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(Best) Practices on Biodiversity

Challenges, corporate efforts & enablers for implementation

RBI Biodiversity Day

-

November 27, 2024

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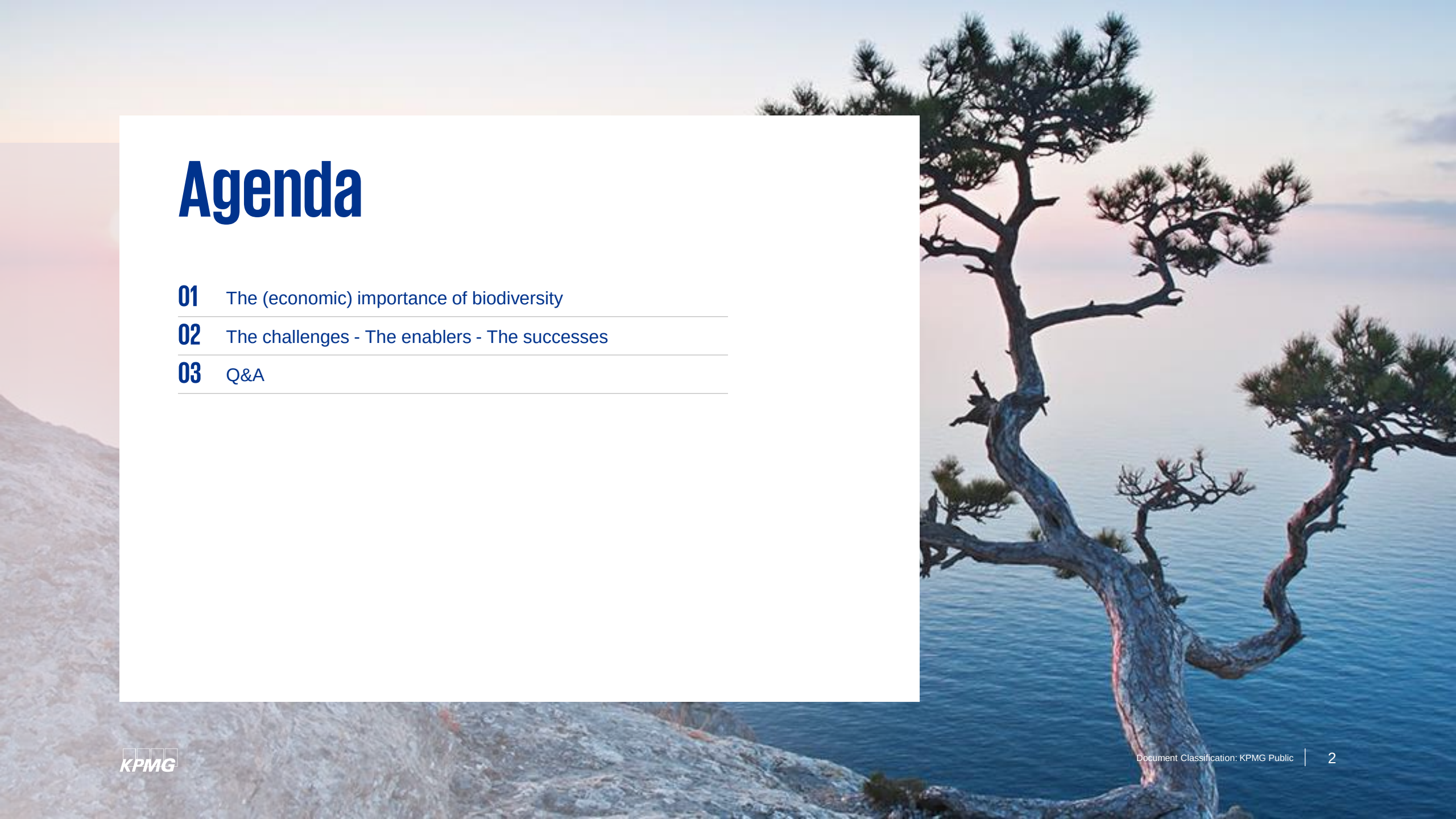
Partner, KPMG

Agenda

01 The (economic) importance of biodiversity

02 The challenges - The enablers - The successes

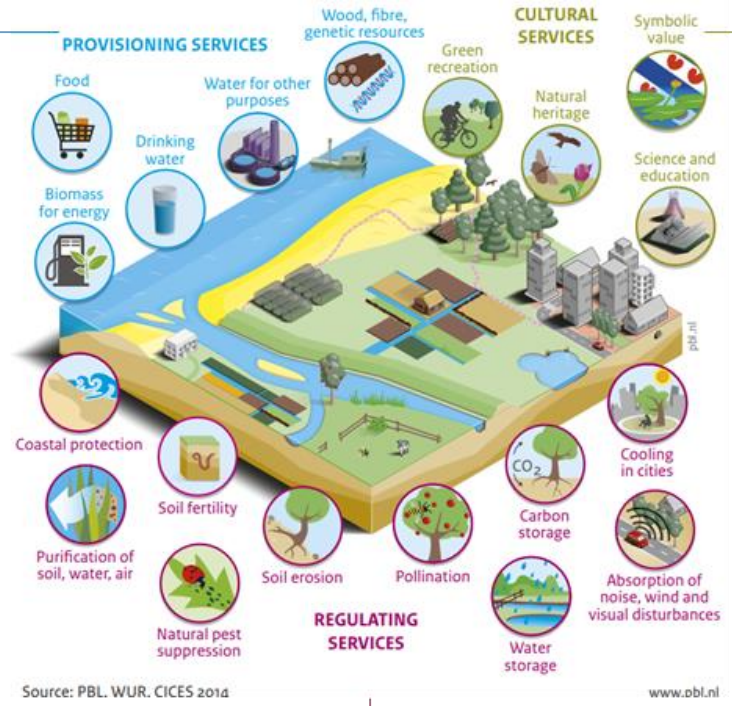
03 Q&A



Nature and biodiversity create ecosystem services which are fundamental to our modern-day economy

Provisioning Services

are the material benefits that people extract from ecosystems



Cultural Services

are non-material benefits people gain from ecosystems

Regulating Services

are the benefits obtained from the regulation of ecosystem processes

Habitat/Supporting Services

are necessary for the production of all other ecosystem services, for e.g. by providing living spaces, allowing for diversity of species and maintaining genetic diversity

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Finance-for-Biodiversity_Guide-on-engagement-with-companies.pdf (financeforbiodiversity.org)

Biodiversity is "the next elephant around the corner“; it is time to deal with it

01 The dramatic loss of biodiversity is a **global threat** that **has not yet** reached the full extent of the **public debate** - scientists refer to it as the **"twin crisis"** together with climate change

02 It is only **a matter of time** before biodiversity becomes **significantly more important** in the social and political debate

03 Experience with the climate in recent years has shown how **quickly** the requirements for corporates can become **more specific** and **significantly stricter** - the "**regulators**" are clearly signaling that they are already in the **starting blocks**

04 **NGOs** are also **focusing more strongly on** biodiversity, and it is to be expected that biodiversity will be given **greater weight** in **sustainability ratings**

05 The significantly **greater complexity** compared to climate makes it necessary to **deal** with the **topic** in sufficient depth **at an early stage**, even if many framework parameters have not yet been finally defined

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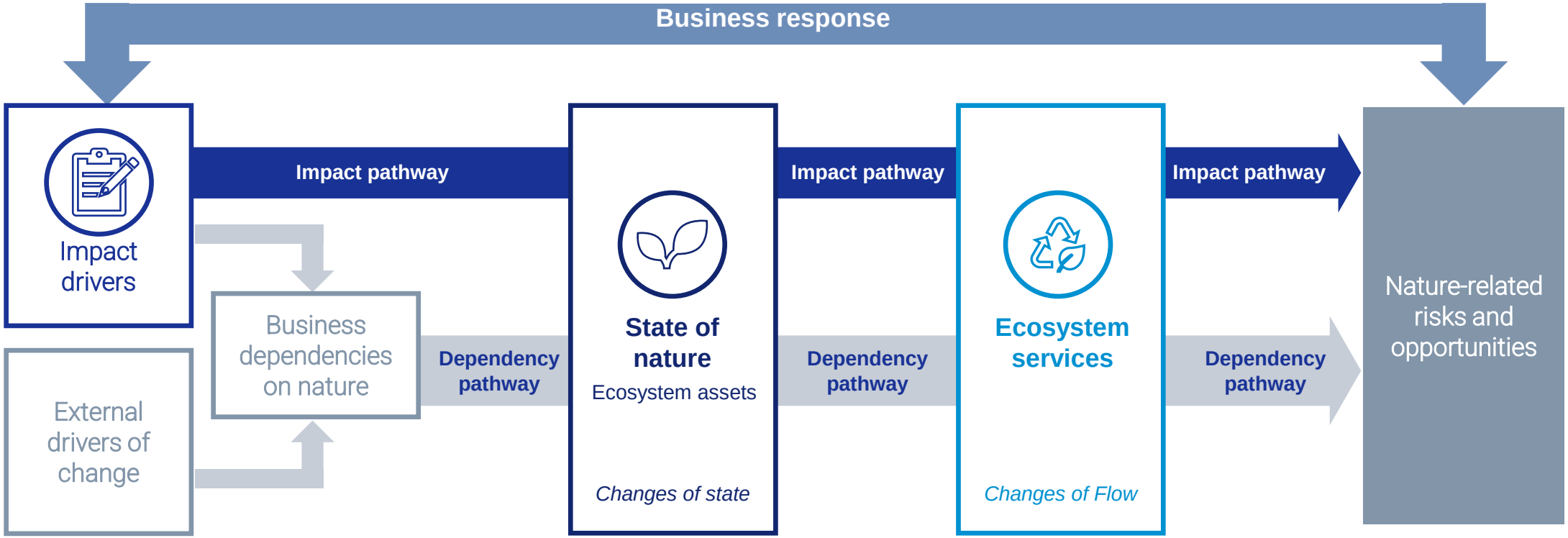
It's key to understand the state of nature & ecosystem services, to determine risks, opportunities & define the responses

Connections between nature-related dependencies, impacts, risks and opportunities



Impacts: *Changes in the state of nature, which may result in changes to the capacity of nature to provide social and economic functions. Impacts can be positive or negative. They can be the result of an organisation's or another party's actions and can be direct, indirect or cumulative.*

Dependencies: *Aspects of ecosystem services that an organisation or other actor relies on to function.*

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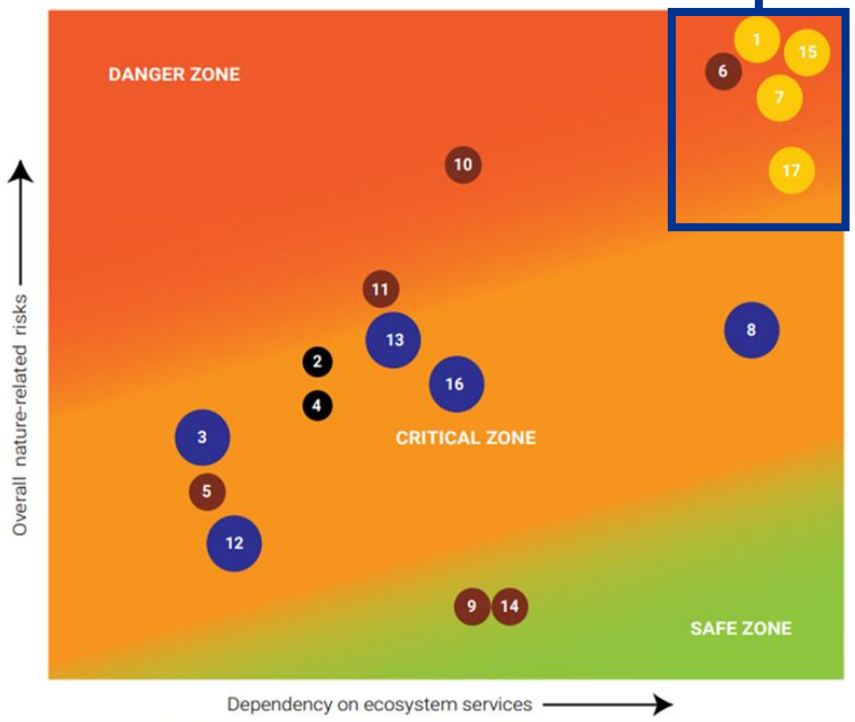
TNFD_Framework_Annex_3-1_v0-3_B.pdf ; Definitions of dependencies and impacts » TNFD ; SBTN (2022) Working definitions (unpublished)

The biodiversity-related (financial) risks and their magnitudes are sector dependent

Graph showing the level of risk posed to sectors due to collapse of nature and biodiversity*



*Insurance premium data is used to denote the perceived risk per sector

Sectors

1. Agriculture, Fishery & Livestock
2. Apparel & Textiles
3. Automotive
4. Chemicals
5. Construction & Engineering
6. Food & Beverages
7. Manufacturing (paper, pulp, timber)
8. Manufacturing (others, e.g. metals)
9. Media & Entertainment
10. Mining & Quarrying
11. Oil & Gas
12. Pharmaceutical, Healthcare, Life Sciences & Biotech
13. Real Estate
14. Telecommunications & IT
15. Tourism, Travel & Hospitality
16. Transportation & Storage
17. Utilities (electricity, energy, water)

Global Property and Casualty Insurance Premium (2019)

- > US$50 billion
- US$30–50 billion
- US$10–30 billion
- < US$10 billion

5 sectors most affected by biodiversity loss

- Agriculture, Fishery & Livestock (1)
- Tourism, Travel & Hospitality (15)
- Food & Beverages (6)
- Manufacturing (paper, pulp, timber) (7)
- Utilities (electricity, energy, water) (17)

Nature-related risks in the global insurance sector)

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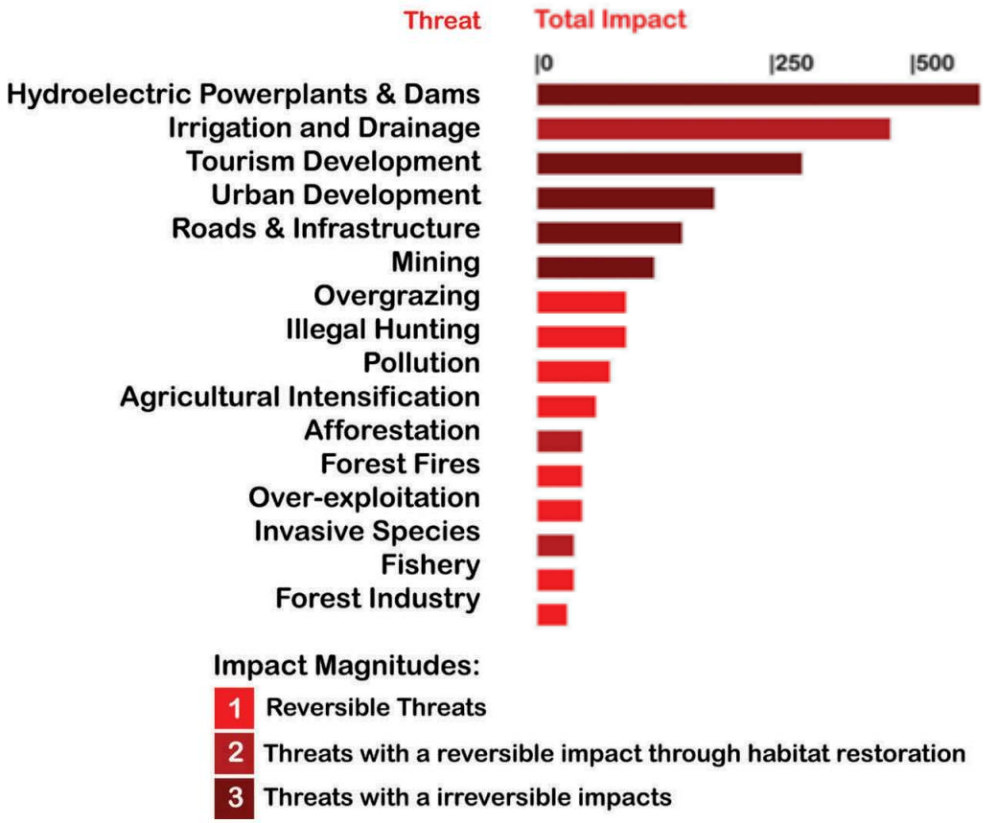
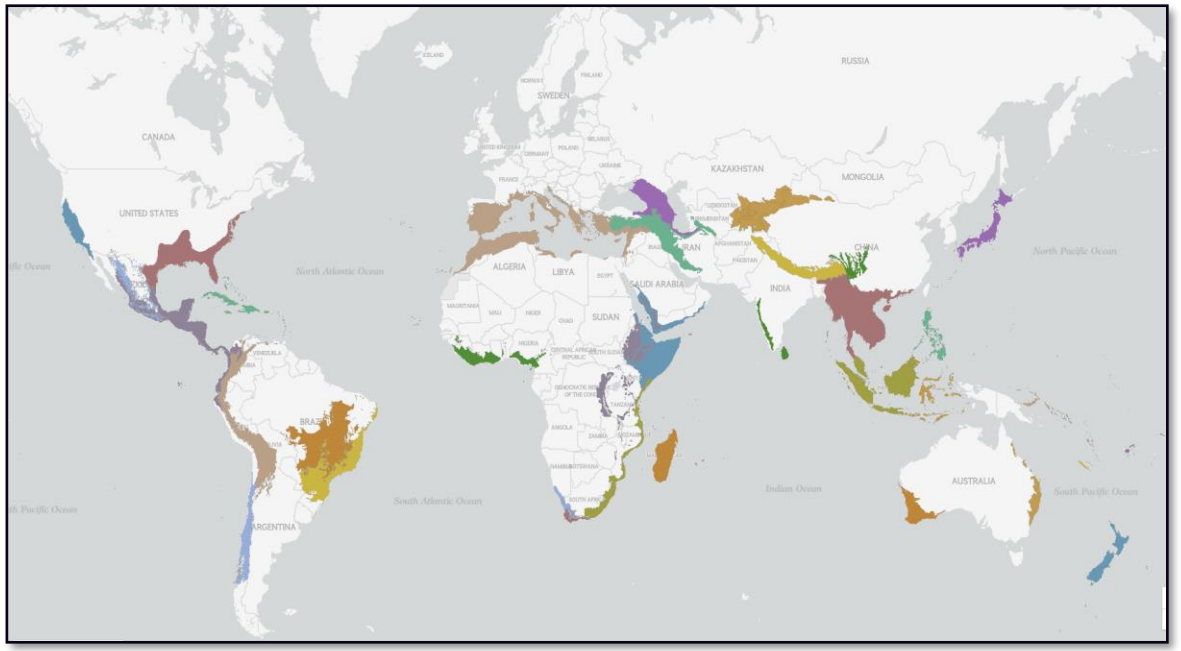
Assessing impacts on biodiversity is location and industry specific

Industrial activity impact



***Overall impact is measured by multiplying impact scores (from one to three, based on ability of area to return to original state and effort required for restoration) by the number of KBAs affected by a given threat.*

Globally, there are 36 biodiversity hotspots – extraordinary places that harbour vast numbers of plants and animals found nowhere else



*A **biodiversity hotspot** is defined as a region with **significant levels of biodiversity that is threatened with destruction.***
To qualify as a hotspot, a region must meet two criteria:

- *it must contain **at least 1,500 species** of vascular plants (> 0.5 percent of the world's total) as endemics,*
- *and it must have **lost at least 70%** of its primary vegetation.*

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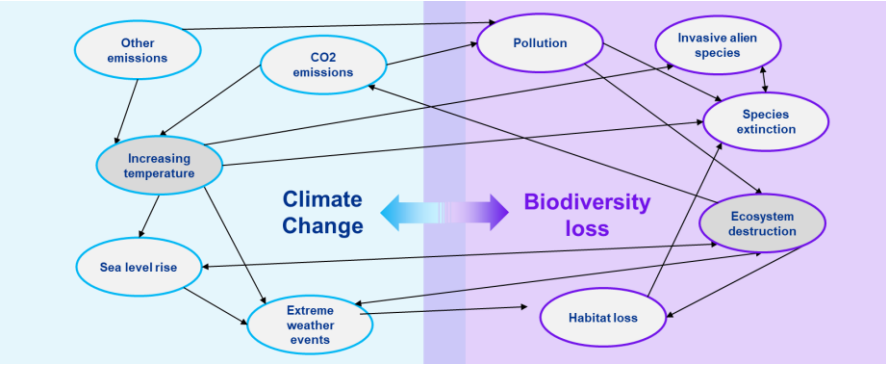
The complexity of the topic creates challenges to be overcome

High complexity of content

- Very **complex cause-effect relationships** with **a strongly location-dependent view** of impact drivers - **no "global metric"** a la CO_2e available as in the climate context
- During implementation, **conflicts of objectives** within the **biodiversity drivers** are unavoidable and must be managed

Commercial opportunities not obvious

- The **breadth** and **depth of commercial opportunities** in the area of **biodiversity** is not immediately tangible
- The **biodiversity** product landscape is heterogeneous - without really **high-volume products** on the active side



Lack of standards, methods & data

- Well over **100 methods and tools** that address different aspects of biodiversity - **without clear standards** on the market
- High **granularity** of the required data with a simultaneous **lack of data availability** both in-house and externally
- Unclear view of **detailed expectations** and **timing** of **regulators** and **politicians** in the financial industry

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Several key frameworks, initiatives and regulations are emerging to support corporate actions

Convention on Biological Diversity

International goals

TNFD ISSB

Disclosure standards & frameworks

GRI IFRS CDP

EFRAG European Financial Reporting Advisory Group

Nature Restoration Law

Environmental regulations

SCIENCE BASED TARGETS NETWORK
GLOBAL COMMONS ALLIANCE

Global networks & alliances

It's Now for Nature

European Commission

CSRD Corporate Sustainability Reporting Directive

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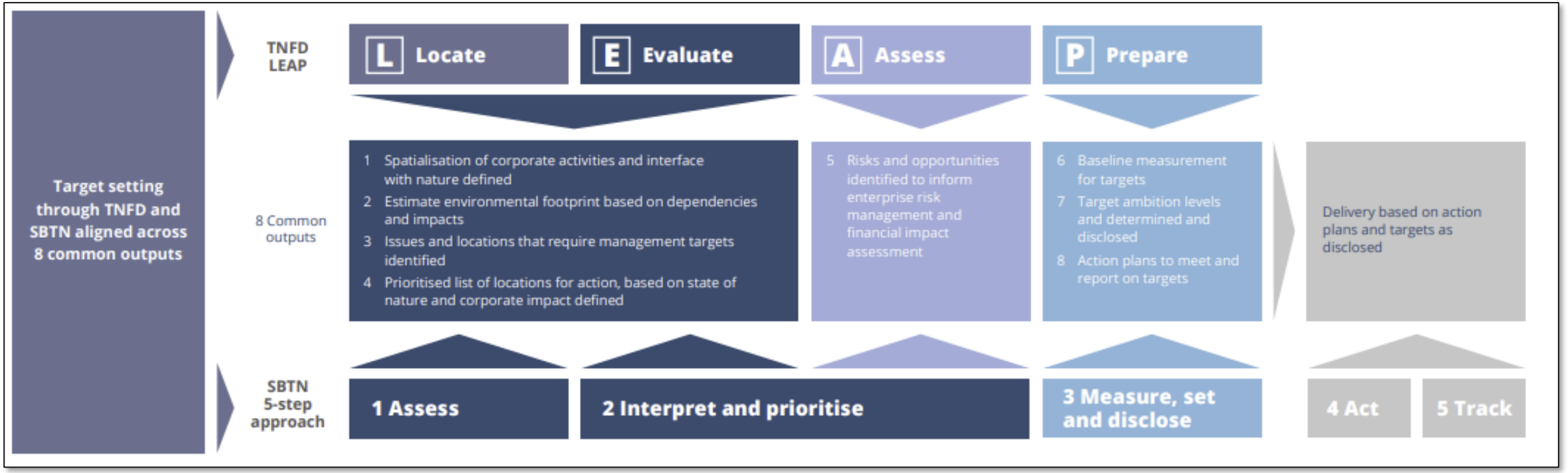
The TNFD and SBTN are complementary throughout their approaches



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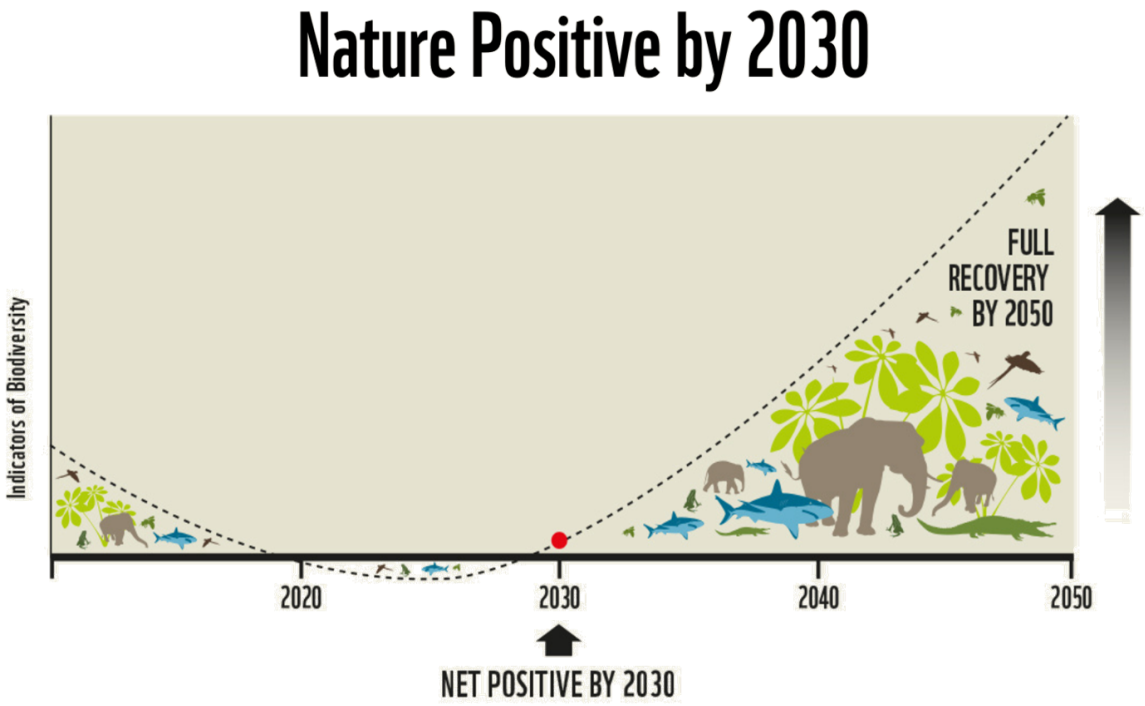
TNFD - Additional draft guidance for corporates on science-based targets for nature

Companies uses the mitigation hierarchy to limit the negative impacts on biodiversity and ecosystem services

- Transform
- Restore & Regenerate
- Reduce
- Avoid

Actions ideally go beyond risk reduction and contribute to a nature positive future by influencing the threats and pressures driving nature loss



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SBTN-initial-guidance-for-business.pdf (sciencebasedtargetsnetwork.org); The Mitigation & Conservation Hierarchy | Home; https://youtu.be/9WXUGXy_dyU

Example from construction materials industry - Avoid

Transform

Restore & Regenerate

Reduce

Avoid

Ultratech cements- Aditya Birla group

India

Description
Ultratech is adopting a No Net loss Biodiversity policy and has launched a Biodiversity Management Plan

Efforts/Performance
— Developed biodiversity assessment tool and identified high biodiversity hotspots around the sites
— Conducted biodiversity assessments on 12 plants all over the India
— Monitored the ecological evolution on its sites

Achievements
— Selected sites which do fall under key biodiversity area within about 10 kms of radius

“Ultratech biodiversity policy’, Ultratech

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Example from automotive industry – Reduce

Transform

Restore & Regenerate

Reduce

Avoid

BMW Group

Indonesia

Description

Along with partners including Pirelli, BMW is working towards reduce its impact on biodiversity by sourcing rubber sustainably

Efforts/ Performance

—Direct monitoring and checks on the forest area, with the use of satellite and drone-based technology, and a census of the animals at the highest risk of extinction

—Working closely with local communities and NGOs

— Publication of sustainable rubber commitment policy

Achievements

—Seeks to ensure the conservation of an area of around 2,700 hectares based on a deforestation-free arrangement

—Protection of animals at risk of extinction

—Previously involved with sustainable tire manufacturing and use

Together to protect the rainforest. (bmwgroup.com)

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Example from energy industry – Restore & Regenerate

Transform

Restore & Regenerate

Reduce

Avoid

Engie

France

Description

Engie has adopted proactive policies to conserve, restore and regenerate the biodiversity

Efforts/ Performance

— Implementation of avoidance, reduce and offset flow of work for every project undertaken

— Identified 10 projects for implementing nature-based solutions

— 50 percent sites targeted for Ecological site management to restore in its pristine form

— Selecting biodiversity hotspots

— Greening the supply chain operations to avoid the emissions and subsequently the loss

Achievements

— Replanted agroforestry trees on 18 hectares of land in 2016

— Commitment to several coalitions which includes Act4 nature, UNESCO, WBCSD

— Species diversity grew 10 folds in the area

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"Integrated report 2022", Engie

Example from F&B industry – Transform

Transform

Restore & Regenerate

Reduce

Avoid

Danone

Global

Description

Danone addresses biodiversity loss and promote sustainability within its industry through partnerships and innovation

Efforts/ Performance

— Farming for Generations programme promoting regenerative agriculture practices among its dairy and crop suppliers

— Collaborations with WWF, researchers and experts to build methodologies to promote regenerative agriculture

Achievements

— Close relationships with over 58,000 farmers worldwide, promoting regenerative agriculture

— Regenerative agriculture helped increase yield, reduce emissions and improve biodiversity

— Created a Regenerative Agriculture Scorecard and Handbook along with experts

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Regenerative agriculture - Danone

A suite of approaches, data and tools is needed to assess and manage nature-related pressures and dependencies

Locate

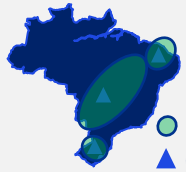
Scope the project and map the value chain of your asset or sector

Overlay geospatial datasets to identify your interface with nature

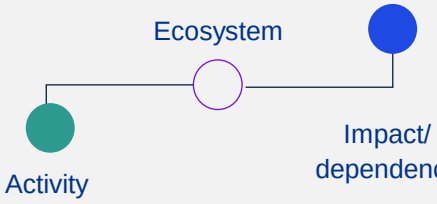
Prioritise locations that interact with high integrity/importance ecosystems etc.

Evaluate

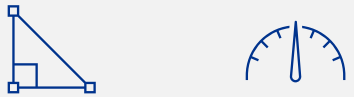
Identify natural assets and ecosystem services at each priority location



Define impact and dependency pathways for each activity

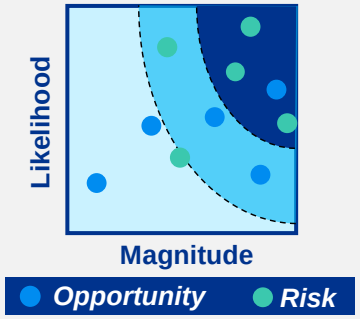


Evaluate the size and scale of identified impacts and dependencies on nature for each priority location



Assess

Identify associated risks and opportunities, and their corresponding likelihood and magnitude



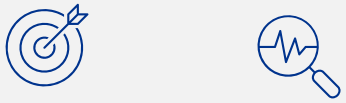
Identify current and potential mitigation levers to reduce risks and realise opportunities

Risk/opportunity levers	Currently in use	Risk reduction
Water saving technology	Yes	Very high
AI assisted farming	No	High
Nature corridors	No	Moderate

Prepare

Define set of strategic recommendations to respond to identified risks and opportunities

Review opportunities to set targets and monitor progress



Identify opportunities to disclose key findings in line with TNFD best practice

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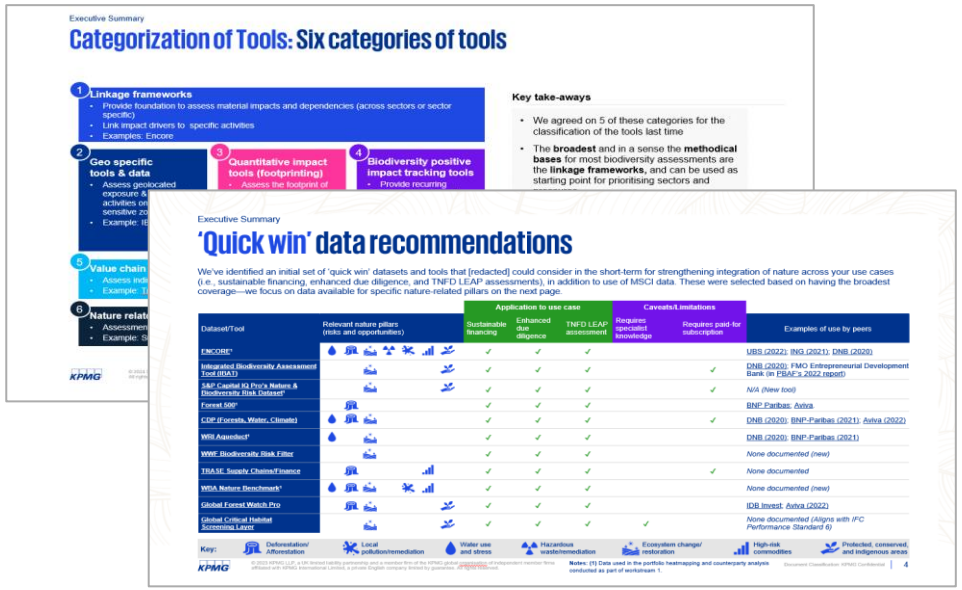
The landscape of tools & data is opaque - no "one-fits-all solutions"



KPMG Classification of the tool landscape

Sector Screening

ENCORE: Assessment of dependencies and pressures of sectors in the portfolio (and their supply chains). ENCORE provides insights into dependencies and pressures for 271 economic activities catalogued by ISIC.

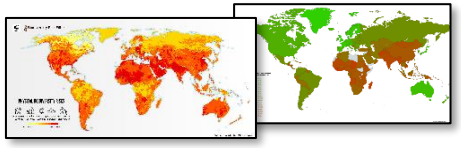
SBTN Materiality Tool: Materiality screening for direct operations and upstream activities.

Sector scores incl. supply chain

Country Screening

EPI: Locate impacts based on environmental performance indicators for of each country in the portfolio.

WWF BRF + MSCI: Identify potential risks based on the condition of ecosystems for each country in the portfolio.



Country scores

Financial quantitative analysis – modeling biodiversity footprint

EXIOBASE, GIST Impact: Estimated overview of resources used in the supply chain

GLOBIO, ReCiPe: Modeled footprint data based on pressure-impact data

ENCORE: **E**xploring **N**atural **C**apital **O**pportunities, **R**isks and **E**xposure
EPI: Yale **E**nvironmental **P**erformance **I**ndicator
WWF BRF: WWF **B**iodiversity **R**isk **F**ilter

EXIOBASE: A global (multi-regional) Environmentally Extended Supply-and-Use / Input-Output database
GIST Impact: A suite of tools for financial institutions leveraging impact data using Life cycle impact assessment (LCIA)
GLOBIO: Model that calculates local terrestrial biodiversity intactness, expressed by the mean species abundance (MSA) indicator, as a function of six human pressures
ReCiPe: Life cycle impact assessment (LCIA) that translates emissions and resource extractions into environmental impact scores

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Good practice: Moving from nature risk to strategy and targets

ASN bank has set themselves an ambitious goal: no net biodiversity loss by 2030.

As a result, the necessity of deeper insights into their footprint emerged: How do current loans and investments impact biodiversity?

Setting the 2030 goal

No net loss by 2030: ASN Bank's loans and investments to have no net negative impact on biodiversity by 2030.

Analysis of impacts

Footprinting
(using Refinitiv – now LSEG – database and EXIOBASE, ReCiPe model)

- Equities are the highest contributor to the biodiversity footprint;
- Climate change impact of mortgages causes the highest biodiversity loss;
- Insights have driven investments into 'dark green' investments (such as rhino bonds, ecotourism).

Analysis of dependencies

ENCORE

- Analysis on investments in equity;
- Occurrence of ground water is almost four times higher than the next most common ecosystem service, climate regulation;
- Dependency on ground water seen as risk channel.

Qualitative analyses

Detailed analysis on companies in portfolio with large share of biodiversity impact relative to financial value.

- Qualitative analysis helps to validate the modelled impact data with actual activities per company;
- For most material companies per fund, validate if the company has measures in place to mitigate main impacts;
- Define measures (e.g. provide funding for solar PV and improve energy label)

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In summary.....

- Biodiversity **cannot** be measured using a central **indicator** - **metrics** differ depending on the **sub-topic** (e.g. environmental pollution vs. deforestation)
- There are a **large number of different methods**, **tools** and **databases** available on the market that cover various sub-topics in **different depths of content**
- In addition to the **identification of dependencies**, it is always relevant to take a strongly **location-** and value **chain-dependent approach**
- Depending on the **portfolio**, **different** approaches are therefore required for the assessment of biodiversity impacts; there are **no "one-fits-all solutions"**
- In practice, market pioneers use **specific combinations** of methods, tools & data, according to **individual fit** to their portfolios and use cases

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