



proteus

Engaging the Private Sector

Stacey Baggaley, Senior Programme Officer

Bálint Ternyik, Associate Programme Officer

NEA Initiative

28 OCTOBER 2022

APPROACHING BUSINESSES ABOUT BIODIVERSITY

Risk

Explain business risk of biodiversity loss



Offer services/products that help avoid risks



Private sector support for NEA Initiatives

Opportunity

Highlight business opportunities for action



Offer services/products that help grasp opportunities



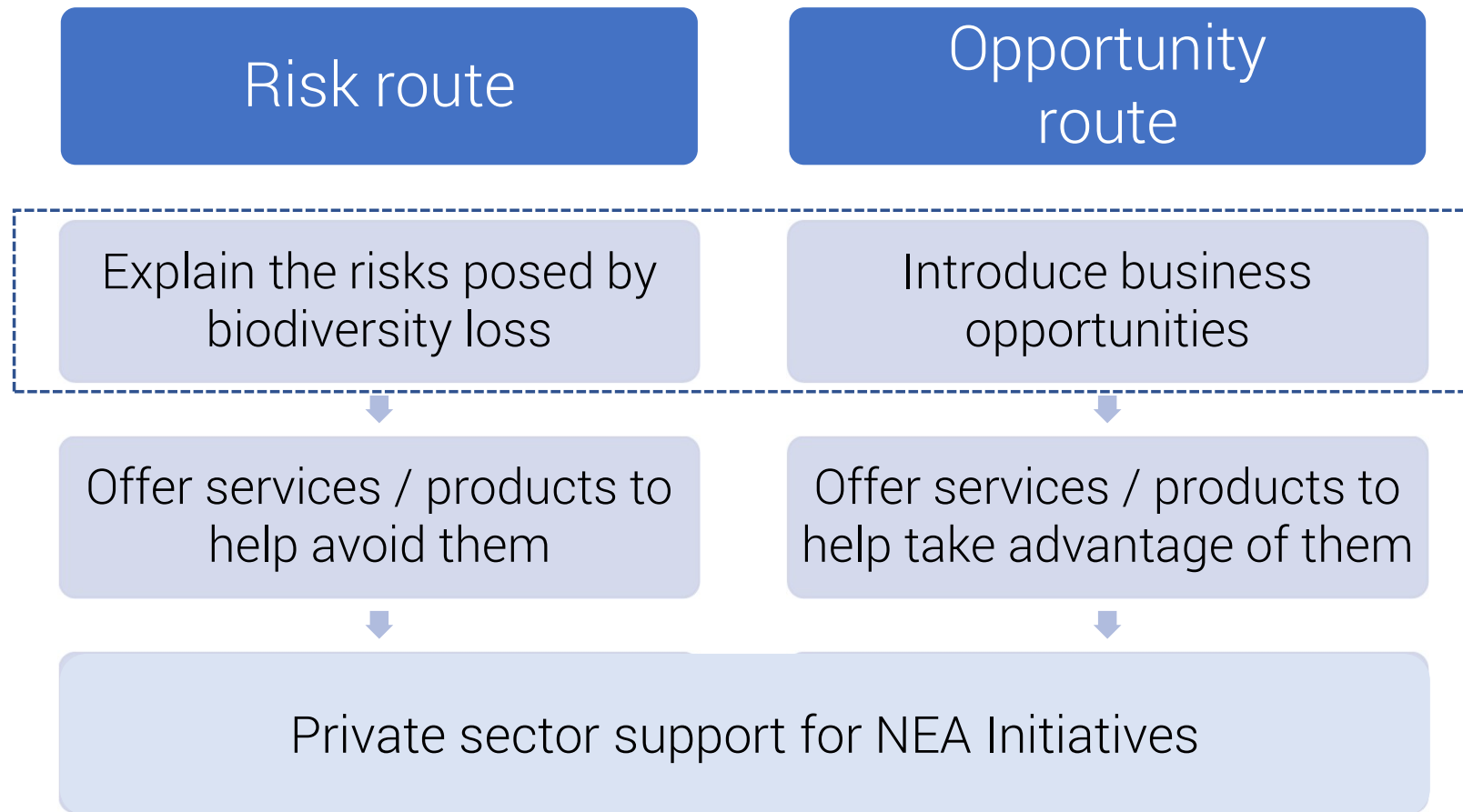
Private sector support for NEA Initiatives



Why is biodiversity important to business?

Bálint Ternyik, Associate Programme Officer, UNEP-WCMC

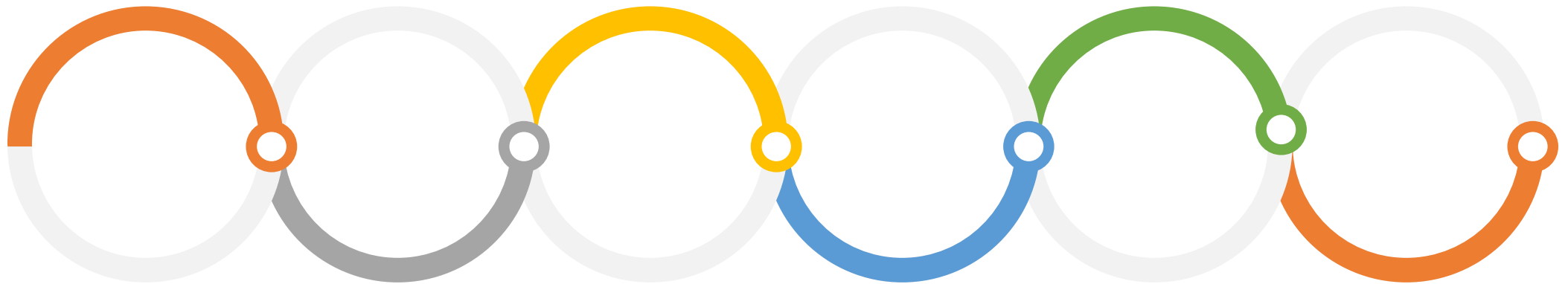
OVERVIEW OF APPROACHING BUSINESSES



Nature under multiple, sustained, accelerating pressures

Resource extraction intensifying

Window of opportunity to address nature and climate crisis closing

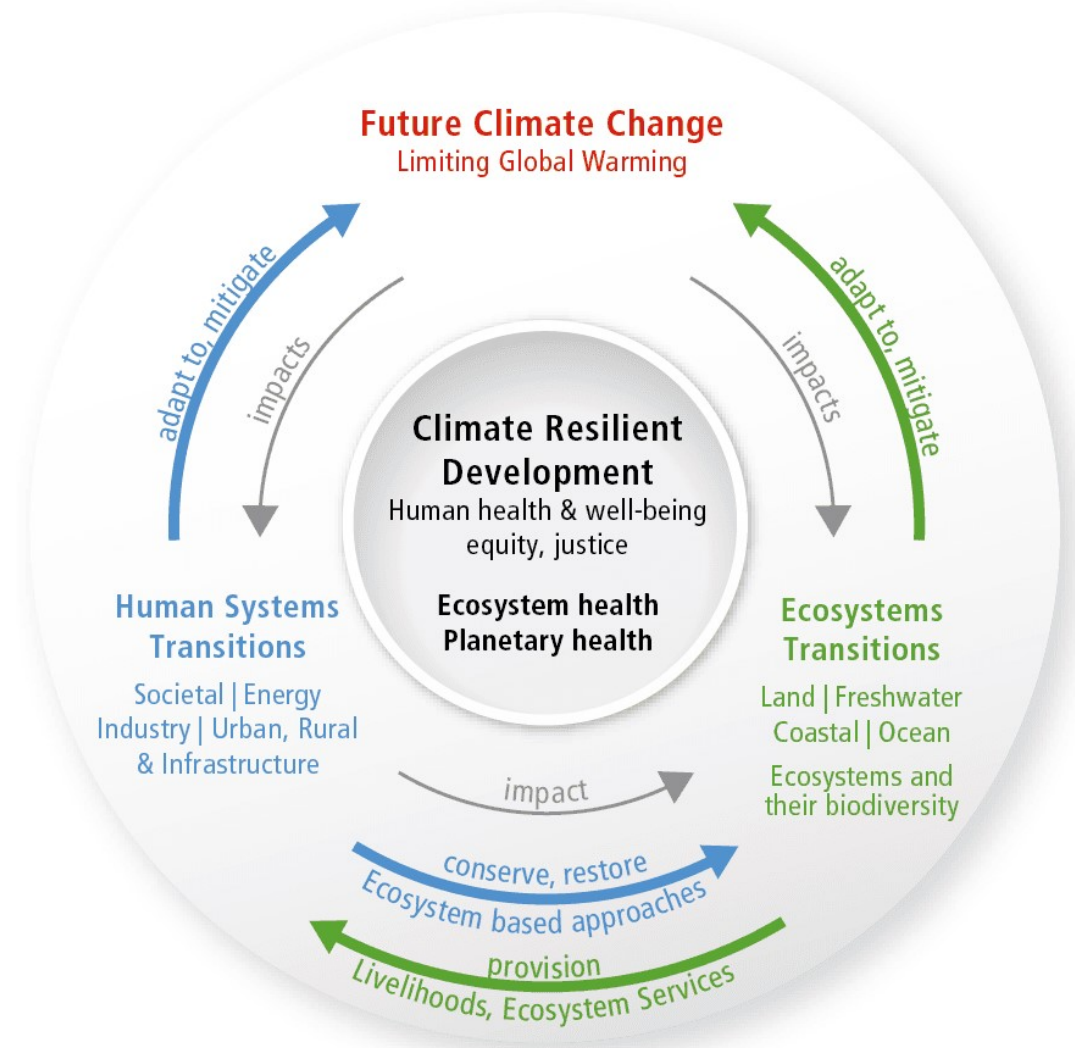


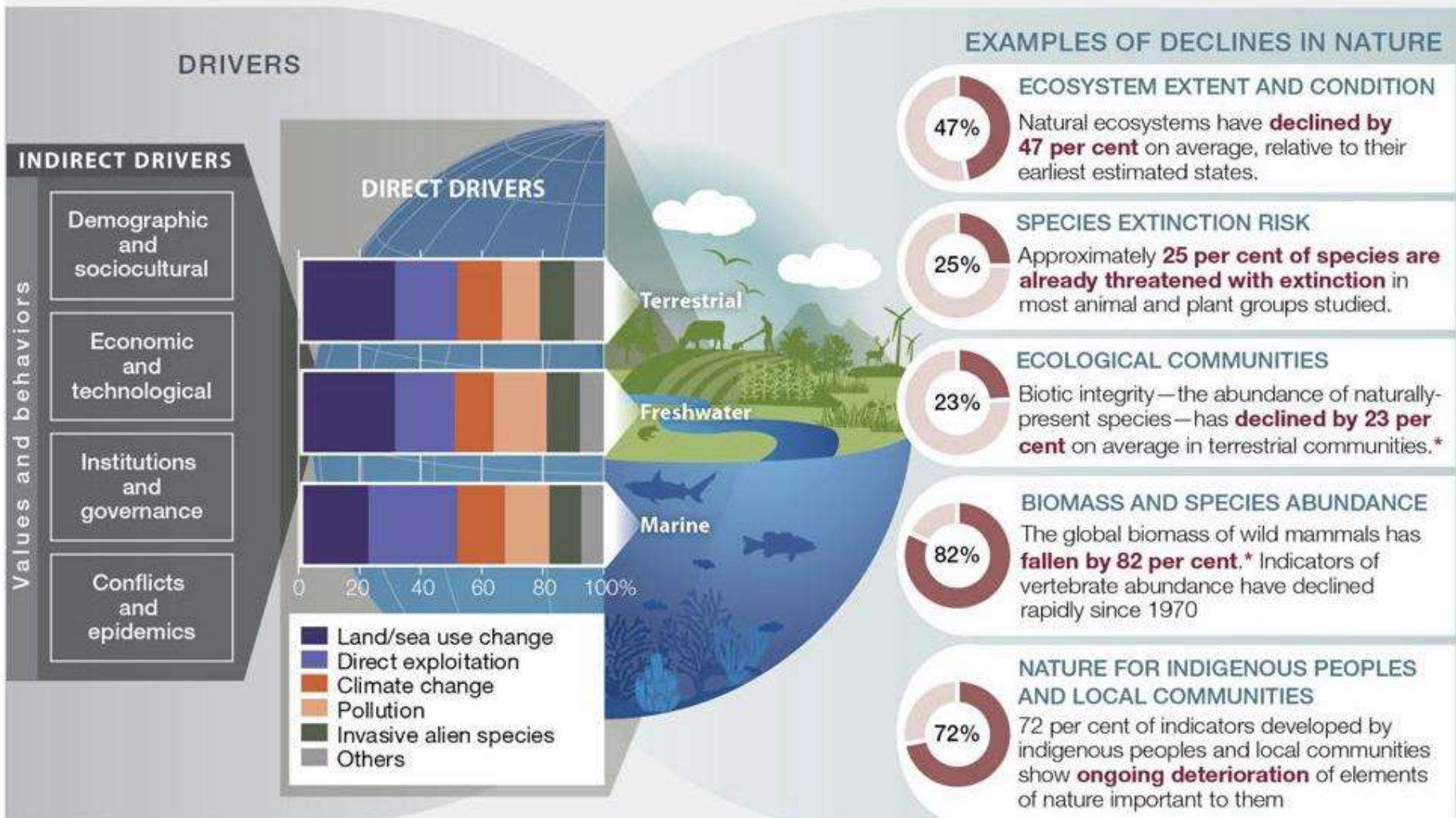
Ecosystem services in decline

Economic growth drawing down on natural capital

Nature loss creating real business risk

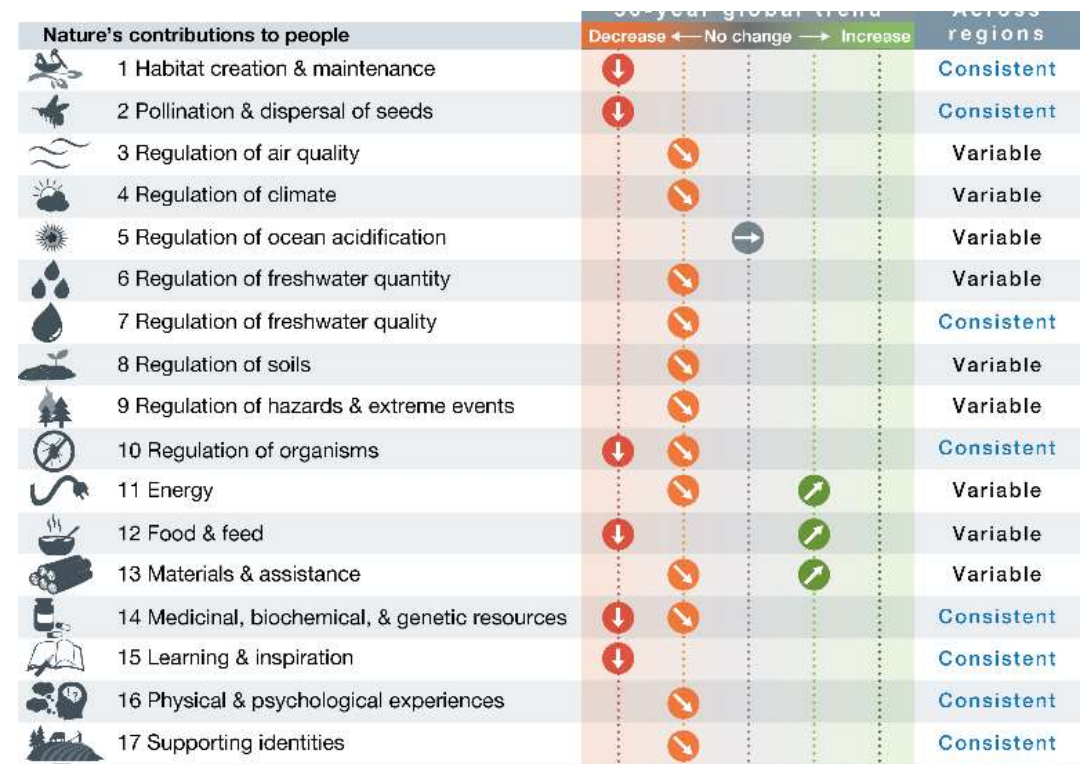
Whole of society
and whole
economy solutions
are required





MANY OF THE WORLD'S ECOSYSTEMS SERVICES ARE IN DECLINE

- 17 of 18 categories assessed have undergone decline
- Benefits of nature to people are not easily replaced or replicated when lost



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

RESOURCE EXTRACTION 3X SINCE 1970 (AND GROWING)

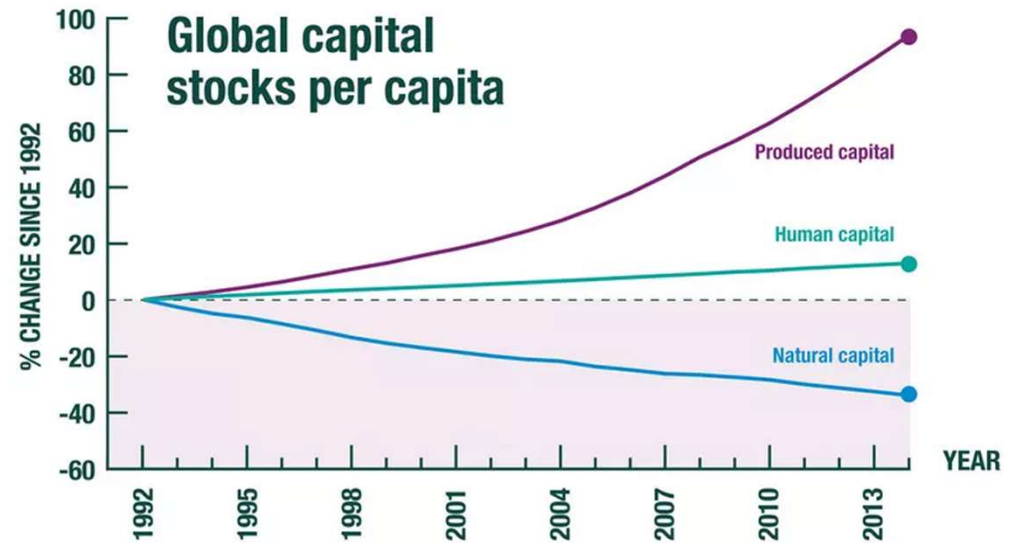


92 billion tons of
global extraction



12.2 tons
materials demand
per capita

<https://www.resourcepanel.org/reports/global-resources-outlook>



Fossil fuels



Non-metallic
minerals



Metals



Biomass



IMPACTS ON BIODIVERSITY FROM BUSINESS



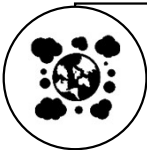
Use of land & freshwater (e.g. direct use, conversion or fragmentation of natural habitats)



Pollution (e.g. emissions of air, soil and water pollutants; solid waste)



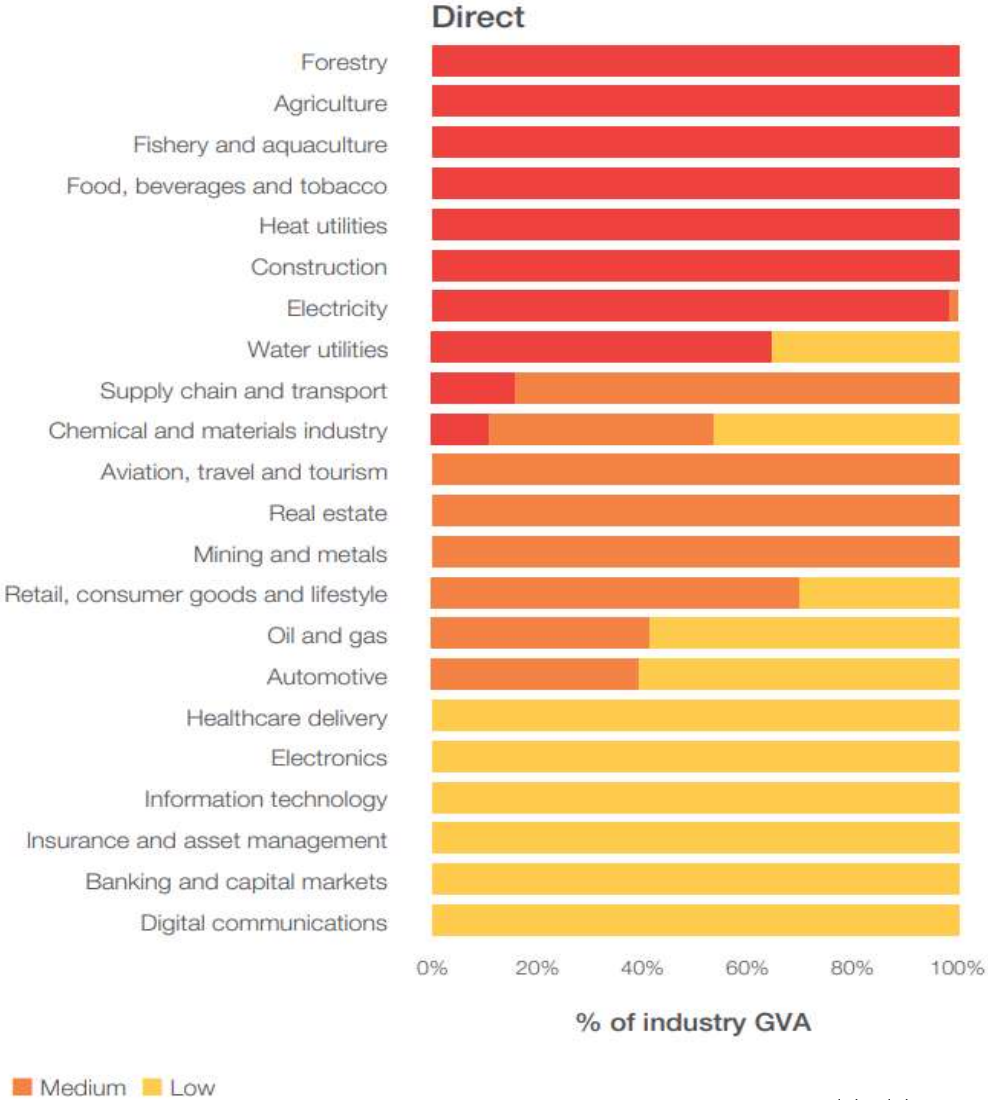
Disturbances (e.g. seismic activity, artificial light affecting species, heat emissions)



Climate change (e.g. emission of greenhouse gases by operations, and energy needs)

THIS TRANSLATES TO POTENTIAL DISRUPTION FOR BUSINESSES

\$44 Trillion at risk
(50% of Global GDP)



WEF, Nature Risk Rising 2020

DEPENDENCIES ON BIODIVERSITY FROM BUSINESS



Direct Physical Input (e.g. Materials, genetic information)



Enabling Production (e.g. Pollination, soil quality, water flow and quality, air quality)



Impact Mitigation (e.g. Bio-remediation, dilution, filtration, mediation of sensory impacts)



Protection from disruption (e.g. Climate, disease, flood, erosion, and pest control)

NATURE LOSS AS BUSINESS RISK IS WELL RECOGNISED

- All businesses impact and depend on biodiversity directly and through their supply chains
- Global biodiversity loss affects key areas of risk for any business:
 - Physical inc. acute and chronic
 - Transition inc. policy, legal and market changes
 - Systemic inc. natural system breakdown

Top 10 Global Risks by Severity

Over the next 10 years



■ Economic ■ Environmental ■ Geopolitical ■ Societal ■ Technological

Source: World Economic Forum Global Risks Report 2022

**CLIMATE
CHANGE**



**NATURE
LOSS**

Physical risks
Acute
Chronic

**COMPANY
RISKS**

Transition risks
Policy and Legal
Technology
Market
Reputation

**COMPANY
FINANCIAL IMPACT**

Income statements
Revenues
Expenditure

**Cash Flow
Statements**

Balance sheets
Assets and liabilities
Capital and Financing

Credit risk

Operational risk

**FINANCIAL
IMPACT**

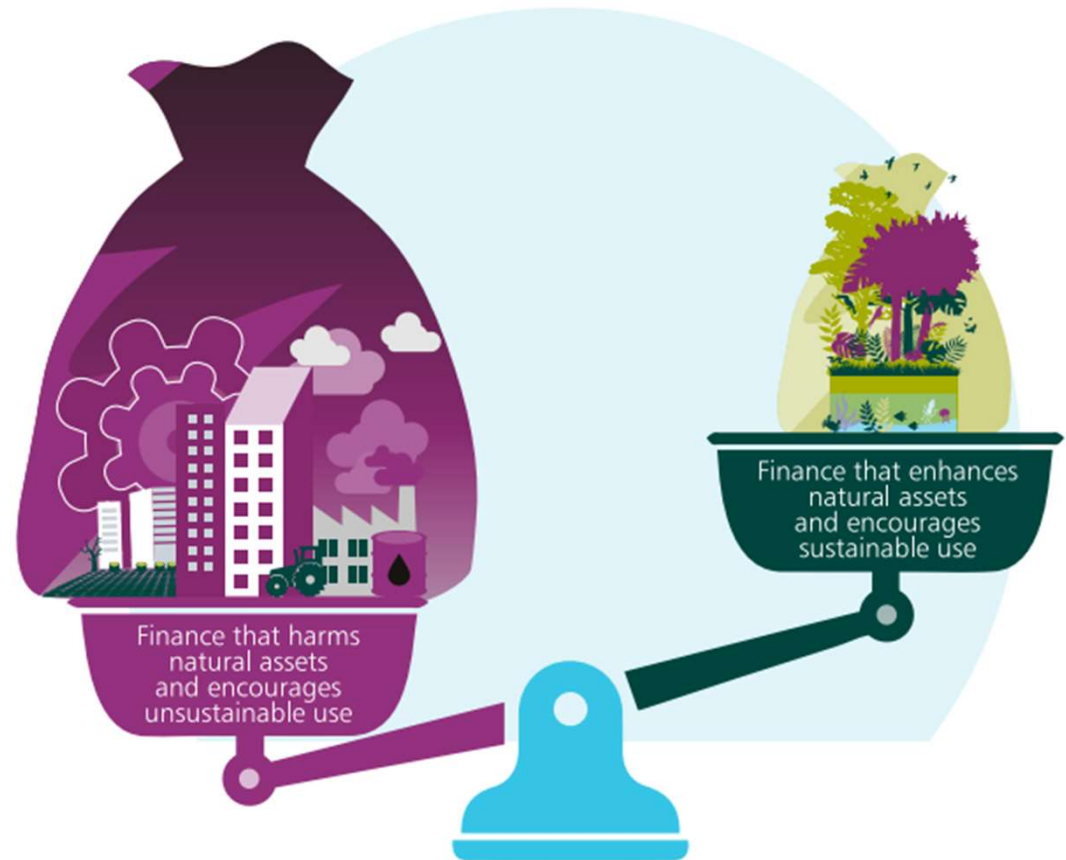
Market risk

Liquidity risk

SHIFTING FINANCIAL FLOWS

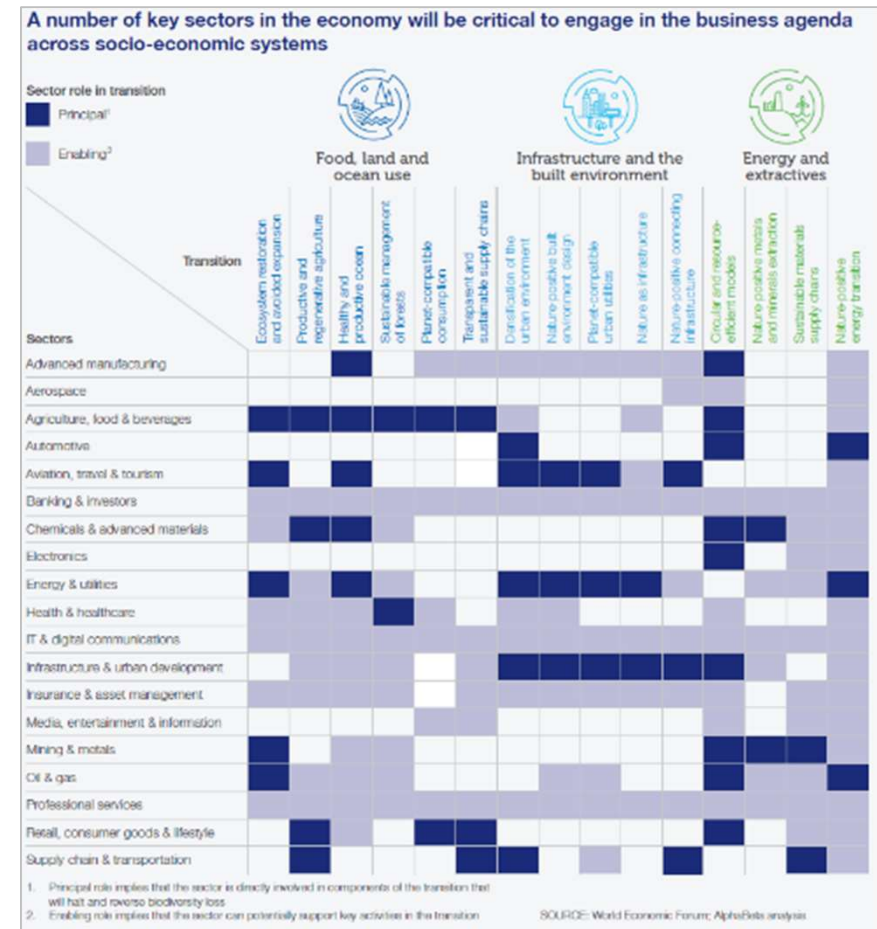
The cost of stabilising biodiversity intactness now by 2050 is approximately US\$7 trillion dollars (~8% of global GDP)

But, delaying action by 10 years would more than double the cost to approximately US\$15 trillion (~17% of global GDP)

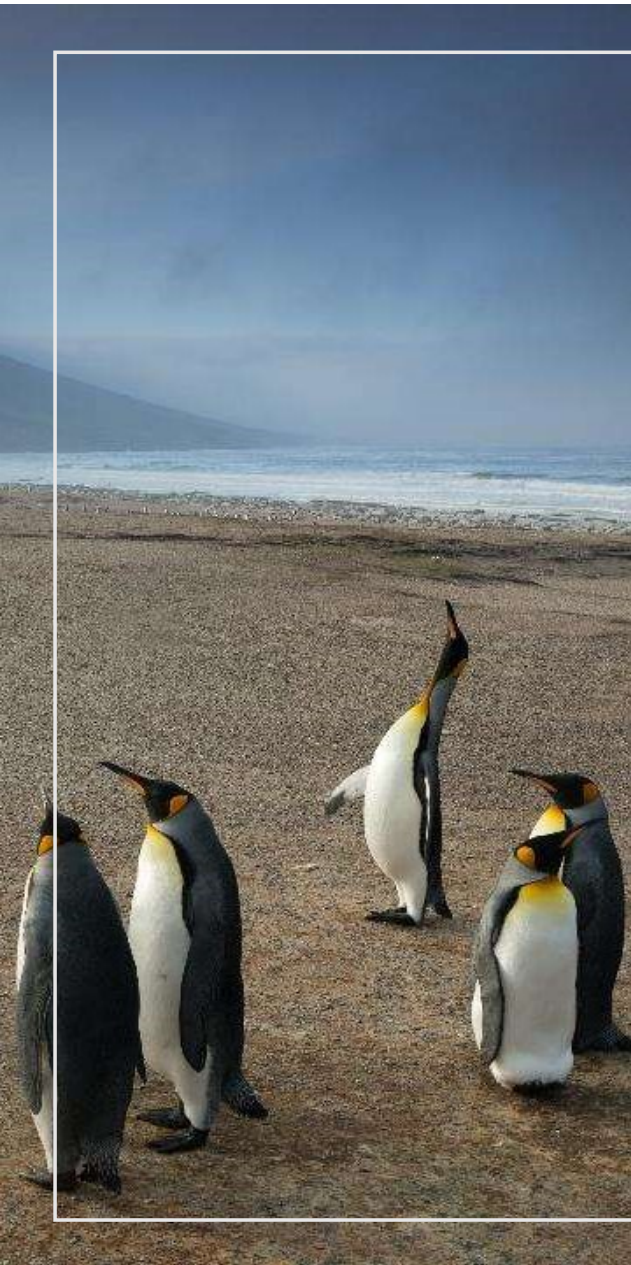


ALL SECTORS REQUIRE CRITICAL TRANSITIONS

Emerging business opportunities during these transitions will create over \$10 trillion of annual value and 395 million jobs by 2030



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

SBTN GUIDANCE FOR TARGET-SETTING

Guidance on setting SBTs for nature:

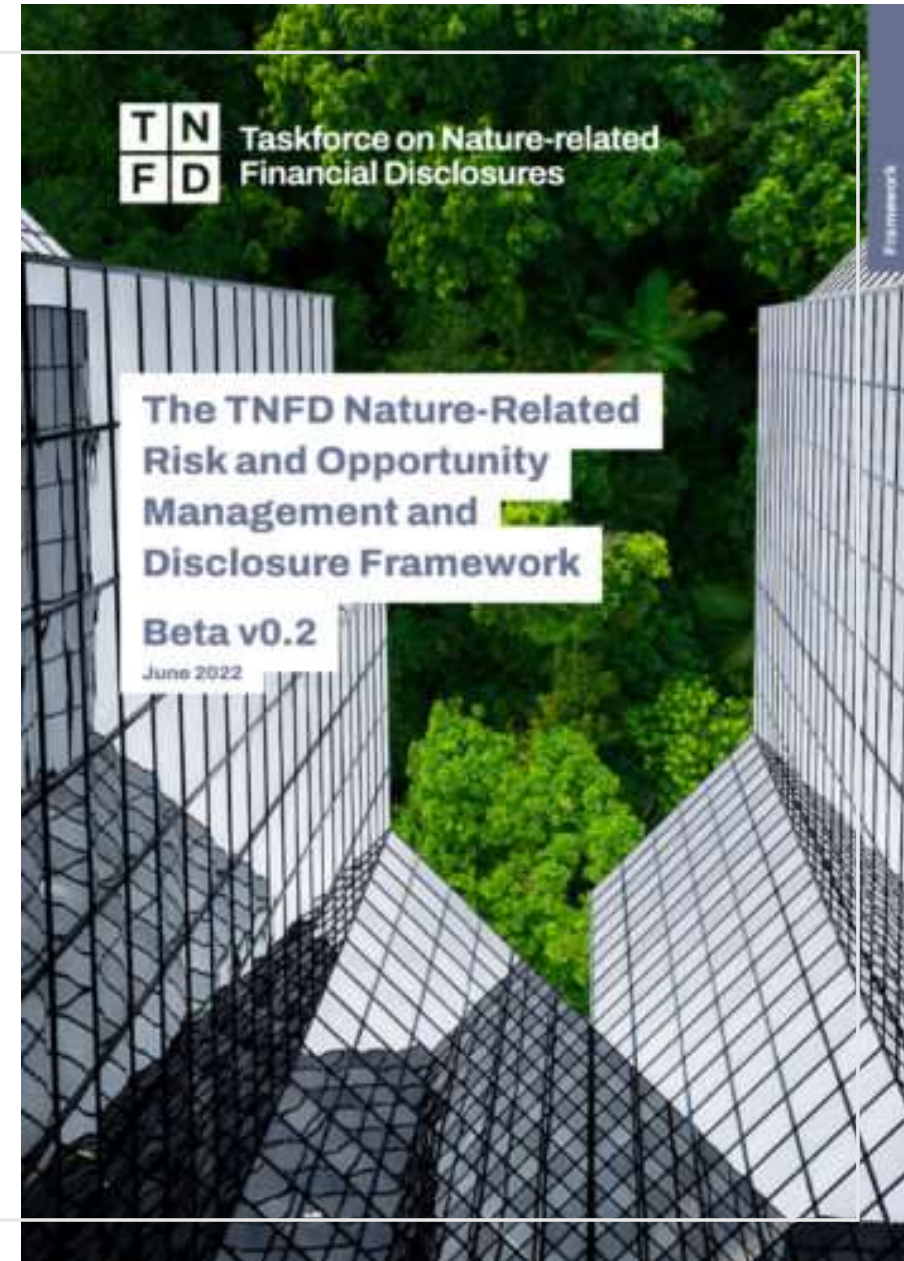
- 5 phases
 - Assess impacts and locations;
 - Prioritise where and how to act first;
 - Measure, Set, & Disclose indicators relating to priority targets;
 - Act to achieve the previously set targets;
 - Track and publish progress towards targets,
- Guidance 1.0 is expected to release Early 2023



THE TNFD LEAP ASSESSMENT APPROACH

Guidance on assessment and disclosure of nature-related risk and opportunity:

- 4 phases, 17 components:
 - Locate your interface with nature;
 - Evaluate your dependencies and impacts;
 - Assess your risks and opportunities; and
 - Prepare to respond to nature-related risks and opportunities and report.
- Extended approach for financial institutions



LOCATION-RELATED DISCLOSURE

Recommended disclosure d)
Describe the organization's interactions [with low integrity ecosystems, important ecosystems or areas of water stress](#)

Guidance for all sectors

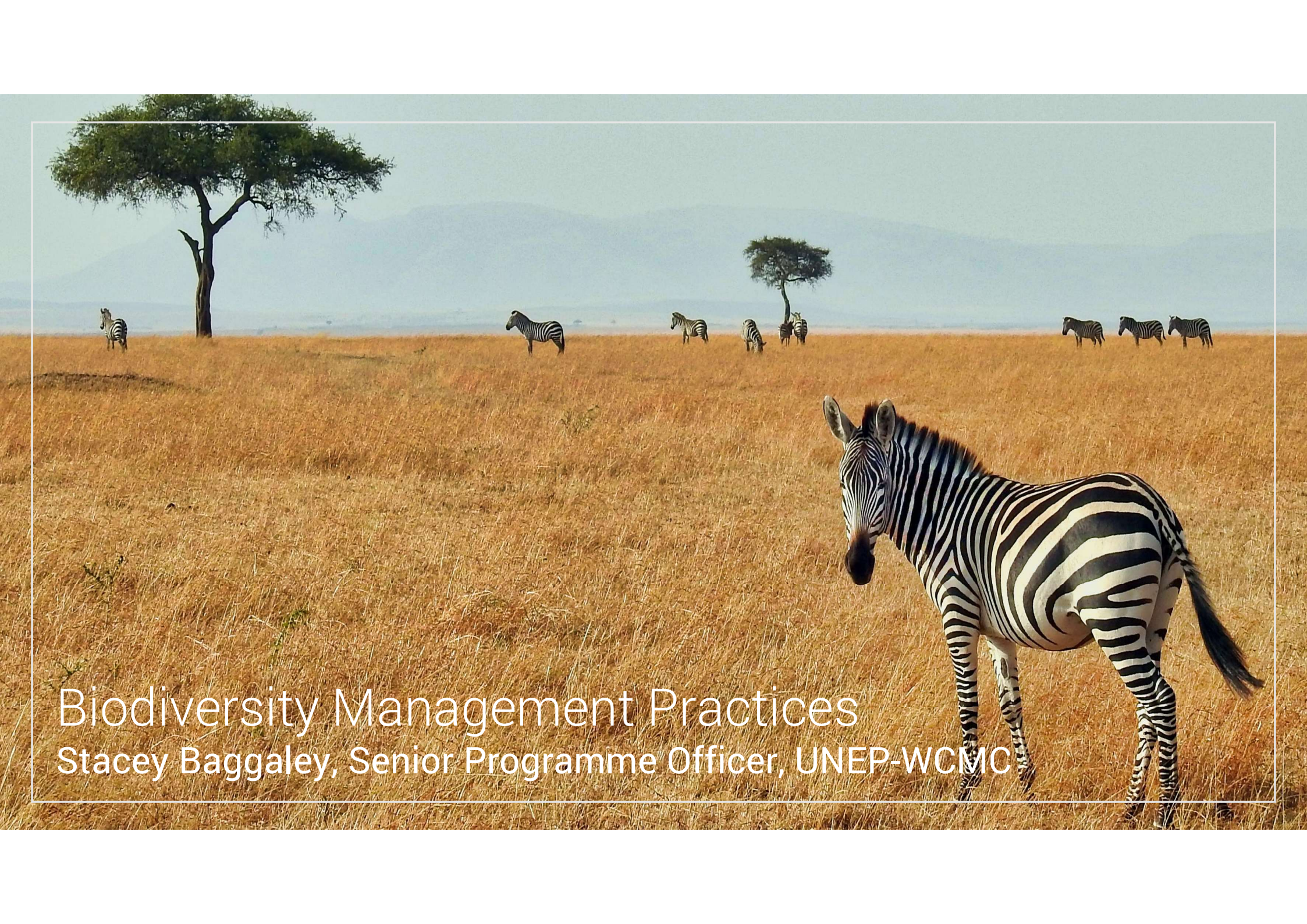
Organizations should provide a list and/or spatial map of the ecosystems deemed to be low integrity and/or high importance and water-stressed areas with which the organization's assets and operations interact. This should include reference to the location of the ecosystem and the type of ecosystem (i.e. the biome).

Proposed reference sources

- Ecosystem Integrity Index (UNEP-WCMC)
- IUCN Red List of Ecosystems (IUCN)
- UNEP-WCMC Critical Habitat Screening layer
- UNEP-WCMC Map of biodiversity hotspots
- World Database of Key Biodiversity Areas
- IUCN Red List of Threatened Species
- World Database on Protected Areas
- WWF Water Risk Filter
- WRI Aqueduct Water Risk Atlas

DISCUSSION

1. How does this messaging make you feel?
2. Do you think NEA initiatives can use this information to raise private sector awareness?
3. Where do you think you will be able to fit into the narrative?



Biodiversity Management Practices

Stacey Baggaley, Senior Programme Officer, UNEP-WCMC

COMPLIANCE BASED APPROACHES

At a minimum, businesses will take a compliance based approach to biodiversity management including:

- Following national EIA/ESIA processes.
- Complying with local regulatory environment for planning, permitting and operating.



STANDARDS

Finance and business standards

- International Finance Corporation (IFC) Performance Standard 6 ([access](#))
- World Bank Safeguards policies (ESS6) ([access](#))
- EU Taxonomy ([access](#))
- ISO standards (e.g. 14001:2015) ([access](#))
- Global Reporting Initiative (GRI) e.g. Oil and Gas Sector Standard ([access](#))



BIODIVERSITY ACTION PLANS

- BAPS are inspired from National Biodiversity Strategies and Action Plans (NBSAPs) which are required by the CBD for parties to protect and restore biodiversity and ecosystems.
- A set of future actions that will lead to the conservation or enhancement of biodiversity.
- Can be implemented at multiple levels.
- Typically include:
 - Biological information and conservation status
 - Creation of targets
 - Implementation approaches



GOOD PRACTICE APPROACHES

Risk management frameworks

- Risk-based approaches
- Mitigation Hierarchy
- Management plans

Corporate commitments

- “No-go” areas or commitments
- No net loss of biodiversity
- Biodiversity net gain or net positive impact
- Deforestation-free supply chains

Following best-practice/industry guidance

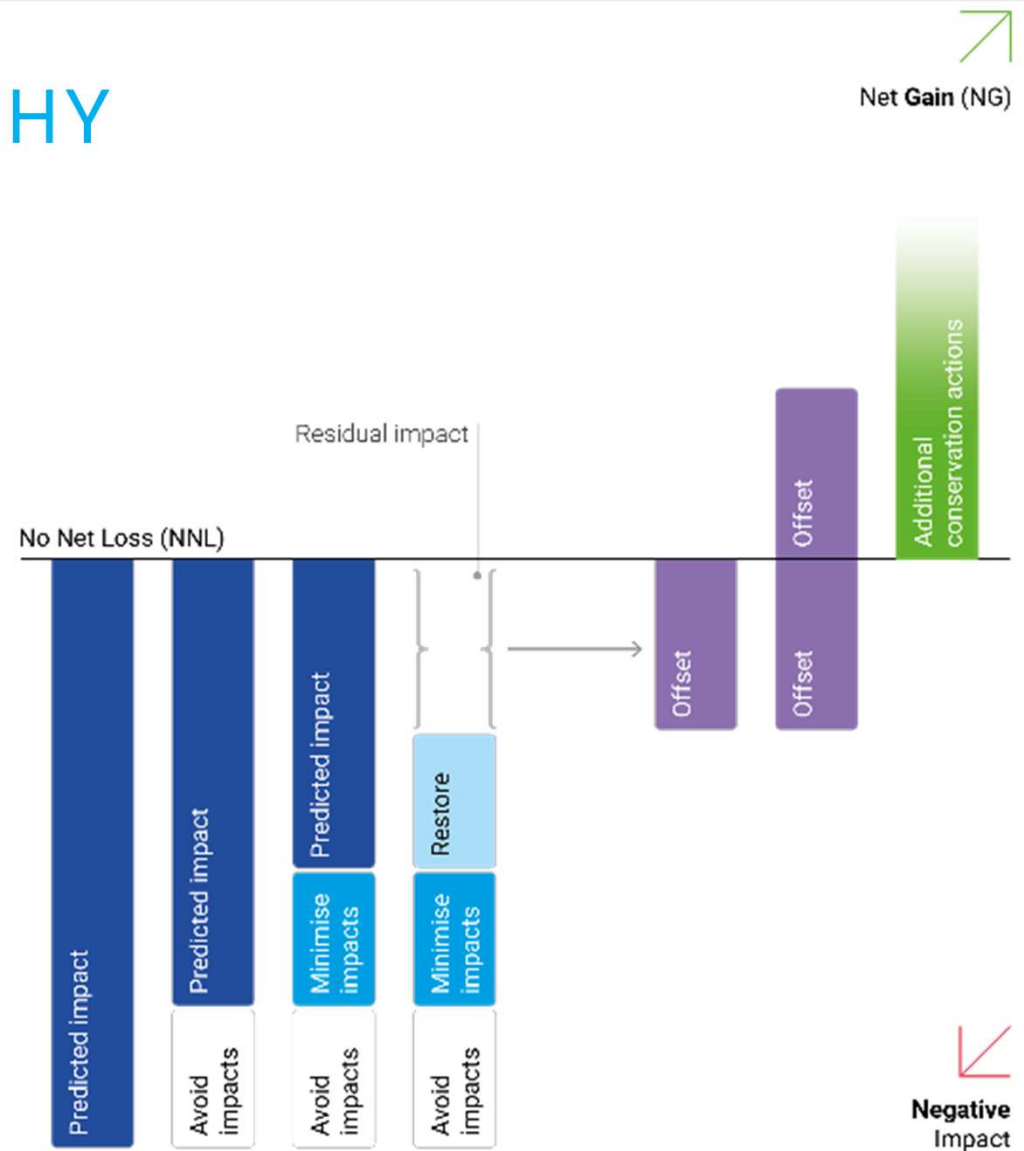


THE MITIGATION HIERARCHY

Sequential steps to minimise negative impacts on biodiversity.

- Avoid
- Minimise
- Restore
- Offset

ACAs refers to a wide range of interventions intended to be positive for biodiversity and ecosystem services (BES).



THE MITIGATION HIERARCHY STEPS

Avoidance

- ...to prevent adverse impacts on biodiversity

Minimisation

- ...to reduce the duration, intensity, significance and/or extent of impacts

Restoration

- ...to repair, remedy, remediate habitats, biodiversity values, and/or ecosystem services.

Offset

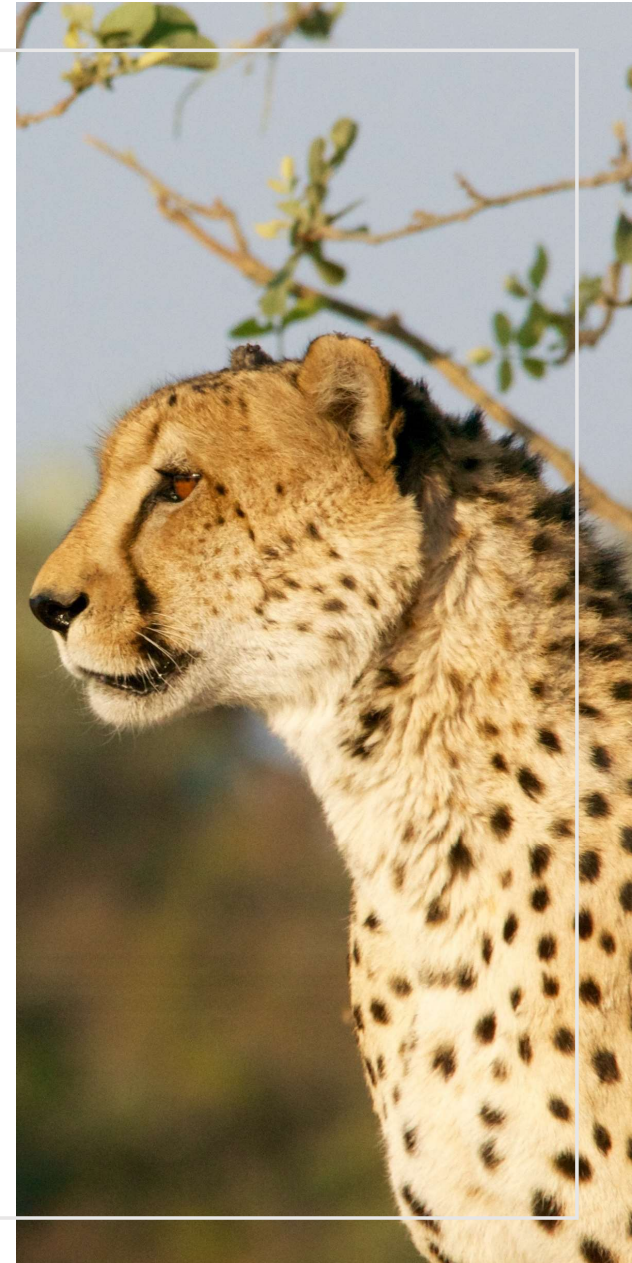
- actions applied to areas not impacted by the project, that compensate for significant, adverse project impacts

WHY USE THE MITIGATION HIERARCHY?



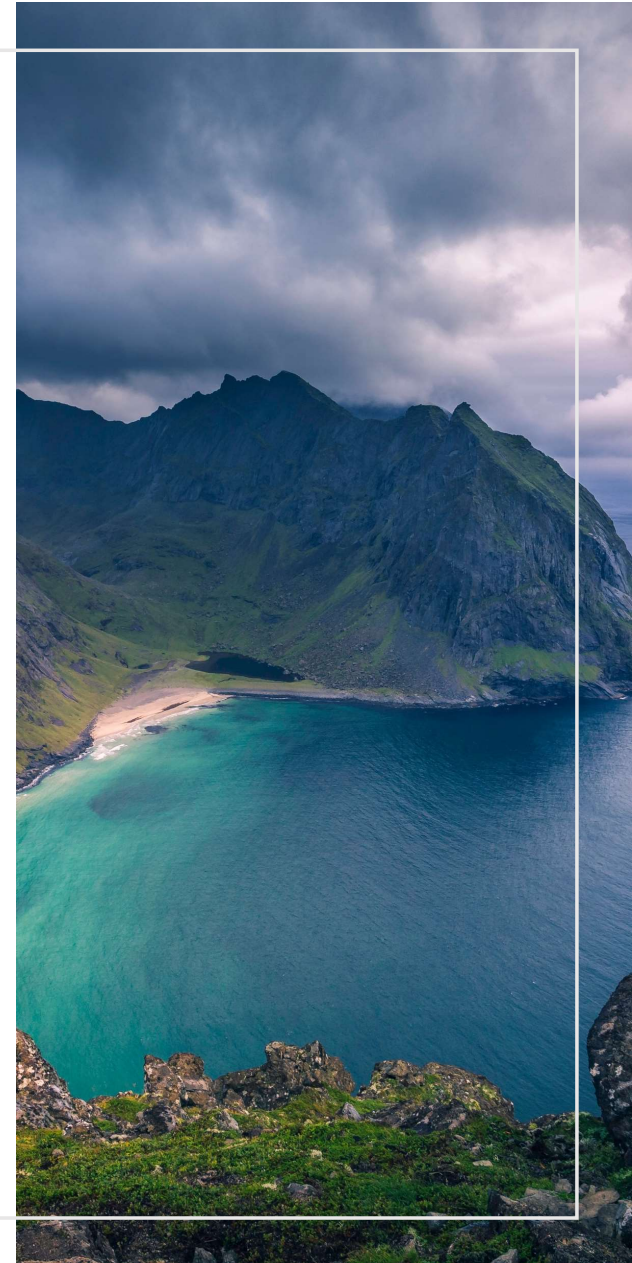
NO NET LOSS (NNL)

“The point at which the project-related impacts on biodiversity are balanced by measures taken to avoid and minimize the project's impacts, to undertake on site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale (e.g local, landscape-level, national, regional)” (IFC 2012)



BIODIVERSITY NET GAIN (BNG) (ALSO KNOWN AS NET POSITIVE IMPACT)

Additional conservation outcomes that can be achieved for the biodiversity values. Net gains may be achieved through the development of a biodiversity offset and/or the implementation of programs to enhance habitat, and protect and conserve biodiversity (IFC 2012)



GROWING COMMITMENTS TO NPI/BNG

“Our new projects in areas rich in biodiversity...will have a net positive impact on biodiversity...”



“Our nature-based solutions projects...will have a net positive impact on biodiversity...”

Stora Enso is committed to achieving a net positive impact on biodiversity in our own forests and plantations by 2050 through active biodiversity management



“To deliver net positive impact (NPI) across Anglo American through implementing the mitigation hierarchy and investment in biodiversity stewardship.”



“We will aim to achieve a net positive impact on biodiversity in our new projects.

From 2022 onwards, new bp operated projects...[that] have the potential for significant direct impacts on biodiversity will be required to develop net positive impact action plans for those activities”



NO GO AND DEFORESTATION COMMITMENTS

Neither explore nor develop new mines in World Heritage Sites, respect legally designated protected areas, and design and operate any new operations or changes to existing operations to be compatible with the value for which such areas were designated.



A commitment to recognize the universal value of UNESCO's world natural heritage sites, by not conducting oil and gas exploration or production activity in these areas. TotalEnergies has also made a commitment not to conduct any exploration activity in oil fields under sea ice in the Arctic.



Deforestation-free supply chain in palm oil, paper and board, tea, soy and cocoa by 2023.



We will achieve and maintain 100% deforestation-free supply chains using tools such as supply chain mapping, on-the-ground assessments, certification and satellite monitoring.



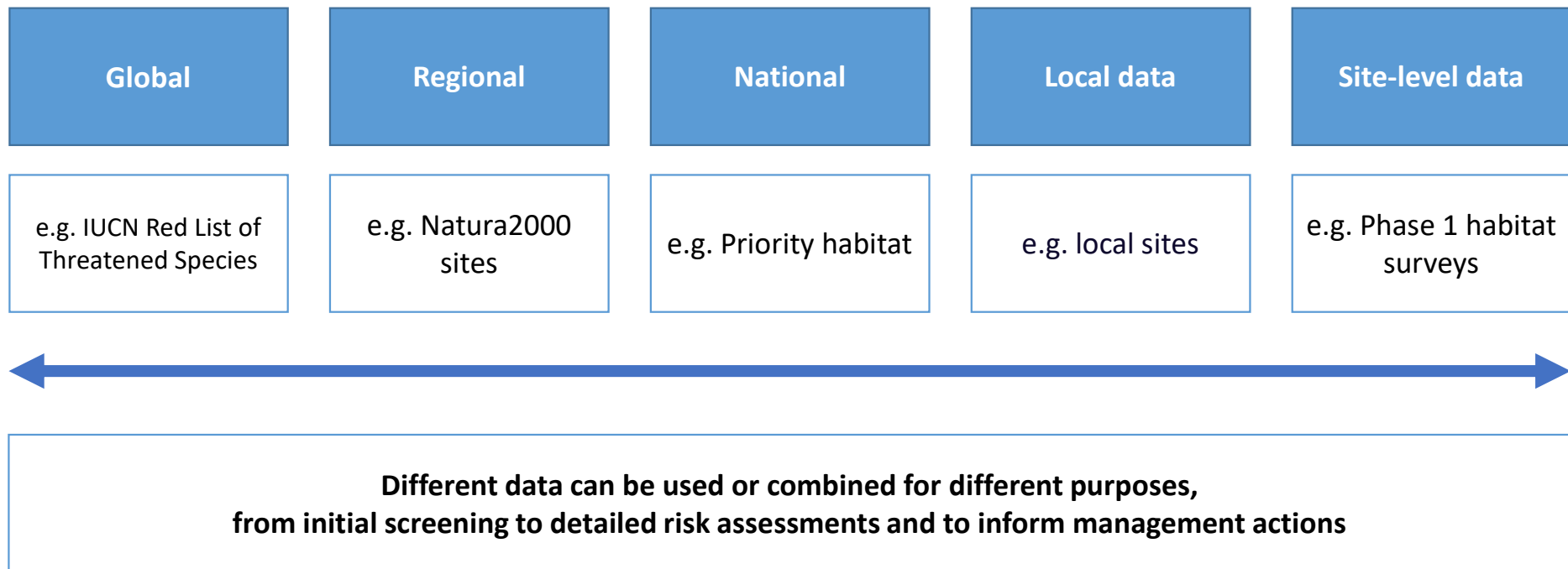
STAGES OF BIODIVERSITY MANAGEMENT



DETERMINING BIODIVERSITY FEATURES

| Biodiversity feature | Implications for biodiversity management |
|------------------------|--|
| Protected Areas | <p>Consider the boundaries, purpose/objectives, management plan, management effectiveness and resources.</p> <ul style="list-style-type: none"> • Can the project design avoid impacts completely? • Is a protected area a candidate for implementing an offset? |
| Key Biodiversity Areas | <p>What are the trigger species, how are these impacted by the project, what is the current state of the KBA?</p> <ul style="list-style-type: none"> • Can impacts on the KBA be avoided? • How might impacts on trigger species outside the KBA affect the KBA itself? • Can the KBA be enhanced as part of the mitigation measures? |
| Habitats | <p>What is the distribution and types of habitat (habitat classification), status or condition of the habitat, habitat designation (if applicable) and connectivity and function of the habitat.</p> <ul style="list-style-type: none"> • Will mitigation measures be appropriate for all impacted habitat types? |
| Species | <p>Include targeted species groups, global status of the species, distribution and abundance, conservation status (e.g. IUCN Red List Endangered)</p> <ul style="list-style-type: none"> • Are mitigation measures appropriate for the seasonal and natural variability and underlying trends in population changes? |
| Key ecosystem services | <p>Identify key ecosystem services – their type, the users and beneficiaries, and the value</p> <ul style="list-style-type: none"> • How will project impacts on ecosystem services impact on local communities? • Will offsets and restoration activities change the access of communities to services? |

BUSINESSES USE DATA AT DIFFERENT LEVELS



SCOPE OF IMPACTS

Direct

- Direct result of project activities

Indirect / induced

- Knock on effects of project activities

Cumulative

- Combined effect of multiple actors

SIGNIFICANCE OF IMPACTS

Severity

Importance of affected biodiversity / ecosystem services

Scale of impact

Duration / frequency of impact

Reversibility of impact

Likelihood

Accuracy of predictions

Under what circumstances would it occur

Adopt the precautionary principle

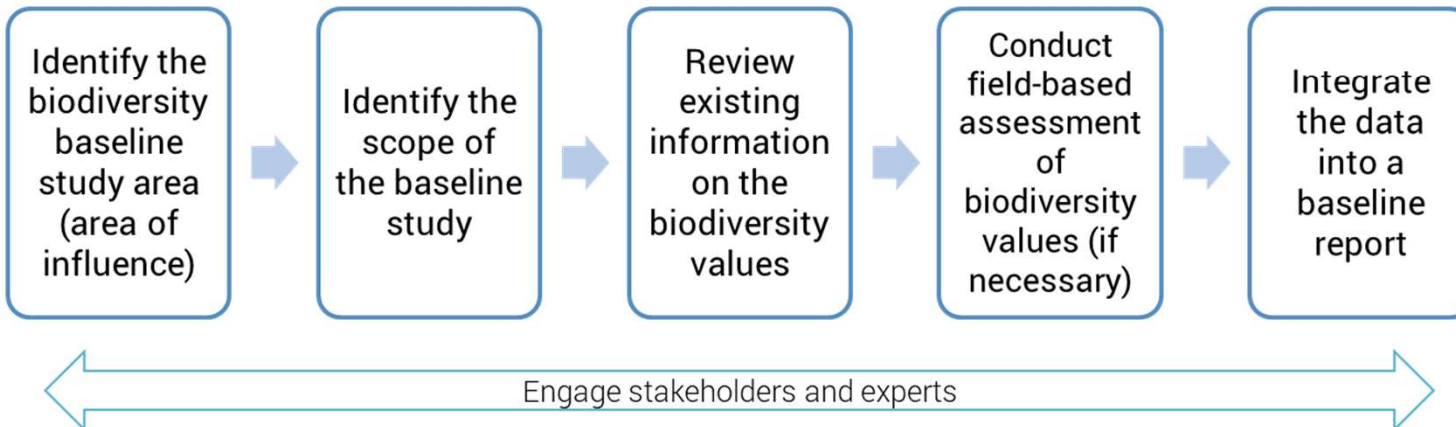
BASELINES



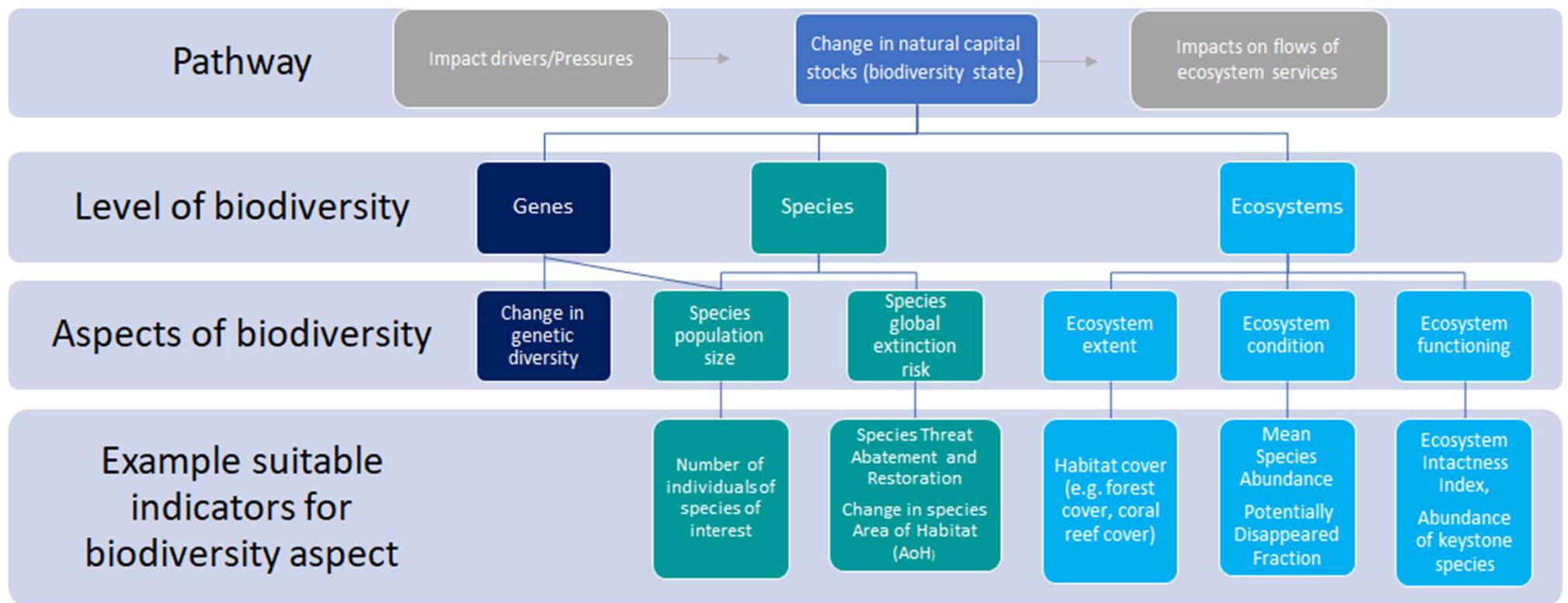
Biodiversity features identified during scoping



Additional biodiversity features within the Area of Influence



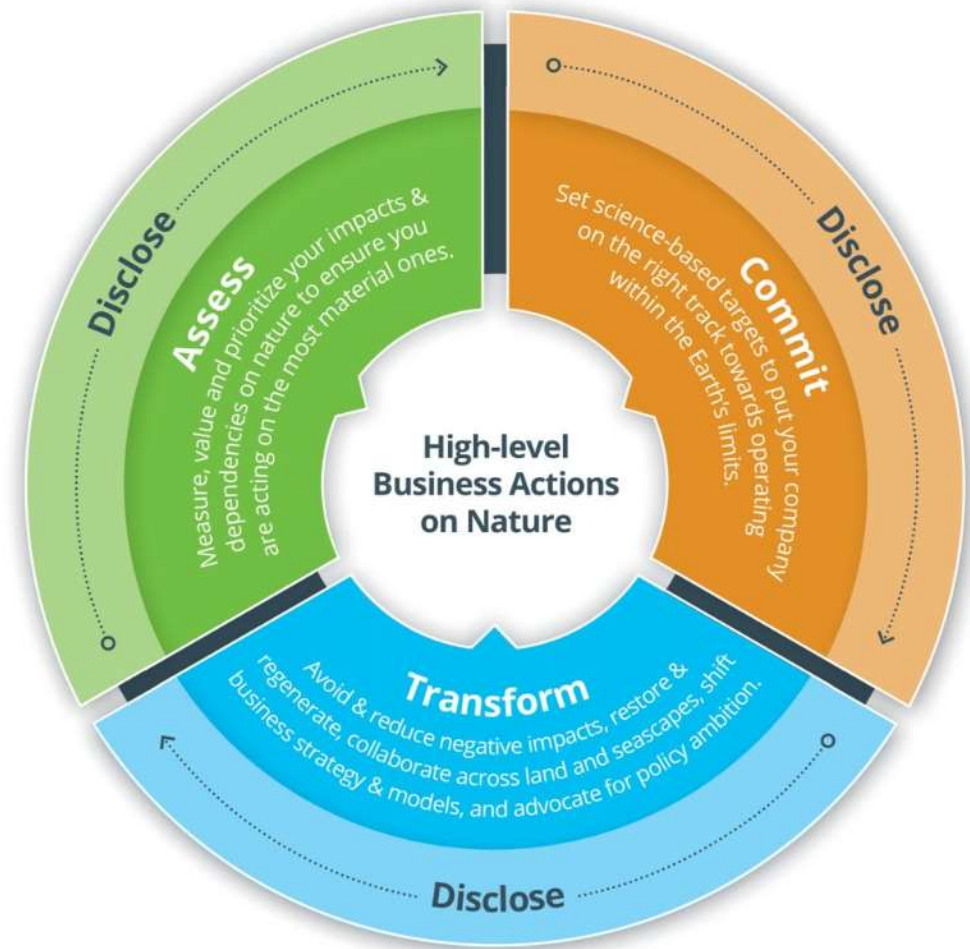
ASPECTS OF BIODIVERSITY TO MEASURE AND ASSOCIATED INDICATORS



GOING BEYOND IMPACT/RISK MANAGEMENT

Businesses are also increasing their ambitions in line with global and national goals. Including commitments towards:

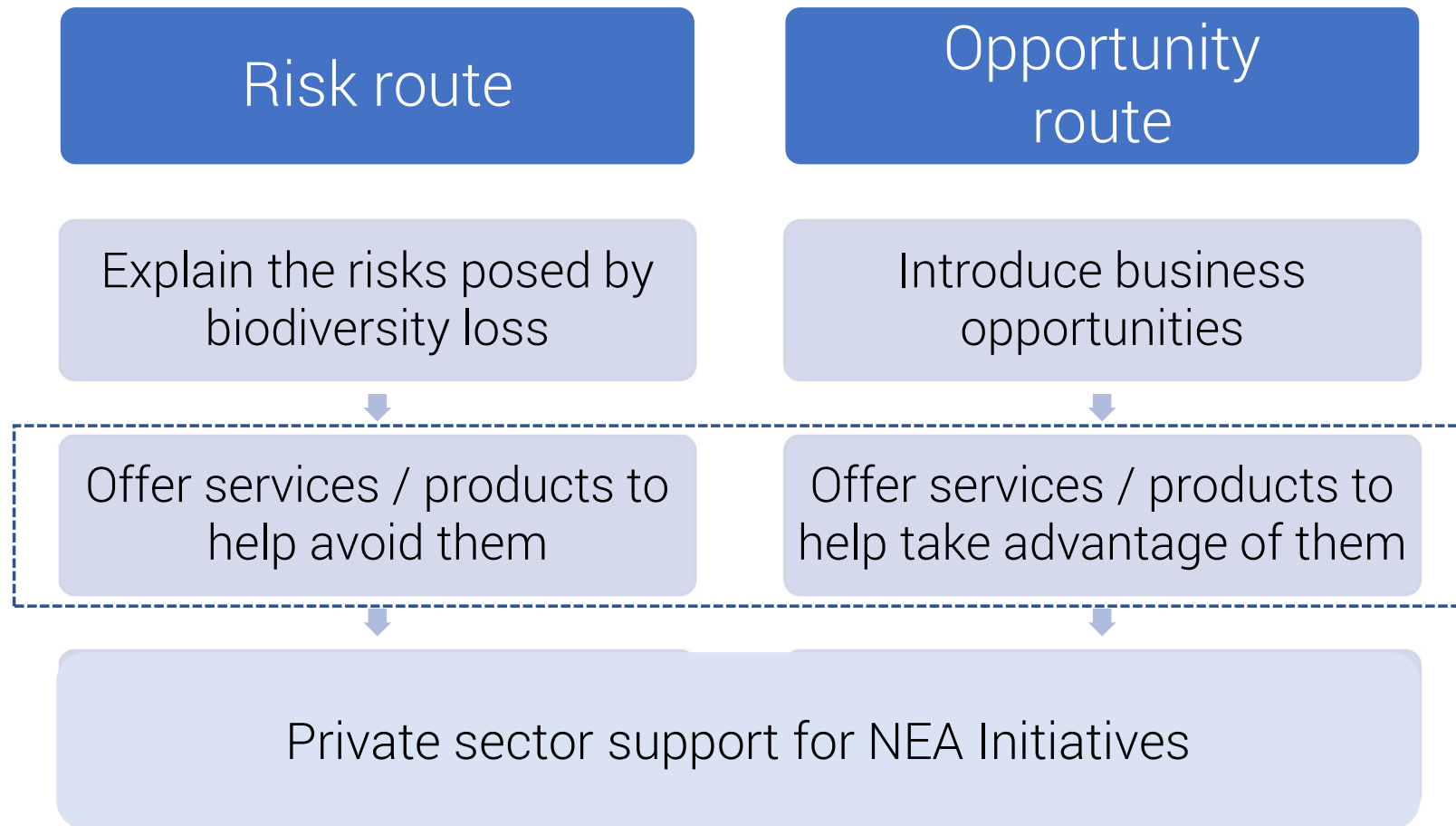
- Restoration of degraded landscapes/ecosystems
- Efforts to conserve and protect.
- Collaborations and partnerships (global, supply chain, landscape/regional)
- Traceability and transparency
- Nature-based solutions
- Participation in business associations, roundtables and certification/standard schemes



A photograph of a frog swimming in water, viewed from below. The frog is positioned in the lower-left quadrant of the frame, with its head and front legs visible. The water is a deep, clear blue-green color. The frog's skin is dark with some lighter patches. Its eyes are large and prominent, and its mouth is slightly open. The frog's reflection is visible in the water below it.

Corporate engagement through the Proteus Partnership
Stacey Baggaley, Senior Programme Officer, UNEP-WCMC

OVERVIEW OF APPROACHING BUSINESSES





GOALS OF THE **proteus** PARTNERSHIP

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

PROTEUS TOOLS AT A GLANCE

WDPA and Protected Planet

Monthly updates to World Database on Protected Areas (WDPA) and ability to nominate priority countries

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+

Access to metadata for over 190 datasets

Access: <https://oceanplus.org/>



UNEP-WCMC Resource

Access to a range of UNEP-WCMC's knowledge products

Access: <https://resources.unep-wcmc.org/>



Proteus website

Access all information resources offered through Proteus

Access: www.proteuspartners.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 specialist cross-Partnership data forum supporting peer-to-peer learning with other technical experts
- 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 development of the Biodiversity A-Z

TOOLS TO AID SUCCESS

| | | | | | | | | |
|------------------------------------|------------------------|-------------------|--------------------|--------------------------------|---------------------------------------|-----------------------------|--------------------------|-------------------|
| Building the business case | Proteus Annual Meeting | | | Communications | | | Proteus website | |
| | | | | Impact survey | Quarterly reports | Annual reports | Updates and maintenance | Seamless accounts |
| WDPA/WD-OECM | | | | IBAT subscription | Restoration opportunities | Data repository | Directory of KPIs | |
| Data updates | Protected Planet | Data factsheets | Priority countries | Web services | Training | Technical Assistance | Data queries | |
| Ocean+ | | | | Data Forums | | | | |
| Improving marine and coastal data | | Online tools | | Marine environmental screening | Hotspots of natural capital depletion | Company GIS screening tools | Marine restoration | |
| UN Decade on Ecosystem Restoration | | C-suite updates | | Events | | Biodiversity A-Z | | |
| Technical Briefs | | | | Horizon scanning webinars | | | | |
| Brownfield sites | Area of influence | Energy transition | Green recovery | UN Decade | IMO designations | BBNJ | Biodiversity measurement | |
| Partnership management | | | | | Expansion | | Proteus SME | |



HOW PROTEUS RESOURCES SUPPORT PARTNERS

Project level

- Complement project-level risk assessment and site selection
 - Environmental Impact Assessments (EIAs)
 - Application of the mitigation hierarchy
 - Biodiversity action planning
 - Site closure / decommissioning
 - Alignment with performance standards
- Policy level
- Screening potential investments
 - Supply chain management
 - Development of biodiversity management strategy
 - Portfolio analysis and reporting on global footprint

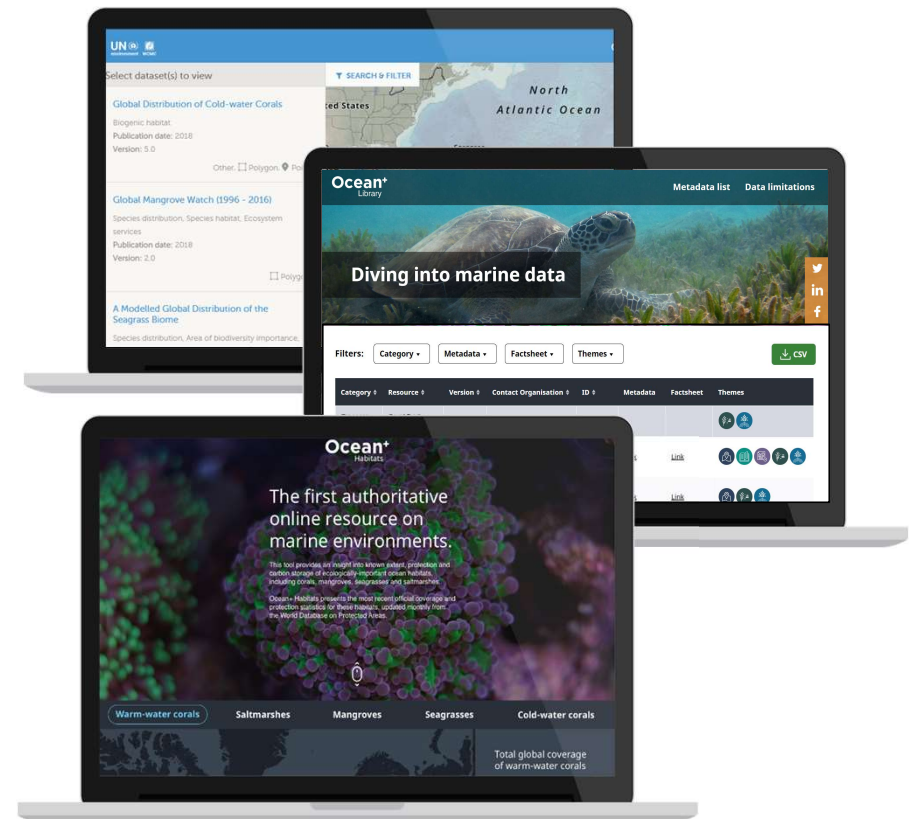
Ocean⁺



WCMC

proteus

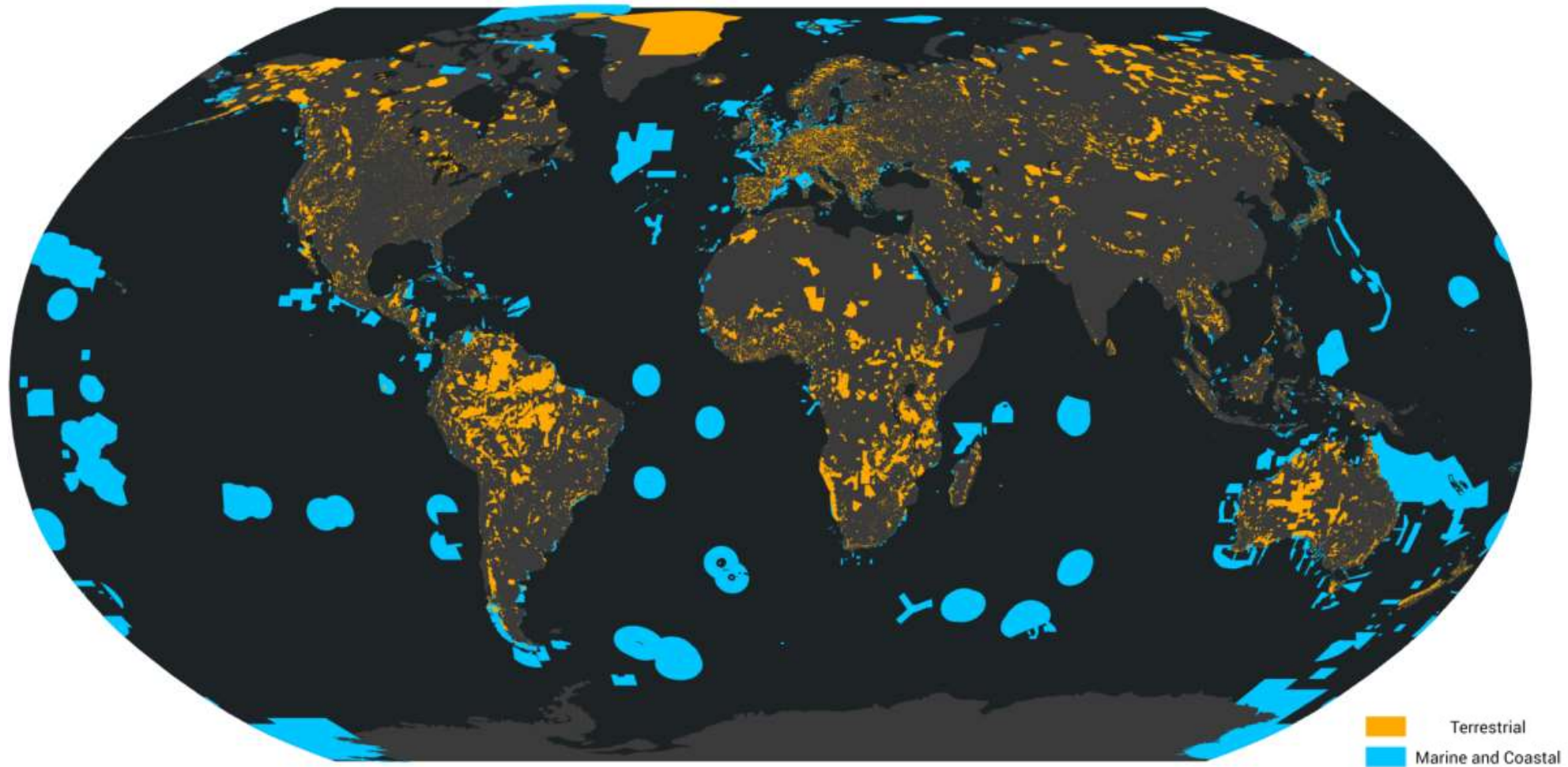
- Umbrella initiative for UNEP-WCMC's marine work, supported by Proteus
- Inventory of nationally-validated spatial data on ocean habitats, informing development and reporting
- Supporting capacity development by identifying needs and overcoming gaps



INTEGRATED BIODIVERSITY ASSESSMENT TOOL (IBAT)



THE WORLD DATABASE ON PROTECTED AREAS



BIODIVERSITY A-Z

The screenshot shows the website biodiversity-a-z.org in a browser window. The page features a header with the site logo and navigation links. Below the header is a large image of colorful parrot feathers. A search bar and a dropdown menu for "All themes" are positioned over the image. Below the image, the text "Browse by theme:" is followed by five circular icons representing different categories: ACRONYMS (red bird), AREAS (green ant), COUNTRIES (yellow globe), MARINE (blue fish), and TERMS (orange lizard). At the bottom, there is a "Definition: Biodiversity" section with a dark blue background and white text.

UN @ WCMC

environment programme

BIODIVERSITY **a-z** UN @ WCMC

Concise and authoritative information about biodiversity

Search | All themes

Browse by theme:

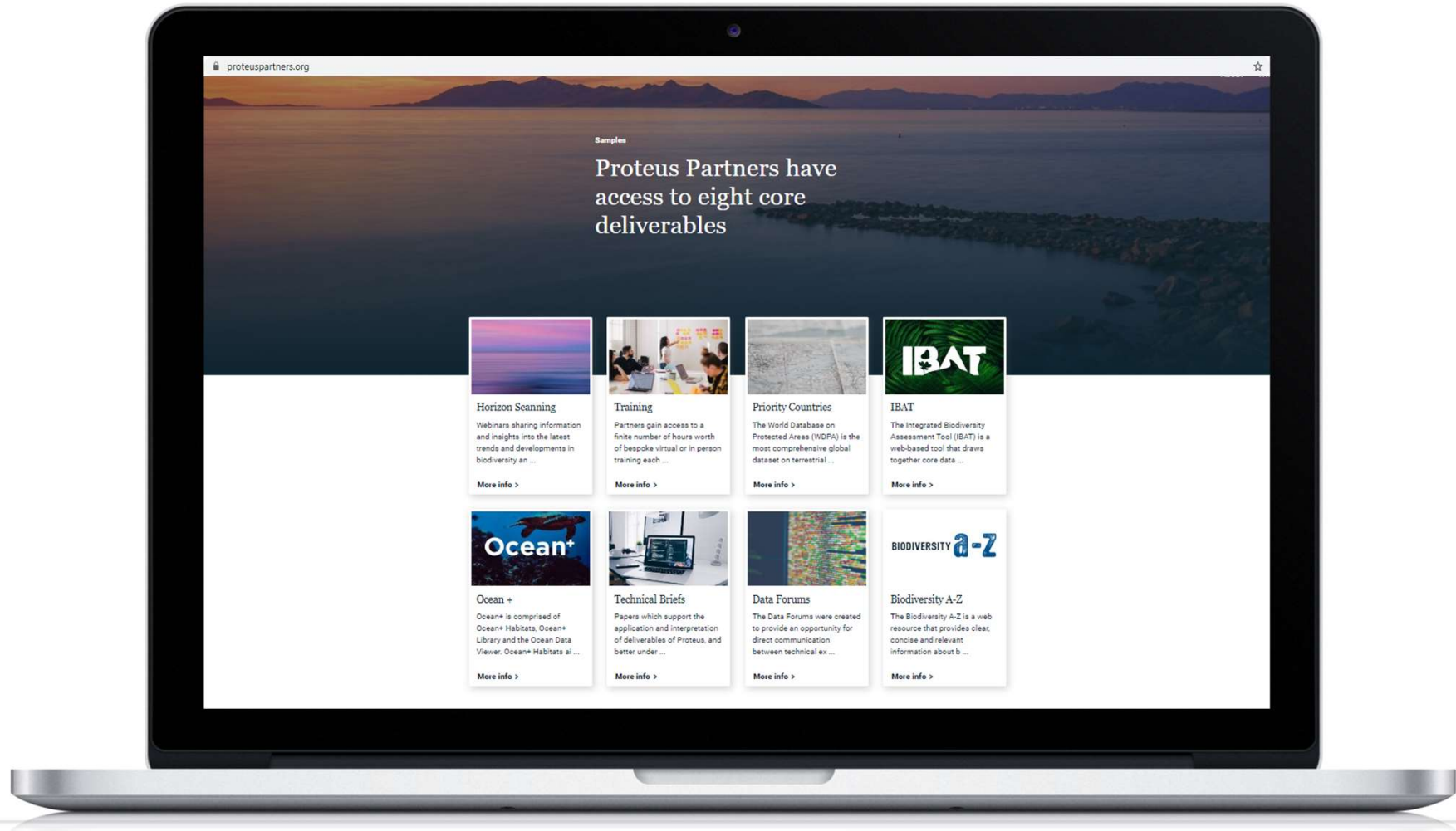
- ACRONYMS
- AREAS
- COUNTRIES
- MARINE
- TERMS

Definition: Biodiversity

Biodiversity

Biological diversity means 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.

PROTEUS WEBSITE



PROTEUS TECHNICAL BRIEFS

UNEP-WCMC Technical Briefing
December 2021

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The Global Energy Transition

The role of mining and energy companies in enabling a nature positive energy transition

Key Messages

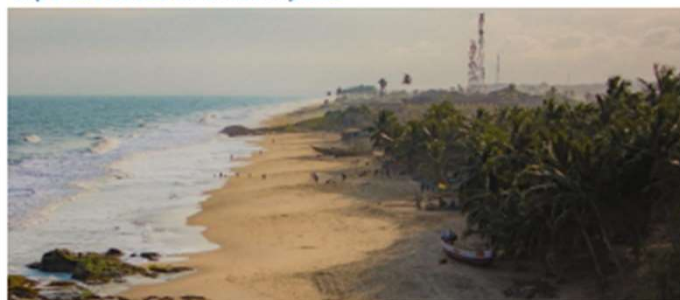
- The global energy transition will significantly increase demand for key metals and minerals.
- The surge in demand will open up new frontiers of mineral extraction and has the potential to exacerbate existing environmental and social risks in operations and along supply chains for mining companies and their customers such as renewable energy companies.
- If left unchecked, these material risks may slow clean energy deployment and imperil the nature positive transition needed to halt climate change and biodiversity loss.
- Recommendations on where Proteus Partners must act to minimise biodiversity-relevant risks within their operations and supply chains and enable a nature positive energy transition include:
 1. Integration of circular design principles and closed loop efforts in the production of energy assets
 2. Accelerate the adoption of net-gain approaches to mitigate site-based impacts
 3. Contribute to closing the knowledge gap on the ecological impacts of operating in new frontiers such as deep-sea mining
 4. Disclose footprint and adopt transparent, responsible supply chains supported by verified certification schemes and due diligence procedures
 5. Underpin biodiversity commitments with meaningful indicators based on sound and scientific criteria
 6. Gain more control over the compliance of social and environmental standards along the supply chain through e.g. vertical integration and partnerships
 7. Decarbonise operations and portfolios and divest from fossil fuels

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



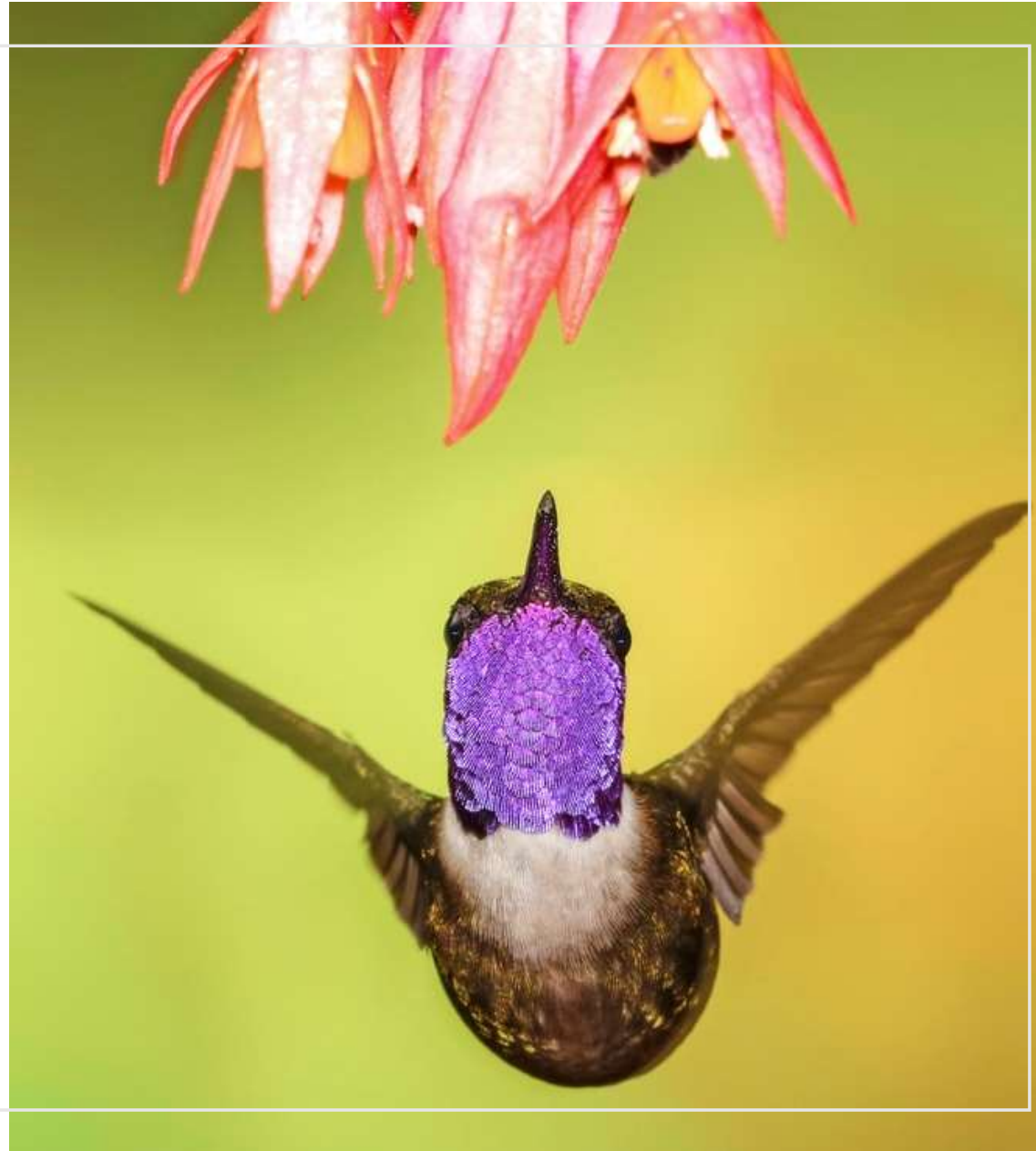
Key Messages

- 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 influence 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 sharing information and insights into the latest trends and developments in biodiversity and ecosystem services policy, initiatives, data and tools.



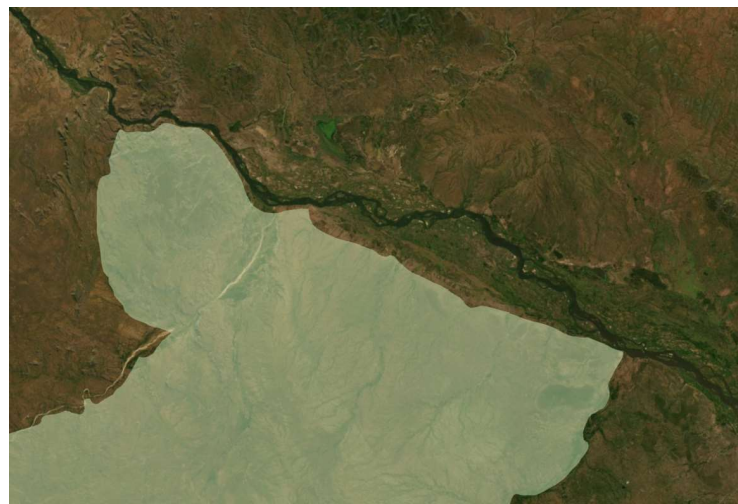
PROTEUS DATA FORUMS

A series of webinars for Proteus Partners that provide a venue for direct communication between data users and technical experts, help increase familiarity with Proteus resources and support identification of common challenges & finding solutions



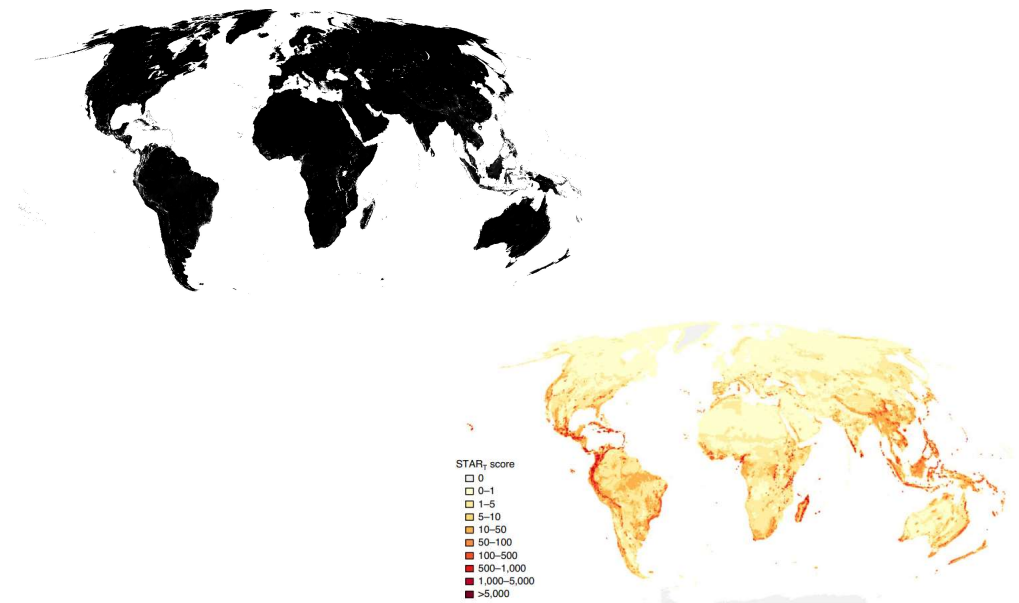
DATA VERIFICATION AND TECHNICAL SUPPORT

Data verification – clarifications on data quality and interpretation



Example query - Potential protected area (green) boundary discrepancy when compared to satellite imagery

Technical support – assistance or guidance on technical work



Example query – Visualisation of the global STAR Threat Abatement score layer

DISCUSSION

1. What type of value can the NEA initiative provide to the private sector?
2. Is there a different value proposition for stakeholders in various sectors?
3. When will you be able to start offering products/services? What are the low-hanging fruits?



Other Partnership Examples

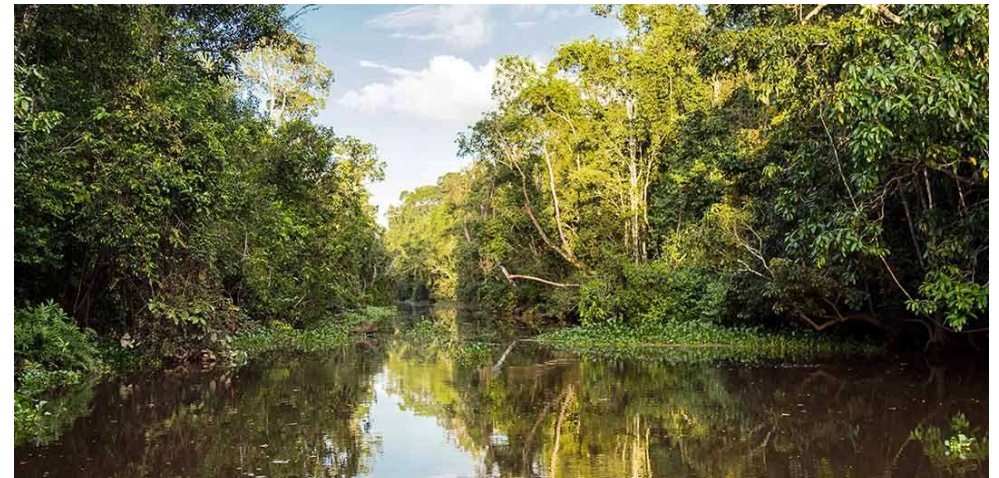
Bálint Ternyik, Associate Programme Officer, UNEP-WCMC

Forest restoration along the Kinabatangan River

Problem: 2,700-hectare area of degraded rainforest

Solution: Nestlé partnered with the Malaysian Ministry of Energy and Natural Resources to establish the RELeaf project with the aim of reforestation and promoting of sustainable farming practices

Outcome: By the end of 2020, 1 million trees have been planted with 3 million more planned by the end of 2023. The project restored biodiversity, clarified the water and supported 32,000 jobs in local communities



Source: <https://www.nestle.com/stories/nestle-helps-save-kinabatangan-river>

Ingula Nature Reserve in South Africa

Problem: The establishment of a pumped storage hydropower plant negatively impacts nature.

Solution: The South African Department of Environment, Forestry, and Fisheries required Eskom to conserve a nearby area of 8,000 ha

Outcome: Eskom working with the government and BirdLife went the extra mile so the area attained Ramsar Site status in 2018. Over 300 bird species, 24 endangered.



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Source: <https://www.esi-africa.com/industry-sectors/generation/ingula-nature-reserve-recognised-as-internationally-important/>

Healthy Forest project in Mongolia

Problem: Severe outbreak of forest defoliator species, affecting 300,000 ha and endangering 1.1B trees

Solution: In partnership with the Ministry of Environment and Tourism of Mongolia, Rio Tinto supports forest treatment and knowledge development with \$2.3 million

Outcome: TBD

RioTinto

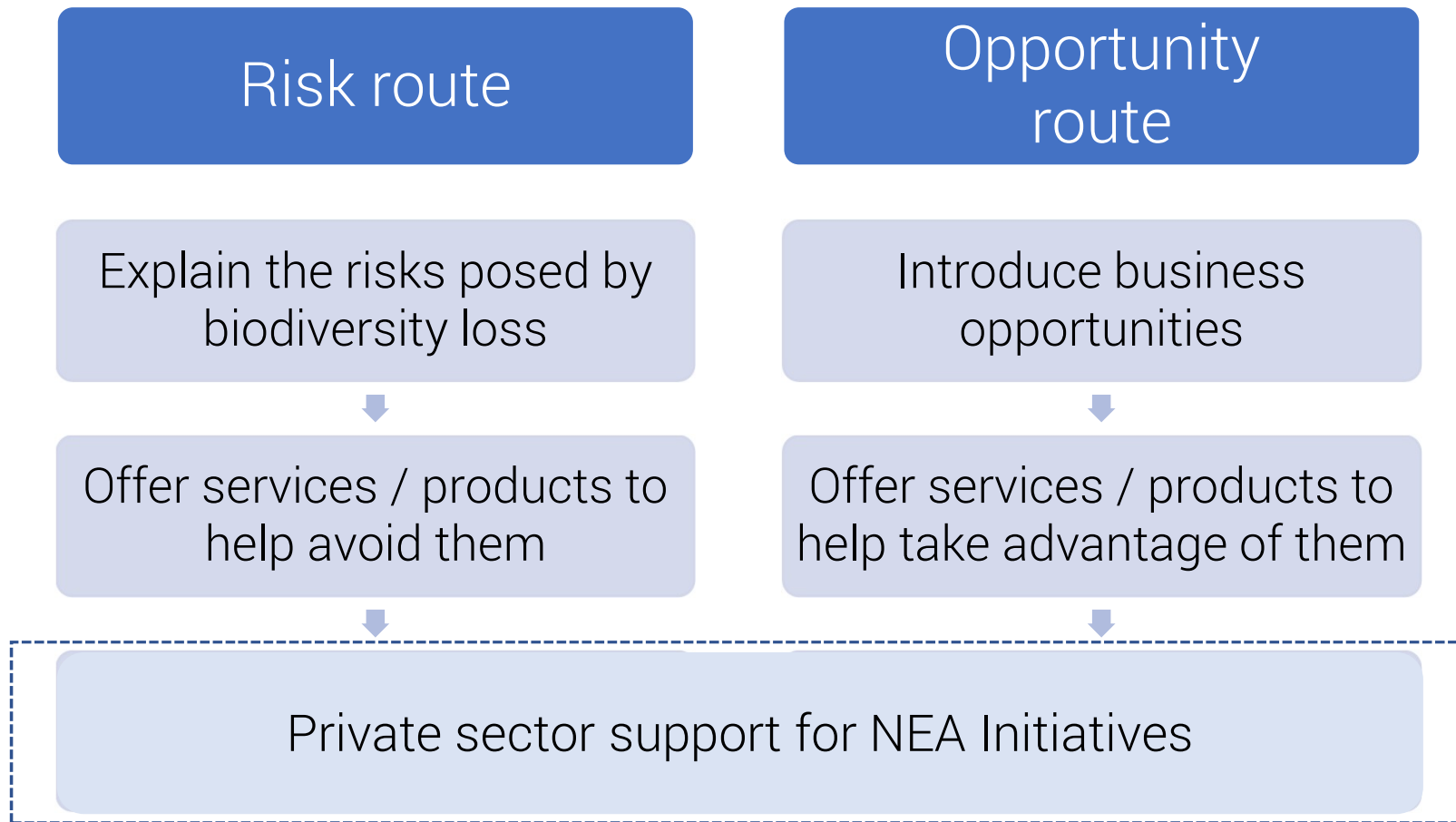


Source: <https://www.riotinto.com/news/releases/2022/Healthy-Forest-Project-launched-to-protect-Mongolia-forests-for-future-generations>

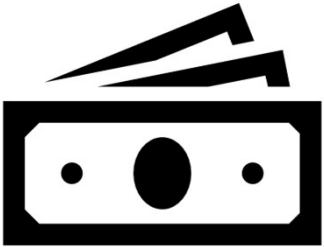


How can private sector engagement benefit NEA's?
Bálint Ternyik, Associate Programme Officer, UNEP-WCMC

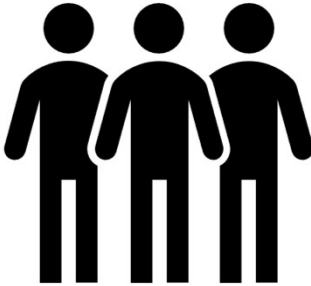
OVERVIEW OF APPROACHING BUSINESSES



WHAT CAN BUSINESS OFFER TO US?



Funding



Impact



Direction



Data

DISCUSSION

1. Does any NEA representative have experiences working with the private sector?
2. What value could NEAs offer to businesses?
3. What value could the private sector offer to NEAs?



Thank you

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