-uses-of-red-list-data>)
- sRedList Tool (<https://sredlist.eu>)
- STAR Guidelines (<https://www.iucnredlist.org/assessment/star>)

Training materials

- Red List Training Course (<https://www.iucnredlist.org/resources/online>)
- In-person training (<https://www.iucnredlist.org/resources/workshops>)

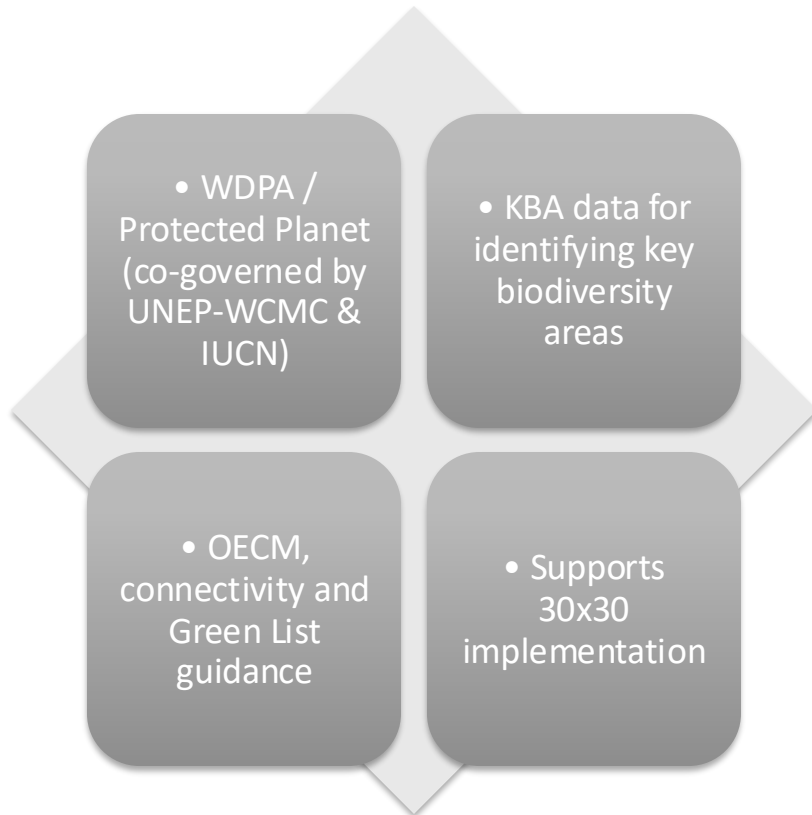
Contact

redlist@iucn.org



Global Data Provider

3.1 Protected Areas & OECMs



6.1 & 6.b Invasive Alien Species



6.1 Rate of IAS Establishment:

- Data from GRIIS via IUCN SSC ISSG
- GEO BON formal custodian

6.b IAS Legislation:

- IUCN custodian for SDG 15.8.1 equivalent
- Templates & guidance for prevention and control

Additional Support



- NbS Standard, Restoration Barometer, RITTE



- Support for Targets 2, 18, 19, Goal D



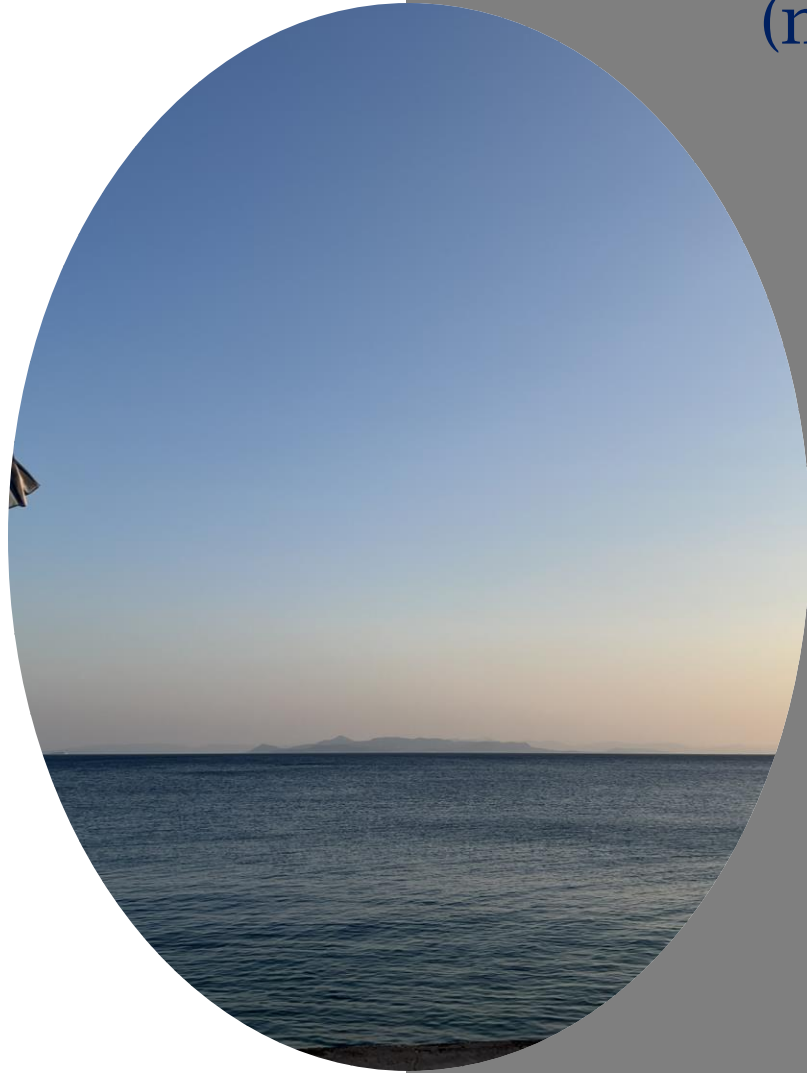
- Integration into NBSAP revision

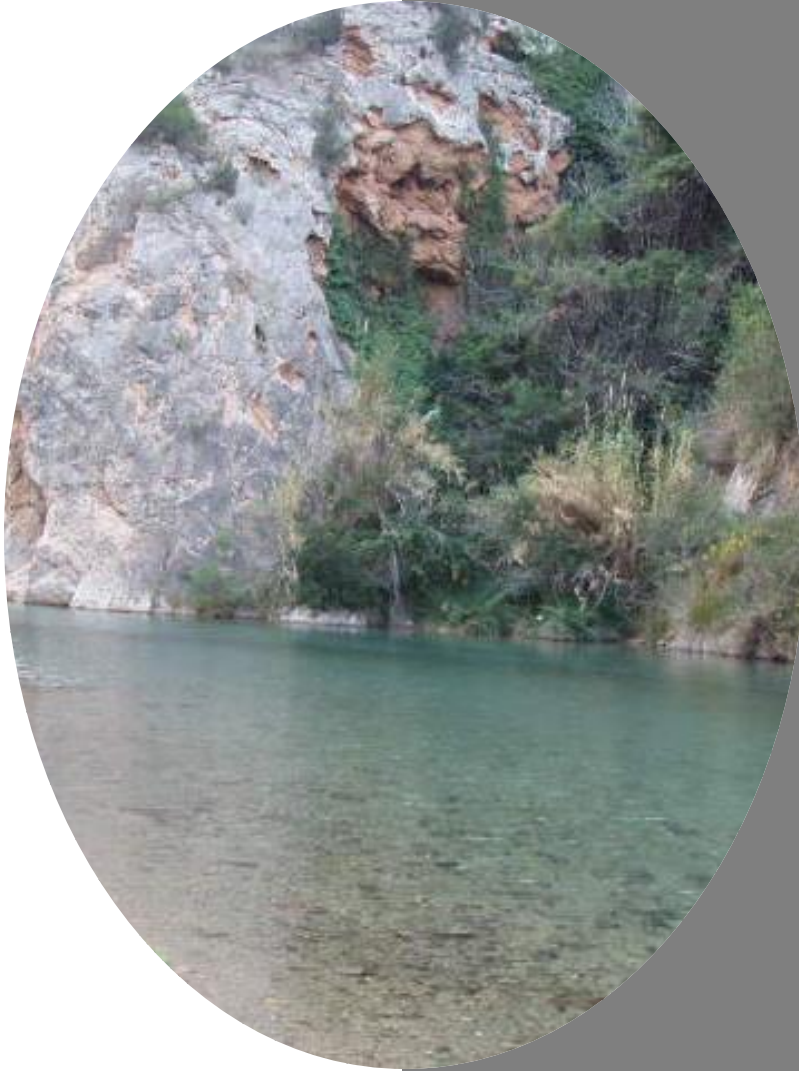


- National indicator design support

CBD-PANORAMA Interoperability (non-indicator work)

- Collaboration under the CBD-IUCN MOU to connect PANORAMA – a global platform of verified, replicable conservation and sustainability solutions – with CBD digital platforms (website, CHM, national CHMs).
- PANORAMA widget already live on all Bioland national CHMs.
- Joint effort to apply GBF Target tagging to all PANORAMA solutions.
- Priority: data-level interoperability so solutions appear in CHM search and GBF target pages.
- Exploring AI-supported tagging and CBD's emerging GBF taxonomy.





IUCN support

Parties can expect:

- Science-based global standards
- Open data tools and technical guidance
- Support for national monitoring
- Collaboration via IUCN Commissions