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Biodiversity fundamentals and the Proteus Partnership

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ArcelorMittal

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ABOUT THIS TRAINING

- This training course was developed by UNEP-WCMC through the Proteus Partnership. It draws on material developed under the Proteus Partnership, and with reference to material co-developed by UNEP-WCMC and other organisations specifically for the extractives sector.

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- The views expressed in this training course are those of the authors and do not necessarily reflect the views of the United Nations Environment Programme. We regret any errors or omissions that may have been unwittingly made.

TRAINING OBJECTIVES

At the end of the training you will be familiar with:

- Drivers for improved biodiversity management
- The Proteus Partnership, its objectives and what resources it makes available to you
- How to access Proteus support
- How to access and interrogate key biodiversity datasets through the IBAT tool

AGENDA

- Setting the scene: drivers for biodiversity management
- Overview of the Proteus Partnership and its objectives
- Resources available through Proteus
- An introduction to IBAT

Setting the scene

Bálint Ternyik, Programme Officer, UNEP-WCMC

NATURE AND BIODIVERSITY

NATURE "The nonhuman world, including coproduced features, with particular emphasis on living organisms, their diversity, their interactions among themselves and with their abiotic environment" (IPBES, 2019)

- Biodiversity, the biosphere, ecosystem functioning, biomes
- Geology, water, climate
- Ecological, evolutionary and biogeochemical processes
- Natural resources, natural capital and natural assets

BIODIVERSITY "The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems" (CBD, 1992)

Nature under multiple, sustained, accelerating pressures

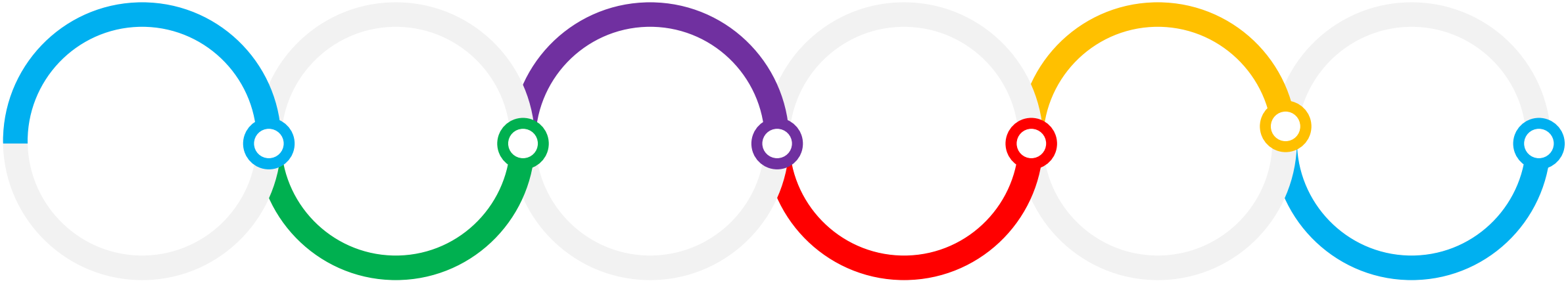
Ecosystem services in decline

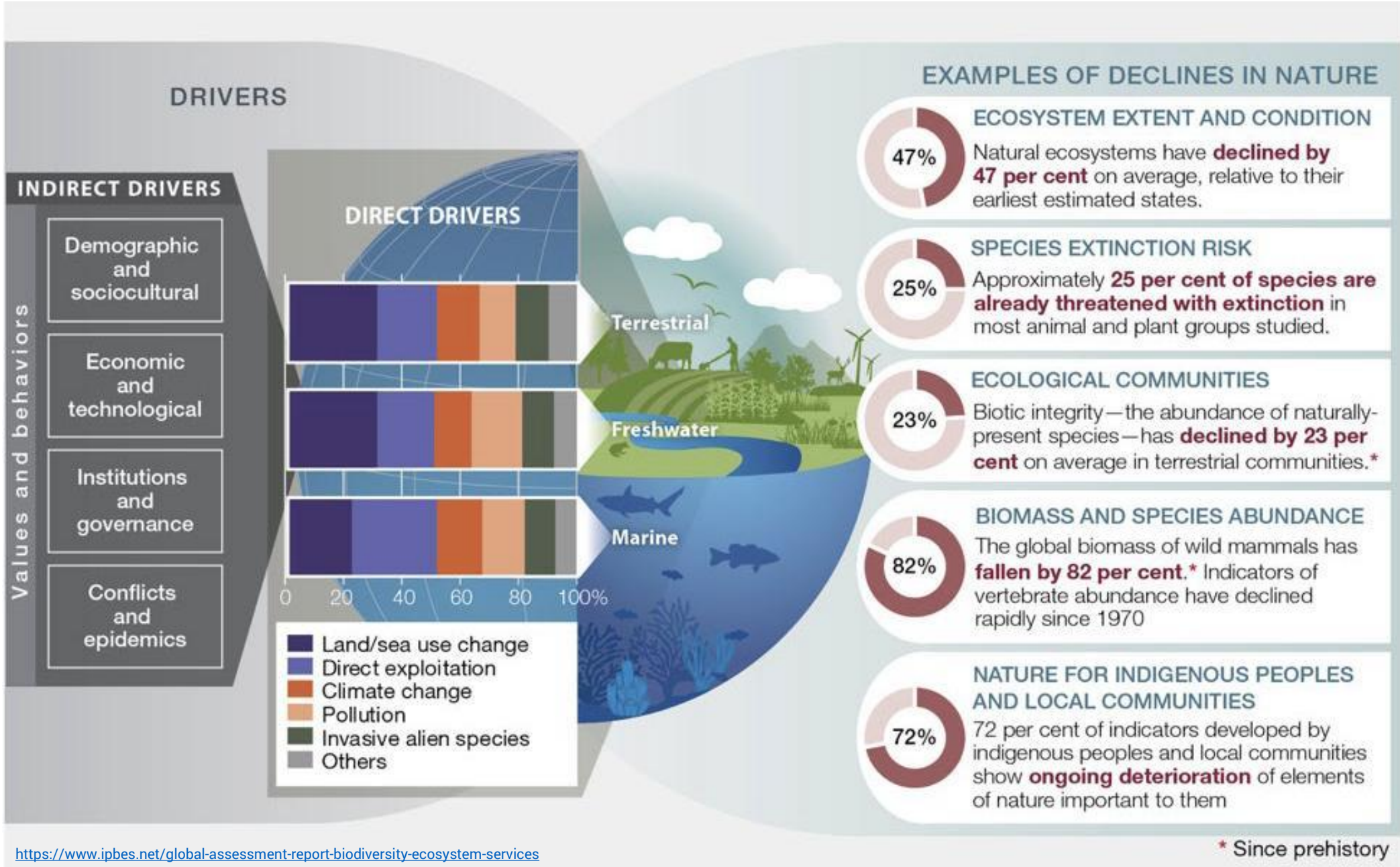
Resource extraction intensifying

Economic growth drawing down on natural capital

Window of opportunity to address climate crisis closing

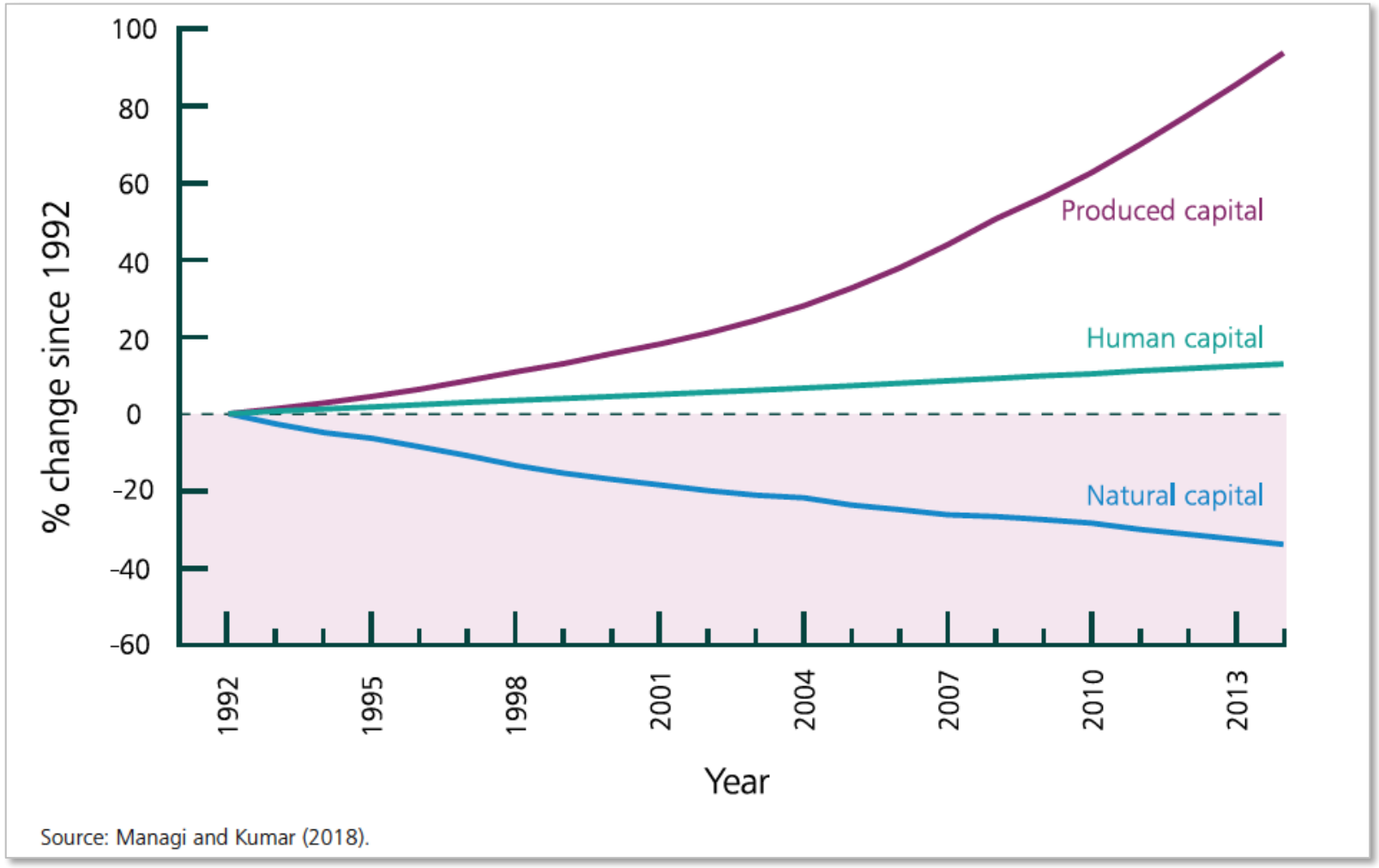
Nature loss creating real business risk





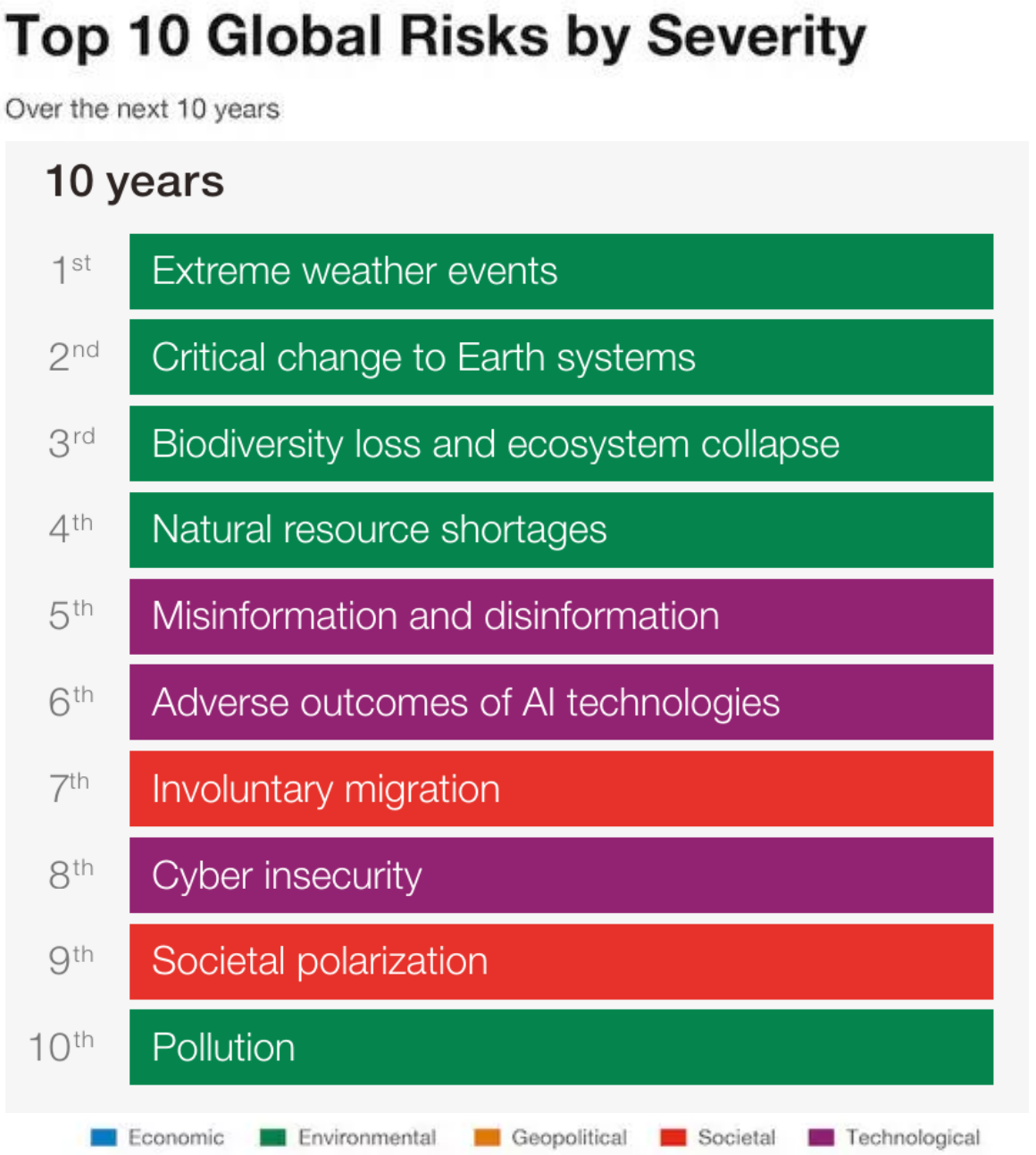
https://www.ipbes.net/global-assessment-report-biodiversity-ecosystem-services

DASGUPTA REVIEW: DECLINE OF NATURAL CAPITAL



Source: Managi and Kumar (2018).

Nature loss as business risk is now well recognised

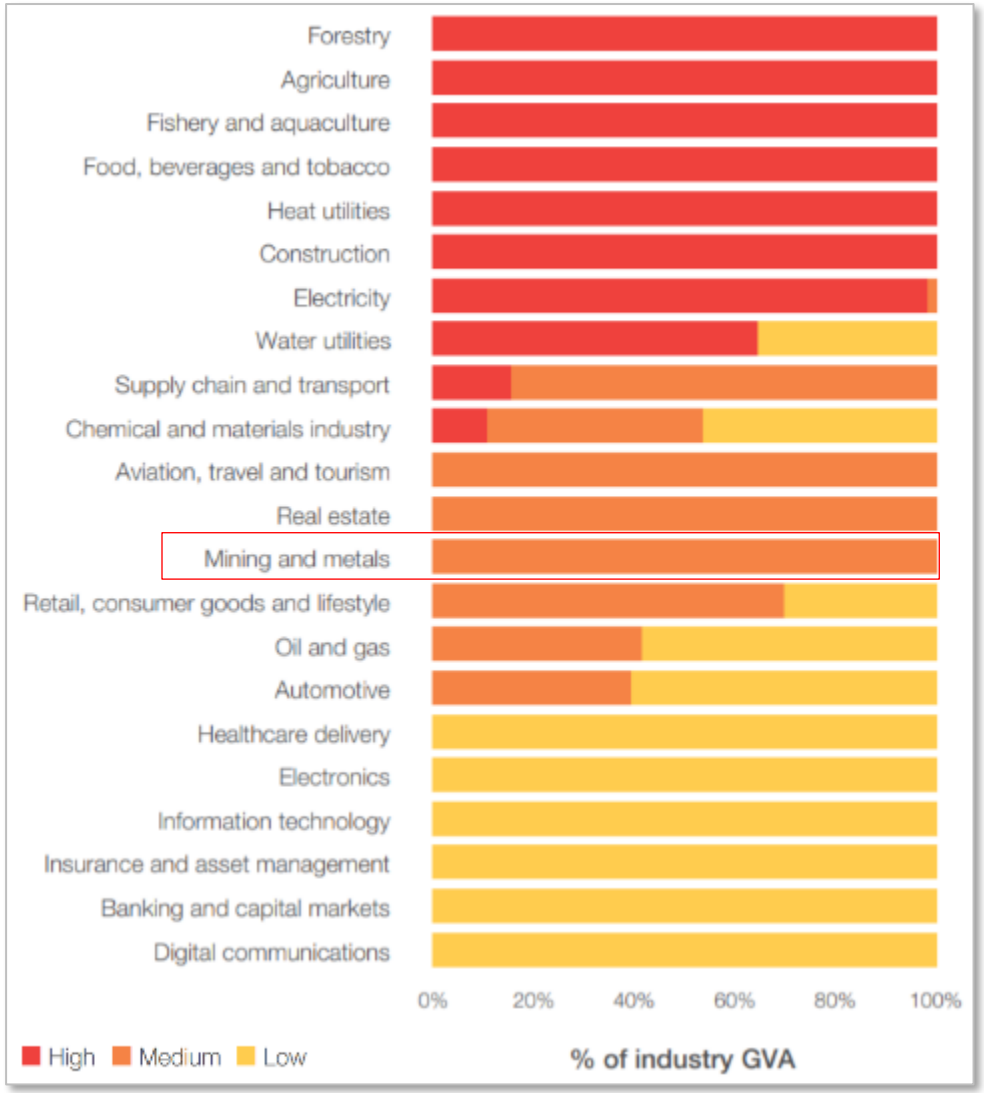


Source: World Economic Forum (2024)

THIS TRANSLATES TO POTENTIAL DISRUPTION FOR BUSINESSES

- Globally, $44 Trillion of economic value generation are at risk from nature loss (50% of Global GDP)

Percentage of direct gross value added (GVA) with high, medium, low nature dependency, by industry



Source: World Economic Forum (2020)

KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

Goal A

Increasing the resiliency of ecosystems, species and genetic diversity

Goal B

Biodiversity is sustainably used and managed

Goal C

Utilisation of genetic resources and digital sequence information

Goal D

Adequate means of implementation (including financial resources and capacity building)

23 action targets under the headings:

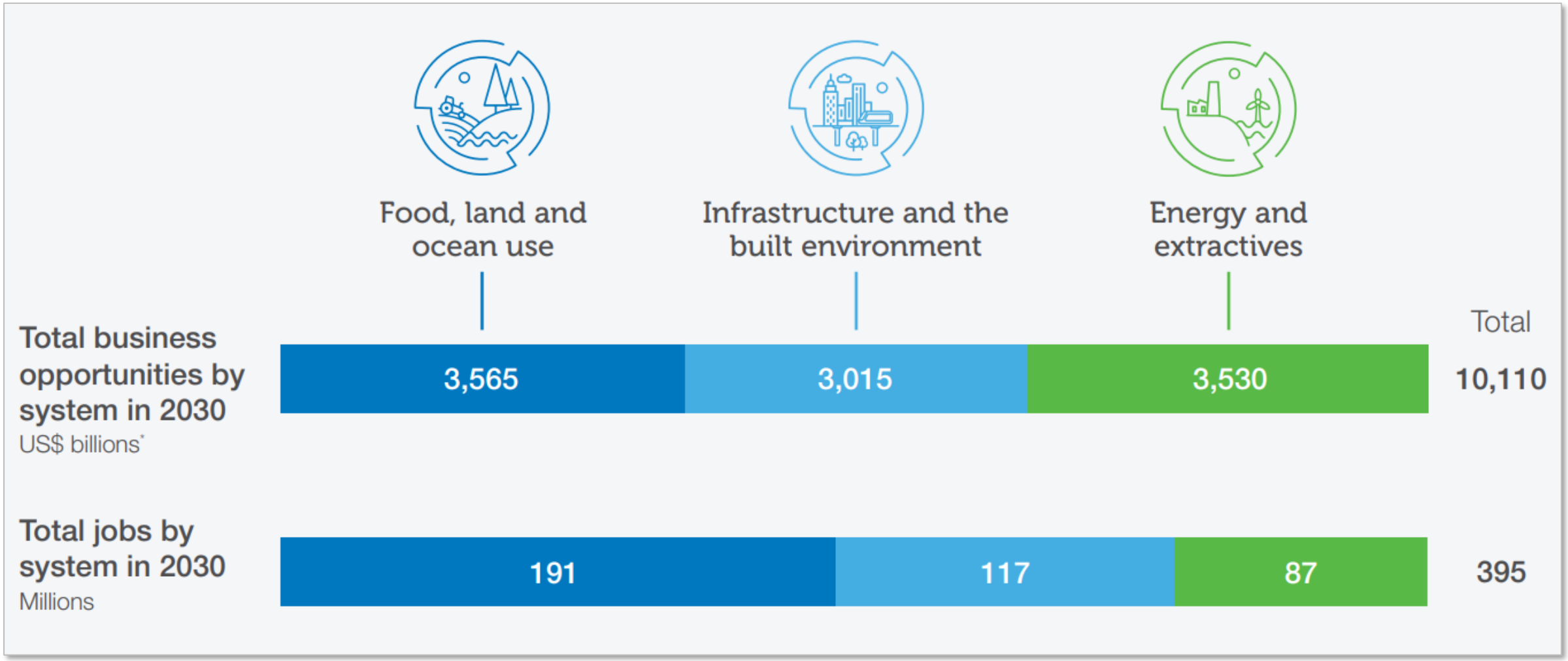
- Reducing threats to biodiversity
- Meeting people's needs through sustainable use and benefit-sharing
- Tools and solutions for implementation and mainstreaming

The entire framework is relevant for business

EMERGING CONSIDERATIONS AND IMPLICATIONS FOR BUSINESS

- Reducing pressures and drivers for change to halt and reverse biodiversity loss
- Opportunities to align business strategies and commitments with global goals
- Mechanisms and data for assessing materiality and supporting disclosure across operations and supply chains
- Emerging regulatory requirements as part of revised ESIAs or permitting processes

A NATURE-POSITIVE TRANSITION PRESENTS BUSINESS OPPORTUNITIES



Source: World Economic Forum (2020)

GOOD BIODIVERSITY MANAGEMENT…

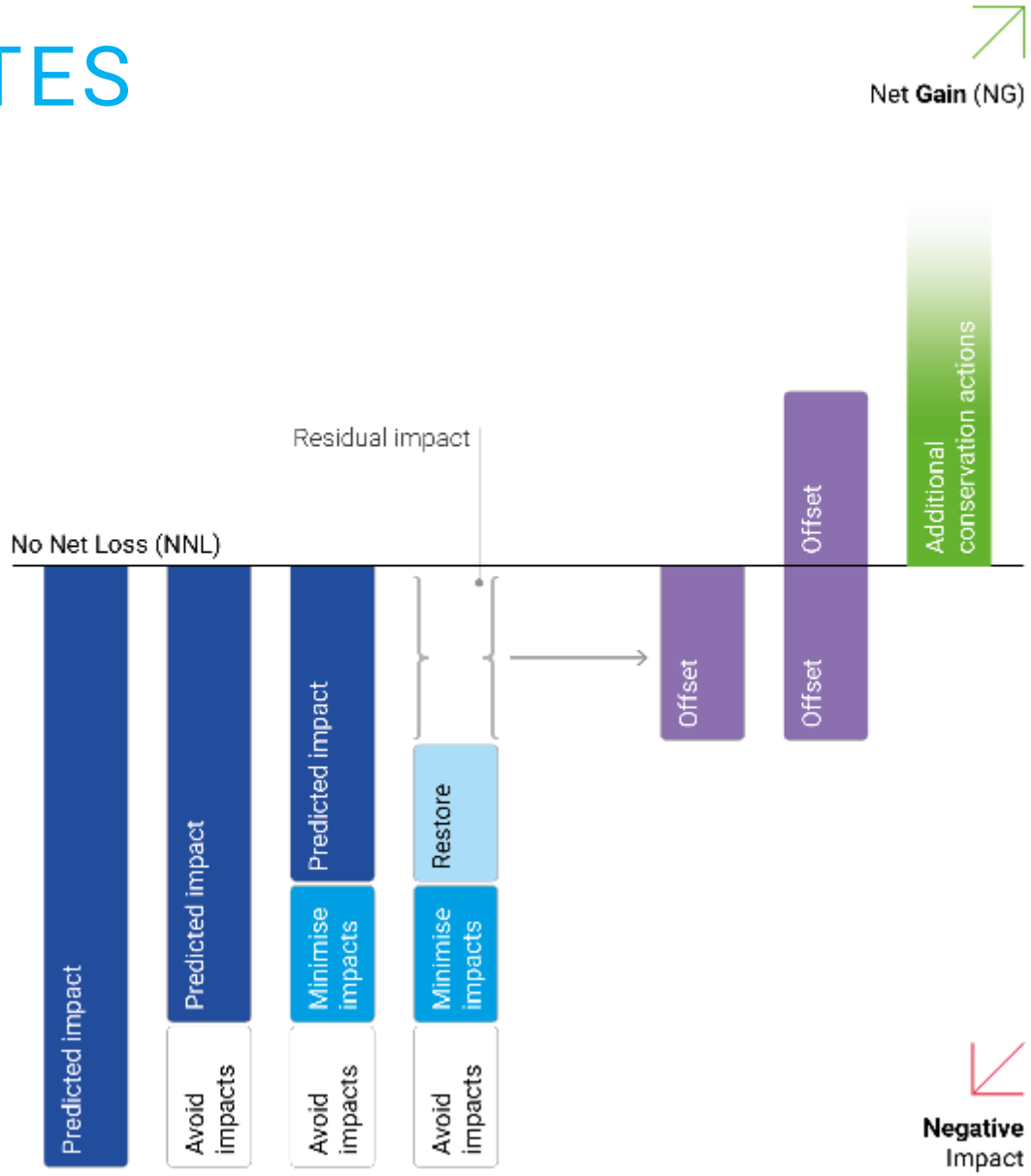
…leads to many benefits for business

- Maintained access to finance
- Continued supply of resources
- Resilient operations
- Supporting regulatory compliance
- Increased/maintained reputation & licence to operate
- Supporting dialogue with indigenous people and communities

MITIGATING IMPACTS AT SITES

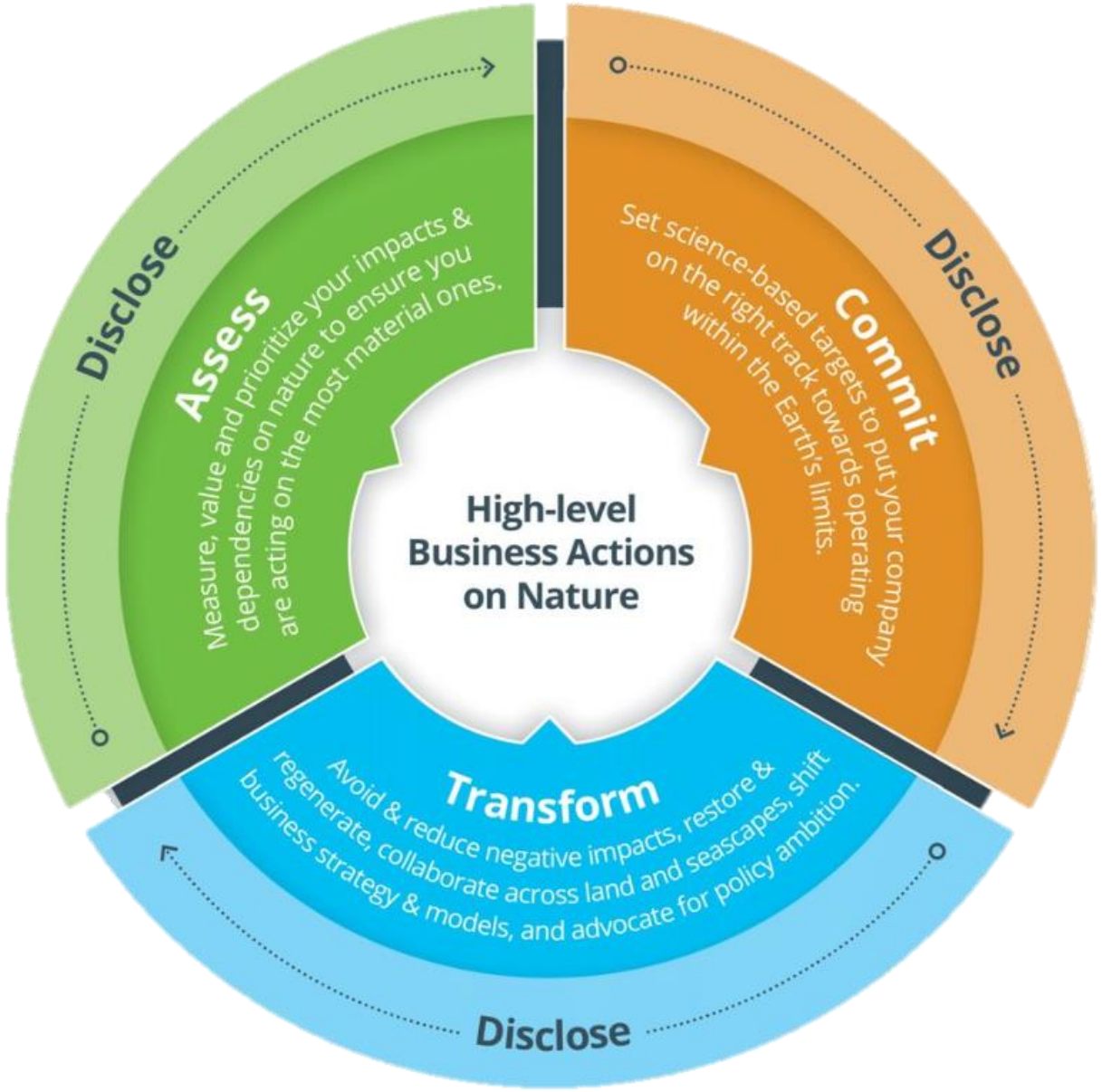
Sequential steps to minimise negative impacts on biodiversity:

1. Avoidance
2. Minimisation
3. Restoration
4. Offsetting



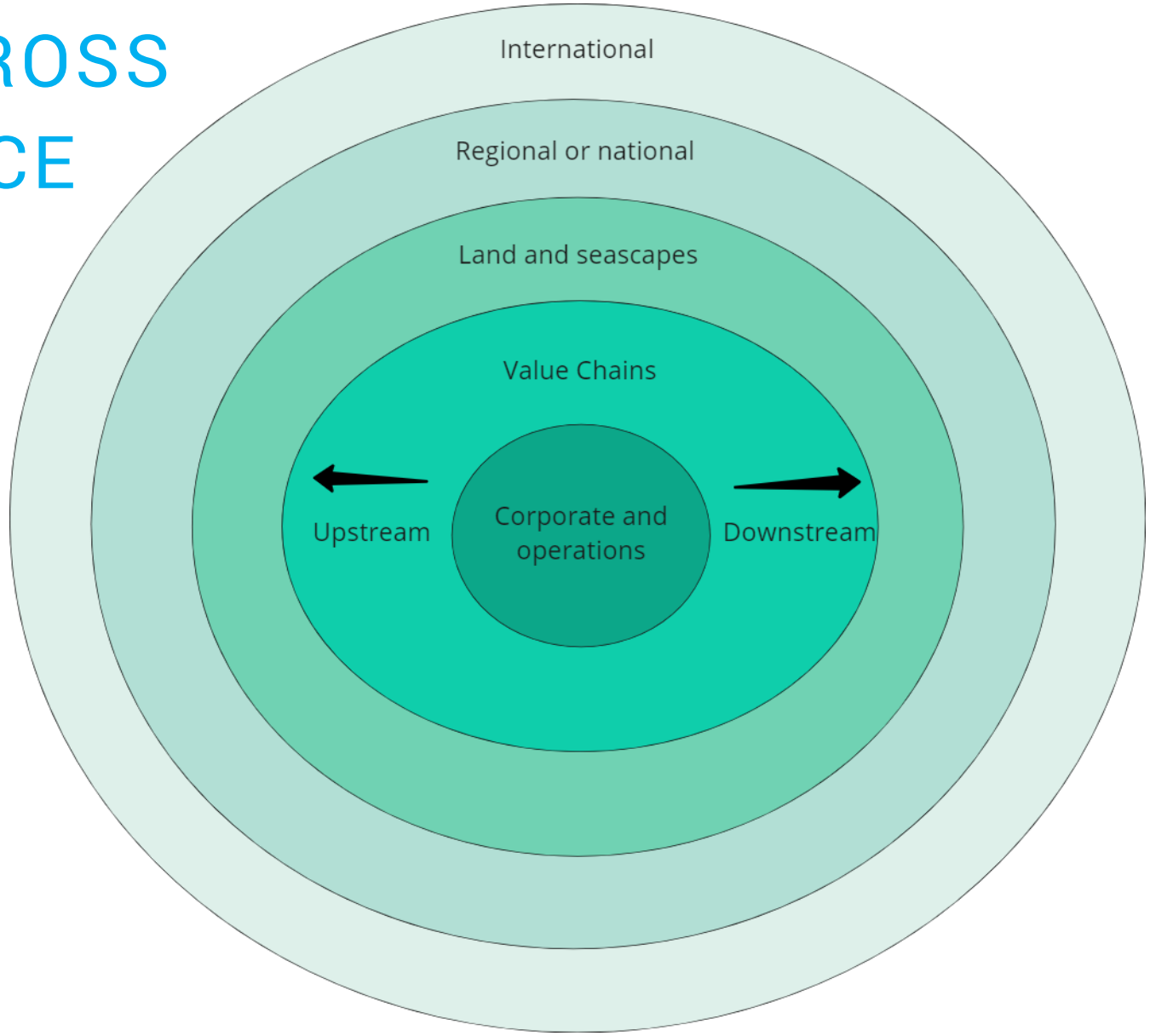
BUSINESS ACTIONS

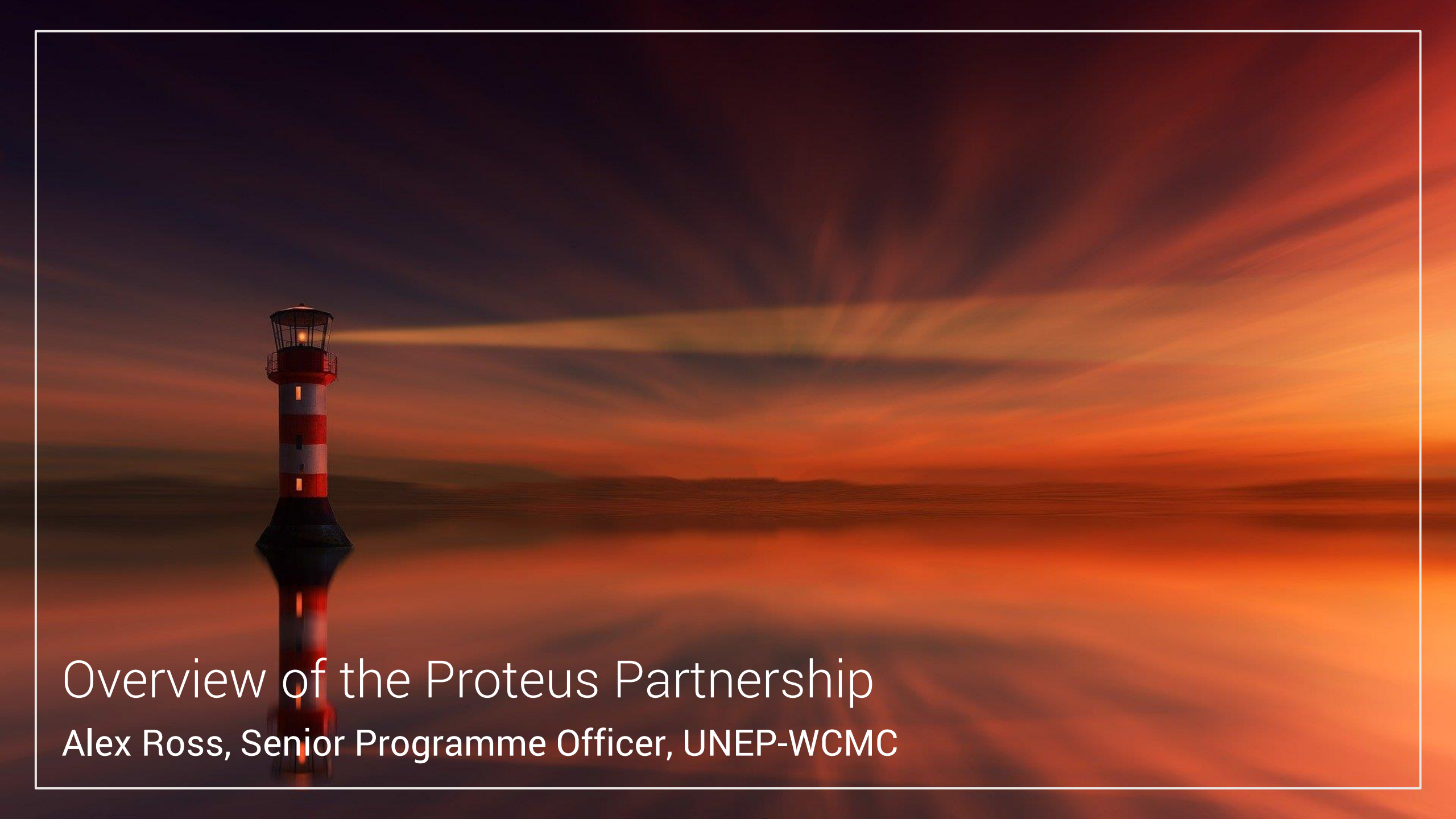
- Assess impacts and dependencies
- Set science-based commitments
- Maintain robust internal policies and standards to achieve net gains
- Use positive influence to amplify efforts



ACTIONS CUTTING ACROSS SPHERES OF INFLUENCE

- To achieve nature-positive outcomes businesses need to act across spheres of control and influence
- Alignment with international goals and advocating for increased ambition





Overview of the Proteus Partnership

Alex Ross, Senior Programme Officer, UNEP-WCMC

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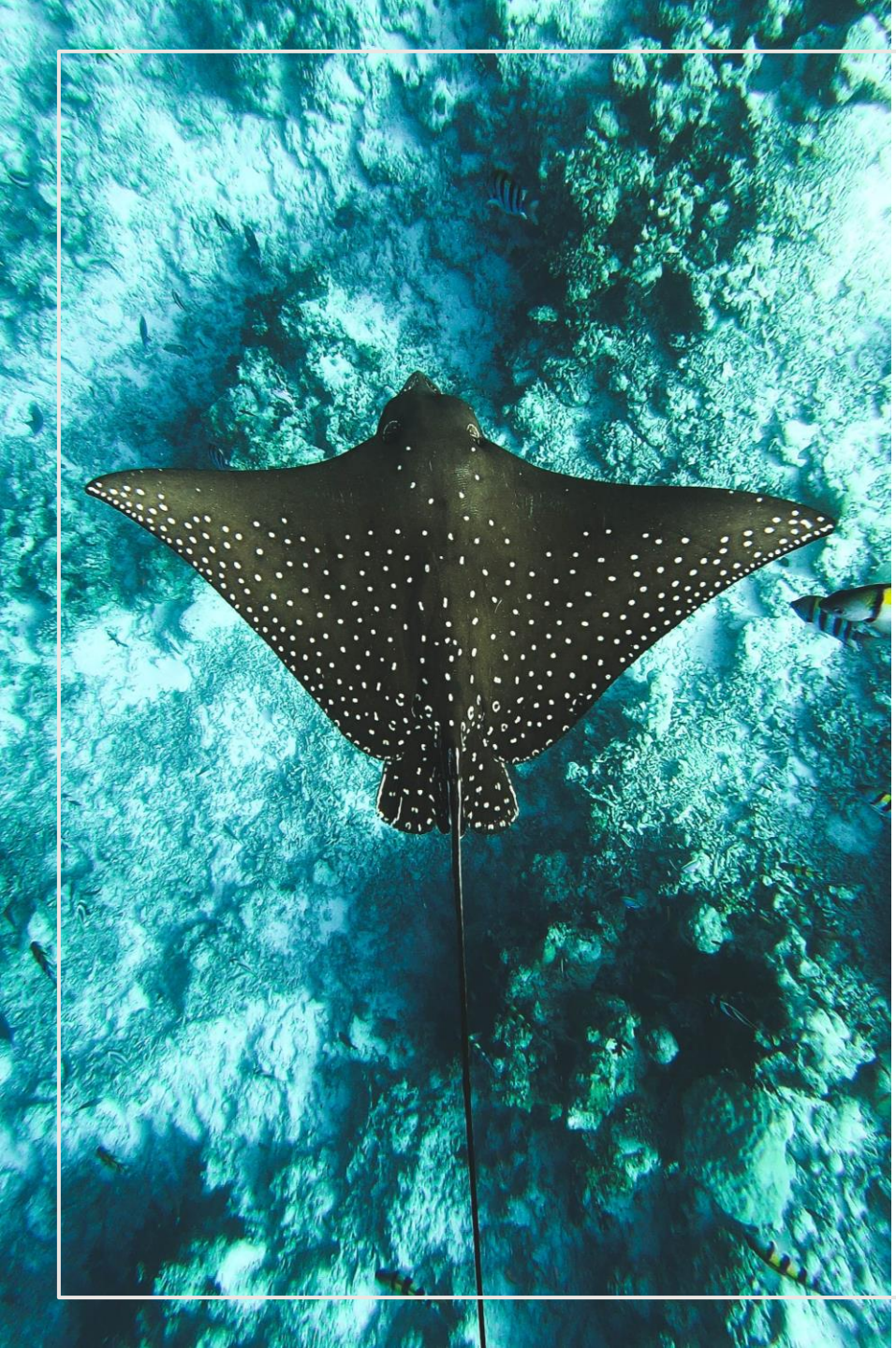
UNEP-WCMC is a centre of excellence on biodiversity working to ensure science, knowledge and insight are at the heart of national and global policy

The Proteus Partnership is a collaboration between UNEP-WCMC and leading businesses supporting companies to contribute towards nature-positive



Our Vision

- The UN Environment Programme World Conservation Monitoring Centre strives for a world living in harmony with nature by 2050

Our Impact Areas

- Nature Conserved – resilient, connected ecosystems and their species are conserved, sustaining all life on Earth
- Nature Restored – Degraded lands, inland waters and the ocean are restored for the benefit of people and nature
- Nature-based Solutions – Public and private sectors make effective use of nature to address sustainable development challenges
- Nature Economy – The world transitions to a nature-positive global economy

PROTEUS – A LONG-TERM COLLABORATION BETWEEN THE PRIVATE SECTOR AND UNEP-WCMC

Vision:

- A planet where business contributes to a clean, healthy, resilient environment for all

Mission:

- Support companies to contribute to nature-positive

GOALS OF THE PARTNERSHIP

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1. Help companies recognise their responsibilities for nature and communicate the business case for its management

2. Accelerate and scale decision support tools and capacity building to help improve corporate performance

3. Strengthen and increase business engagement in the global policy agenda on nature

4. Sustain a viable mutually beneficial partnership through cross-sectoral collaboration

EXAMPLES OF PROTEUS PARTNER NATURE COMMITMENTS

Teck: "Goal to become a **nature positive** mining company by 2030 … including through conserving or rehabilitating at least three hectares for every one hectare affected by its mining activities"

BHP: "create **nature-positive outcomes** by having at least 30% of land and water…under conservation, restoration or regenerative practices"

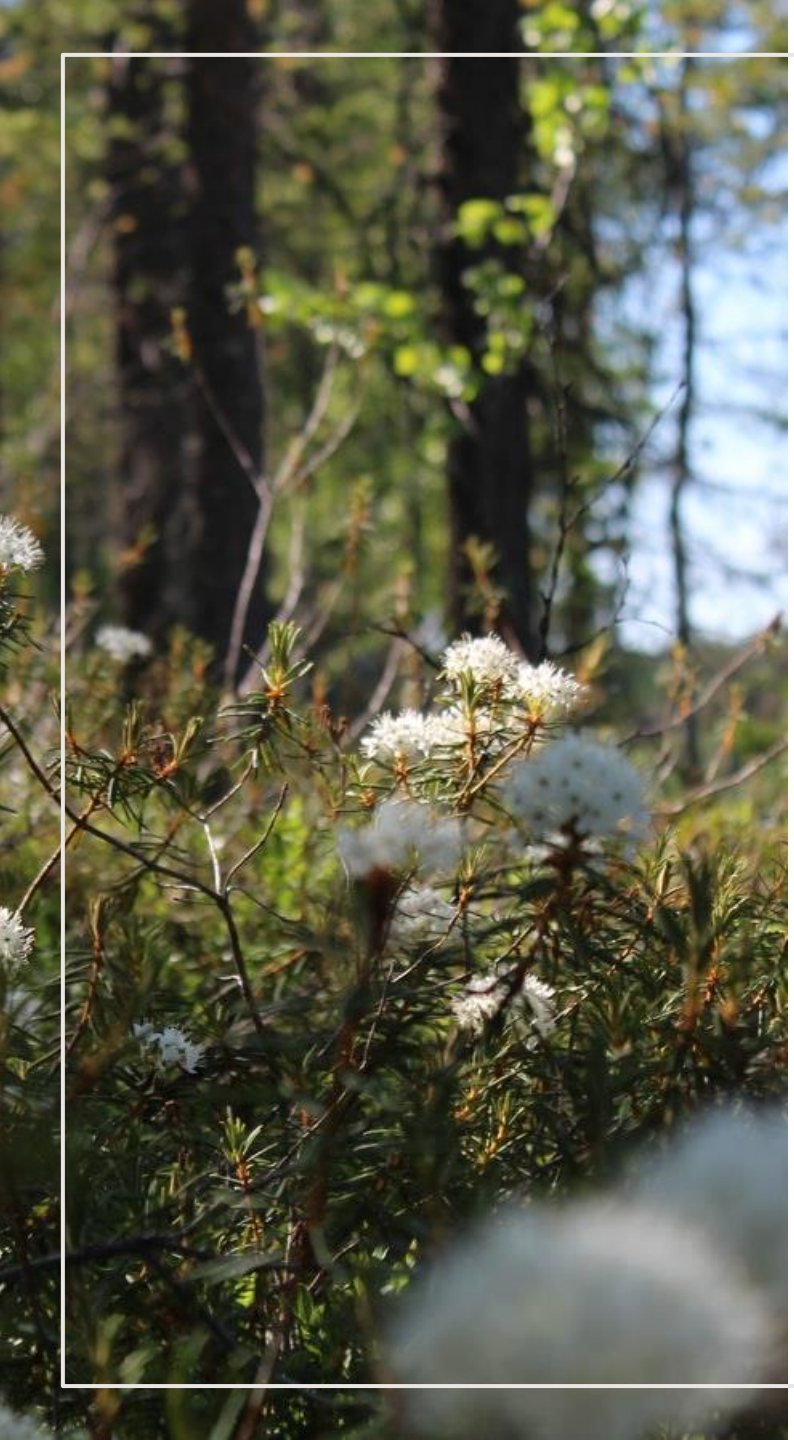
Shell: "new projects in areas rich in biodiversity – critical habitats – will have a **net positive impact** on biodiversity"

Hydro: "**No net loss** of biodiversity in new projects"

Newmont: "[new projects] **No net loss** of key biodiversity values as a result of mine-related activities or a **net gain**, when possible, within 10 years post mine closure"

Anglo American: "achieving a **net positive impact** on biodiversity across our managed operations"

BP: "From 2022 all new bp projects in scope will have plans in place aiming to achieve **net positive impact** (NPI)"



How Partners use Proteus

Site level

Corporate level

- Supplementing Environmental Impact Assessments
- Informing biodiversity management and action plans
- Applying the Mitigation Hierarchy
- Designing restoration projects, offsets, and additional conservation actions
- Developing internal guidance on nature commitments
- Prioritising locations for action
- Assessing impacts and dependencies
- Risk and opportunity screening
- Advancing biodiversity SME technical knowledge
- Engaging non-specialist audiences across the business
- Embedding data in GIS systems and workflows
- Sharing data, knowledge and best practices
- Network building and learning from other businesses
- Informing nature strategies
- Understanding alignment between external standards and initiatives
- Keeping track of global policy developments

PROTEUS TOOLS AT A GLANCE

Protected Planet

The online interface with the World Database on Protected Areas (WDPA)

Access: www.protectedplanet.net

The Integrated Biodiversity Assessment Tool (IBAT)

Access to site- and landscape-scale datasets

Access: https://ibat-alliance.org/

Biodiversity A-Z

Online glossary of terms

Access: www.biodiversitya-z.org

Ocean+

Marine and coastal habitat data

Access: https://habitats.oceanplus.org/

Proteus website

Access all information resources offered through Proteus

Access: www.proteuspartners.org

UNEP-WCMC Resources

Access spatial datasets and other resources

Access: http://data.unep-wcmc.org

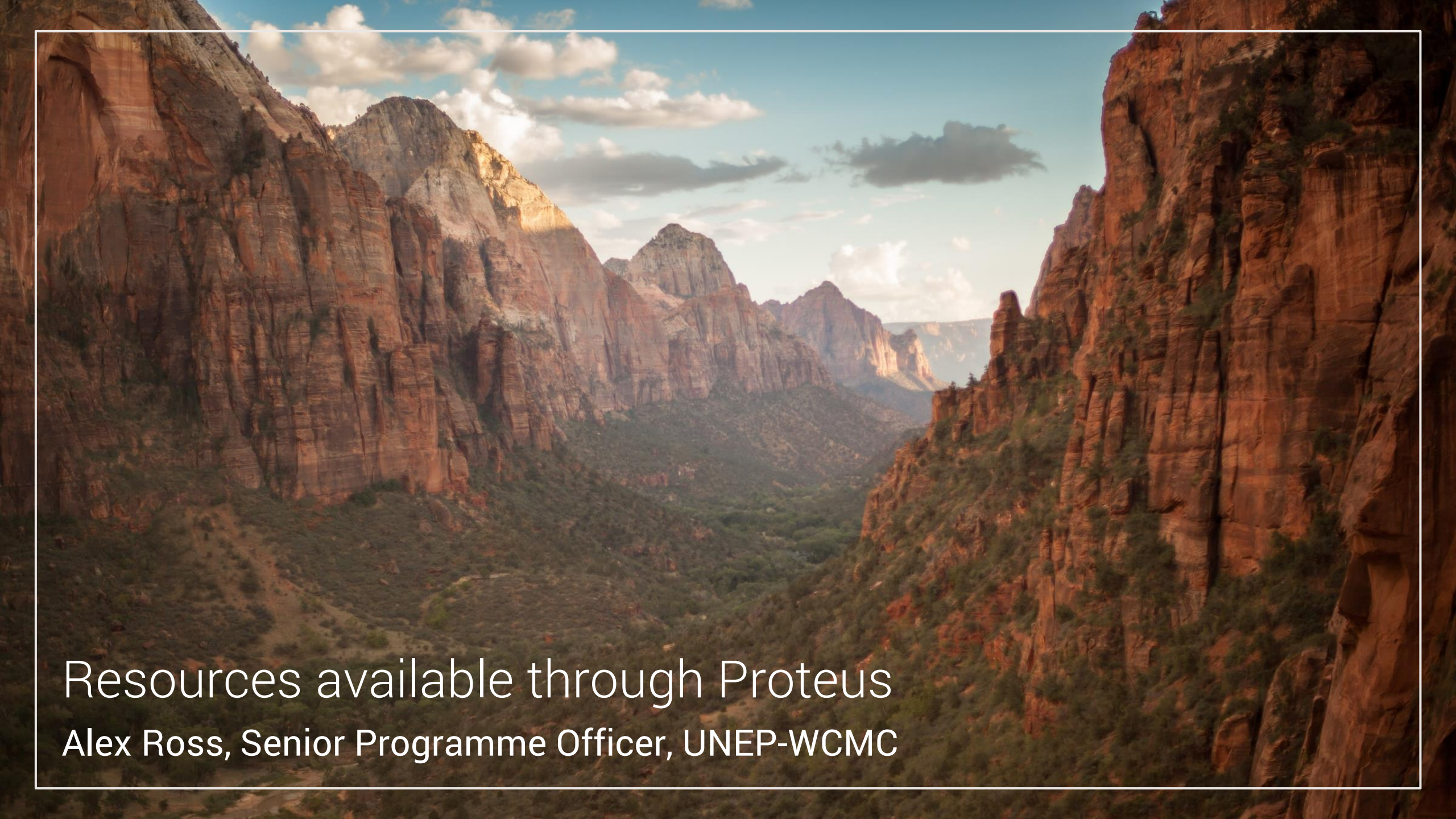
PROTEUS BENEFITS

Data and analytics

- Technical Briefings on challenges and questions raised by Partners
- Data verification support from the UNEP-WCMC expert team
- Access to a cross-Partnership Data Forum supporting peer-to-peer learning
- Web services delivering data directly into partner systems

Capacity and support

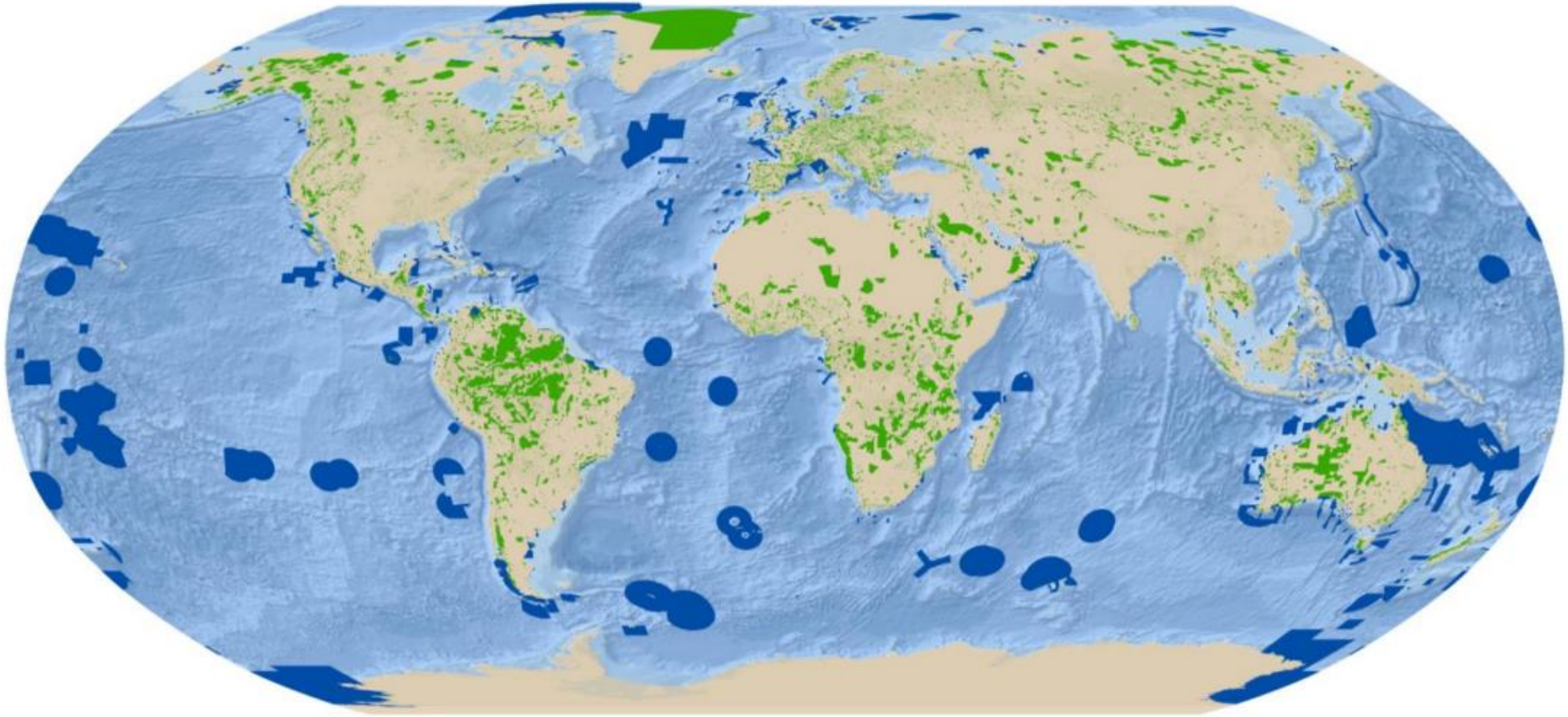
- Technical assistance from UNEP-WCMC's expert team
- Online and in person training and access to training resources
- Horizon scanning webinars and briefings, helping companies track progress, upcoming events and potential business implications
- Access to and influence over leading biodiversity datasets and tools



Resources available through Proteus

Alex Ross, Senior Programme Officer, UNEP-WCMC

THE WORLD DATABASE ON PROTECTED AREAS

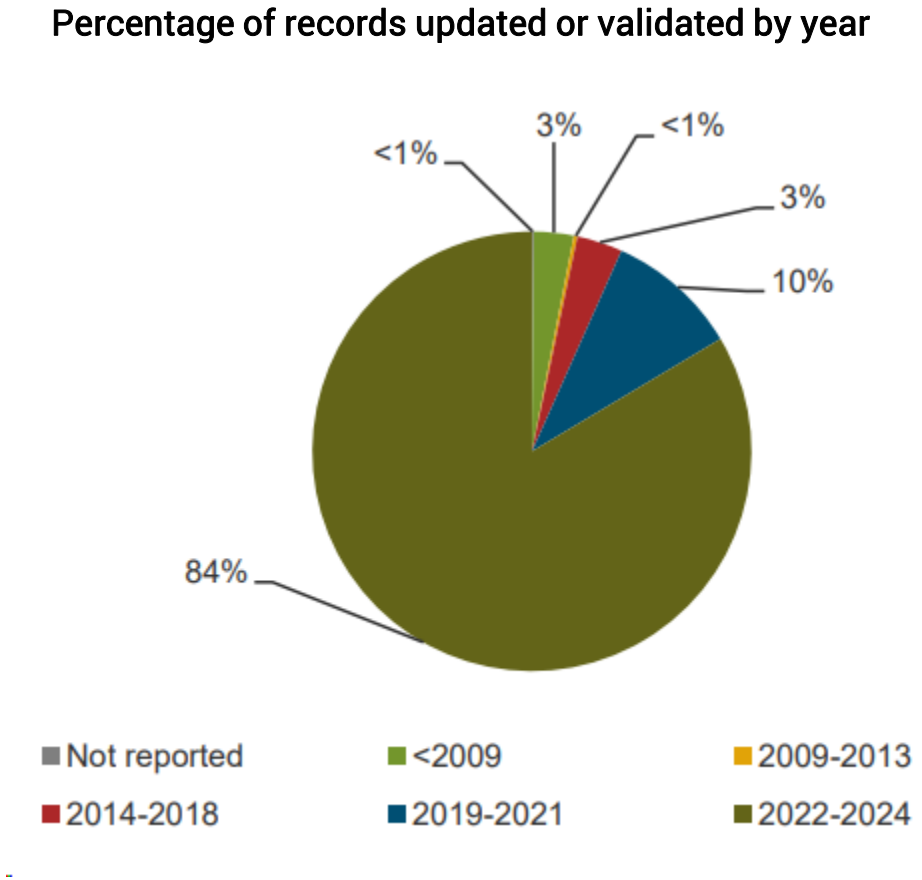


Source: UNEP-WCMC and IUCN (2024). Protected Planet: The World Database on Protected Areas (WDPA) [On-line], April 2024, Cambridge, UK: UNEP-WCMC. Available at www.protectedplanet.net

Terrestrial protected areas Marine and coastal protected areas

FIVE YEAR UPDATE FREQUENCY TARGET

- Most of the WDPA has been updated in the last five years
- Focus on Proteus Partner priority countries
- Some countries are challenging to update



MONTHLY UPDATES

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Download the April 2024 WDPA release

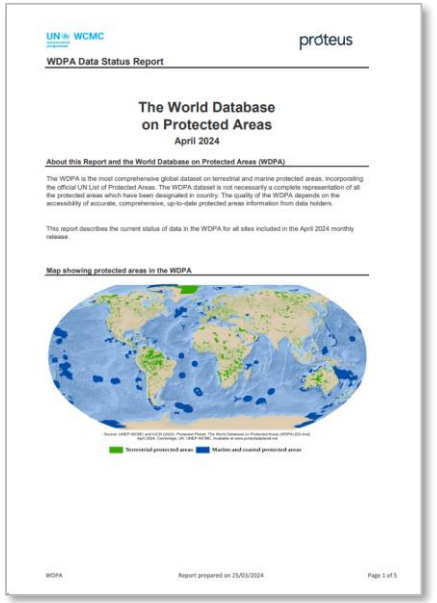
The total number of protected area records in this release is **295,460** comprising **283,464** polygons and **11,996** points. Please click on the links below to access the data factsheet and infographic for this release of the WDPA.

Data Factsheet | **Infographic**

Highlights

Bermuda - Complete update of national-level protected area and Ramsar Wetland of

Jordan - Complete update of national-level protected area records, which includes the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WDPA Data Status Report

The World Database on Protected Areas

April 2024

About this Report and the World Database on Protected Areas (WDPA)

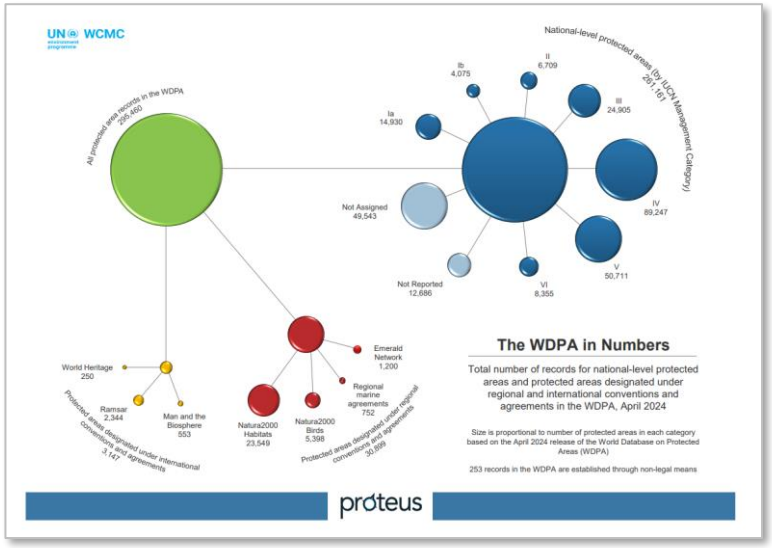
The WDPA is the most comprehensive global dataset on terrestrial and marine protected areas, incorporating the official UN List of Protected Areas. The WDPA dataset is not necessarily a complete representation of all the protected areas which have been designated in country. The quality of the WDPA depends on the accessibility of accurate, comprehensive, up-to-date protected areas information from data holders.

This report describes the current status of data in the WDPA for all sites included in the April 2024 monthly release.

Map showing protected areas in the WDPA

Terrestrial protected areas Marine and coastal protected areas

WDPA Report prepared on 25/03/2024 Page 1 of 5



OCEAN+ HABITATS

- Developing national, regional and global inventories of ocean habitat occurrence, with statistics on coverage and progress toward targets

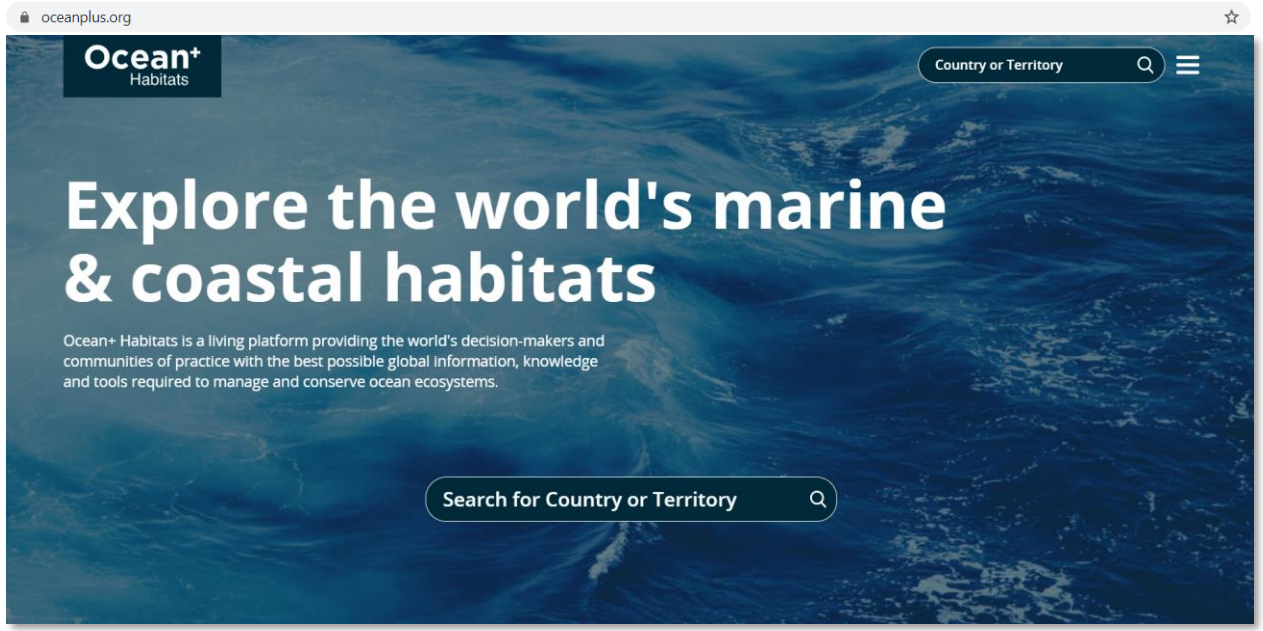
Warm-water corals

Cold-water corals

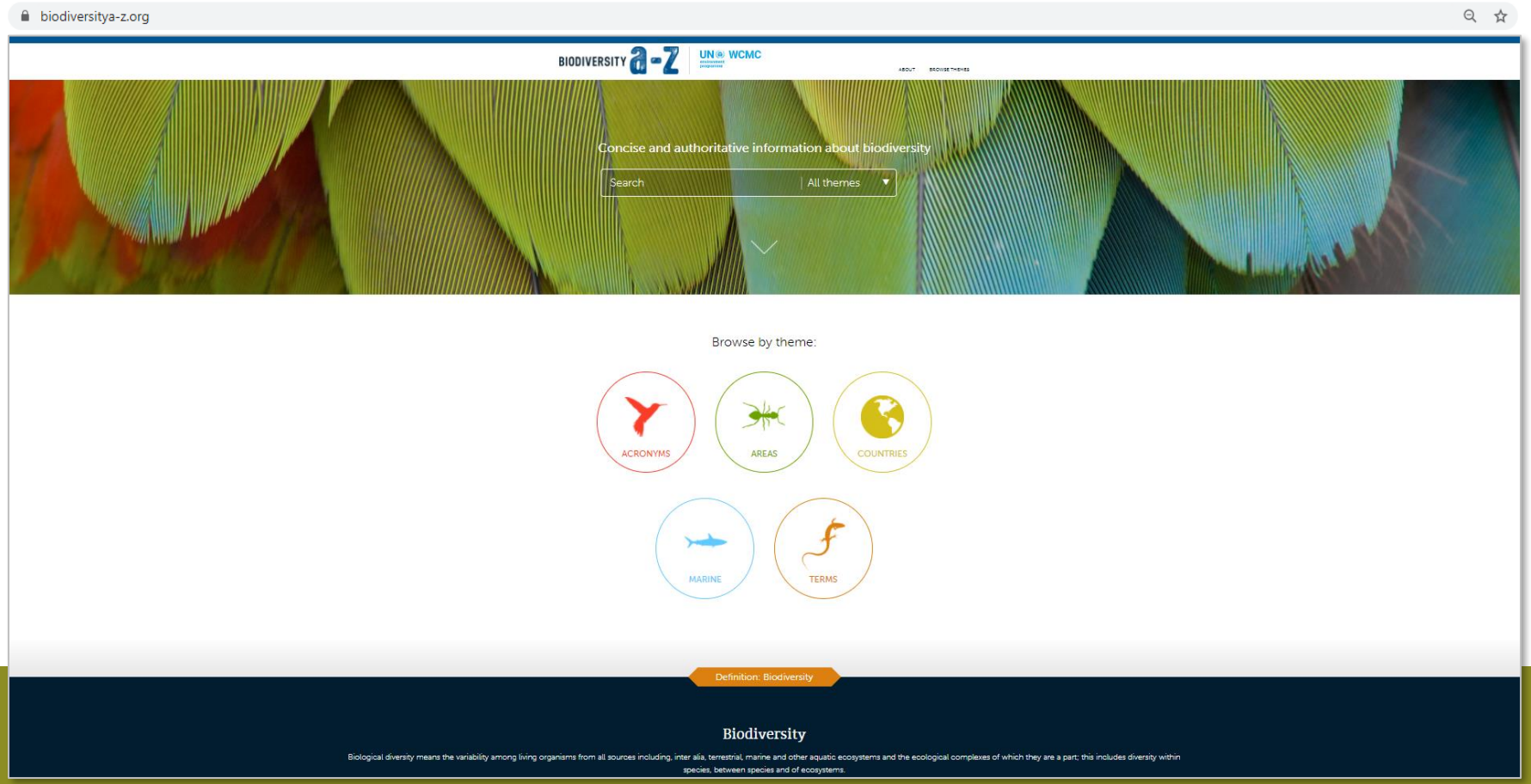
Seagrasses

Saltmarshes

Mangroves



BIODIVERSITY A-Z



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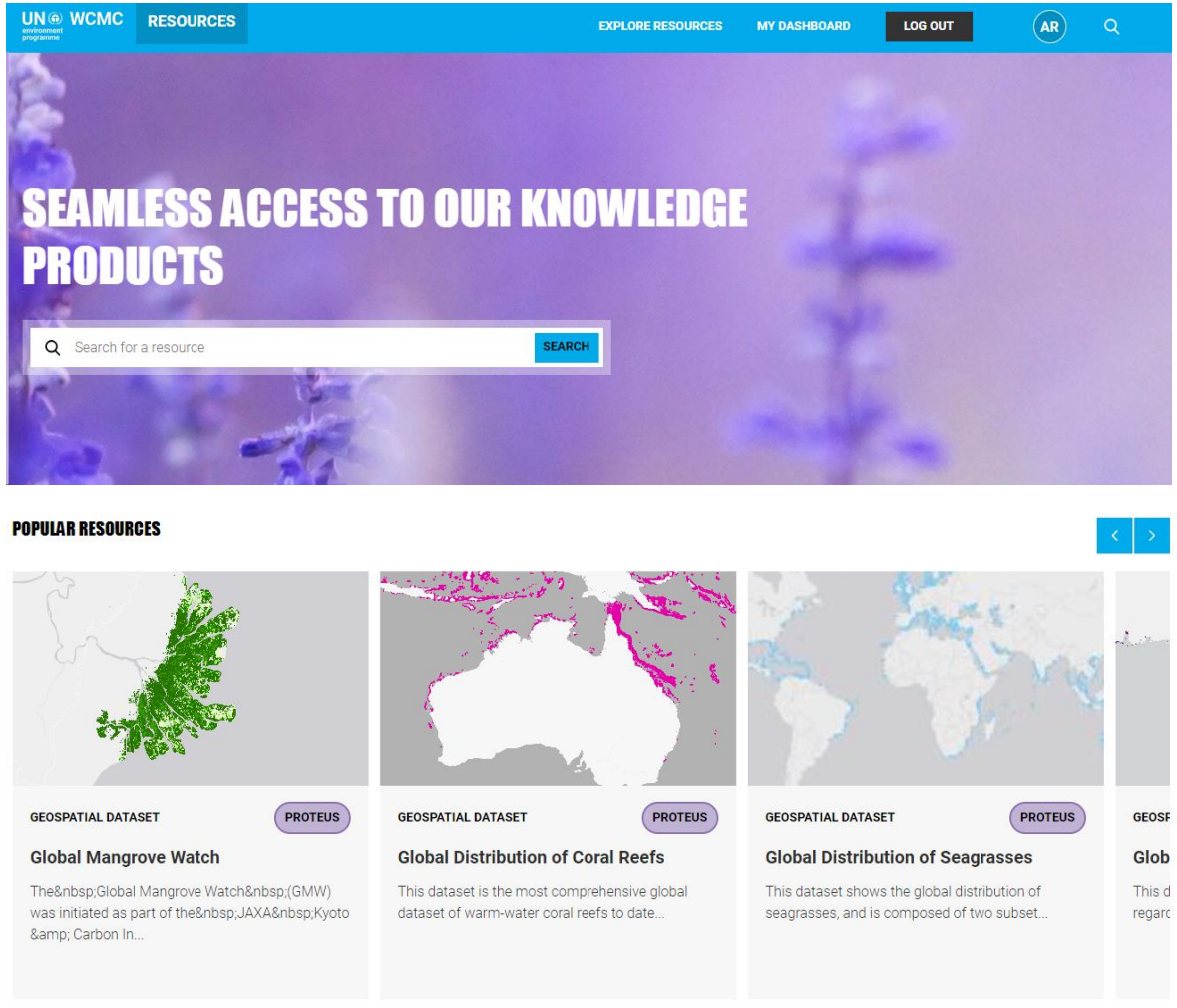
UNEP-WCMC RESOURCES

- A portal for accessing biodiversity spatial datasets

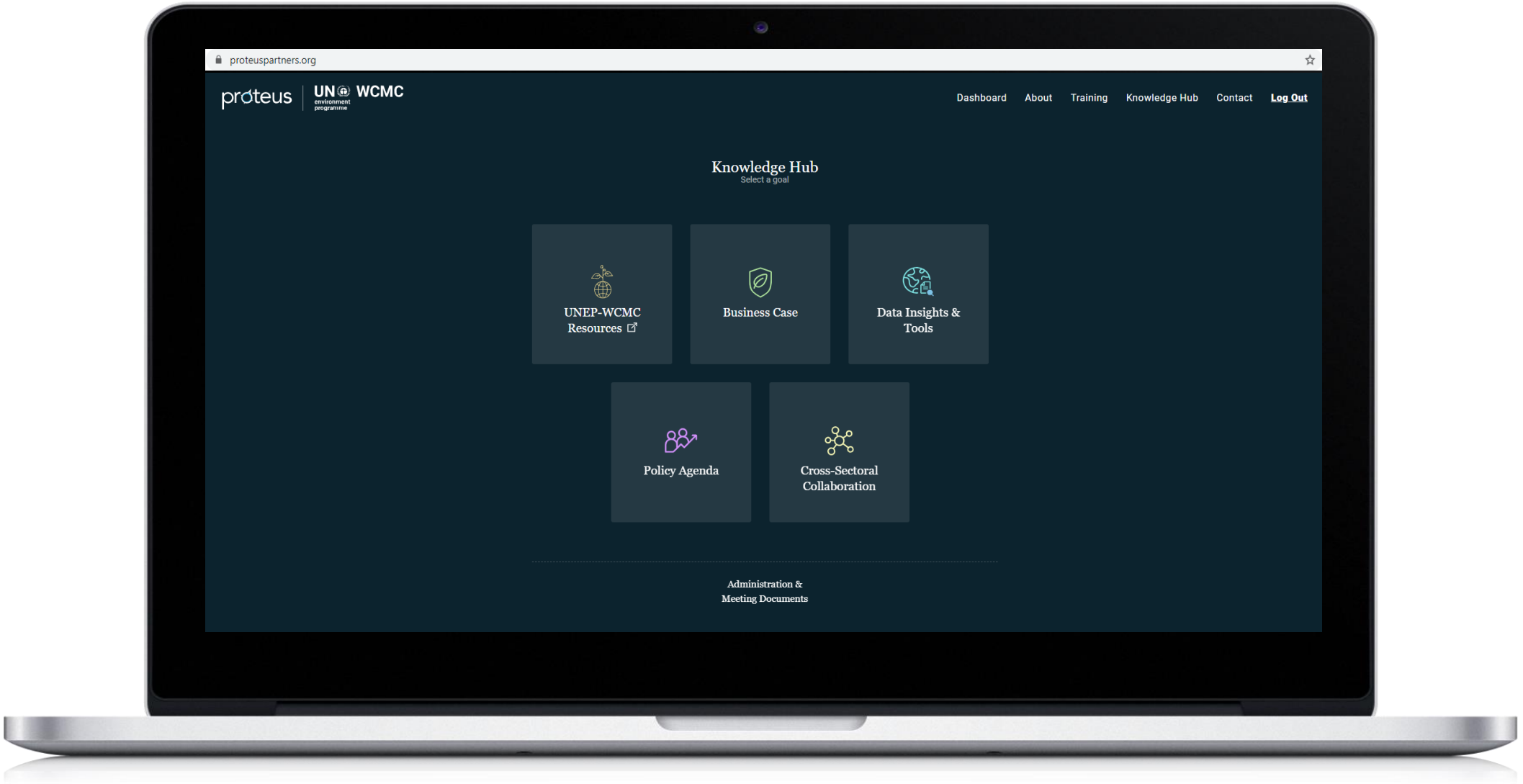
High-quality data on various aspects of biodiversity

Specific login area collating resources most relevant for Proteus Partners

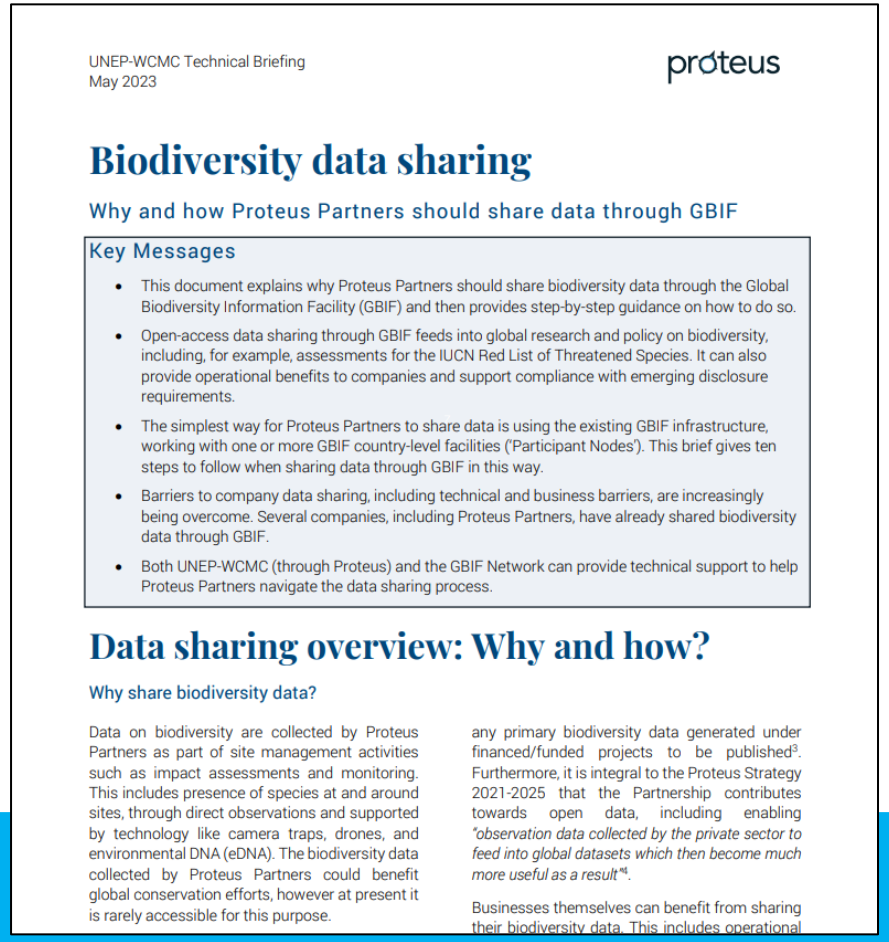
More than 30 spatial datasets



PROTEUS WEBSITE (www.proteuspartners.org)



PROTEUS TECHNICAL BRIEFS



UNEP-WCMC Technical Briefing
May 2023

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Biodiversity data sharing

Why and how Proteus Partners should share data through GBIF

Key Messages

- This document explains why Proteus Partners should share biodiversity data through the Global Biodiversity Information Facility (GBIF) and then provides step-by-step guidance on how to do so.
- Open-access data sharing through GBIF feeds into global research and policy on biodiversity, including, for example, assessments for the IUCN Red List of Threatened Species. It can also provide operational benefits to companies and support compliance with emerging disclosure requirements.
- The simplest way for Proteus Partners to share data is using the existing GBIF infrastructure, working with one or more GBIF country-level facilities ('Participant Nodes'). This brief gives ten steps to follow when sharing data through GBIF in this way.
- Barriers to company data sharing, including technical and business barriers, are increasingly being overcome. Several companies, including Proteus Partners, have already shared biodiversity data through GBIF.
- Both UNEP-WCMC (through Proteus) and the GBIF Network can provide technical support to help Proteus Partners navigate the data sharing process.

Data sharing overview: Why and how?

Why share biodiversity data?

Data on biodiversity are collected by Proteus Partners as part of site management activities such as impact assessments and monitoring. This includes presence of species at and around sites, through direct observations and supported by technology like camera traps, drones, and environmental DNA (eDNA). The biodiversity data collected by Proteus Partners could benefit global conservation efforts, however at present it is rarely accessible for this purpose.

any primary biodiversity data generated under financed/funded projects to be published[3]. Furthermore, it is integral to the Proteus Strategy 2021-2025 that the Partnership contributes towards open data, including enabling *"observation data collected by the private sector to feed into global datasets which then become much more useful as a result"*[4].

Businesses themselves can benefit from sharing their biodiversity data. This includes operational

UNEP-WCMC Technical Briefing
November 2021

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The Area of Influence of site-based operations – Direct Impacts

Assigning buffer distances for high-level screening of biodiversity exposure based on direct impacts

Key Messages

- Defining an appropriately scaled 'Area of Influence' is integral to high level screening processes that aim to identify important biodiversity features that may generate risk.
- Area of influences should include the extent of expected pressures that stem from the site and consider potential for indirect impacts on biodiversity.
- To date however, there lacks consensus or quantitative guidance on appropriate buffers to be applied in different contexts. Understanding the factors underlying variation in the distances impacted by sites forms the foundations of a decision-making framework, presented here, to address this knowledge gap.
- Available literature to create generalised rules is disparate, and there is a lack of research that compares pressures between sectors and habitats systematically. However, best available information suggested that the following approach should be applied for direct impacts:
  - A 10km buffer is likely to cover the majority of direct impacts of terrestrial mines in most habitats, and, applying a precautionary approach, a 5km buffer likely to cover the impacts of terrestrial oil and gas, whose impacts are generally shown to impact smaller distances than mining. These should be taken as a minimum starting point when deciding on buffers to apply during screening.

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PROTEUS HORIZON SCAN WEBINARS

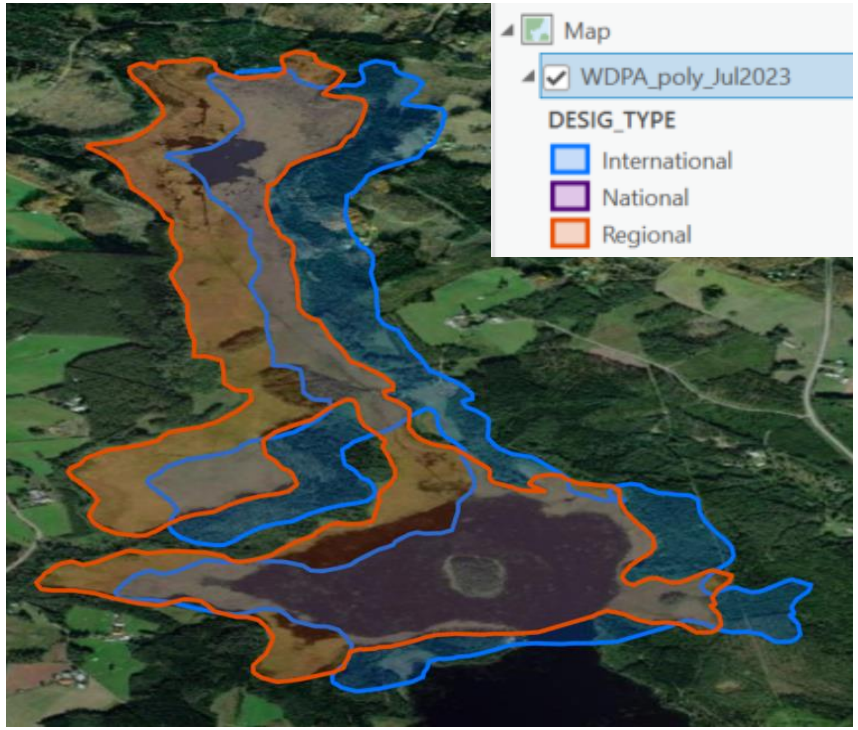
A series of webinars for Proteus Partners about the latest trends and developments in biodiversity policy, initiatives, data and tools

PROTEUS DATA FORUMS

A venue for direct communication between data users in Proteus Partner companies and data developers and technical experts at UNEP-WCMC and other organisations

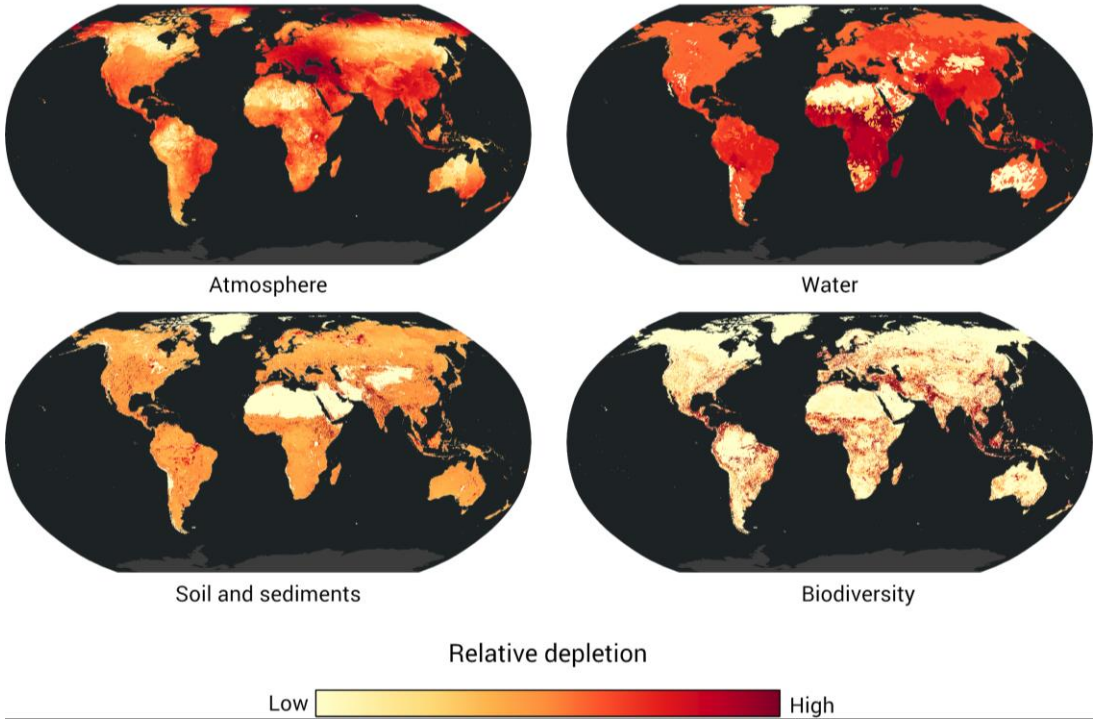
DATA VERIFICATION AND TECHNICAL SUPPORT

Data verification – clarifications on data quality and interpretation



Example query – Potential protected area boundary discrepancy between overlapping designations

Technical support – assistance or guidance on technical work



Example technical support – Appropriate data layers to use for different analysis questions

A look at biodiversity data through the Integrated Biodiversity Assessment Tool (IBAT)

Bálint Ternyik, Programme Officer, UNEP-WCMC

WHAT IS IBAT?

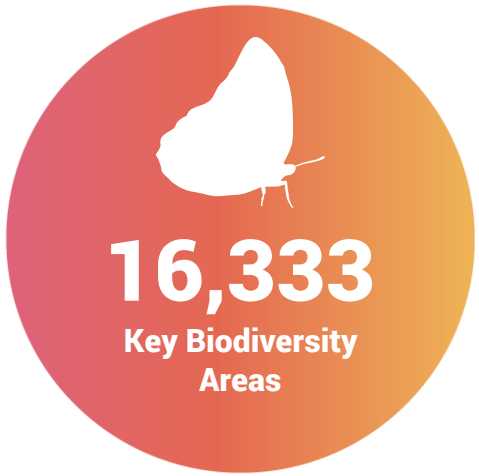
- A web-based mapping and reporting tool that provides fast, easy and integrated access to critical biodiversity information
- An alliance between:
- The source of the most globally authoritative biodiversity data:
  - The World Database on Protected Areas
  - The World Database of Key Biodiversity Areas
  - The IUCN Red List of Threatened Species
    - Species Threat Abatement and Restoration (STAR)
    - Rarity-weighted richness layer
- A link between the private sector and biodiversity conservation
- Incorporate biodiversity considerations into project planning and management decisions

IBAT DATASETS

The World Database on Protected Areas (Updated monthly)

The World Database of Key Biodiversity Areas (Updated 3 times a year)

The IUCN Red List of Threatened Species (Updated at least 3 times a year)



* IBAT is the only place where each of these datasets is available for commercial users

WHAT ARE PROTECTED AREAS?

"A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values." (IUCN 2008)

Key features

- Ability to delineate
- Management of the area
- Core objective of nature conservation

Effective means

- National law
- International conventions & agreements
- Customary law or land tenure

Governance

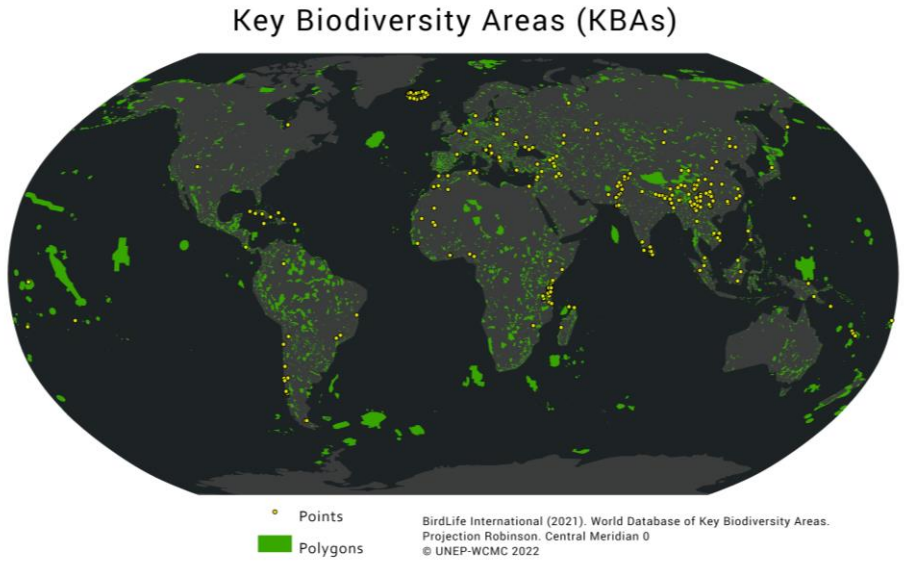
- Government
- Shared
- Private
- Community

WHAT ARE KEY BIODIVERSITY AREAS (KBAs)?

"Sites contributing significantly to the global persistence of biodiversity."

(IUCN 2016)

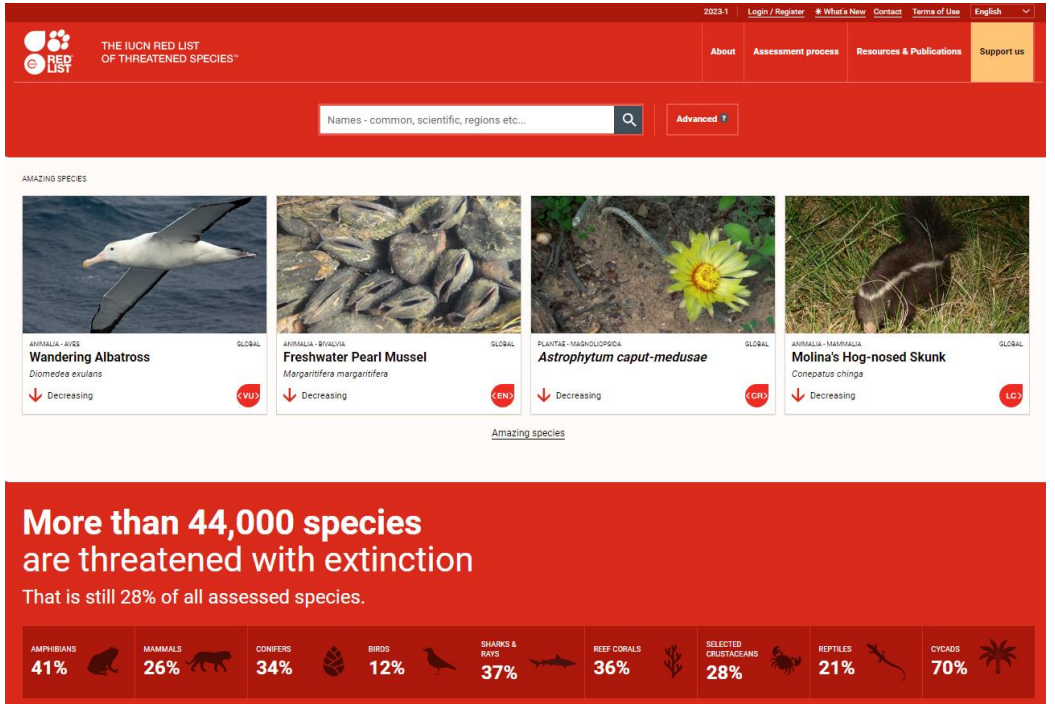
- Originally identified for birds
- More recently expanded to other taxa
- Criteria across taxa and realms promote KBAs as the key biodiversity site designation
- Over 16,000 identified so far

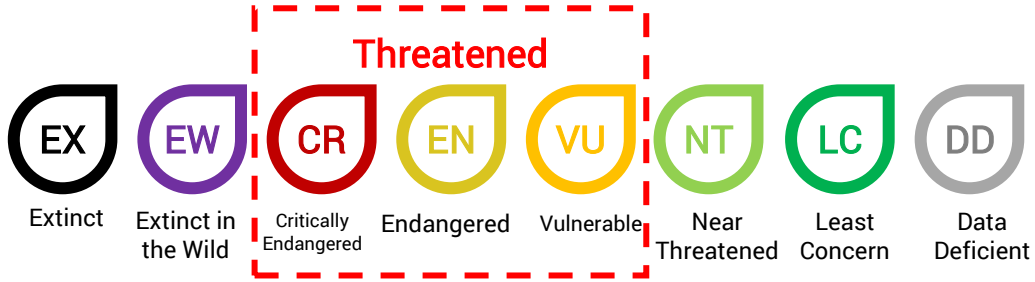


BirdLife INTERNATIONAL · IUCN · asa · CONSERVATION INTERNATIONAL · CRITICAL ECOSYSTEM PARTNERSHIP FUND · gef · GLOBAL WILDLIFE CONSERVATION · NatureServe · RAINFOREST TRUST · rspb giving nature a home · WCS · WWF

IUCN RED LIST OF SPECIES

- Established in 1964 by IUCN
- >157,190 species assessed as of April 2024
- Information on threats, ecological requirements, habitats and conservation actions to reduce or prevent extinctions
- Standardised assessment process to categorise species
- Re-evaluation every ~ 5-10 years
- Three categories of ‘Threatened’ species: Critically Endangered, Endangered and Vulnerable
- List also includes other categories e.g. ‘Least Concern’ species





KEY FEATURES OF IBAT

Features

- Ability to draw polylines and polygons
- Upload multiple sites (csv, shp, KMZ, KML)
- Download data per specified area
- Create portfolio of ‘Projects’ (sites)
- Site page giving overview of a site
- Multiple report types: Proximity, IFC PS6/World Bank ESS6, Freshwater, Multi-site
- Ability to view all data in the IBAT map

Regular updates

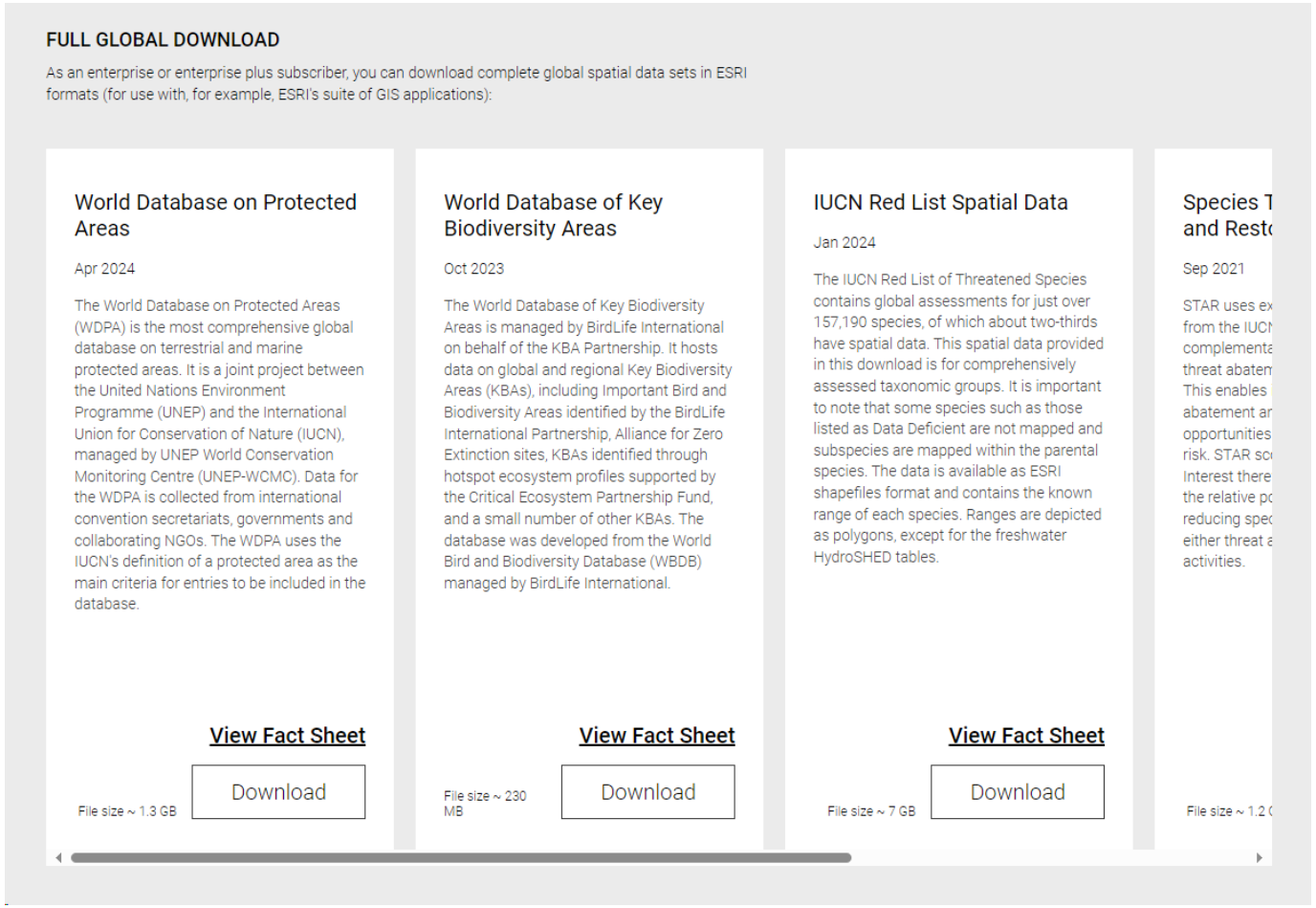
- Protected Areas
- Key Biodiversity Areas
- Red List of Species data
- Species Threat Abatement and Restoration (STAR)

Committed to continuous improvement and user support

- Fully maintained
- Scientifically robust
- Committed to innovation and new functionality

WHAT IS AVAILABLE THROUGH IBAT?

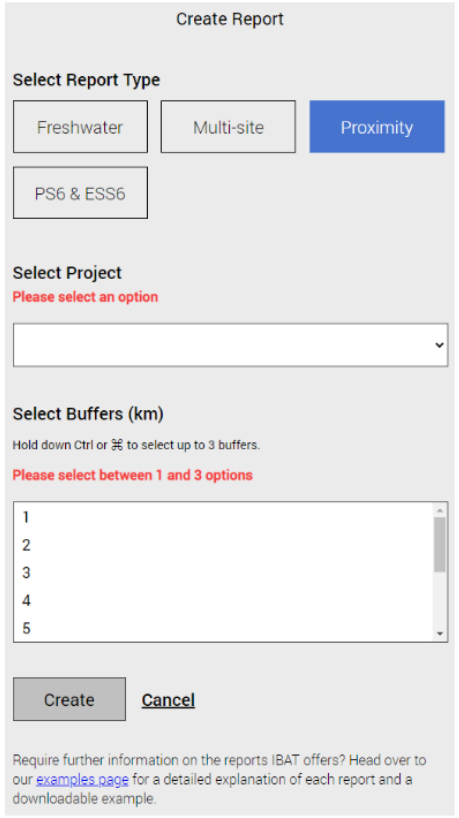
Download Data

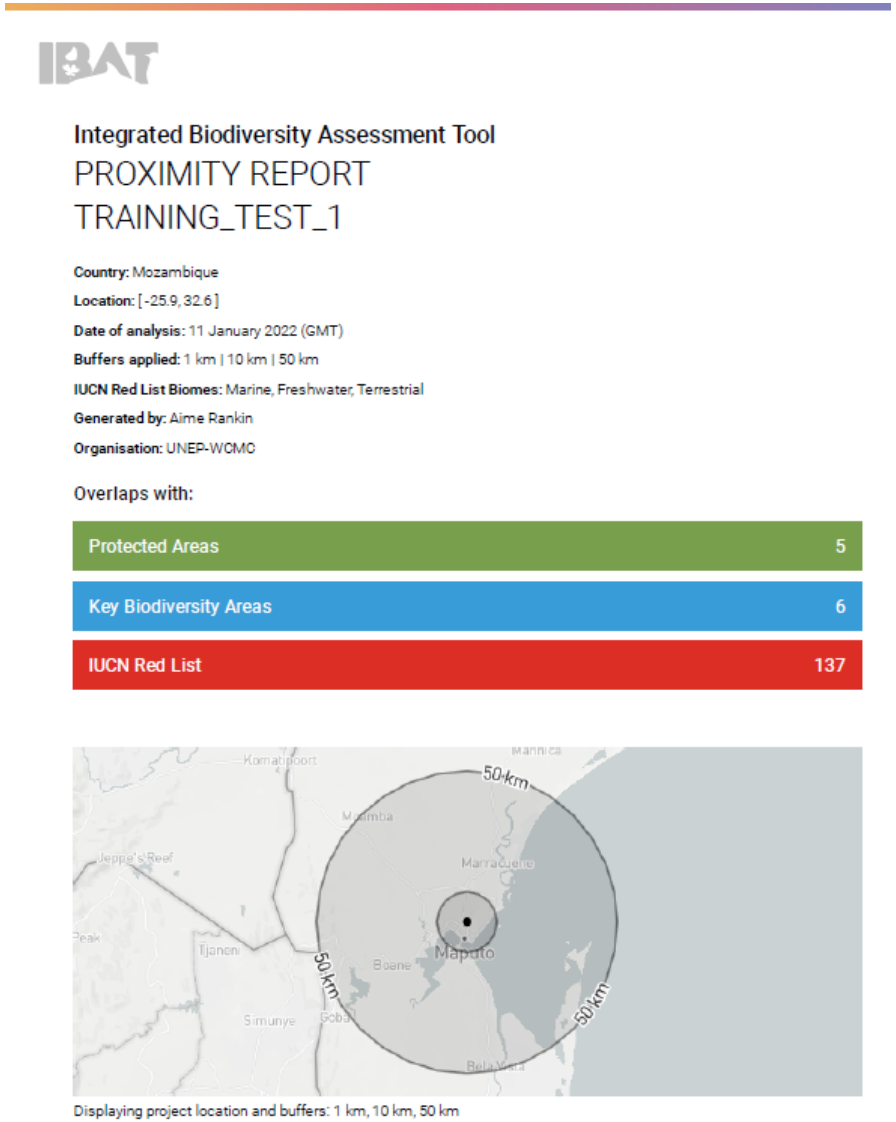


IBAT REPORTS

Proximity Reports

- High-level early stage biodiversity risk screening for a single site
- Buffers from 1 to 50 km
- Assess for overlap with:
  - Protected Areas.
  - Key Biodiversity Areas.
  - IUCN Red List species.

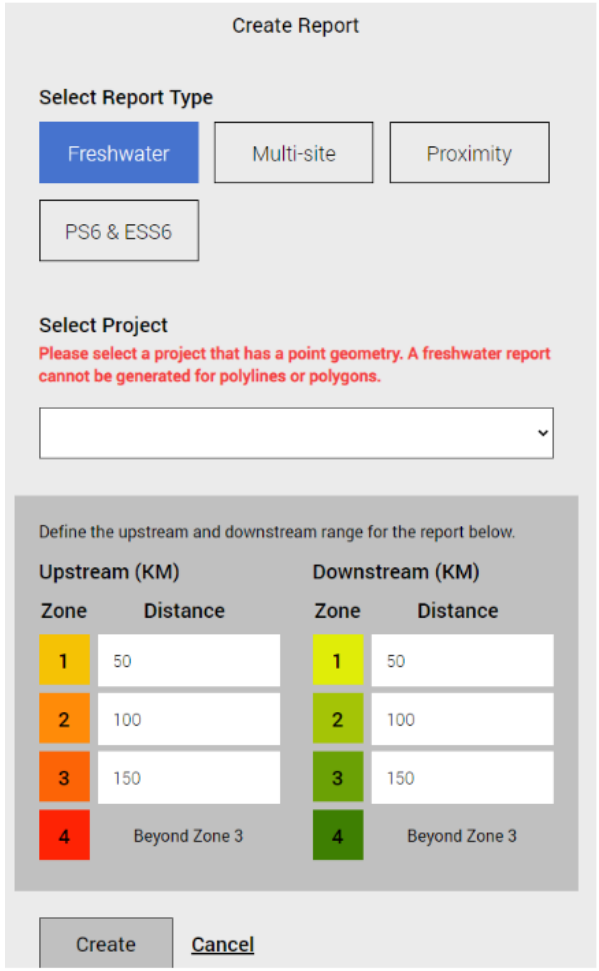


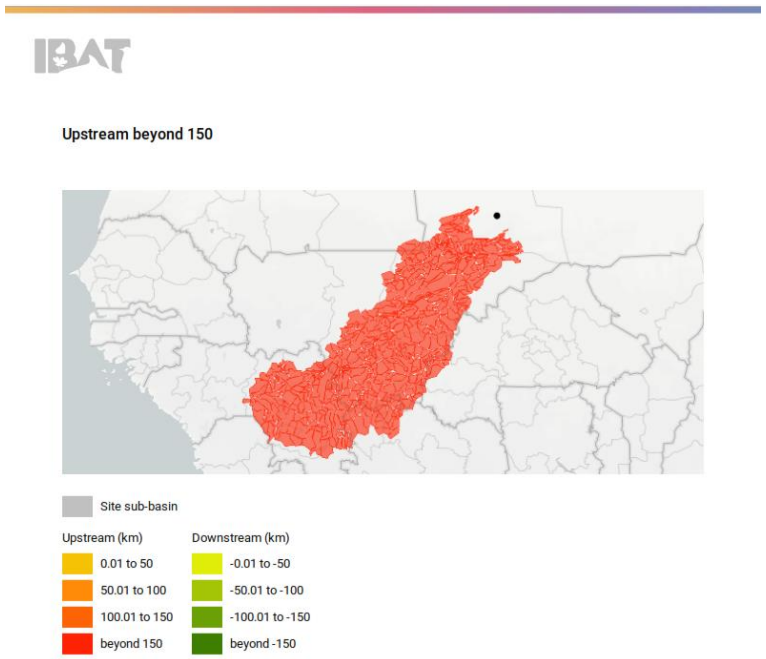


IBAT REPORTS

Freshwater

- High-level early stage biodiversity risk screening for a single site with potential to impact freshwater ecosystems
- Upstream and downstream buffers
- Point features only

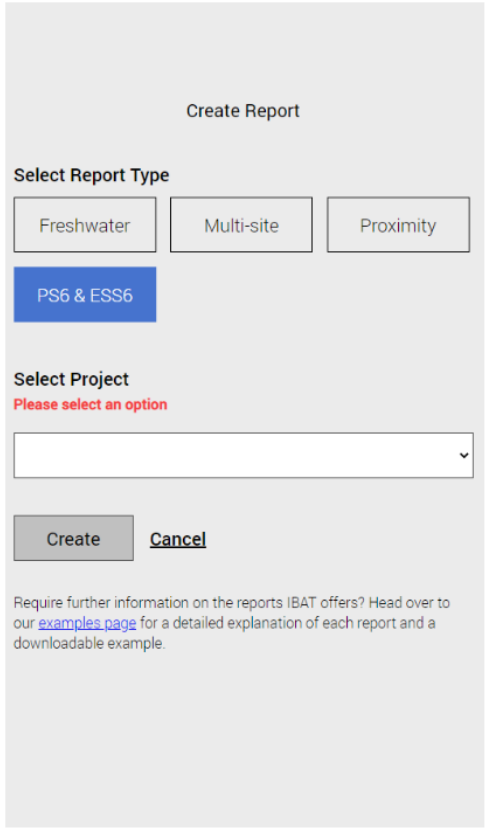


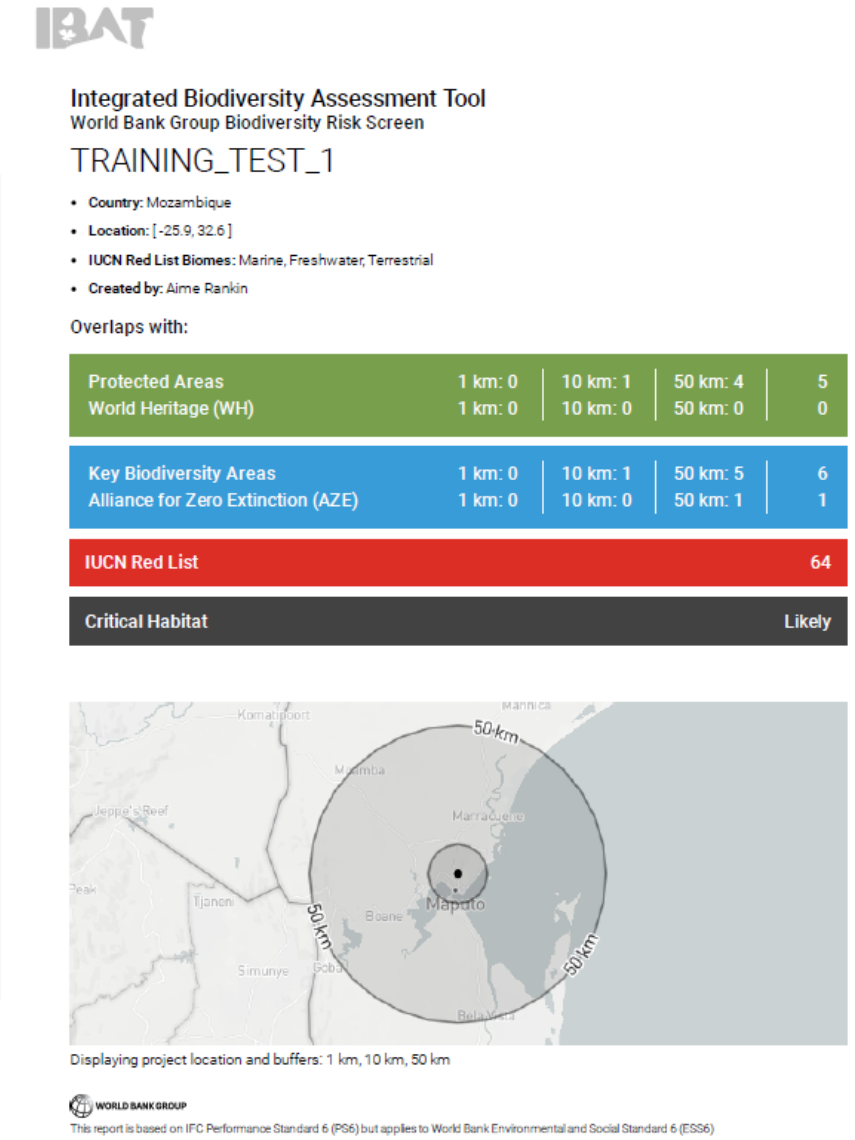


IBAT REPORTS

World Bank Group Risk Reports

- High-level early stage biodiversity risk screening for a single site with specific reference to **PS6** and **ESS6**
- Assesses **Critical habitat likelihood**
- Buffers pre-defined at 10 and 50 km

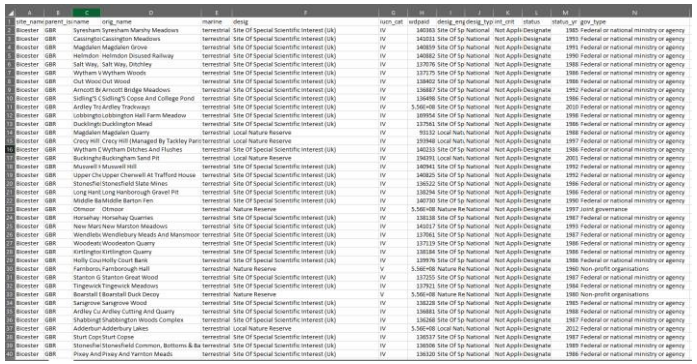




IBAT REPORTS

Multi Site

- IBAT Multi-site reports designed to help companies reporting for GRI/ SASB, and certification schemes
- GRI Disclosure 304-1 Identify operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas (such as Key Biodiversity Areas)
- GRI Disclosure 304-4 Identify presence of IUCN Red List species and national conservation list species with habitats in areas affected by operations



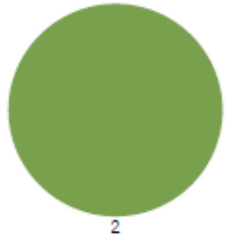
IBAT

Overlap with protected areas and Key Biodiversity Areas (KBAs)

The following table shows the number of protected areas and KBAs overlapped by a 50.0 km buffer for each operational site where an overlap occurs.

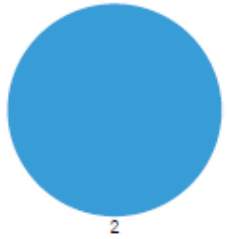
Site	Area (km²)	Protected Areas	KBAs
Training_test_1	0	5	6
Training_test_2	0	173	20

% Summary of protected areas overlap



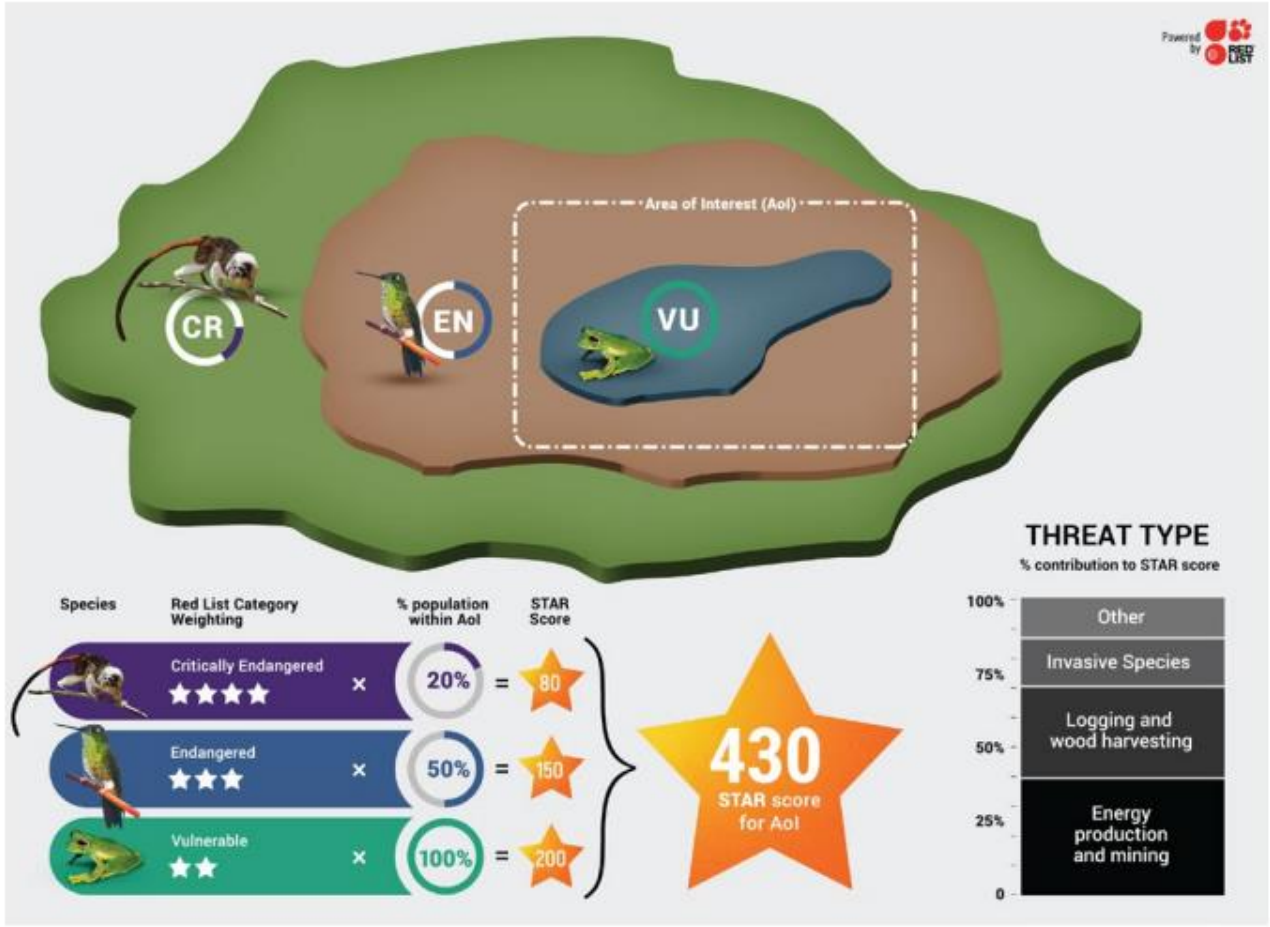
- 2 (100.00% of sites) are within 50.0 km of a protected area.
- 0 (0.00% of sites) are not within 50.0 km of a protected area.

% Summary of KBAs overlap

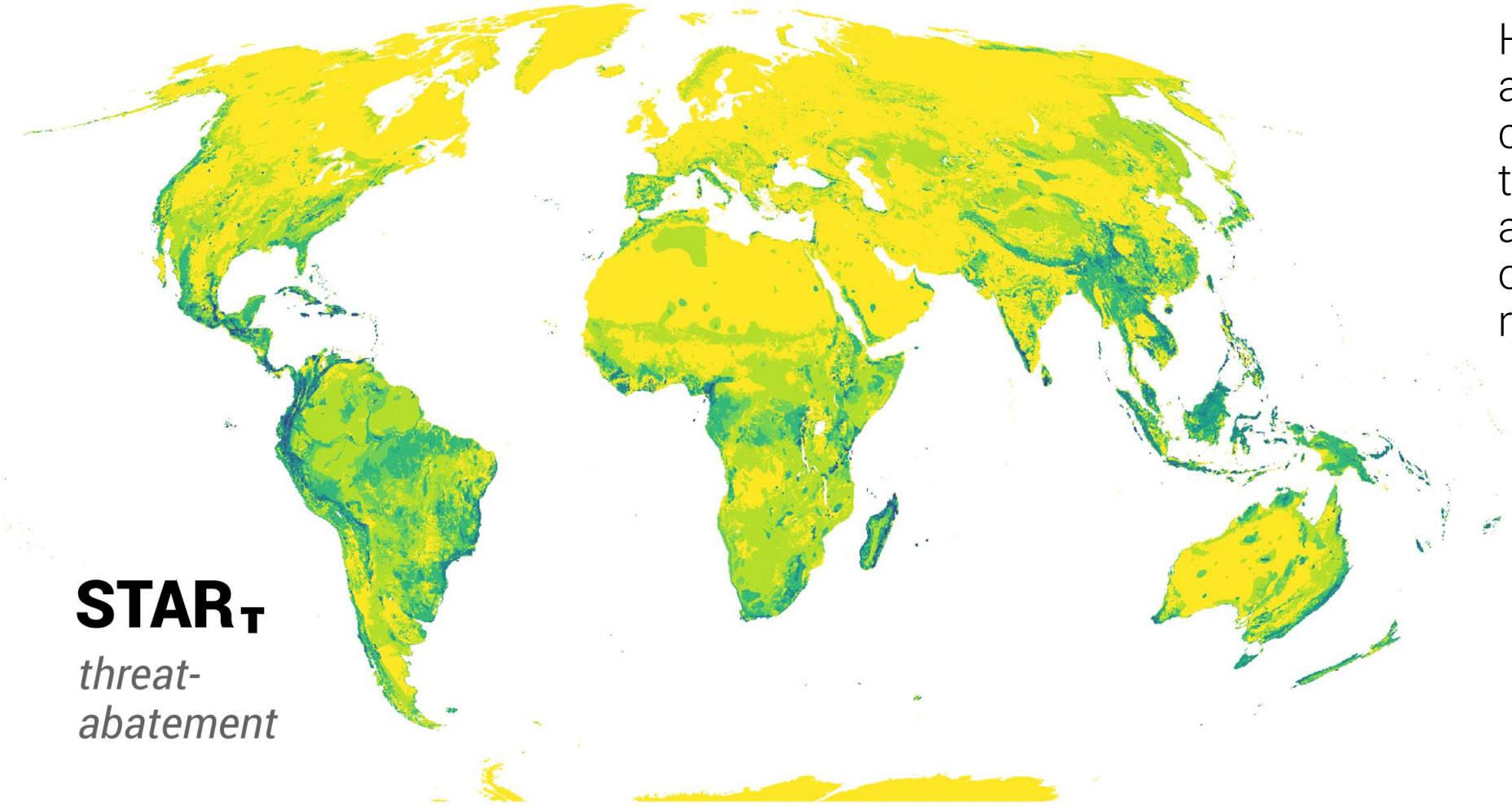


- 2 (100.00% of sites) are within 50.0 km of a Key Biodiversity Area.
- 0 (0.00% of sites) are not within 50.0 km of a Key Biodiversity Area.

SPECIES THREAT ABATEMENT AND RESTORATION METRIC (STAR)

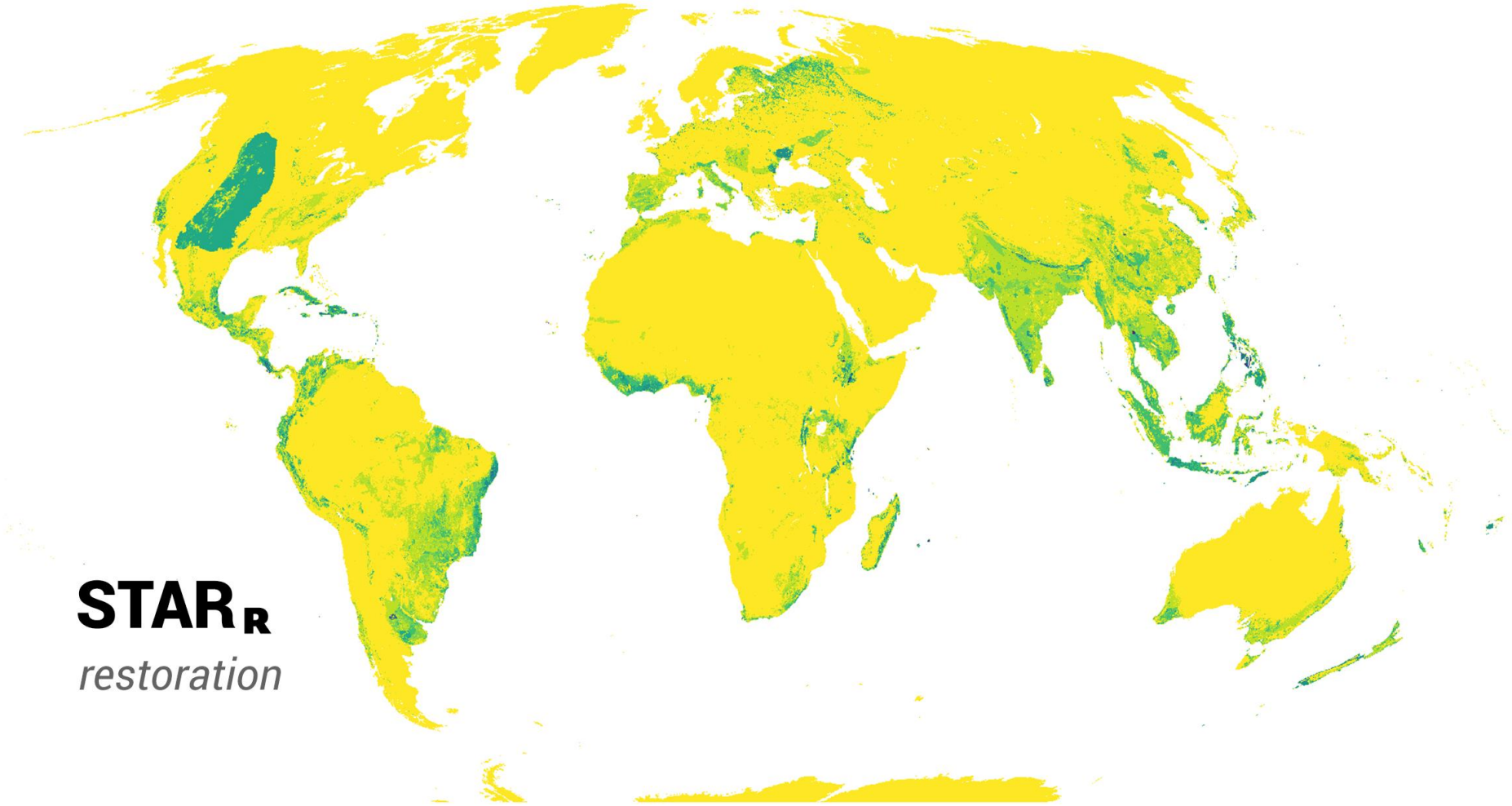


STAR THREAT ABATEMENT



High scores indicate areas that currently contain many threatened species and a large proportion of individual species' ranges

STAR RESTORATION

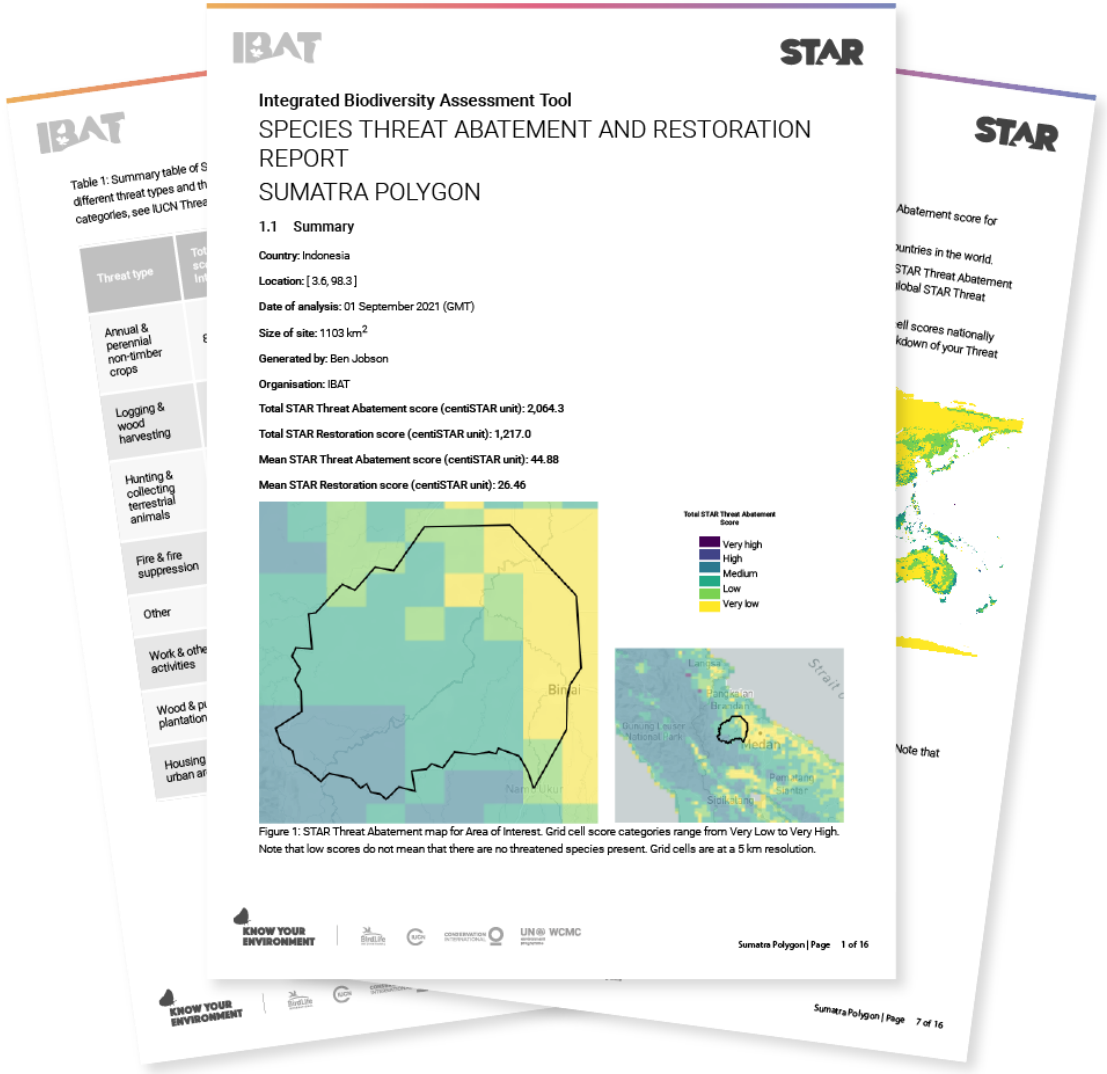


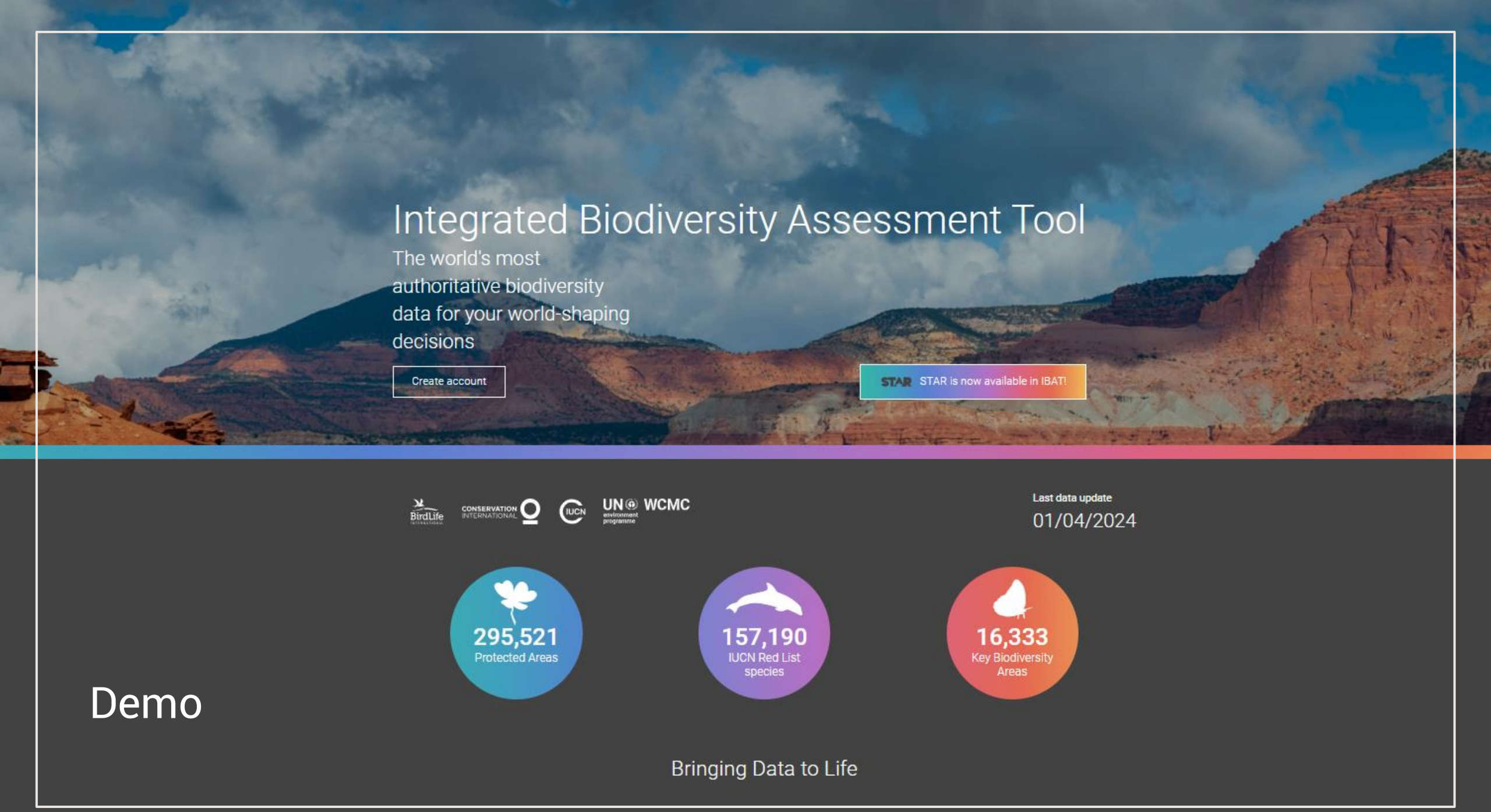
High scores indicate areas that previously supported high numbers of threatened species, a large proportion of individual species' ranges, and/or species that are severely threatened

IBAT REPORTS

STAR

- Define your Area of Interest (project site)
- IBAT generates bespoke STAR reports for your chosen location
- Reports provide a detailed breakdown of the STAR values, threats and their relative significance at national and global scales



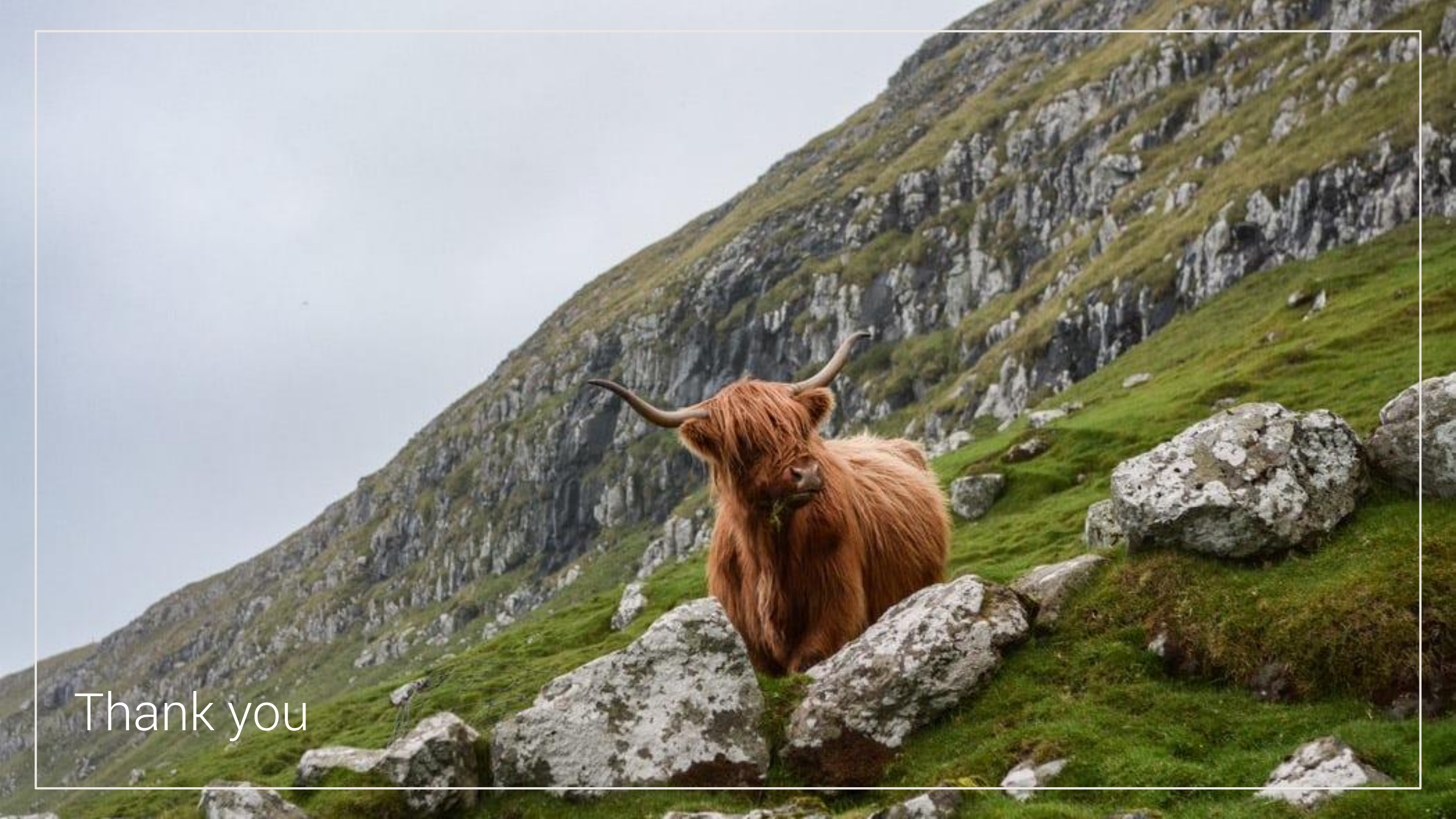

Integrated Biodiversity Assessment Tool
The world's most authoritative biodiversity data for your world-shaping decisions
Create account
STAR STAR is now available in IBAT!
BirdLife
CONSERVATION INTERNATIONAL
IUCN
UN environment programme WCMC
Last data update
01/04/2024
295,521
Protected Areas
157,190
IUCN Red List species
16,333
Key Biodiversity Areas
Bringing Data to Life

Demo

TRAINING OBJECTIVES

At the end of the training you will be familiar with:

- Drivers for improved biodiversity management
- The Proteus Partnership, its objectives and what resources it makes available to you
- How to access Proteus support
- How to access and interrogate key biodiversity datasets through the IBAT tool


Thank you

UN environment programme

WCMC