

12/09/2024

UNEP Finance Initiative

# PRB Nature capacity building programme

Asia Pacific

Workshop 2#



# Programme – 3 workshops and other activities during the year



# Housekeeping rules & other information

- Slides and the recording will be shared after the workshop
- Please mute yourself during the workshop to avoid background noise
- Question and comments highly welcome during the session! You can
  - Raise your hand in Webex if you want to speak up (anytime)
  - Post questions in Webex's chat (anytime)
  - Post questions on Slido.com (voting code: **999777**) (anytime) – Slido is anonymous, so you don't even need to mention your name

# Today's agenda

Opening and recap 10'

A closer look at the LEAP approach 30'

Integrating nature within practices and processes 45'

- Policies and processes
- Capacity Building, Culture & Governance
- Client engagement
- Stakeholder engagements

Client engagement in practice: bank examples

Q&A

Closing 5'



# Recap: what we covered at Workshop 1#

- Overview of the PRB Nature Guidance
- Understand the fundamentals of nature & biodiversity
- Understanding the role of nature in banking and the importance of biodiversity
- The Global Biodiversity Framework and how it interacts with your national policies
- Assessing nature-related impacts and dependencies, risks and opportunities
- The TNFD LEAP approach

**Don't forget: while we encourage you to work on practice and impact targets, your bank can have positive impacts on nature even if your bank is not planning to set nature targets in the near future.**

---

# Assessing nature-related impacts and dependencies, risks and opportunities

GBF target 15

# PRB Nature Guidance: Priority Actions

## Portfolio analysis and disclosure

### Priority Action: Assess Portfolio Exposure

Evaluate the bank's portfolio for **nature-related impacts, dependencies, risks, and opportunities**, starting with priority sectors. Analyze a set percentage of the portfolio within a clear timeframe to identify potential "hotspots" and areas for further analysis. This will **inform target setting (ie practice targets on policies and processes) and risk management**.

### Priority Action: Analyse % of clients

Examine a **significant percentage of clients in priority sectors** for their nature-related impacts and dependencies. Focus on clients operating near biodiversity areas and critical habitats and consider impacts on Indigenous Peoples and Local Communities. This information is vital for **client engagement strategies**.

### Priority Action: TNFD-aligned reporting

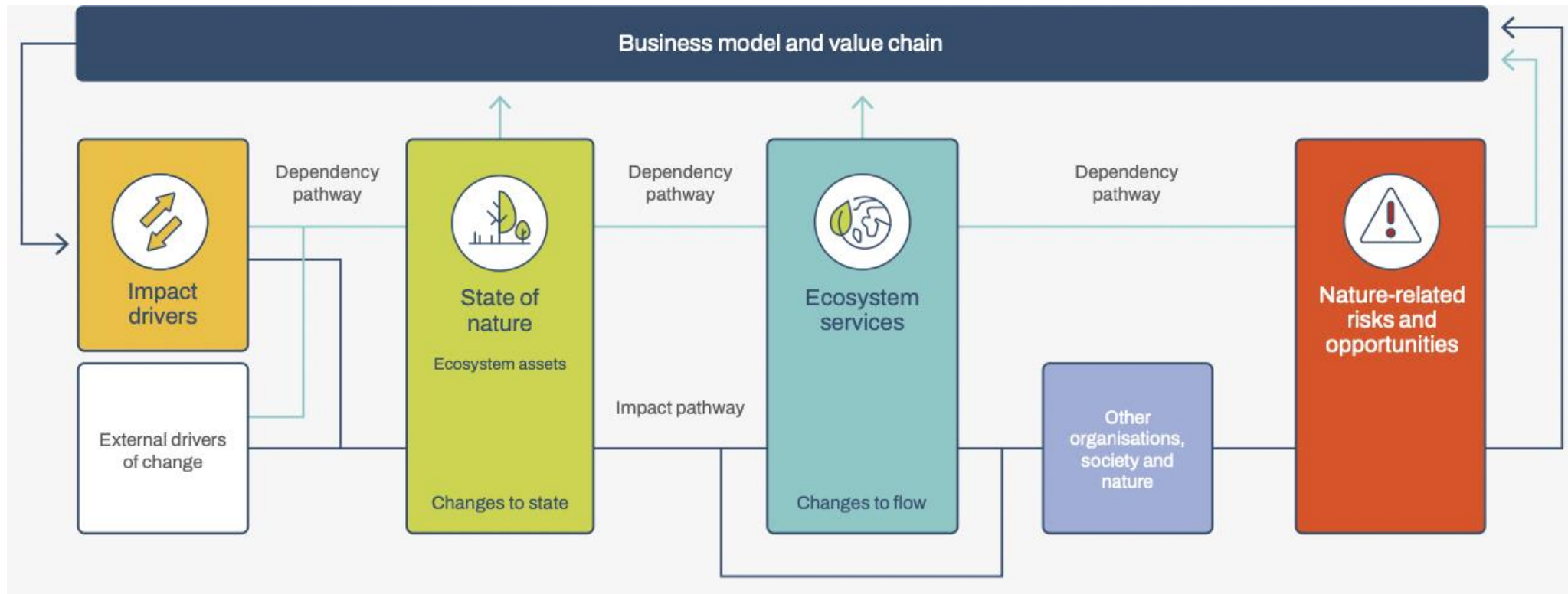
Progressively report in alignment with TNFD recommendations, including **core disclosure metrics on risks, opportunities, impacts, and dependencies**. Banks should prioritize metrics on exposure to sensitive sectors and locations. Adaptations to TNFD metrics may be necessary due to current data limitations.



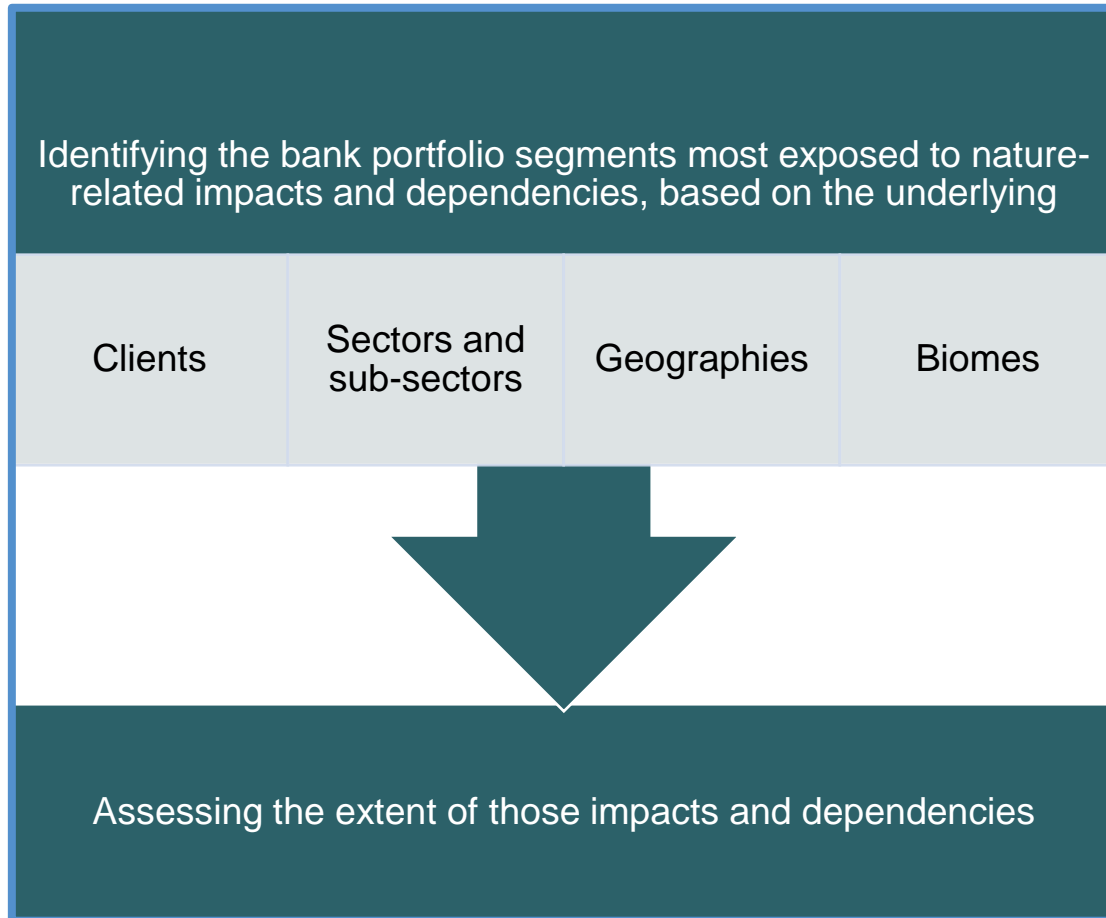
# Nature and its relevance in a business context

Organizations interface with nature through 4 concepts referred to as 'nature-related' issues:

- Dependencies – of the organisation on nature;
- Impacts – on nature caused, or contributed to, by the organisation;
- Risks – to the organisation stemming from their dependencies and impacts; and
- Opportunities – for the organisation that benefit nature through positive impacts or mitigation of negative impacts on nature.



# Why is it important to assess nature-related impacts, dependencies, risks and opportunities?



- Exposure to **nature-related dependencies** mean that, in the context of nature loss, the portfolio may be at risk due to its reliance on nature and its services (for instance, clean water, pollination of crops, coastal stability, etc.).
- Exposure to “**impacts**” means that the portfolio contributes to the loss of nature, thereby worsening risks related to dependencies, as well as creating nature-related transition risk potential (e.g. legal compliance risk, etc. see later).
- In the context of the PRB, the **objective** pursued is alignment with, and attainment of global sustainability related policy goals, for which the core concern is impact management.
- Risk management can contribute to impact management but not replace it. Our capacity building doesn't focus on risk management.
- Note that approaches as well as analytical methods, data, and tools are still emerging and continue to evolve.

# Considerations for the assessment of nature-related impacts, dependencies, risks and opportunities

- The assessment should cover each significant business line, such as corporate, business and/or investment banking portfolios.
- Your bank should provide a justification for the selection of portfolios included in the assessment, including a rationale for excluding certain portfolios, for instance based on the limited portfolio size or lack of relevance.
- You should identify, based on the composition of its portfolio and the specifics of its business strategy within its operating context, relevant priority sectors, sub-sectors, clients and locations for nature-related action as well as the priority drivers to address in each of these locations.
- The assessment should consider the following dimensions:



**Locating the organisation's interface with nature —sectors and geographies**



**Evaluating impacts**



**Evaluating dependencies**



**Assessing risks and opportunities**

- This assessment is aligned with the **TNFD's LEAP approach**.



# Emerging frameworks to assess nature-related impacts, dependencies, risks and opportunities

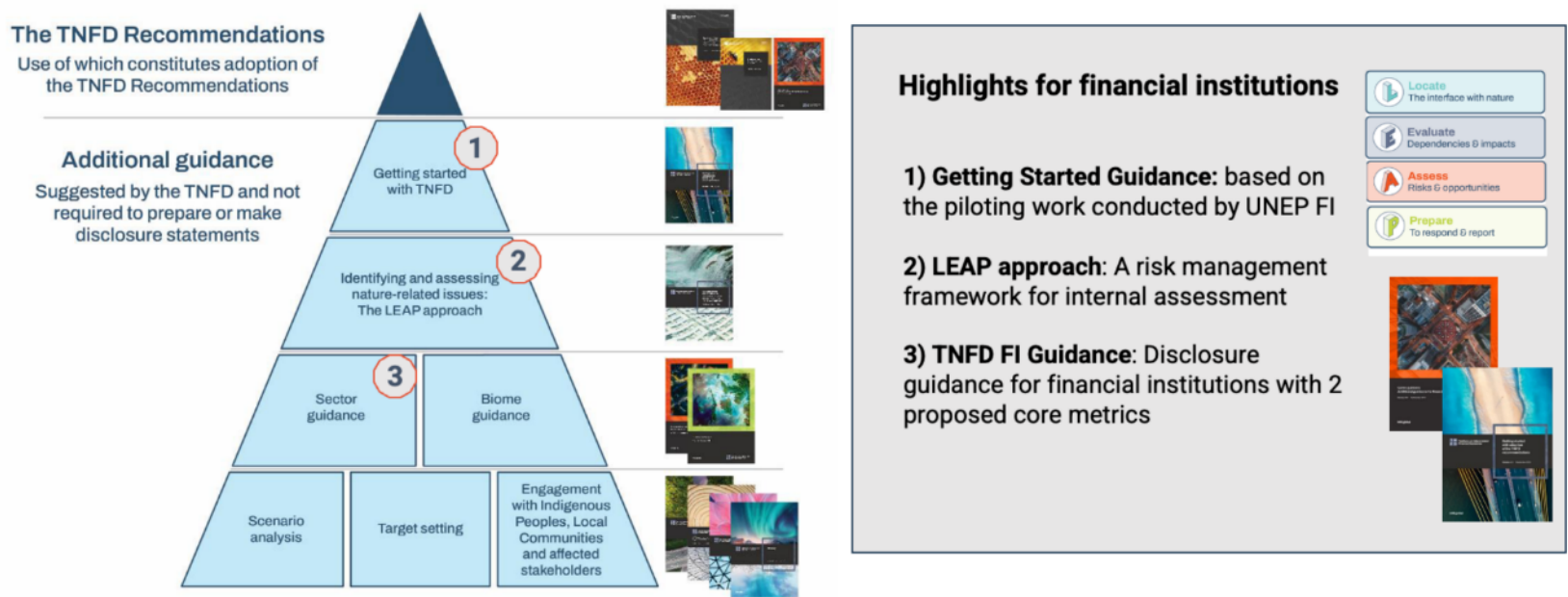


**Taskforce on Nature-related Financial Disclosures**

The TNFD is a market-led and science-based initiative supported by national governments, businesses and financial institutions worldwide built to develop recommended disclosures and drive more transparency to market players

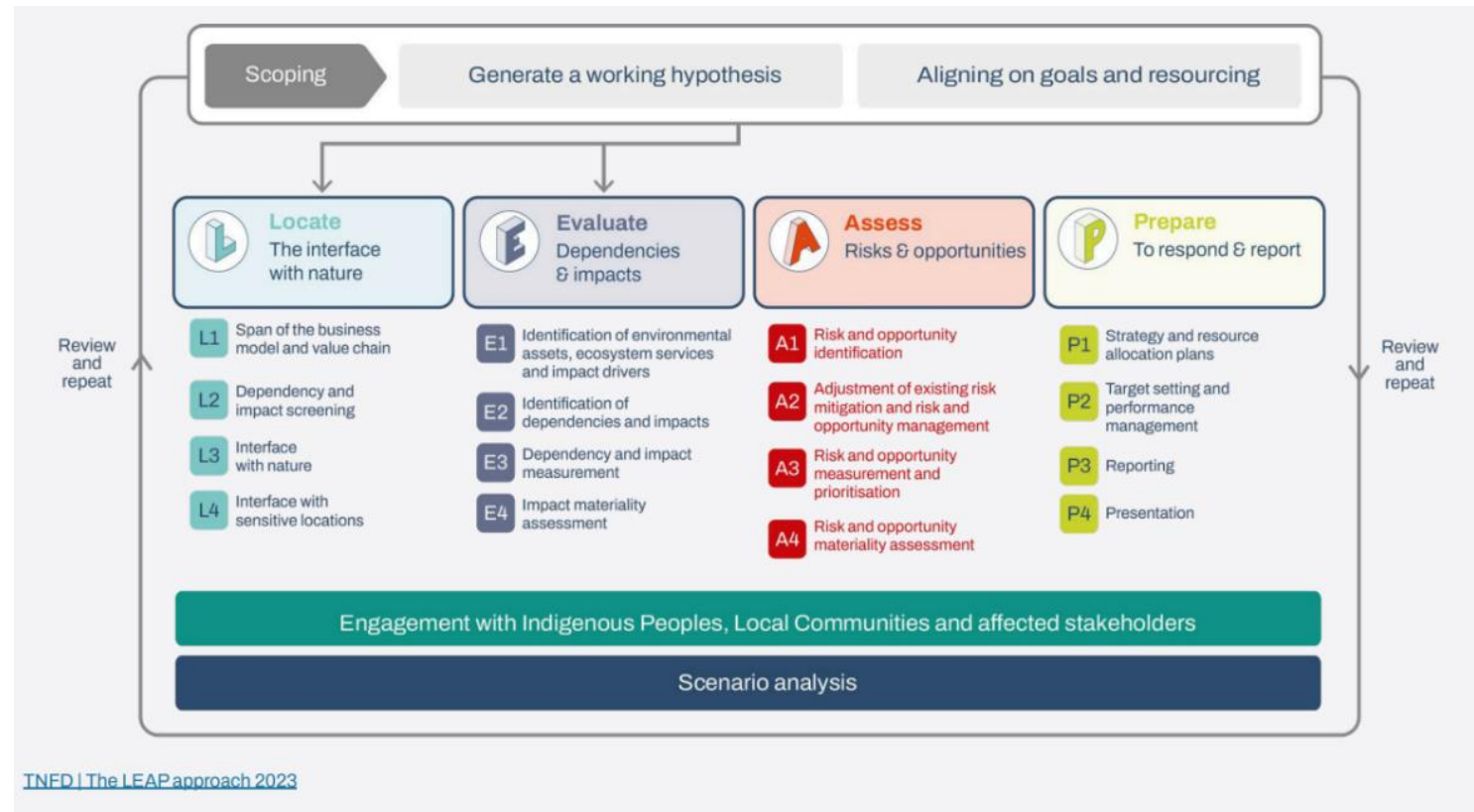
To develop and deliver a **risk management and disclosure framework** for organisations to report and act on evolving nature-related risks and opportunities, with the aim of supporting a **shift in global financial flows** away from nature-negative outcomes and toward nature-positive outcomes.

## A framework to help advance reporting on nature-related issues



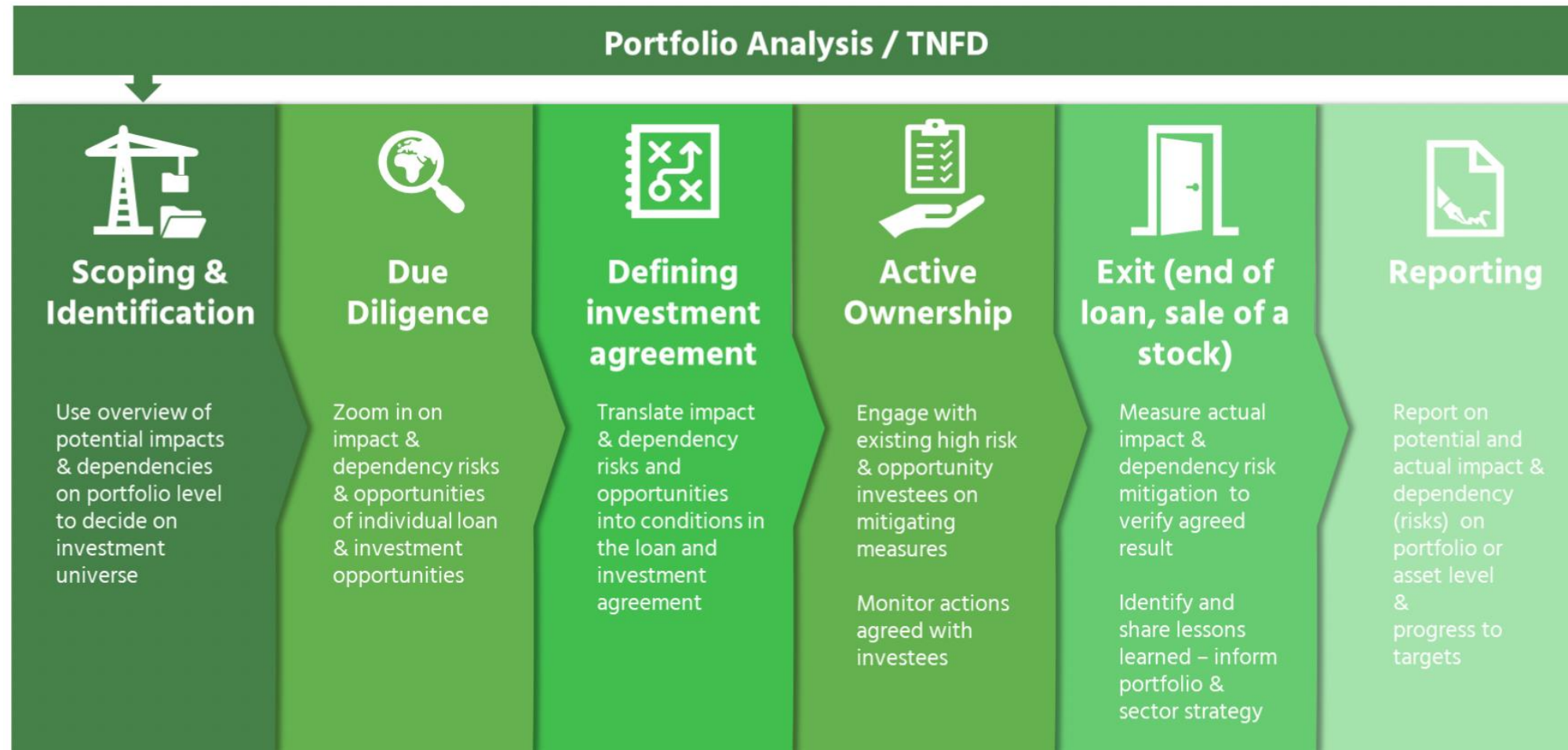
# The LEAP approach – the TNFD’s risk management framework

- LEAP is an integrated approach developed by the TNFD to identify and assess nature-related issues.
- It is designed for use by organisations of all sizes across all sectors and geographies.
- The LEAP approach provides structured guidance on how to identify, assess, manage and disclose nature-related issues across four iterative phases



The TNFD has published detailed guidance on the LEAP approach. Today we just give you an overview – please also visit – UNEP FI Risk Centre – [Getting Started on TNFD](#)

# Nature-related impact, dependency, risk and opportunity assessment - various purposes



Source: PBAF, A Biodiversity Accounting Standard for the Financial Industry - <https://www.pbaglobal.com/standard>

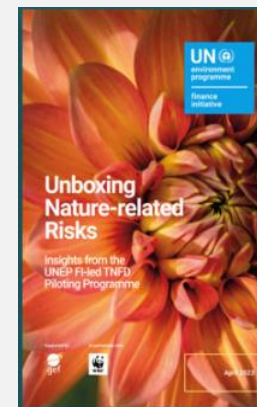
# UNEP FI's TNFD pilots with global financial institutions



- Supporting financial institutions to understanding climate and nature-related risks and integrating them into their risk management approach**
- During a **one-year timeframe**, UNEP FI invited **banks and investors** to pilot the Taskforce on Nature-related Financial Disclosures (TNFD) beta framework with their industry peers
  - The goal was to assess the feasibility of this emerging framework for market uptake through a **high-impact sector lens to assess exposure in portfolios and asset classes, including**

**50**  
FIs

**From 25**  
countries

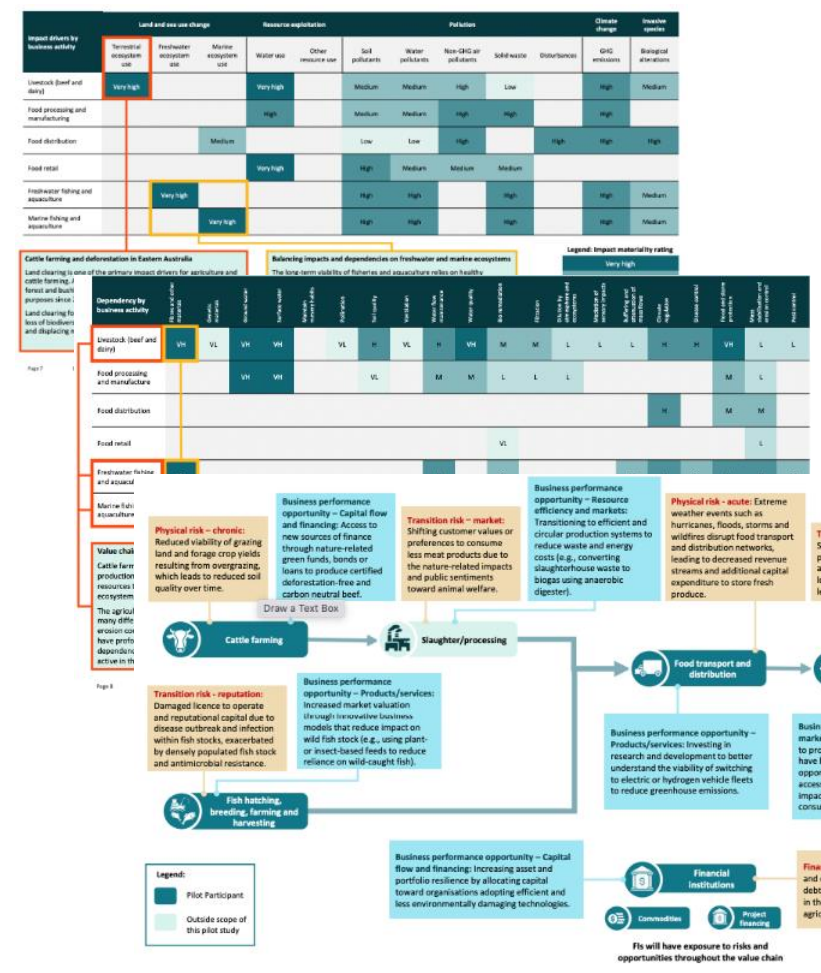




# TNFD pilot testing in the region

## Example: DCCEEW Australia

- ### Value-Chain Case Studies
- 1 Critical mineral mining for producing clean energy technologies
  - 2 Natural gas extraction for industrial manufacturing
  - 3 Domestically sourced fresh beef and salmon sold at a supermarket
  - 4 Property development and building construction
  - 5 Domestic cultivation of cotton for export



Australian Government  
Department of Climate Change, Energy, the Environment and Water

## Taskforce on Nature-related Financial Disclosures

### Pilots – Australian Case Study Report





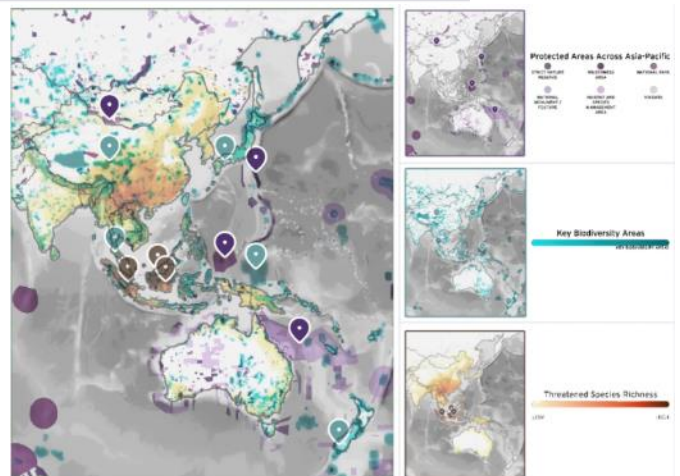
# TNFD pilot testing in the region

## Example: EY APAC in collaboration with WWF



### Use case title

1. Palm oil production and processing
2. Beef and dairy production
3. Commercial fishing and seafood processing
4. Aquaculture production and processing
5. Real estate development
6. Food and beverage wholesale and retail
7. Open cast (cut) mining exploration and production
8. Hydropower development and production
9. Oil & gas exploration and production
10. Textile manufacturing and distribution
11. Offshore windfarm development and operations



### How to start using the LEAP analysis immediately

Within the TNFD – making it real report, EY advisors include a Get Started guide with a 5-step staged approach for institutions to get started on LEAP assessment. This can be tested immediately, even if asset-level data is not available. High-level assessments can still yield useful insights to help institutions understand where further analysis should be done, where more data is required and where to start engaging with customers. By starting in this way, institutions can understand the scope of their TNFD exposure and gradually build capability while maturing over time.



Assess	AI – Risk identification (physical risks)	AI – Risk identification (transition risks)	Portfolio and company analysis (sector and location projects)	Portfolio and company analysis (sector and location projects)																																				
	<p>The physical risk register below derives its risk categories from sector or business activity dependencies. Examples come from existing literature.</p> <table border="1"> <thead> <tr> <th>Risk driver</th> <th>Risk categories (examples)</th> <th>Financial impact or transition</th> <th>Financial risks (examples)</th> </tr> </thead> <tbody> <tr> <td>Acute</td> <td>Risk of upstream degradation of watersheds and catchment areas leading to irregular rains, erosion and sedimentation of reservoir impacting productivity.<sup>60</sup></td> <td>Business disruption or loss of revenue Higher operating costs (e.g., cleaning costs or mitigation costs)</td> <td>Credit risk (overpricing of loans and collateral value, credit rating) Market risk (reduction in financial asset value, e.g., equity price, commodity price)</td> </tr> <tr> <td>Acute</td> <td>Risk of accumulation of invasive aquatic plants in the reservoir, with potential damage to mechanical equipment.<sup>61</sup></td> <td>Increased capex for maintenance on infrastructure</td> <td></td> </tr> <tr> <td>Chronic</td> <td>Climate change may result in increased droughts and floods impacting productivity.<sup>62</sup></td> <td>Asset valuation or stranded assets</td> <td></td> </tr> </tbody> </table> <p>Note: This does not consider the guidance on scenarios from TNFD beta version 0.4. While there are evolving global scenarios, these are not translated to local ecosystems. The risks are being provided from the perspective of the directly impacted company, and do not consider how downstream companies, e.g., energy retail companies could be impacted.</p>	Risk driver	Risk categories (examples)	Financial impact or transition	Financial risks (examples)	Acute	Risk of upstream degradation of watersheds and catchment areas leading to irregular rains, erosion and sedimentation of reservoir impacting productivity. <sup>60</sup>	Business disruption or loss of revenue Higher operating costs (e.g., cleaning costs or mitigation costs)	Credit risk (overpricing of loans and collateral value, credit rating) Market risk (reduction in financial asset value, e.g., equity price, commodity price)	Acute	Risk of accumulation of invasive aquatic plants in the reservoir, with potential damage to mechanical equipment. <sup>61</sup>	Increased capex for maintenance on infrastructure		Chronic	Climate change may result in increased droughts and floods impacting productivity. <sup>62</sup>	Asset valuation or stranded assets		<p>The transition risk register below derives its risk categories from sector or business activity impacts. Examples come from existing literature.</p> <table border="1"> <thead> <tr> <th>Risk driver</th> <th>Risk categories (examples)<sup>63</sup></th> <th>Financial impact or transition</th> <th>Financial risks (examples)</th> </tr> </thead> <tbody> <tr> <td>Policy and regulation</td> <td>Requirements or expectations to comply with biodiversity standards, especially if project is located within area of high biodiversity importance.</td> <td>Losses due to de-risk operations or permit denial</td> <td>Credit risk (credit ratings, collateral value) Market risk (equity price, commodity price) Reputational risk</td> </tr> <tr> <td>Regulation and stakeholder expectation</td> <td>Equation of gross declared as protected or conservation areas (e.g., following deforestation) or requirements for no new developments in protected areas.</td> <td>Increased operating costs (e.g., permitting costs) Legal costs or fines</td> <td></td> </tr> <tr> <td>Disputes and stakeholder objection</td> <td>Lack of compliance with biodiversity standards, public criticism and disputes leading to delays in implementation.</td> <td>Capital expenditure for new technologies Increased capital costs</td> <td></td> </tr> <tr> <td>Reputational risk</td> <td>Low performance managing and mitigating the biodiversity risks. Reputational risk may affect ongoing approval of a project and the opportunities to develop new assets.</td> <td></td> <td></td> </tr> </tbody> </table> <p>Transition risks consider global developments (e.g., global commitments for deforestation free commodity products as well national and regional aspects.</p>	Risk driver	Risk categories (examples) <sup>63</sup>	Financial impact or transition	Financial risks (examples)	Policy and regulation	Requirements or expectations to comply with biodiversity standards, especially if project is located within area of high biodiversity importance.	Losses due to de-risk operations or permit denial	Credit risk (credit ratings, collateral value) Market risk (equity price, commodity price) Reputational risk	Regulation and stakeholder expectation	Equation of gross declared as protected or conservation areas (e.g., following deforestation) or requirements for no new developments in protected areas.	Increased operating costs (e.g., permitting costs) Legal costs or fines		Disputes and stakeholder objection	Lack of compliance with biodiversity standards, public criticism and disputes leading to delays in implementation.	Capital expenditure for new technologies Increased capital costs		Reputational risk	Low performance managing and mitigating the biodiversity risks. Reputational risk may affect ongoing approval of a project and the opportunities to develop new assets.			<ul style="list-style-type: none"> <li>The asset biodiversity risk filter</li> <li>Company or asset-specific assessment:</li> <li>Primary data, e.g., corporate disclosures, sustainability reports, environmental and social risk assessments, client conversations or surveys</li> <li>Third party providers company specific data e.g., Nature's Risk</li> </ul>	<ul style="list-style-type: none"> <li>Exposure to material physical risks<sup>64</sup></li> <li>Exposure to high / medium biodiversity-based risk scores</li> <li>Company or asset specific assessment:</li> <li>Dependency scores for company asset-specific exposures (e.g., volume of water flow, capacity reserves<sup>65</sup>)</li> <li>Company or asset specific assessment:</li> <li>Impact based risk scores (regulatory and significance of biodiversity impact)</li> <li>Biodiversity risk scores (regulatory and significance of suppliers)</li> </ul>
Risk driver	Risk categories (examples)	Financial impact or transition	Financial risks (examples)																																					
Acute	Risk of upstream degradation of watersheds and catchment areas leading to irregular rains, erosion and sedimentation of reservoir impacting productivity. <sup>60</sup>	Business disruption or loss of revenue Higher operating costs (e.g., cleaning costs or mitigation costs)	Credit risk (overpricing of loans and collateral value, credit rating) Market risk (reduction in financial asset value, e.g., equity price, commodity price)																																					
Acute	Risk of accumulation of invasive aquatic plants in the reservoir, with potential damage to mechanical equipment. <sup>61</sup>	Increased capex for maintenance on infrastructure																																						
Chronic	Climate change may result in increased droughts and floods impacting productivity. <sup>62</sup>	Asset valuation or stranded assets																																						
Risk driver	Risk categories (examples) <sup>63</sup>	Financial impact or transition	Financial risks (examples)																																					
Policy and regulation	Requirements or expectations to comply with biodiversity standards, especially if project is located within area of high biodiversity importance.	Losses due to de-risk operations or permit denial	Credit risk (credit ratings, collateral value) Market risk (equity price, commodity price) Reputational risk																																					
Regulation and stakeholder expectation	Equation of gross declared as protected or conservation areas (e.g., following deforestation) or requirements for no new developments in protected areas.	Increased operating costs (e.g., permitting costs) Legal costs or fines																																						
Disputes and stakeholder objection	Lack of compliance with biodiversity standards, public criticism and disputes leading to delays in implementation.	Capital expenditure for new technologies Increased capital costs																																						
Reputational risk	Low performance managing and mitigating the biodiversity risks. Reputational risk may affect ongoing approval of a project and the opportunities to develop new assets.																																							



# Example LEAP assessment for selected value chain

Thematic sector: Food & beverage

Sub-sector: Food

Industry: Meat, Poultry and Dairy

Sector (sub-sector) description uses SASB's Sustainable Industry Classification System® (SICS®)<sup>281</sup>

Focus on the following countries or regions where beef and dairy production activities in Asia-Pacific occur:

- ▶ East Asia, Southeast Asia and Pacific, China, India, Australia, New Zealand, Indonesia, Japan<sup>282</sup>

This use case is relevant for all asset classes or financial instruments that represent typical financial solutions for the chosen sector and activities (examples only, non-exhaustive):<sup>283</sup>

- ▶ Corporate or business loans
- ▶ Revolving line of credit or working capital loans
- ▶ Equipment finance
- ▶ Project finance
- ▶ Trade or supply chain finance
- ▶ Green or sustainability-linked loans
- ▶ Underwriting bonds or shares
- ▶ Listed or non-listed equity or debt investments
- ▶ Real asset investments
- ▶ Commodity investments
- ▶ Agriculture or business insurance

The examples provided throughout this table reflect nature-related impacts, dependencies, risks and opportunities for the industry and value chain components in scope. The examples do not specify how different asset classes or financial instruments are determining the scope and aggregation of the assessment results to a financial institution.

## Use Case: Beef and Dairy Production in APAC

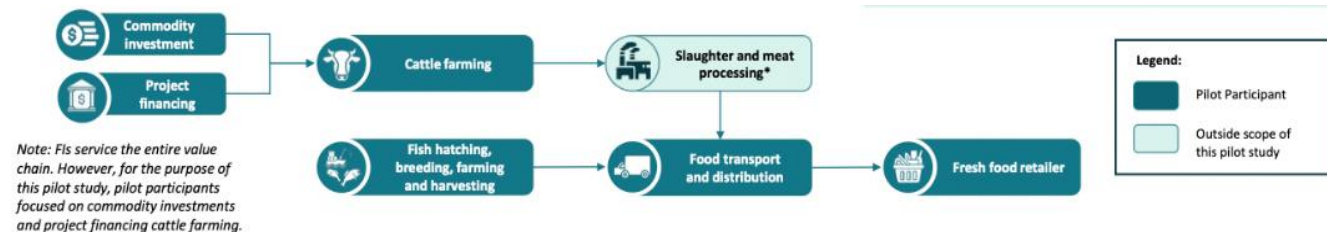
Beef and dairy production have significant environmental impacts. The expansion of pasture and feed crop production has contributed to deforestation and other forms of habitat loss. Livestock production is also a major contributor to greenhouse gas emissions, water pollution, using significant amounts of water for irrigation and drinking.<sup>273</sup>

WWF estimates that agriculture is responsible for 60% of global biodiversity loss.<sup>274</sup> Agriculture is replacing wildlife with livestock, which now accounts for 96% of the world's mammal biomass and 71% of the world's bird biomass is farmed poultry.<sup>275</sup>

Between 2000 and 2018, the expansion of cropping and grazing land has caused 90% of worldwide deforestation, with livestock grazing alone responsible for up to 40% of this deforestation.<sup>276</sup> In fact, the Wilderness Society found that, in Queensland, Australia, 73% of all detected deforestation and land clearing between 2013 and 2018 was attributed to beef production. During this time, more than one million hectares of deforestation and land clearing was linked to beef production, with more than 93% of deforestation and land clearing in the Great Barrier Reef catchments attributed to properties where beef cattle was the primary land use.<sup>277</sup>

### Key facts about domestically sourced fresh beef and salmon:

- Beef was Australia's 9<sup>th</sup> largest export commodity in 2022 (DFAT 2023).
- Agricultural products, including beef and salmon, collectively accounted ~12% of goods and services exported in 2021-22 (ABARES 2023a)
- Over half of Australia's land is used for grazing of native vegetation (45%) or modified pastures (9%) (DCCEEW 2021)
- The gross value of Australian fisheries and aquaculture production (GVP) is forecast to rise in 2022-23, by 8% to \$3.63 billion (ABARES 2023b).
- Salmonids account for 60% of Australia's aquaculture production value (ABARES 2023a)
- The production value of Australia's fisheries and aquaculture grew 38% in the last 10 years, primarily driven by a 141% increase in salmonid production value over the same period. (ABARES 2023c)



# Example LEAP – LOCATE (Beef and Dairy Production)

LOCATE – Span of business model & value chain

**Locate**  
The interface with nature

**L1** Span of the business model and value chain  
What are our organisation's activities by sector and value chain? Where are our direct operations?

**L2** Dependency and impact screening  
Which of these sectors, value chains and direct operations are associated with potentially moderate and high dependencies and impacts on nature?

**L3** Interface with nature  
Where are the sectors, value chains and direct operations with potentially moderate and high dependencies and impacts located? Which biomes and specific ecosystems do our direct operations, and moderate and high dependency and impact value chains and sectors, interface with?

**L4** Interface with sensitive locations  
Which of our organisation's activities in moderate and high dependency and impact value chains and sectors are located in ecologically sensitive locations? And which of our direct operations are in these sensitive locations?

LEAP questions	Examples and considerations	Tools and data sources (examples only)	Relevant metrics FIs (as per TNFD metrics guidance, other reports and examples)
L1 - Business footprint	<p>The following list of "value chain" activities are in scope for this LEAP example, reflecting financial institutions can be exposed through direct financing, investment, and underwriting activities of companies in different parts of the value chain including multinational and vertically integrated businesses:<sup>285</sup></p> <ul style="list-style-type: none"> <li>▶ <b>Beef production and processing:</b> <ul style="list-style-type: none"> <li>▶ <b>Feed imports and production:</b> Fodder and fodder ingredient import (e.g., soybeans, corn, sorghum) and domestic food production (feed grains, herbage or forage crops, pastures).</li> <li>▶ <b>Breeding:</b> Seedstock or breeding of cattle (including importing of cattle for breeding), cattle growing program.</li> <li>▶ <b>Production:</b> Cattle fattening and finishing (pastures or feedlots).</li> <li>▶ <b>Live export</b> (for breeding, feed lotting, slaughter).</li> <li>▶ <b>Abattoir:</b> Slaughter and meat processing.</li> </ul> </li> <li>▶ <b>Dairy production and processing:</b> <ul style="list-style-type: none"> <li>▶ <b>Feed imports and production:</b> Fodder and fodder ingredient import (e.g., soybeans, corn, sorghum) and domestic food production (feed grains, herbage or forage crops, pastures).</li> <li>▶ <b>Breeding:</b> Seedstock or breeding of cattle (including importing of cattle for breeding), cattle growing program.</li> <li>▶ <b>Production:</b> Milk production and operations (pastures or farms).</li> <li>▶ <b>Collection and processing:</b> Milk collection, processing, and product manufacturing (excluding distribution).</li> </ul> </li> </ul> <p>Excluded activities for this use case:</p> <ul style="list-style-type: none"> <li>▶ Warehouses, food or beverage manufacturing, wholesale or trade (domestic or international), infrastructure for transportation, retail.</li> </ul>	<p>Approximation of footprint (business activities and locations):</p> <ul style="list-style-type: none"> <li>▶ Publicly available reports or country agricultural census data</li> <li>▶ Gridded livestock maps or satellite imagery (e.g., FAO)</li> <li>▶ Data providers for corporate structure and disaggregated revenue data e.g., Bloomberg, FactSet, Refinitiv, Carbon4 Finance<sup>286</sup>, Trase.Finance</li> <li>▶ Input-Output models for supply chain approximation, e.g., ExIobase</li> </ul> <p>Company or asset-level:</p> <ul style="list-style-type: none"> <li>▶ Corporate disclosures, client conversations or surveying,</li> </ul>	<p>Approximation of company footprint based on sector and location (country, region, or province) proxies:<sup>287</sup></p> <ul style="list-style-type: none"> <li>▶ Company disaggregated revenue or expenditure data by country and by industry</li> <li>▶ Corporate structure data (subsidiaries, affiliates, assets and information on their industry classification and location)</li> </ul> <p>Company or asset-level (where primary data is sourceable):<sup>288</sup></p> <ul style="list-style-type: none"> <li>▶ List of assets, suppliers</li> <li>▶ Exact location of assets e.g., address, coordinates, boundaries of asset</li> <li>▶ Other information for analysis (e.g., feeding</li> </ul>
	<p>Use case provides examples of nature-related assessment for the listed value chain components:</p> <p>a. <b>Scope and application of the use case for a portfolio-level analysis:</b></p> <ul style="list-style-type: none"> <li>▶ Allocation of portfolio companies to value chain components and (approximation of) locations.</li> <li>▶ Disaggregation, where vertically integrated companies are financed, and allocation to value chain components and locations.</li> <li>▶ Up- and downstream activities through sector and location proxies (where material and possible).</li> </ul> <p><b>Boundaries of finance and aggregation of result</b></p> <ul style="list-style-type: none"> <li>▶ Appropriate level of aggregation of results to company or portfolio-level will vary based on asset class or financial instrument (e.g., corporate loan, equipment finance, equity investments).</li> </ul>	<p>sustainability reports (e.g., CDP)</p> <ul style="list-style-type: none"> <li>▶ Third-party geospatial asset data e.g., Spatial Finance Initiative, BloombergNEF</li> </ul>	<p>and production system, production capacity)</p>

# Example LEAP – LOCATE (Beef and Dairy Production)

## Locate The interface with nature

- L1** Span of the business model and value chain  
**What** are our organisation's activities by sector and value chain? **Where** are our direct operations?
- L2** Dependency and impact screening  
**Which** of these sectors, value chains and direct operations are associated with potentially moderate and high dependencies and impacts on nature?
- L3** Interface with nature  
**Where** are the sectors, value chains and direct operations with potentially moderate and high dependencies and impacts located?  
**Which** biomes and specific ecosystems do our direct operations, and moderate and high dependency and impact value chains and sectors, interface with?
- L4** Interface with sensitive locations  
**Which** of our organisation's activities in moderate and high dependency and impact value chains and sectors are located in ecologically sensitive locations?  
**And which** of our direct operations are in these sensitive locations?

## Examples and considerations

Examples of in-scope biomes based on geography, and areas with most known business activities:<sup>289</sup>

- Tropical subtterranean forests, temperate boreal forests, and woodlands, shrublands and shrubby woodlands, savannas and grasslands, intensive land use systems, rivers and streams, lakes, coastal inlets and lagoons, open ocean water, atmosphere.

Current integrity and importance of ecosystems (examples of layers for consideration, non-exhaustive)



Key Biodiversity Areas (IBAT) | Water Scarcity (The WWF Risk Filter) | Gridded Livestock - Head Density (FAO)<sup>290</sup>

## Tools and data sources (examples only)

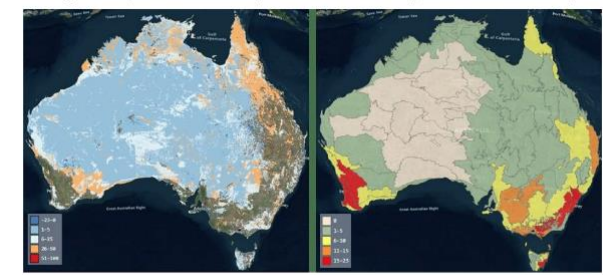
- Government or national statistics
- Global Ecosystem Typology Tool
- UN Biodiversity Lab
- Maps
- IBAT
- The WWF Biodiversity Risk Filter
- WWF Priority Eco Regions
- ENCORE - Biodiversity Hotspots
- IUCN Red List of Ecosystems
- Globio Species Abundance
- Global Critical Habitat Screen
- WRI Water Risk Atlas
- GlobalForestWatch
- NatureMetrics eDNA

## Interface with sensitive locations

## Relevant metrics FIS (as per TNFD metrics guidance, other reports and examples)

- State of nature with approximate location of assets (country, region, province level).<sup>291</sup>
- Area-weighted average of indicator at country or regional level (e.g., average biodiversity integrity by country or region)
- Number of determined Key Biodiversity Areas (KBAs), Protected Area in country or region
- Asset or site-specific:<sup>292</sup>
- Site or area of influence in low integrity area (determined through e.g., ecosystem at risk or red listed, forest or grassland connectivity, species abundance (MSA, species threat abatement and restoration (STAR))

Figure 3 Map of Australia overlaid with nature-related spatial data in NationalMap



Data layer: BIO11a Total loss of extent of vegetation from pre-1750 extents | Data layer: BIO16b Numbers of critically endangered communities in Australia from pre-1750 extents | species listed under the EPBC Act by IBRA region



# Example LEAP – Evaluate (Beef & Dairy Production)

## Evaluate Dependencies & impacts

### E1 Identification of environmental assets, ecosystem services and impact drivers

What are the sectors, business processes or activities to be analysed? What environmental assets, ecosystem services and impact drivers are associated with these sectors, business processes, activities and assessment locations?

### E2 Identification of dependencies and impacts

What are our dependencies and impacts on nature?

### E3 Dependency and impact measurement

What is the scale and scope of our dependencies on nature?

What is the severity of our negative impacts on nature? What is the scale and scope of our positive impacts on nature?

### E4 Impact materiality assessment

Which of our impacts are material?

Impact drivers by business activity	Land and sea use change			Resource exploitation		Pollution					Climate change	Invasive species
	Terrestrial ecosystem use	Freshwater ecosystem use	Marine ecosystem use	Water use	Other resource use	Soil pollutants	Water pollutants	Non-GHG air pollutants	Solid waste	Disturbances	GHG emissions	Biological alterations
Livestock (beef and dairy)	Very high			Very high		Medium	Medium	High	Low		High	Medium
Food processing and manufacturing				High		Medium	Medium	High	High		High	
Food distribution			Medium			Low	Low	High		High	High	High
Food retail				Very high		High	Medium	Medium	Medium			
Freshwater fishing and aquaculture		Very high				High	High		High		High	Medium
Marine fishing and aquaculture			Very high			High	High		High		High	Medium

## Sector-based assessment

**Cattle farming and deforestation in Eastern Australia**  
Land clearing is one of the primary impact drivers for agriculture and cattle farming. A 2019 report found that over 1.6 million hectares of forest and bushland has been cleared in Queensland for agricultural purposes since 2014 (Wilderness Society 2019).  
Land clearing for pasture expansion can contribute to deforestation, loss of biodiversity, and habitat destruction, disrupting ecosystems and displacing native species, if not appropriately managed.

**Balancing impacts and dependencies on freshw.**  
The long-term viability of fisheries and aquaculture depends on freshwater and marine ecosystems providing essential ecosystem services for sustainable growth and reproduction of fish and shellfish. Fishing and aquaculture can have material impacts on these environments. For instance, certain types of fish farms, impacting marine habitats.  
These impacts can be mitigated by adopting sustainable fishing practices.

Dependency by business activity	Fibres and other materials	Genetic materials	Ground water	Surface water	Marine resources	Pollution	Soil quality	Ventilation	Water flow maintenance	Water quality	Bio remediation	Filtration	Utilisation by atmosphere and ecosystems	Mediation of sensory impacts	Buffering and attenuation of cross-sector	Climate regulation	Disease control	Flood and storm protection	Mass stabilisation and erosion control	Restoration of
Livestock (beef and dairy)	VH	VL	VH	VH		VL	H	VL	H	VH	M	M	L	L	L	H	H	VH	L	L
Food processing and manufacture			VH	VH			VL		M	M	L	L						M	L	
Food distribution																H		M	M	
Food retail											VL									L
Freshwater fishing and aquaculture	VH								H		M				M	H	M	H	H	M
Marine fishing and aquaculture	VH				M				H		M				M	H	M	H	H	M

**Value chain's reliance on nature**  
Cattle farming, fisheries and aquaculture rely heavily on nature and ecosystem services for their production processes. Cattle farmers require viable grazing land and access to clean water resources to keep livestock alive. Fisheries and aquaculture rely on clean water, nutrient-rich ecosystems, and suitable habitats for fish and shellfish growth.  
The agriculture and aquaculture sectors are interconnected with the environment, relying on many different types of ecological processes like pollination, soil quality, water quality, filtration, erosion control, pest control and climate regulation. Disruptions to these ecosystem services can have profound impacts on the productivity and sustainability of these sectors. These dependencies create material nature-related risks and opportunities for all corporations and FIS active in these value chains.

**Reliance on fibres and other materials**  
Agriculture and aquaculture rely on fibres and materials from plants, algae, and animals. These materials can be provided by nature (e.g., native vegetation for grazing), or from production process inputs (e.g., feedstock or fertilisers).  
Livestock, fishing and aquaculture are vulnerable to disruptions to supply of fibres and other minerals. As an example, poor forage-cropping yields mean cattle farmers need to invest in alternative feedstocks to feed livestock, creating additional costs.

**Legend: Impact materiality rating**

Very high (VH)
High (H)
Medium (M)
Low (L)
No data*

\* No data means that there is not enough information to attribute a rating to this dependency. It does not mean that there is likely to be no

# Example LEAP – Evaluate (Beef & Dairy Production)

## Evaluate Dependencies & impacts

### E1 Identification of environmental assets, ecosystem services and impact drivers

**What** are the sectors, business processes or activities to be analysed? What environmental assets, ecosystem services and impact drivers are associated with these sectors, business processes, activities and assessment locations?

### E2 Identification of dependencies and impacts

**What** are our dependencies and impacts on nature?

### E3 Dependency and impact measurement

**What** is the scale and scope of our dependencies on nature?

**What** is the severity of our negative impacts on nature? What is the scale and scope of our positive impacts on nature?

### E4 Impact materiality assessment

**Which** of our impacts are material?

Examples and considerations			Tools and data sources (examples only)	Relevant metrics Fis (as per TNFD metrics guidance, other reports and examples)
<p>This use case considers, and gives example of, potential impact and dependency categories (based on ENCORE and literature-based research) for in scope value chain components- non-exhaustive:<sup>294</sup></p> <p>Consider environmental footprint of the different fodder types and sources e.g., grain-fed, forage-based, pasture-based, as well as imported and domestic fodder production and differences between production systems, e.g., grazing and feedlot systems.</p>				
Impact driver	Negative impact (examples) <sup>295,296</sup>	Impact mitigation or positive impact (examples) <sup>297</sup>	<p>Sector-based (and location approximation) analysis:</p> <ul style="list-style-type: none"> <li>Literature-based analysis</li> <li>ENCORE</li> <li>The WWF Biodiversity Risk Filter</li> <li>SBTN Materiality Tool</li> <li>Exiobase</li> </ul> <p>Company or asset- level impact analysis:</p>	<p>Portfolio-level exposure (potential impact):</p> <ul style="list-style-type: none"> <li>Sector or industry materiality rating (e.g., level of expected severity, frequency of impact)<sup>301</sup></li> <li>Industry-level data points (e.g., average, industry water footprint)</li> </ul>
Land/ freshwater/ ocean-use change	<p>Production feed crops and concentrates (e.g., corn, alfalfa, soy):</p> <ul style="list-style-type: none"> <li>Land clearing to convert native vegetation or habitats for feed production.</li> </ul>	<ul style="list-style-type: none"> <li>No burning for pastures or crops, exclusion from biodiversity important areas.</li> <li>Sustainable land-use planning and wildlife management plans.</li> </ul>		
	<ul style="list-style-type: none"> <li>Land and soil degradation from intensive or monoculture crop production (through soil erosion, loss of soil quality &amp; structure).</li> <li>Alteration of soil texture or removal of vegetation cover affecting water cycles and water retention capacity.</li> <li>Modifications to waterways to support agriculture, such as damming and channelization to aid irrigation.</li> </ul> <p>Pasture (cultivated or non-cultivated):<sup>298</sup></p> <ul style="list-style-type: none"> <li>Land clearing to convert native vegetation or habitats for pastures and feedlots.</li> <li>Over-grazing and livestock activities on pastures leading to land and soil degradation (e.g., through soil erosion, long-term loss of vegetation), deforestation and loss of habitat.</li> </ul>	<ul style="list-style-type: none"> <li>Restoration of wetland and peatland areas and degraded land.</li> </ul> <p>Feed production:</p> <ul style="list-style-type: none"> <li>Regenerative agriculture<sup>299</sup> e.g., agro-silviculture (trees integrated in crop fields, biodiversity strips), cover cropping, crop diversification and reduction of tillage.</li> </ul> <p>Pastures (cultivated or non-cultivated):</p> <ul style="list-style-type: none"> <li>Improved grazing and pasture management (e.g., rotational grazing), silvo-pastoral systems (e.g., tree or shrubs on pasture), forage legumes for increase of pollinators.<sup>300</sup></li> <li>Agro-forestry - integrated animal and crop and wood or fuel production.</li> </ul>		
Resource use/ replenishment	<p>Feed production and farm:</p> <ul style="list-style-type: none"> <li>Water use in feed production (e.g., irrigation of crops and cultivated pastures).</li> <li>Water use in animal farming (drinking, service water, feed mixing water).</li> <li>Forage crops, crop residue and grazed biomass.</li> </ul> <p>Operations</p> <ul style="list-style-type: none"> <li>Water use in slaughtering and processing.</li> </ul>	<ul style="list-style-type: none"> <li>Water efficiency programs (e.g., improving irrigation efficiency and increased water productivity, improved feed quality).</li> </ul>		
			<ul style="list-style-type: none"> <li>Input-output models (e.g., Iceberg Datalab, Carbon4 Finance - GBS, Exiobase, GloBio model, BioScope)</li> <li>Primary data (e.g., production and consumption or environmental pressure data from corporate disclosures, client conversations or surveys, sustainability reports)</li> <li>Data providers or tools to observe or monitor impact (e.g., GlobalForestWatch, WRI Water Risk, The WWF Water Risk Filter, Trase.Finance, NatureAlpha, NatureMetrics eDNA, Satellite Imagery, e.g., Copernicus)</li> </ul>	<ul style="list-style-type: none"> <li>Exposure in or near priority locations<sup>302</sup></li> </ul> <p>Company or asset-level impact (potential or actual impact):</p> <ul style="list-style-type: none"> <li>Metrics for pressure points (e.g., corporate data on land-use, water footprint, GHG emissions)</li> <li>Metrics for impact to state of nature (e.g., Corporate Biodiversity Footprint (MSA), Company Global Biodiversity Score (GBS) by Pressure Point (MSA))</li> <li>Site-specific impact (e.g., area of land converted and measurement or estimated state of nature (e.g., MSA, STAR))</li> </ul>

Company/ Asset specific assessment- IMPACT

# Example LEAP – Evaluate (Beef & Dairy Production)

## Evaluate Dependencies & impacts

### E1 Identification of environmental assets, ecosystem services and impact drivers

**What** are the sectors, business processes or activities to be analysed? What environmental assets, ecosystem services and impact drivers are associated with these sectors, business processes, activities and assessment locations?

### E2 Identification of dependencies and impacts

**What** are our dependencies and impacts on nature?

### E3 Dependency and impact measurement

**What** is the scale and scope of our dependencies on nature?

**What** is the severity of our negative impacts on nature? What is the scale and scope of our positive impacts on nature?

### E4 Impact materiality assessment

**Which** of our impacts are material?

## Company/Asset specific assessment - IMPACT

Examples and considerations	Tools and data sources (examples only)	Relevant metrics Fis (as per TNFD metrics guidance, other reports and examples)
<p>Climate change</p> <ul style="list-style-type: none"> <li>▶ CO2 emissions from deforestation or land degradation due to feed production or pastures.</li> <li>▶ Methane emissions from cattle digestive systems and manure.</li> <li>▶ Nitrous oxide emissions from synthetic fertilizers and manure.</li> <li>▶ CO2 emissions shipments, transport, synthetic fertilizer, production or on-farm and processing.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Carbon farming (reforestation and restoration of peat- and wetlands, agroforestry, cover crops, reducing tillage, organic fertilizer).</li> <li>▶ Improved diets or using feed ingredients such as seaweed to reduce methane emissions from livestock.</li> <li>▶ Improved waste and manure management and biogas for on-farm energy use.</li> </ul>	
<p>Pollution/pollution removal</p> <ul style="list-style-type: none"> <li>▶ Air, soil and water pollution from intensive pastures and feedlots.</li> <li>▶ Excess sediments (due to soil erosion) enter waterways and damage freshwater and coastal ecosystems.</li> <li>▶ Eutrophication, from organic and inorganic fertilizers and nutrient run-off into waterbodies.</li> <li>▶ Soil acidification due to excess fertilizer (nitrogen or phosphorus) leading to imbalance of soil nutrient cycle and reduced soil fertility.</li> <li>▶ Fertilizers and pesticide use impacting soil biodiversity and fertility.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Reduced or limited soil tillage.</li> <li>▶ Cover crops, crop diversification and rotation to prevent erosion and improve soil structure.</li> <li>▶ Use of bio-fertilizer and microorganism, and reduction of syntenic fertilizers.</li> <li>▶ Improved waste and manure management on cultivated areas, pastures and on feedlots or farms.</li> <li>▶ Precision farming to reduce use of pesticides, herbicides, and fertilizers.</li> </ul>	
<p>Invasive species</p> <ul style="list-style-type: none"> <li>▶ Introduction of non-native plant and animal species (and any diseases or pathogens) through imports and expansions in forest ecosystems.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Invasive species plan - measures to mitigate the introduction of invasive species, ongoing monitoring of outbreaks and control measures.</li> </ul>	



# Example LEAP – Evaluate (Beef & Dairy Production)

## Company/Asset specific assessment - Dependency

### Evaluate Dependencies & impacts

#### E1 Identification of environmental assets, ecosystem services and impact drivers

**What** are the sectors, business processes or activities to be analysed? What environmental assets, ecosystem services and impact drivers are associated with these sectors, business processes, activities and assessment locations?

#### E2 Identification of dependencies and impacts

**What** are our dependencies and impacts on nature?

#### E3 Dependency and impact measurement

**What** is the scale and scope of our dependencies on nature?

**What** is the severity of our negative impacts on nature? What is the scale and scope of our positive impacts on nature?

#### E4 Impact materiality assessment

**Which** of our impacts are material?

Examples and considerations	Tools and data sources (examples only)	Relevant metrics Fis (as per TNFD metrics guidance, other reports)										
<p>This use case considers impact and dependency categories (based on ENCORE and literature-based research) for in-scope companies - non-exhaustive:<sup>303 304 305</sup></p> <table border="1"> <thead> <tr> <th>Dependency categories</th> <th>Examples</th> </tr> </thead> <tbody> <tr> <td>Regulating and maintenance services</td> <td> <ul style="list-style-type: none"> <li>Pollination services for livestock feed (e.g., for certain forage crops).</li> <li>Soil quality (fertility and structure) incl. nutrient retention and cycling for pastures and crop production.</li> <li>Soil and sediment retention, protection from soil erosion (e.g., vegetation maintaining stable soils).</li> <li>Waterflow management and regulation (e.g., forests, wetlands, grassland regulating water flows).</li> <li>Flood and storm protection (e.g., forests, terrestrial vegetation providing physical shelter)</li> </ul> </td> </tr> <tr> <td></td> <td> <ul style="list-style-type: none"> <li>Bioremediation and filtration to reduce or detoxify contaminants and filtering or sequestering pollutants.</li> <li>Pest and disease control for feed production and livestock (e.g., variety of species hinder the spread of diseases, or provide disease suppressing qualities).</li> <li>Water quality of freshwater sources incl. streams, ground water (and processes of filtering contaminants or pollutants from water bodies).</li> <li>Climate regulation on a global and regional or local level.</li> </ul> </td> </tr> <tr> <td>Provisioning services</td> <td> <ul style="list-style-type: none"> <li>Ground and surface water: water supply feed production (irrigation of crops, pasture), and drinking supply for beef and dairy cattle.</li> <li>Fibers and grazed biomass: grassland and crops providing biomass feedstock for animal feed, and other materials for fodder and fertilizer use.</li> </ul> </td> </tr> <tr> <td>Cultural services</td> <td>Food and agricultural production systems and their domesticated and associated biodiversity can contribute cultural ecosystem services.</td> </tr> </tbody> </table> <p>Also consider the downstream impact on ecosystems and ecosystem services that other communities and people rely on. For example:</p> <ol style="list-style-type: none"> <li>Freshwater use for farming or irrigation purposes impacting fish stocks and fishery systems.</li> <li>Farm run-off impacting coral reefs and pollution of waterways impacting fishery systems and tourism industry.</li> <li>Impact on pollinator services from farm practices (e.g., pesticide use), where other farms rely on pollinator services.</li> <li>Land clearing impacting the cultural and recreational value of a forest area.</li> </ol>	Dependency categories	Examples	Regulating and maintenance services	<ul style="list-style-type: none"> <li>Pollination services for livestock feed (e.g., for certain forage crops).</li> <li>Soil quality (fertility and structure) incl. nutrient retention and cycling for pastures and crop production.</li> <li>Soil and sediment retention, protection from soil erosion (e.g., vegetation maintaining stable soils).</li> <li>Waterflow management and regulation (e.g., forests, wetlands, grassland regulating water flows).</li> <li>Flood and storm protection (e.g., forests, terrestrial vegetation providing physical shelter)</li> </ul>		<ul style="list-style-type: none"> <li>Bioremediation and filtration to reduce or detoxify contaminants and filtering or sequestering pollutants.</li> <li>Pest and disease control for feed production and livestock (e.g., variety of species hinder the spread of diseases, or provide disease suppressing qualities).</li> <li>Water quality of freshwater sources incl. streams, ground water (and processes of filtering contaminants or pollutants from water bodies).</li> <li>Climate regulation on a global and regional or local level.</li> </ul>	Provisioning services	<ul style="list-style-type: none"> <li>Ground and surface water: water supply feed production (irrigation of crops, pasture), and drinking supply for beef and dairy cattle.</li> <li>Fibers and grazed biomass: grassland and crops providing biomass feedstock for animal feed, and other materials for fodder and fertilizer use.</li> </ul>	Cultural services	Food and agricultural production systems and their domesticated and associated biodiversity can contribute cultural ecosystem services.	<p>Sector-level analysis:</p> <ul style="list-style-type: none"> <li>Literature-based analysis</li> <li>ENCORE</li> <li>SBTN Materiality Tool</li> <li>The WWF Biodiversity Risk Filter</li> <li>Swiss Re Institute BES Index InVEST</li> </ul> <p>Company or asset-level dependency analysis:</p> <ul style="list-style-type: none"> <li>Input-output Models (e.g., Exiobase, GloBio model, ENCORE)<sup>306</sup></li> <li>Primary data (e.g., production and consumption, environmental data from corporate disclosure, client conversations or surveys, sustainability reports)</li> <li>Data providers or tools to observe or monitor (e.g., NatureAlpha, Satellite imagery such as Copernicus)</li> </ul>	<p>Portfolio-level dependency (potential dependency)</p> <ul style="list-style-type: none"> <li>Sector or industry materiality rating (by ecosystem service category e.g., materiality of disruption to production<sup>307</sup>)</li> <li>Materiality of provision of ecosystem services (by category) at country or location</li> </ul> <p>level (BES Index)<sup>308</sup>, or value by ecosystem provided<sup>309</sup></p> <p>Company or asset-level (potential or actual dependency):</p> <ul style="list-style-type: none"> <li>Company materiality of dependency (by ecosystem service) e.g., level of productivity reliant on services<sup>310</sup>, value by ecosystems provided</li> <li>Company dependency score<sup>311</sup></li> <li>Site specifics, value of ecosystem service provided, e.g., such as area of crop pollinated</li> </ul>
Dependency categories	Examples											
Regulating and maintenance services	<ul style="list-style-type: none"> <li>Pollination services for livestock feed (e.g., for certain forage crops).</li> <li>Soil quality (fertility and structure) incl. nutrient retention and cycling for pastures and crop production.</li> <li>Soil and sediment retention, protection from soil erosion (e.g., vegetation maintaining stable soils).</li> <li>Waterflow management and regulation (e.g., forests, wetlands, grassland regulating water flows).</li> <li>Flood and storm protection (e.g., forests, terrestrial vegetation providing physical shelter)</li> </ul>											
	<ul style="list-style-type: none"> <li>Bioremediation and filtration to reduce or detoxify contaminants and filtering or sequestering pollutants.</li> <li>Pest and disease control for feed production and livestock (e.g., variety of species hinder the spread of diseases, or provide disease suppressing qualities).</li> <li>Water quality of freshwater sources incl. streams, ground water (and processes of filtering contaminants or pollutants from water bodies).</li> <li>Climate regulation on a global and regional or local level.</li> </ul>											
Provisioning services	<ul style="list-style-type: none"> <li>Ground and surface water: water supply feed production (irrigation of crops, pasture), and drinking supply for beef and dairy cattle.</li> <li>Fibers and grazed biomass: grassland and crops providing biomass feedstock for animal feed, and other materials for fodder and fertilizer use.</li> </ul>											
Cultural services	Food and agricultural production systems and their domesticated and associated biodiversity can contribute cultural ecosystem services.											

# Example LEAP – Assess (Beef & Dairy Production)

## A Assess Risks & opportunities

### A1 Risk and opportunity identification

What are the corresponding risks and opportunities for our organisation?

### A2 Adjustment of existing risk mitigation and risk and opportunity management

What existing risk mitigation and risk and opportunity management processes and elements are we already applying?

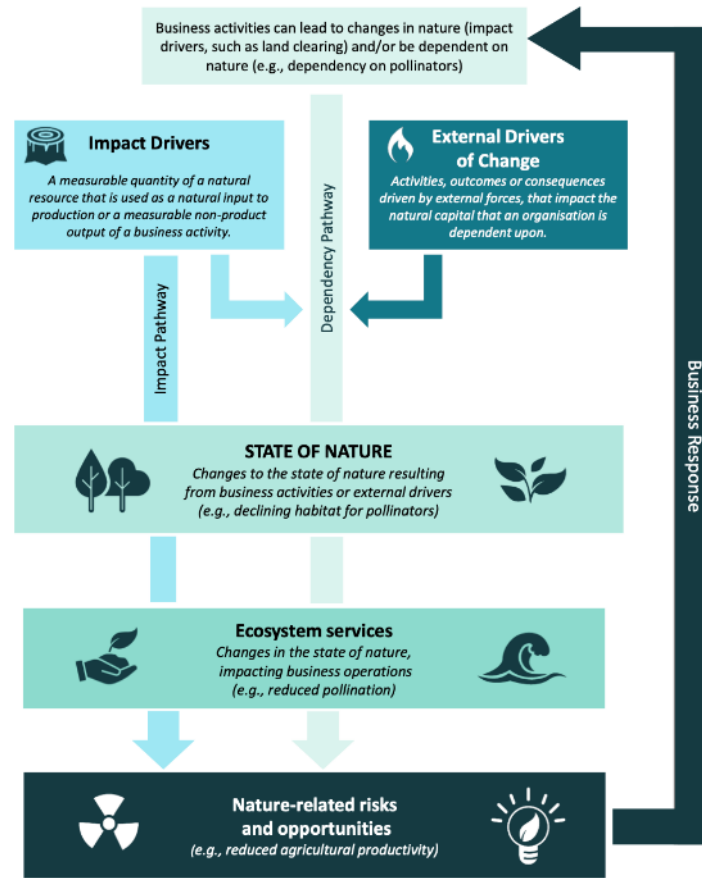
How can risk and opportunity management processes and associated elements (e.g. risk taxonomy, risk inventory, risk tolerance criteria) be adapted?

### A3 Risk and opportunity measurement and prioritisation

Which risks and opportunities should be prioritised?

### A4 Risk and opportunity materiality assessment

Which risks and opportunities are material and therefore should be disclosed in line with the TNFD recommended disclosures?



Source: Adapted from TNFD beta framework v0.2 (TNFD 2022c).

## Risk Identification

Nature-related risks and opportunities arise from an organisation's dependencies and impacts on nature. The figure to the right illustrates the connection between nature-related impacts, dependencies, risks and opportunities.

### Dependency and Impact Pathways:

Impact pathways describe how business activities can lead to a change in the state of nature, and consequently the benefits people obtain from ecosystem services (Natural Capital Coalition 2016).

Dependency pathways highlight how business activities are reliant upon specific ecosystem services. When changes occur in the state of nature, this may impact business operations (Natural Capital 2016).

### Dependencies and impacts can lead to nature-related risks through:

1. Changes to the state of nature caused by business impact drivers or external impacts
2. Changes to the flow of ecosystem services resulting from changes to the state of nature
3. Repercussions to the organisation due to business activities impacting society (e.g., damage to reputation and stakeholder relationships)

### Nature-related opportunities can occur:

1. When organisations avoid, reduce, mitigate or manage nature-related risks, for example, connected to the loss of nature and its associated ecosystem services that the organisation and society depend on; or
2. Through the strategic transformation of business models, products, services, markets and investments that actively work to halt or reverse the loss of nature, including by implementation of conservation, restoration and nature-based solutions (or support for them through financing or insurance).



# Example LEAP – Assess (Beef & Dairy Production)

## Assess Risks & opportunities

### A1 Risk and opportunity identification

What are the corresponding risks and opportunities for our organisation?

### A2 Adjustment of existing risk mitigation and risk and opportunity management

What existing risk mitigation and risk and opportunity management processes and elements are we already applying?

How can risk and opportunity management processes and associated elements (e.g. risk taxonomy, risk inventory, risk tolerance criteria) be adapted?

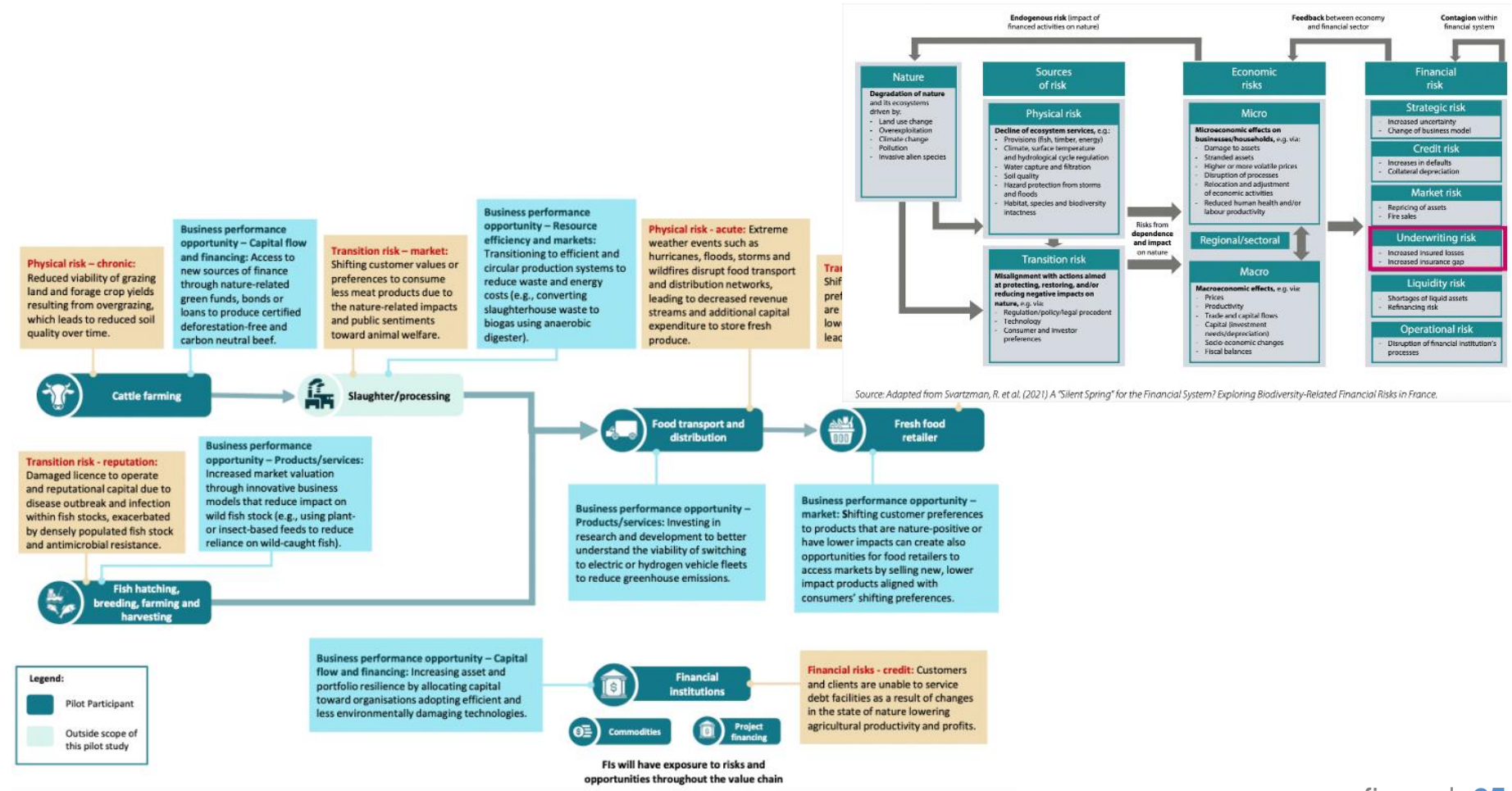
### A3 Risk and opportunity measurement and prioritisation

Which risks and opportunities should be prioritised?

### A4 Risk and opportunity materiality assessment

Which risks and opportunities are material and therefore should be disclosed in line with the TNFD recommended disclosures?

## Risk Identification



# Example LEAP – Assess (Beef & Dairy Production)

## Risk Identification – Physical Risk

### Assess Risks & opportunities

#### A1 Risk and opportunity identification

What are the corresponding risks and opportunities for our organisation?

#### A2 Adjustment of existing risk mitigation and risk and opportunity management

What existing risk mitigation and risk and opportunity management processes and elements are we already applying?

How can risk and opportunity management processes and associated elements (e.g. risk taxonomy, risk inventory, risk tolerance criteria) be adapted?

#### A3 Risk and opportunity measurement and prioritisation

Which risks and opportunities should be prioritised?

#### A4 Risk and opportunity materiality assessment

Which risks and opportunities are material and therefore should be disclosed in line with the TNFD recommended disclosures?

Examples and considerations				Tools and data sources (examples only)	Relevant metrics FIs (as per TNFD metrics guidance, other reports and examples)																										
<p>The <b>physical risk register</b> below derives its risk categories from sector or business activity dependencies. Examples come from existing literature and localized trends or scenarios on ecosystem services and arising risks.</p> <table border="1"> <thead> <tr> <th>Risk driver</th> <th>Risk categories (examples)</th> <th>Financial impact or transmission</th> <th>Financial risks (examples)</th> </tr> </thead> <tbody> <tr> <td>Chronic</td> <td>Soil degradation leading to loss of soil quality &amp; fertility and capacity to retain water, impacting productivity and feed quality of crops and pasture.<sup>312</sup></td> <td>Producers: ► Business disruption or loss of Revenue</td> <td>Credit Risk (servicing of loans and collateral value, credit rating)</td> </tr> <tr> <td>Acute or chronic</td> <td>Pests or diseases impacting feed crops and legumes production.<sup>313</sup></td> <td>► Increased operating costs (e.g., costs for irrigation, raw material costs)</td> <td rowspan="2">Market risk (reduction in financial asset value, e.g., equity price, commodity price)</td> </tr> <tr> <td>Acute or chronic</td> <td>Infectious diseases impacting livestock due to erosion of breed diversity and loss of local biodiversity.<sup>314</sup></td> <td>► Increased capital expenditure for relocation or adaptation</td> </tr> <tr> <td>Chronic</td> <td>Reduced water quality and quantity impacting operations at processing plants, higher feed costs from lower yields and mortality rates of livestock.<sup>315</sup></td> <td>► Asset valuation or stranded assets</td> <td rowspan="2">Manufacturers: ► Increased raw material costs ► Increased compliance costs</td> </tr> <tr> <td>Acute or chronic</td> <td>Loss of pollinators either through abrupt loss (e.g., diseases) or chronic reduction (e.g., pesticides impacting crop production).<sup>316</sup></td> <td></td> </tr> <tr> <td>Chronic</td> <td>Loss of regional rainfall due to deforestation impacting crop and beef production productivity.<sup>317</sup></td> <td></td> <td></td> </tr> </tbody> </table>				Risk driver	Risk categories (examples)	Financial impact or transmission	Financial risks (examples)	Chronic	Soil degradation leading to loss of soil quality & fertility and capacity to retain water, impacting productivity and feed quality of crops and pasture. <sup>312</sup>	Producers: ► Business disruption or loss of Revenue	Credit Risk (servicing of loans and collateral value, credit rating)	Acute or chronic	Pests or diseases impacting feed crops and legumes production. <sup>313</sup>	► Increased operating costs (e.g., costs for irrigation, raw material costs)	Market risk (reduction in financial asset value, e.g., equity price, commodity price)	Acute or chronic	Infectious diseases impacting livestock due to erosion of breed diversity and loss of local biodiversity. <sup>314</sup>	► Increased capital expenditure for relocation or adaptation	Chronic	Reduced water quality and quantity impacting operations at processing plants, higher feed costs from lower yields and mortality rates of livestock. <sup>315</sup>	► Asset valuation or stranded assets	Manufacturers: ► Increased raw material costs ► Increased compliance costs	Acute or chronic	Loss of pollinators either through abrupt loss (e.g., diseases) or chronic reduction (e.g., pesticides impacting crop production). <sup>316</sup>		Chronic	Loss of regional rainfall due to deforestation impacting crop and beef production productivity. <sup>317</sup>			<p>Portfolio and company analysis (sector and location proxies):</p> <ul style="list-style-type: none"> <li>► The <a href="#">WWF Biodiversity Risk Filter</a></li> <li>► <a href="#">Swiss Re BES Index</a></li> <li>► <a href="#">GMAP tool</a></li> </ul>	<p>Portfolio- analysis (sector and location proxies):</p> <ul style="list-style-type: none"> <li>► Exposure to material physical risks<sup>318</sup> (e.g., companies with high / medium dependency-based risk score)</li> </ul>
Risk driver	Risk categories (examples)	Financial impact or transmission	Financial risks (examples)																												
Chronic	Soil degradation leading to loss of soil quality & fertility and capacity to retain water, impacting productivity and feed quality of crops and pasture. <sup>312</sup>	Producers: ► Business disruption or loss of Revenue	Credit Risk (servicing of loans and collateral value, credit rating)																												
Acute or chronic	Pests or diseases impacting feed crops and legumes production. <sup>313</sup>	► Increased operating costs (e.g., costs for irrigation, raw material costs)	Market risk (reduction in financial asset value, e.g., equity price, commodity price)																												
Acute or chronic	Infectious diseases impacting livestock due to erosion of breed diversity and loss of local biodiversity. <sup>314</sup>	► Increased capital expenditure for relocation or adaptation																													
Chronic	Reduced water quality and quantity impacting operations at processing plants, higher feed costs from lower yields and mortality rates of livestock. <sup>315</sup>	► Asset valuation or stranded assets	Manufacturers: ► Increased raw material costs ► Increased compliance costs																												
Acute or chronic	Loss of pollinators either through abrupt loss (e.g., diseases) or chronic reduction (e.g., pesticides impacting crop production). <sup>316</sup>																														
Chronic	Loss of regional rainfall due to deforestation impacting crop and beef production productivity. <sup>317</sup>																														
<p>Note: This does not consider the guidance on scenarios from v0.3. While there are evolving global scenarios, these do not yet translate to specific industries or local ecosystems. In addition, the risks are being provided from the perspective of the directly impacted company. They do not consider how downstream companies, e.g., manufacturers could be impacted by the loss of ecosystem services for the production of crops.</p>				<p>Company or asset-specific assessment:</p> <ul style="list-style-type: none"> <li>► Primary data e.g., corporate disclosures, sustainability reports like CDP, client conversations or surveying</li> <li>► Third-party providers company specific data e.g., <a href="#">SPOTT</a>, <a href="#">NatureAlpha</a></li> </ul>	<p>Company or asset-specific assessment:</p> <ul style="list-style-type: none"> <li>► Dependency scores for company specific ecosystem reliance, e.g., water footprint against watershed demand<sup>319</sup></li> <li>► Biodiversity risk scores (industry materiality, biodiversity integrity)<sup>320</sup></li> </ul> <p><i>(Not yet included risk quantification and scenario analysis<sup>321</sup>, but there is an emerging body of case studies)<sup>322</sup></i></p>																										
<p>Examples to explore potential systemic risks for beef and dairy production, considering its feedstock supply (e.g., ecosystem collapse, portfolio or sector-wide risks):</p> <ol style="list-style-type: none"> <li>Systemic loss of topsoil impacting global crop productivity (90% of soils to be degraded by 2050).<sup>336</sup></li> <li>Risk to food security due to erosion of genetic diversity within crops and livestock species, which could impact the ability to fight environmental threats such as climate change and disease in the future.<sup>337</sup></li> </ol> <p>Note: These examples are based on limited data. Scenarios modelling is needed to fully understand potential systemic risks and assess their financial impact.</p>				Currently no tools identified	Currently no metrics identified																										



# Example LEAP – Assess (Beef & Dairy Production)

## Risk Identification – Transition Risk

### Assess Risks & opportunities

#### A1 Risk and opportunity identification

What are the corresponding risks and opportunities for our organisation?

#### A2 Adjustment of existing risk mitigation and risk and opportunity management

What existing risk mitigation and risk and opportunity management processes and elements are we already applying?

How can risk and opportunity management processes and associated elements (e.g. risk taxonomy, risk inventory, risk tolerance criteria) be adapted?

#### A3 Risk and opportunity measurement and prioritisation

Which risks and opportunities should be prioritised?

#### A4 Risk and opportunity materiality assessment

Which risks and opportunities are material and therefore should be disclosed in line with the TNFD recommended disclosures?

The transition risk register below derives its risk categories from sector or business activity impacts. Examples come from existing literature.

Risk driver	Risk categories (examples)	Financial impact or transmission	Financial risks (examples)	Portfolio and company analysis (sector and location proxies):	Portfolio -level analysis (sector and location proxies):
Regulation and policy	Governments zero deforestation commitments and enhanced due diligence requirements leading to ensure products were sourced without deforestation. <sup>323</sup>	Producers:	Credit Risk (credit ratings, collateral values) Market risk (equity price, commodity price) Reputational risk	<ul style="list-style-type: none"> <li>▶ The WWF Biodiversity Risk Filter</li> <li>Company or asset- specific assessment:</li> <li>▶ Primary data e.g., corporate disclosures, sustainability reports like CDP, client conversations or surveying</li> <li>▶ Third-party providers company specific data, e.g., ESG Rep Risk Profile, NatureAlpha, SPOTT</li> </ul>	<ul style="list-style-type: none"> <li>▶ Exposure to material physical risks<sup>331</sup> (e.g., companies with high /</li> </ul>
Market - consumer expectations or reputation	Food retailers and manufacturers increasing the pressure on deforestation free meat and dairy. <sup>324</sup>	<ul style="list-style-type: none"> <li>▶ Reduced revenue (e.g., reduction in capacity)</li> <li>▶ Increased operating Costs for mitigation</li> <li>▶ Capital expenditure for research or new technologies</li> </ul>			<ul style="list-style-type: none"> <li>▶ medium impact-based risk score)</li> <li>▶ Exposure to environmental controversies or reputational risks</li> </ul>
Regulation and policy	Export taxes or export quotas in order to limit or diversify agricultural products. <sup>325</sup>	<ul style="list-style-type: none"> <li>▶ Asset valuation or stranded assets</li> </ul>			<ul style="list-style-type: none"> <li>Company or asset-specific assessment:</li> <li>▶ Impact-based risk score (magnitude and significance of potential impact)<sup>332</sup></li> </ul>
Regulation and policy	Global Biodiversity Framework on reducing excess nutrients lost to the environment and risk from pesticides by at least half by 2030 requiring farms to adapt their practices. <sup>326</sup>	Manufacturers:			<ul style="list-style-type: none"> <li>▶ Biodiversity risk scores (reputational risk score)<sup>333</sup></li> </ul>
Regulation and policy	Policies to reduce environmental impact to important biodiversity areas like the closure or limitations of density of animals on farms near sensitive. <sup>327</sup>	<ul style="list-style-type: none"> <li>▶ Higher compliance costs</li> <li>▶ Higher prices</li> </ul>			<ul style="list-style-type: none"> <li>▶ Supply chain risk or certification of suppliers</li> </ul>
Regulation and policy	Global Biodiversity Framework to conserve and protect 30% of terrestrial and freshwater areas by 2030 limiting expansion and operations of feed production and livestock. <sup>328</sup>				<p>(Not yet included risk quantification and scenario analysis<sup>334</sup>, but there is an emerging body of case studies)<sup>335</sup></p>
Market - consumer expectations or new technology	Increasing demand and favorable policy environment for alternative and plant-based protein and milk products. <sup>329</sup>				
Regulation and policy	Pricing of agricultural emissions e.g., taxes on cow emissions increasing costs for beef and dairy production (e.g., Draft under New Zealand Climate Change Response Act). <sup>330</sup>				

Transition risks consider global developments (e.g., global commitments for deforestation free commodity products) as well national and regional aspects. The risks are considered from the perspective of the directly impacted company, as well as upstream and downstream impacts.

# Example LEAP – Assess (Beef & Dairy Production)

## Opportunity Identification

### Assess Risks & opportunities

#### A1 Risk and opportunity identification

What are the corresponding risks and opportunities for our organisation?

#### A2 Adjustment of existing risk mitigation and risk and opportunity management

What existing risk mitigation and risk and opportunity management processes and elements are we already applying?

How can risk and opportunity management processes and associated elements (e.g. risk taxonomy, risk inventory, risk tolerance criteria) be adapted?

#### A3 Risk and opportunity measurement and prioritisation

Which risks and opportunities should be prioritised?

#### A4 Risk and opportunity materiality assessment

Which risks and opportunities are material and therefore should be disclosed in line with the TNFD recommended disclosures?

Potential business opportunities (for the financial sector in the context of financing companies' activities to reduce, mitigate, avoid impact or transform business model as well as emerging financial products):

Opportunity category	Business or sustainability performance	Examples <sup>338339</sup>
Products and markets	Business and sustainability performance	<b>Investment in alternative products and substitutes, e.g.,</b> <ul style="list-style-type: none"> <li>Alternative protein substitutes (plant-based, fermentation-based, cell-based proteins) and alternative milk products.<sup>340 341</sup></li> </ul>
Resource efficiency and markets	Business and sustainability performance	<ul style="list-style-type: none"> <li><b>Carbon farming:</b> Range of agricultural methods aimed at actively reducing GHG emissions and improving carbon sequestration, e.g., afforestation, reforestation, agroforestry (combining woody vegetation with crop or animal production), cover crops, conversion cropland to grassland, improved grazing management, restoration of peat- and wetlands.<sup>342 343</sup></li> </ul>
Resource efficiency and markets	Business and sustainability performance	<ul style="list-style-type: none"> <li><b>Biodiversity co-benefit credit schemes</b> - payments for biodiversity benefits created by carbon farming projects<sup>344</sup> and emerging voluntary biodiversity credit markets.<sup>345</sup></li> </ul>
Resource efficiency and products	Business and sustainability performance	<ul style="list-style-type: none"> <li><b>Agro-forestry</b> Increasing biodiversity in relation to single-use systems, such as pastures or cropland, and increasing productivity (e.g., through land or erosion protection, fodder production, animal protection).<sup>346</sup></li> </ul>
Resource efficiency	Business and sustainability performance	<ul style="list-style-type: none"> <li><b>Precision farming</b> Reducing input into agricultural system. Precision crop farming (e.g., controlled use of fertilizer, pesticides, water resources, and precision livestock farming, e.g., precision feeding).<sup>347</sup></li> </ul>
Resource efficiency and markets	Business and sustainability performance	<ul style="list-style-type: none"> <li><b>Regenerative bioenergy production</b> (e.g., generation of biogas from animals as on-farm energy source, and recycling of digestate material as soil fertilizer).<sup>348</sup></li> </ul>
Reputational capital and efficiency	Business and sustainability performance	<ul style="list-style-type: none"> <li><b>Technologies and tools</b> Enhancing Agri-Food supply chain transparency and traceability, to ensure sustainable suppliers and reduction in food losses.<sup>349</sup></li> </ul>
New financial products <sup>350</sup>	Financial performance	<ul style="list-style-type: none"> <li>Sustainability-linked loans or bonds.</li> <li>Green loans or bonds proceeds used for co-benefits for nature, nature-based solutions, or conservation.</li> <li>Financing ecosystem restoration or nature-based solutions for carbon or emerging biodiversity credits.</li> <li>Deforestation-free or natural capital funds.</li> <li>Parametric insurance.</li> </ul>

► Literature-based analysis or market engagement.

► Volume of financial flow nature-related opportunities or positive impact.  
 ► STAR (to identify investments contributing to reducing species extinction risk).



# Questions & answers

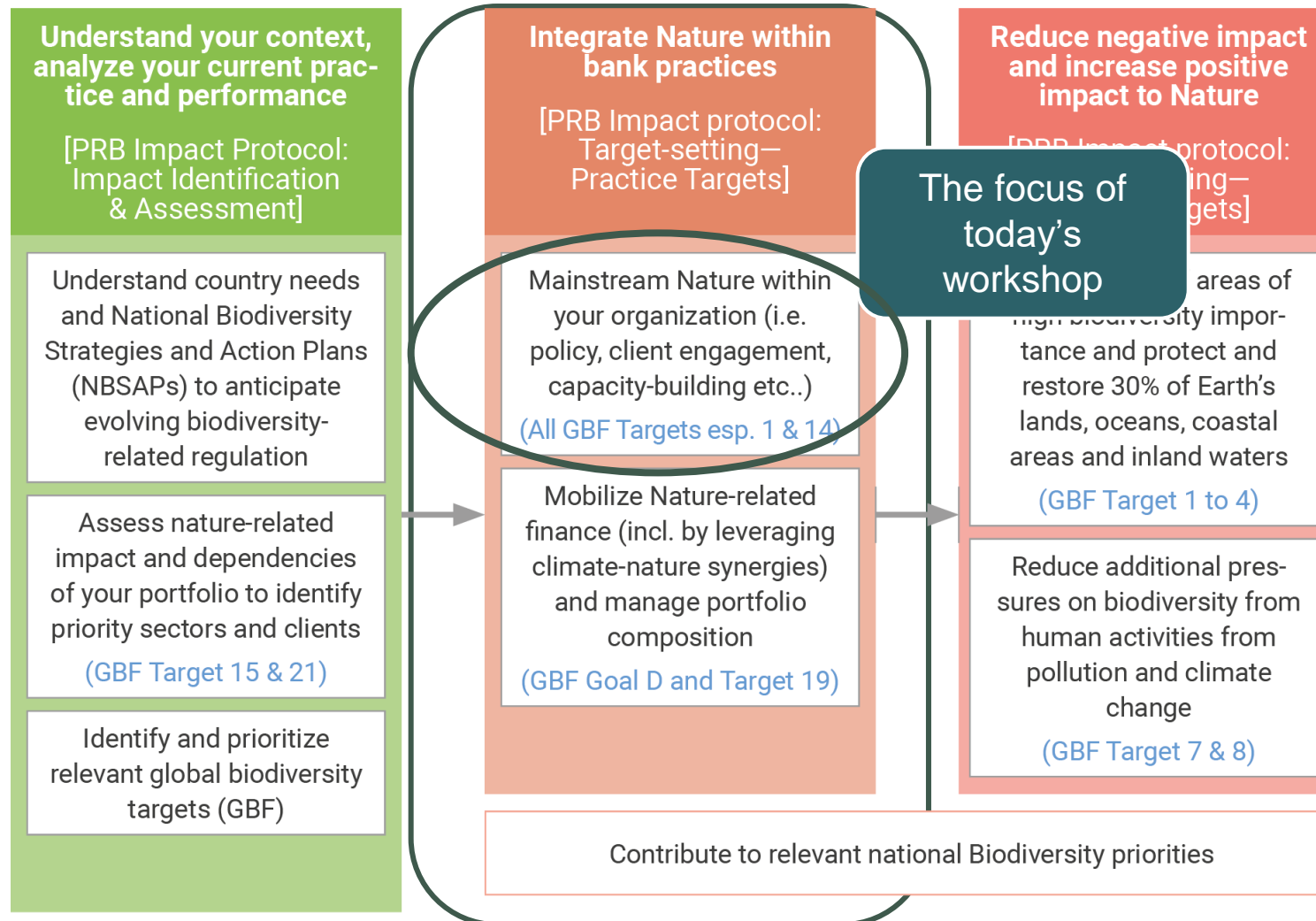






—  
**Integrating nature within practices and processes**

# High-level PRB approach in the context of the Global biodiversity framework





# Integrating nature within practices and processes: Mainstreaming nature within the organisation





# Mainstreaming nature within the organisation

Strengthen your bank's internal knowledge and processes to take into account nature in a more systematic way.

- This requires understanding how your bank's financing activities interact with nature, through their clients, counterparties and financial portfolios. (<- see previous workshop)

Building capacity at all levels of the organisation, including up to the level of senior management and the *Board of Directors*.

As the understanding of your bank increases, you can move to

- risk and impact management activities that may include (among others) setting restrictions or exclusions for certain sectors or activities (either on an entity or transactional level),
- as well as requirements for enhanced due diligence in response to specific identified issues of potential concern.

All of these need to be supported by robust client engagement, aiming to support the implementation of the policies and supporting your clients' transition to nature positive and ultimate alignment of investments with the GBF.

Your bank should also increase your own transparency through external commitments and disclosures.

**We are going to look at these elements in the following slides.**

# Integrating nature within practices and processes



slido



**How much is nature integrated within your bank's practices and processes?**

ⓘ Start presenting to display the poll results on this slide.



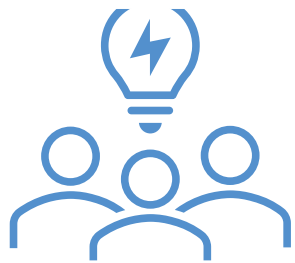
# Policies and processes (All GBF Targets esp. 1 & 14)

- In many cases nature is a topic within the broader context of environmental and social issues in these policies.
- We encourage you to develop a **specific nature-related policy** that specifically considers how your business drives exposure to nature-related impacts and dependencies, risks and opportunities.
- For example, these include investment/lending policies related to sectors or commodities that drive **deforestation**, such as agriculture, meat and dairy, palm oil, soy, as well as sectors with important **environmental footprints**, such as mining, and specific policies on protected areas.

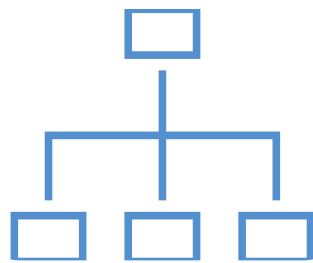
## Such a policy should

- be based on your bank's high-level position on nature and
- refer to a set of internal guidelines, processes and rules,
- express how your bank governs its operations, decision-making processes and client relationships in light of nature.

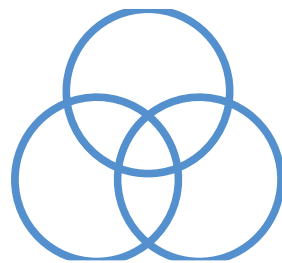
# Key building blocks of nature policies / strategies



Vision



Rationale



Scope



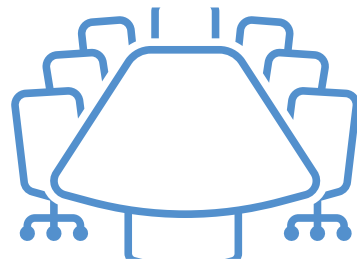
Policy commitments



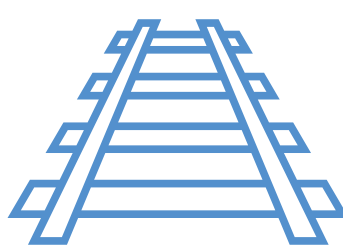
Portfolio commitments/targets



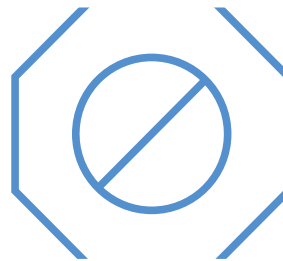
Reporting commitments



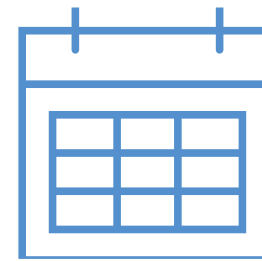
Culture and governance



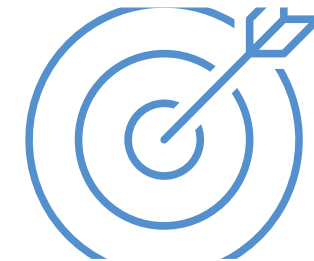
Resources and timelines



Risk management and due diligence



Update mechanisms



Potentially also impact targets

# Example: Rabobank



*Value nature*  
*Back to planetary boundaries*

*Rabobank's nature vision and approach*



# Example: Rabobank

## Contents

1.	<i>Executive summary</i>	2
2.	<i>Prologue of the CEO</i>	4
3.	<i>Introduction – setting the scene</i>	5
	a. <i>Urgency</i>	5
	b. <i>Scope</i>	5
4.	<i>Our vision and approach</i>	6
	a. <i>2050 and 2030 vision and objectives</i>	6
	b. <i>Cooperatively working on our ambitions</i>	7
	c. <i>Rabobank’s nature approach</i>	8
5.	<i>Where are we today?</i>	9
	a. <i>Measurement</i>	9
	b. <i>Take action</i>	11
	c. <i>Awareness &amp; disclosure</i>	13
6.	<i>Next steps</i>	14
<i>Annex:</i>		
	• <i>TNFD reference table</i>	15
	• <i>GBF table</i>	17
	• <i>Abbreviations and definitions explained</i>	17
	• <i>Considerations</i>	19

*It is our ultimate aspiration to:  
integrate nature in our way of working by 2030 and live in harmony with nature by 2050*

### Toward 2050

We support the overarching Kunming-Montreal Global Biodiversity Framework vision: ‘A world of living in harmony with nature, where by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people’. We translate this vision into: Balance between the production of food and energy within planetary boundaries.

### Toward 2030

Toward 2030 it is our aspiration to integrate nature in our way of working. To this end we are working on embedding nature into all our core banking processes and governance and progressively adapting our portfolio and policies toward alignment with the Global Biodiversity Framework 2030 targets, in line with the best practices and based on the best available science.

Based on analyses of double materiality we currently will focus our nature efforts on three ‘topics’: (1) land use, (2) water and (3) pollution, being aware that these topics are highly interdependent and connected and require an integral approach.

# Example: Rabobank



## Objectives

**Value Nature**  
Back to planetary boundaries

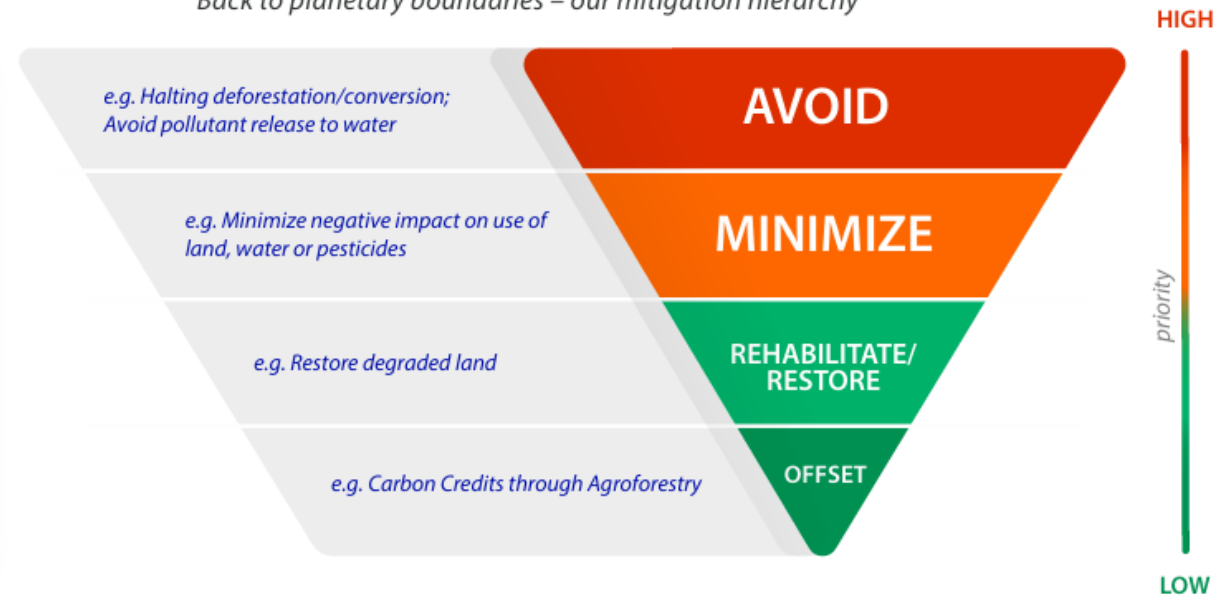
Leveraging our banking activities, we aim to progressively adapt our portfolio and policies toward alignment with GBF. Our main priorities stemming from GBF are:

- Halting deforestation and land conversion
- Avoiding impacts in protected and key biodiversity areas
- Minimizing pollution and impacts on threatened species
- Restoring degraded ecosystems
- Steering on good agricultural practices, reducing food loss & waste and protein diversification

Throughout our approach, our efforts are guided by the Mitigation Hierarchy, as to:

1. Avoid negative impacts
2. Minimize negative impacts
3. Subsequently restore negative impacts that can't be avoided or minimized and
4. Offset what can't be restored

Back to planetary boundaries – our mitigation hierarchy



## Cooperatively working on our ambitions

The goals we want to achieve are evidenced by our co-launching and signing of the Finance for Biodiversity Pledge in 2020. Since then, we actively participate in leading initiatives, such as the Partnership for Biodiversity Accounting Financials (PBAF) and the Biodiversity Working Group at the Dutch Central Bank (DNB). In 2021, we joined the Taskforce on Nature-related Financial Disclosures (TNFD) right from the start as a Taskforce member. Furthermore, we are contributing to the World Business Council for Sustainable Development (the WBCSD) nature working groups, Business For Nature, the UN's Environment Programme Finance Initiative (UNEP FI) and the UN's Environment Programme Principles for Responsible Banking (UNEP PRB). Simply put, the main reasons for us to do this are twofold.

# Example - Westpac



## OUR NATURAL CAPITAL POSITION STATEMENT

Human health, food, economies and well-being depend on nature. One million of the world's estimated eight million species of plants and animals are threatened with extinction. Meanwhile, ecosystem degradation is affecting the well-being of 40 per cent of the global population<sup>1</sup>.

Nature is defined as the natural world, with an emphasis on the diversity of living organisms, including people, and their interactions among themselves and with their environment<sup>2</sup>. More than half of the world's economic output is highly or moderately dependent on nature<sup>3</sup>. The health of nature underpins the health and prosperity of society. Like climate change, the protection and regeneration of nature is a significant issue.

Natural capital is the Earth's stock of renewable and non-renewable natural resources - including soil, water, air, minerals, plants and living things - that combine to yield a flow of benefits to people. Assessment of natural capital is important to support decision-making that aims to conserve nature and reduce nature loss.

As a major financial institution, Westpac Group can play a significant role in supporting our institutional and commercial customers through engagement and lending, to conserve nature and reduce natural capital loss in the way they manage their business.

However, crafting a position and approach to these issues poses challenges. While it is relatively straightforward to outline ambitions, implementation is challenging. The science is still evolving, there are data limitations including challenges in obtaining accurate data to measure impacts and the effects on customers, as well as those of their mitigation and resilience actions. Nevertheless, we are determined to seek to better understand and deal with these challenges.

This Natural Capital Position Statement (Position Statement) represents an important first step, in describing our aspirations and the early principles that will guide our approach to the better management and protection of natural capital, building on our existing Position Statements. It forms the basis for us to continue to engage and consult with customers, regulators, government and other stakeholders as we develop our action plan and continue to refine our principles that will guide our approach.



# Key examples of nature-related practices and policies

- **Sector-specific policies** (e.g, agri policies for high-risk commodities to reduce deforestation):
- **Thematic-specific policies** (e.g. water-related policy)
- **E&S risk assessment** (due diligence, risk framework)
- **Covenants**
- **Policies related to protected areas/sensitivities**: Corporate and project-level exclusion, restriction, or enhanced due diligence for clients with activities in or near important biodiversity areas, including (widely adopted by banking industry):
- **Policies related to societal issues (in line with GBF)**: Human Rights, Free, Prior, and Informed Consent (FPIC) for Indigenous Peoples and affected communities,

# Illustrative examples of nature-related practices and policies [1/2]

## Sector-specific policies

- **For example, agri policies for high-risk commodities to reduce deforestation:** Corporate and/or project-level exclusion or restriction for clients involved in the production of high-risk commodities: beef, soy, palm oil, cotton, coffee, tea, cocoa, wood, timber (see e.g., BNP Paribas deforestation [policy](#) and Barclays [statement](#) on Forestry & Agricultural Commodities)
- **For example, water-related policies for water intensive sectors to ensure water security:** Corporate and / or project level policies related to water for clients working in water stressed regions where the bank is present. ([CDP's guidance on water related disclosures for Oil and Gas, coal and metals and mining sectors, electric utilities sector](#))

## E&S risk assessment

- Due-diligence commitments for asset-based finance, such as Equator principles (with Due Diligence framework based on IFC performance standards)
- Nature-related standards (e.g., water, biodiversity) into E&S risk assessment framework for high-impact sectors (see e.g., ING E&S risk [framework](#) and SEB environmental [policy](#) on biodiversity and freshwater)
- Client engagement & assessment

# Zooming on deforestation I.

## Deforestation is a primary threat to biodiversity

- Avoiding deforestation and protecting of forests is **critical to meet the Paris Agreement & Global Biodiversity Framework**: ~ 2.6 billion tonnes of carbon dioxide, equivalent to one third of the CO2 released from burning fossil fuels, is [absorbed](#) by forests every year
- Forest ecosystems **hold 80% of terrestrial biodiversity**.
- **Agricultural expansion** continues to be the **main driver of deforestation** and forest fragmentation and the associated loss of forest biodiversity. 40% of global deforestation is [driven](#) by commodity production especially soy, palm oil, beef and timber.

## Why does it matter to banks

- Banks have a considerable indirect ecological footprint linked to clients they finance.
- Deforestation is a key source of nature-related risks and impact to banks (e.g., in South-east Asia bank lending [represents](#) 66% of financing to forest risk commodity supply chains)
- Regulation is rapidly picking up for (e.g., EU April 2023 [law](#) on global deforestation and EU Deforestation [Regulation](#))





# Zooming on deforestation II.

## Progress so far & action needed

- Despite rapid progress in commitment over the last years, only a small [proportion](#) of financial institutions most exposed to deforestation risks to are addressing deforestation.
- Banks exposed to deforestation should
  - 1) publicly recognize deforestation as a material and financial risk for their business and
  - 2) establish robust deforestation and/or high-risk commodities policies including associated human rights abuses and undertake processes to manage and mitigate their deforestation risk.

Such as: client engagement, monitoring their risk exposure and developing products to transition away from sustainable land use through financing nature-based solutions.



# Bank policies on nature - examples

## Case study 2: Sustainable palm oil policy

Case Study Summary Box	
Ecosystem	Forests
Sector	Palm oil
Region	Worldwide
Type of initiative	Mainstreaming nature
Nexus	Nature x climate x pollution
GBF target in focus	Target 1–4, 7, 8, 15, 19, 21

### What?

BNP Paribas has reinforced its commitment to biodiversity through its public position outlining its strategies to address major threats to biodiversity. These threats encompass changes in land and sea use, direct exploitation of certain organisms, climate change, and pollution. As part of its commitment to corporate social responsibility, BNP Paribas has formulated an internal policy to encourage palm oil companies to establish standards and processes to foster sustainable production in the industry.

### Who?

The policy is applicable to companies that are directly engaged in the palm oil value chain, including production (plantations and/or mills) as well as the refining and/or trading of crude palm oil. However, companies positioned further down the value chain, such as those involved in the production or trading of palm oil derivatives or the manufacturing of ingredients, do not fall under the scope of this policy.

### Why?

The establishment of palm oil plantations could potentially bring about detrimental impacts on local communities, climate change and ecosystem. At the same time, palm oil production plays a pivotal role in providing livelihoods and serving as a vital source of nutrition in developing nations. Various initiatives have been established to confront environmental and social challenges and to facilitate a transition towards more responsible practices in the palm oil sector. One noteworthy effort in this regard is the Roundtable on Sustainable Palm Oil (RSPO), in which BNP Paribas is affiliated and actively involved as a participant.

### How?

BNP Paribas has developed a policy that mandates certain criteria for palm oil producers. These producers must either be existing members of RSPO or possess a clear and actionable plan to become RSPO members. They are also required to have published a timely communication on their progress, and establish a time-bound plan for achieving full RSPO certification in their operations:

- For **upstream palm oil companies including plantations and mills**, the policy also entails the following requirements:
  - They are obligated to have a policy in place for conducting High Conservation Value (HCV) assessments before embarking on new oil palm plantation projects. Furthermore, they must have a policy in place to protect the identified HCV areas within their concession territories.
  - These companies are also required to have a policy in place for conducting High Carbon Stock (HCS) assessments before initiating any new oil palm plantations development. Moreover, they are expected to safeguard the HCS forests identified within their concession areas.
  - To mitigate GHG emissions, these companies must adopt policies to refrain from burning during the development of oil palm plantations, to avoid the development of new oil palm plantations on peatlands, irrespective of depth, and to minimise the use of artificial fertilisers.
  - They are not permitted to develop new plantations on UNESCO World Heritage Sites, Wetlands on the Ramsar list, Alliance for Zero Extinction sites, or IUCN Category I-IV areas.
- For **downstream companies, which include refiners and traders**, they are also assessed regarding the following criteria:
  - They are required to be RSPO members (or have a time-bound plan to become RSPO members), to have published and up-to-date communication on progress and to have a defined plan with specific timeframes to achieve full RSPO certification of their operations.
  - Enhancing the traceability of their palm oil supply chain is also an important evaluation criterion.
  - BNP Paribas also assess whether these companies have a time-bound plan to ensure that their palm oil suppliers adhere to specific guidelines, including refraining from development activities in HCS forests and HCV areas, no burning during the establishment of new plantations, avoiding development on peat, regardless of depth, abstaining from the use of child or forced labour.

# Bank policies on nature - examples

## Forestry and Agricultural Commodities Restrictions

Barclays has **no appetite** for providing Financial Services to soy, beef, palm oil, forestry and timber companies that are directly involved in:

- I. Illegal logging or related trading activities.
- II. Use of fire in forestry or plantation operations, including for land clearance and preparation.
- III. Acts of violence against or exploitation of people and local communities, including through forced or child labour, modern slavery and human trafficking.

In addition, for clients covered by this statement we apply the following requirements and expectations:

### Beef companies:

#### Requirements

We require beef companies to:

- I. Prohibit the production or primary processing of beef on/from areas in the Amazon cleared or converted after 2008.
- II. Commit to achieving full traceability of their South American beef supply chain (direct and indirect) by December 2025 in Areas at High-Risk of Deforestation and Conversion, which include the Amazon, Cerrado and Chaco Biomes.
- III. Commit to achieving a Deforestation-Free South American beef supply chain (direct and indirect) by December 2025 in Areas at High-Risk of Deforestation and Conversion, which include the Amazon, Cerrado and Chaco Biomes.
- IV. Monitor, verify and report on Deforestation-Free beef volumes by December 2025.
- V. Have a policy commitment to respect human rights across their operations and supply chain.

#### Expectations

We expect beef companies to:

- I. Commit to achieving a Conversion-Free South American beef supply chain (direct and indirect) by December 2025 in areas at High Risk of Deforestation and Conversion, which include the Amazon, Cerrado and Chaco Biomes and we will encourage clients to do so during annual client due diligence.
- II. Undertake human rights due diligence across their operations and supply chain and we will encourage clients to do this during annual client due diligence.



# Illustrative examples of nature-related practices and policies [1/2]

## Sector-specific policies

- **For example, agri policies for high-risk commodities to reduce deforestation:** Corporate and/or project-level exclusion or restriction for clients involved in the production of high-risk commodities: beef, soy, palm oil, cotton, coffee, tea, cocoa, wood, timber (see e.g., BNP Paribas deforestation [policy](#) and Barclays [statement](#) on Forestry & Agricultural Commodities)
- **For example, water-related policies for water intensive sectors to ensure water security:** Corporate and / or project level policies related to water for clients working in water stressed regions where the bank is present. ([CDP's guidance on water related disclosures for Oil and Gas, coal and metals and mining sectors, electric utilities sector](#))

## E&S risk assessment

- Due-diligence commitments for asset-based finance, such as Equator principles (with Due Diligence framework based on IFC performance standards)
- Nature-related standards (e.g., water, biodiversity) into E&S risk assessment framework for high-impact sectors (see e.g., ING E&S risk [framework](#) and SEB environmental [policy](#) on biodiversity and freshwater)
- Client engagement & assessment

# Example

## INFORMATION ABOUT ANZ'S WATER POLICY

### OVERVIEW

ANZ recognises the importance of playing a role in the efficient management of water across our diverse customer base and varied geographies.

Water is a scarce resource in many regions in which we operate and issues of quality, demand, access, security and management are significant concerns for industries and communities.

We support customers who share our values and who are working to adopt and deliver responsible practices to improve water management and assist the economic development of our region.

We also support infrastructure projects that promote improved use and management of water as a resource.

Our Water policy guides decision-making relating to transactions that have an impact on water demand, supply and utilisation.

Our policy settings have been developed in consultation with our customers, NGOs, governments, industry and sector experts. We have developed this policy to meet our objectives of being a responsible business and to support and encourage our customers to improve their social and environmental performance.

# Example

## ANZ'S APPROACH

ANZ requires its decision makers to actively assess environmental and social issues associated with customers they are considering. Decision makers and our customers must have awareness of the impacts of water utilisation. This includes, but is not limited to quality, demand, access, security and resource management.

Our water policy adopts a principles-based risk framework which is applied to decision-making in water-related transactions. This includes entities involved in water supply and entities that use water as part of their business operations. The following principles help inform our decision-making on clients, transactions and business strategies:

- *ANZ supports customers with activities in the water cycle that demonstrate a balanced approach to social, environmental and developmental impacts*
- *ANZ supports and encourages customers to adopt management practices to continuously improve their social and environmental performance*
- *ANZ supports customers that use internationally accepted industry management practices to manage social, environmental and economic impacts (including effects on human rights, biodiversity, cultural heritage, Indigenous rights, health and safety, governance and environmental sustainability)*

ANZ's approach to decision-making on water issues is based on the concept of stewardship across the water cycle. In the first instance we will work to ensure our customers are compliant with relevant host country laws, regulations and permits that pertain to environmental and social issues. We will also work closely with our customers as they invest in new and improved technologies.

ANZ expects customers with activities in the water cycle to use, or migrate towards, internationally accepted and best practice management techniques and technologies. Our water policy applies in all regions where we operate and covers all products and services that we provide to our business customers.

Our strategy commits us to growth in countries with varied water quality, demand, access, security and management issues. Individual government policies may establish different economic, social and environmental objectives and we take these objectives into account when applying our policy.

ANZ expects customers to manage and engage with all their stakeholders by implementing appropriate stakeholder engagement strategies and plans to deal with environmental and social issues associated with their activities.

## ENCOURAGING WATER STEWARDSHIP

ANZ's Water policy commits us to support customers in adopting cost-effective water use efficiency, recycling and reuse initiatives in all activities across the water cycle including water supply, water usage and water treatment.

We will work with irrigation and water-intensive industrial customers covered by this policy to encourage them to develop water management plans that cover issues such as water loss prevention measures, water quality, metering and management of discharges.

## CONCLUSION

Through the application of our Water policy, our aim is to work closely with our customers to meet or transition towards best practice. We will support customers who are continuously improving water management practices, recognising this will deliver environmental, economic and social benefits to the businesses and communities in which they operate.

*Last updated: November 2022*



# Illustrative examples of nature-related practices and policies [1/2]

## Sector-specific policies

- **For example, agri policies for high-risk commodities to reduce deforestation:** Corporate and/or project-level exclusion or restriction for clients involved in the production of high-risk commodities: beef, soy, palm oil, cotton, coffee, tea, cocoa, wood, timber (see e.g., BNP Paribas [deforestation policy](#) and Barclays [statement](#) on Forestry & Agricultural Commodities)
- **For example, water-related policies for water intensive sectors to ensure water security:** Corporate and / or project level policies related to water for clients working in water stressed regions where the bank is present. ([CDP's guidance on water related disclosures for Oil and Gas, coal and metals and mining sectors, electric utilities sector](#))

## E&S risk assessment

- Due-diligence commitments for asset-based finance, such as Equator principles (with Due Diligence framework based on IFC performance standards)
- Nature-related standards (e.g., water, biodiversity) into E&S risk assessment framework for high-impact sectors (see e.g., ING E&S risk [framework](#) and SEB environmental [policy](#) on biodiversity and freshwater)
- Client engagement & assessment

# Policies and processes – Example: the Equator Principles (All GBF Targets esp. 1 & 14)

- For project finance, 53 financial institutions in APAC countries are now members of the Equator Principles, thereby committing to applying the International Finance Corporation’s environmental and social performance standards (PS) to their project financing, including PS6 on biodiversity, a demanding set of requirements for avoiding, mitigating and offsetting impacts to biodiversity.
- Many of the signatories are also PRB members.

Bank name	Signing date	Last report
Agricultural Bank of Taiwan	01 Aug 2023	First Year Grace
ANZ Group Holdings Limited	15 Dec 2006	<a href="#">1 Oct 2021 to 30 Sep 2022</a>
Aozora Bank	14 Feb 2022	<a href="#">2023</a>
Bank of Guizhou	30 Nov 2020	<a href="#">2023</a>
Bank of Huzhou	24 Jul 2019	<a href="#">2023</a>
Bank of Taiwan	06 May 2022	<a href="#">2023</a>

Bank name	Signing date	Last report
Bank SinoPac	27 Feb 2020	<a href="#">2023</a>
Cathay United Bank Co., Ltd	23 Mar 2015	<a href="#">2023</a>
Chang Hwa Bank	22 Apr 2022	<a href="#">2023</a>
Commonwealth Bank of Australia	26 May 2014	<a href="#">1 Jul 23 - 31 Dec 23</a>
CTBC Bank Co., Ltd	23 Jan 2019	<a href="#">2023</a>
DBS Group Holdings Ltd	18 Nov 2019	<a href="#">2023</a>
Development Bank of Japan	01 Jul 2020	<a href="#">1 Apr 2023 – 31 Dec 2023</a>
E.SUN Commercial Bank, LTD	28 Dec 2015	<a href="#">2023</a>
Export Finance Australia	03 Mar 2009	<a href="#">1 Jul 2022 to 31 Dec 2022</a> <a href="#">1 Jan 2023 to 30 Jun 2023</a>

# Illustrative examples of nature-related practices and policies [2/2]

## Covenants

- E.g. that clients will share relevant biodiversity data from projects in a timely manner with national data portals and GBIF per Equator Principles guidance

**Policies related to protected areas/sensitivities:** Corporate and project-level exclusion, restriction, or enhanced due diligence for clients with activities in or near important biodiversity areas, including (widely adopted by banking industry):

- Ramsar wetlands: considered to be of international importance to conserving global biodiversity and sustaining human life;
- UNESCO World Heritage Sites: recognized sites of outstanding universal value based on their natural and/or cultural values,;
- IUCN Category I – IV protected areas: strict nature reserves; wilderness areas largely unmodified by human activity; and large natural or near natural area
- Critical Habitat (IFC Performance Standard 6):
- Key Biodiversity Areas
- Alliance for Zero Extinction (AZE) sites

**Policies related to societal issues (in line with GBF):** Human Rights, Free, Prior, and Informed Consent (FPIC) for Indigenous Peoples and affected communities, in line UN Guiding [Principles](#) on Business and Human Rights.

- General exclusion for clients involved in violating Human Rights. Same for exposure to violation of rights of Indigenous groups + commitment to applying free, prior, and informed consent – FPIC (see e.g., [BBVA](#))
- Requirement for clients in priority sectors



slido



**What is the biggest challenge in developing a nature-related policy at your bank?**

ⓘ Start presenting to display the poll results on this slide.

# slido



**If you wanted to develop a nature-related policy for your bank, which sectors should be prioritized?**

ⓘ Start presenting to display the poll results on this slide.

# Integrating nature within practices and processes





# Capacity Building, Culture & Governance



- Nature and biodiversity may be perceived as topics **without direct relevance** to the daily activities by some personnel within your bank.
- This is why you should work to **build awareness** and **capabilities** of personnel, fostering the development of a “nature-positive” culture where the vision on nature action is shared and understood **by all personnel.**
- This is essential to ensure broad support and effective implementation of the nature policy within the organisation, and building collective effort to achieve nature-related targets.
- This should be ideally laid out in your overall nature policy.

## Capacity Building, Culture & Governance – what can your bank do? (Possible internal targets)

- **Train [XX]% of all staff** on the causes and consequences of the global crisis of nature loss, how the financial sector contributes to nature loss through financed activities, and the types of action that may be taken to reduce risks and impacts and increase positive outcomes, in line with international policies and applicable regulations;
- Additionally seek to **further train [YY]% of front office, sustainability and risk staff** in more detail on emerging frameworks, standards and regulations (e.g. TNFD, ISSB) as well as emerging nature related data, tools, metrics, and methodologies.
- Hold [ZZ] times per year an **Executive Management board or Board of Directors discussion** on the business case, strategy, key actions, plans, progress and available approaches for proactively understanding and managing nature-related impacts and dependencies, risks and opportunities within the institution's scope of business.
- Seek to incorporate nature into in the **remuneration policy for senior management** in the organization, including for their executive committees and board members.

# Example



## Contents

<b>CEO foreword</b>	<b>3</b>
<b>Executive summary</b>	<b>3</b>
<b>Introduction</b>	<b>4</b>
<b>Governance</b>	<b>5</b>
<b>Strategy</b>	<b>6</b>
Managing nature-risks and impacts	7
Steering our portfolio and engaging with clients to halt and reverse nature loss	8
Promoting nature mainstreaming internally and externally	8
<b>Risk and impact management</b>	<b>10</b>
Our approach to nature-related risks	10
Our approach to nature-related opportunities	11
<b>Metrics and targets</b>	<b>12</b>
Hotspot analysis	12
Methodology	13
<b>Looking forward</b>	<b>15</b>
<b>Annex</b>	<b>16</b>
Glossary	16
TNFD alignment table	17
Important legal information	18

See <https://www.ing.com/MediaEditPage/Nature-publication-ING-Groep-N.V..htm>



# Example

## Governance

At ING, governance on nature is integrated in the Environmental, Social and Governance (ESG) governance approach.<sup>5</sup> In March 2022, when ING updated the overall strategy to put sustainability at the heart, we also updated our ESG governance approach, integrating and aligning ESG governance within the bank. As a result of our new approach, we believe our ESG governance supports long-term value creation. These changes provide clearer ownership of and leadership on ESG topics, increasing our effectiveness, efficiency and accountability as we strive to be a banking leader in financing the transition to a sustainable future for our customers, our colleagues, our company, society and the environment.

### Board-level governance

As a result of the updated strategy, ESG is now a regular subject on the agenda of [ING's Management Board Banking \(MBB\)](#), which includes the members of the Executive Board (EB). ING's Supervisory Board (SB) includes an ESG Committee that assists the SB with the supervision of matters relating to ESG, including, but not limited to, the development and integration of ESG across the company and its strategy. In addition to their regular meetings, in the first half of 2023 the ESG Committee participated in a full day of climate-focused training, which included deep-dives on climate change, nature/biodiversity and sustainable finance. In 2023 the MBB approved the updated approach to nature.

# Example

## Promoting nature-mainstreaming internally and externally

'Nature-mainstreaming' is the concept of ensuring that nature and biodiversity, and the associated risks and opportunities, are appropriately and adequately factored into policies and practices that are nature-related and have a possible impact on it.

To accelerate our efforts and increase our impact, we need to continue building our organisational governance, knowledge and culture to ensure that nature-related dependencies, impacts, risks and opportunities are understood and addressed by our internal and external stakeholders.

### What we do internally

- At ING, governance on nature is integrated in the ESG governance approach. More details on this can be found in the [Governance section](#).
- We seek to raise awareness and equip colleagues with the relevant knowledge and skills to put sustainability, including nature, at the heart of what we do. In support of this goal, we developed the e-learning called 'Putting sustainability at the heart', made available to the global ING organisation in April 2023. This e-learning covers the fundamentals of our sustainability approach, including a chapter on Biodiversity. As of end-November 2023, more than 41,000 employees had completed the course. We've also put in place a Climate and Environmental Risks Upskilling programme to build knowledge and skills. This programme includes an overview of environmental risks and opportunities that arise from nature-related issues, namely loss of biodiversity, pollution and use of marine resources.
- Our main impact comes from our lending activities. We monitor and manage the impact of our own operations, including nature-related elements like water use, via our [Environmental Programme](#).

We also have the ambition to collaborate with external stakeholders to contribute to advancing knowledge, standards and methodologies on nature.

slido



**How can your bank foster the development of a “nature-positive” culture?**

ⓘ Start presenting to display the poll results on this slide.

# slido



**What is the most effective way to integrate nature-related topics into the bank's daily operations?**

ⓘ Start presenting to display the poll results on this slide.



# Integrating nature within practices and processes



## Client engagement (GBF Targets 7, 8 & 14)

Client engagement on nature entails establishing dialogue and collaboration with the bank's clients, to help them mainstream nature related considerations within *their* business, in particular those active in key sectors.

This, in aggregate, will support alignment between the bank's business with its clients and the goals and targets of the GBF.

This engagement should also be done in harmony with efforts on climate (and other linked topics such as circular economy and human rights) as far as possible.

## Client engagement II. (GBF Targets 7, 8 & 14)

Client engagement on nature entails establishing dialogue and collaboration with the bank's clients, to help them mainstream nature related considerations within *their* business, in particular those active in key sectors.

This, in aggregate, will support alignment between the bank's business with its clients and the goals and targets of the GBF.

This engagement should also be done in harmony with efforts on climate (and other linked topics such as circular economy and human rights) as far as possible.

- One important aspect of client engagement is to understand client's nature plan (if there is one!) and transition needs to identify opportunities for transition
- Note dual angle: both clients in key sectors AND key locations matter.
- Note also TNFD's core metrics for FI:
  1. Exposure to high impact sectors
  2. Financial exposure to clients operating in sensitive locations.

# Client engagement – how to make it work? (GBF Targets 7, 8 & 14)

The success of your bank in this regard will largely depend on the quality of its identification process, as well as on the relationship and constructiveness of dialogue with your clients.

We will look at such products at Workshop 3.

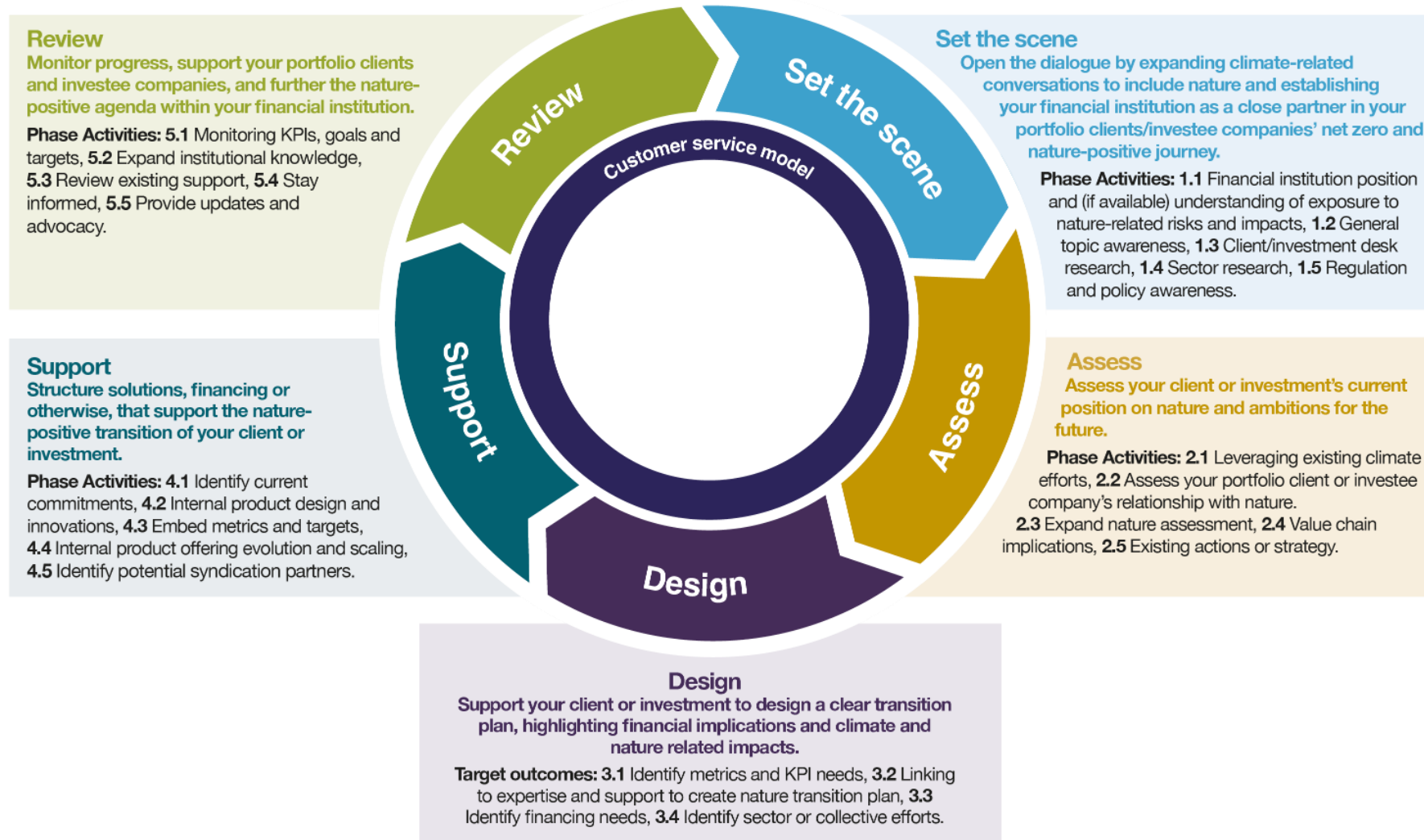
Clients can be encouraged to disclose traceability, so even if your client does not yet disclose impacts, these data can allow your bank to have a more accurate picture of risk.

Your bank should seek to support clients in transitioning their practices and/or business models by strategically accompanying them through a variety of client relationship channels, such as:

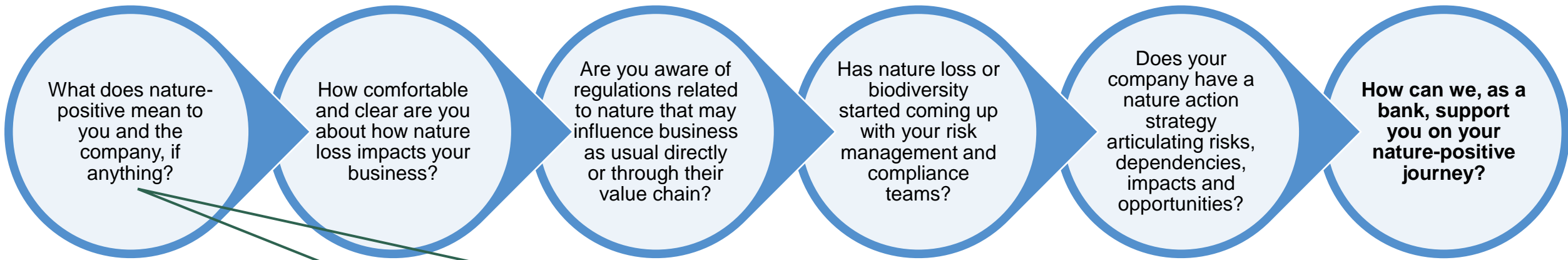
- awareness** raising campaigns,
- trainings** and **advisory** services
- engaging specific clients to work on **transition plans**,
- structuring tailored **financing solutions** for your clients' green transition.
- requesting clients to **disclose** certain aspects that better enable your bank to assess nature-related impact and risk.



# Client engagement – recommended resource



# Client engagement – recommended resource – extract: Good questions to start engagement



Please note that the term “nature-positive” is not defined in the Global Biodiversity Framework

Broadly speaking, the term is used to describe a world *where nature—especially biodiversity comprising species, genes, and ecosystems—is being restored and is regenerating rather than declining.*

# Mock example

## ABC Bank's Sustainable Agriculture Initiative

**Background:** ABC Bank, having operations in ASEAN countries, launched a Sustainable Agriculture Initiative to support local farmers in adopting more sustainable practices.

**Clients Involved:** Smallholder farmers, agricultural cooperatives, and agribusinesses.

### Engagement Strategies:

1. Conducted needs assessments to understand the challenges faced by farmers, such as soil degradation and water scarcity.
2. Developed tailored loan products with favorable terms for investments in sustainable farming techniques, like drip irrigation and organic fertilizers.
3. Organized workshops and training sessions in collaboration with agricultural experts to educate farmers on sustainable practices.
4. Established a monitoring system to track the environmental and financial performance of funded projects.

### Outcomes:

- Significant increase in the adoption of sustainable farming practices among clients.
- Improved crop yields and resilience to climate change, enhancing farmers' livelihoods.
- Positive environmental impact, including reduced water usage and improved soil health.
- Strengthened relationships with clients, leading to increased loyalty and trust in the bank.

## Recap – benefits of client engagement on nature

- **Risk Mitigation:** Identify and reduce exposure to nature-related risks like deforestation and biodiversity loss, strengthening resilience.
- **Alignment with Global Standards:** Ensure compliance with the Global Biodiversity Framework (GBF) and emerging standards such as TNFD.
- **Unlocking New Opportunities:** Facilitate green financing, sustainable investments, and partnerships in ecosystem restoration.
- **Strengthening Relationships:** Deepen client relationships through shared sustainability goals and long-term success.
- **Enhanced Reputation:** Build a reputation as a leader in responsible banking, attracting environmentally conscious stakeholders.
- **Support for Transition:** Provide advisory services and financing solutions to help clients transition to sustainable, resilient business models.



# slido



**What is the most significant barrier to client engagement on nature-related issues in your markets?**

ⓘ Start presenting to display the poll results on this slide.

# slido



**How could your bank best support clients in developing and implementing nature-related transition plans?**

ⓘ Start presenting to display the poll results on this slide.

# slido



**Which client relationship channel is most effective for promoting nature-positive practices?**

ⓘ Start presenting to display the poll results on this slide.

# Integrating nature within practices and processes





# Stakeholder engagement

- As part of a broader set of activities and overall strategy, your bank may consider engaging in advocacy work with policy makers and develop partnerships with others, particularly those that can provide scientific expertise and knowledge that your bank itself may not have.



- Your bank might also do stakeholder engagement to support further research and other activities to improve understanding of nature impacts and dependencies, risks and opportunities.

# Stakeholder engagement – what can your bank do?

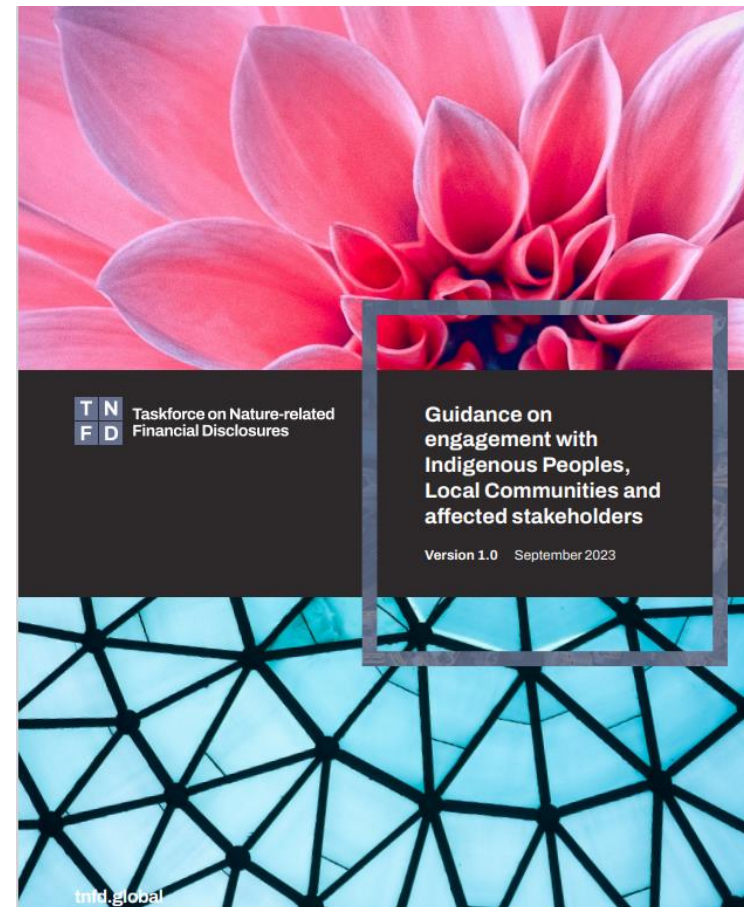
- **Priority Action: Engage with policymakers to provide inputs as they develop/revise and implement their National Biodiversity Strategy and Action Plans (NBSAPs) and National Biodiversity Finance Plans (NBFPs)** to support ambitious, transformative, and pragmatic plans of action and financial policies to drive financial flows and resource mobilization towards meeting the vision, goals and targets of the GBF.
- **Additional action:** Given the important role of women, Indigenous Peoples and Local Communities in successful biodiversity and ecosystems management, seek active engagement with these communities to determine how to reflect concerns and issues into bank nature strategies and to more effectively link to nature conservation and ecosystem management activities in the given context. PRB banks should seek to proactively promote community-led solutions.
- **Additional action:** Proactively collaborate with civil society, research groups, institutes, universities, international organisations and governments (national and sub-national) to support efforts to improve understanding of nature impacts and dependencies, risks and opportunities including scientific research and data provision.
- **Additional action:** Collaborate with peers and data providers to support development of robust and commonly acceptable nature-related data and metrics that enable identification and analysis of nature-related impacts and dependencies, risks and opportunities.

# Stakeholder engagement – what can your bank do? II.

## Recommended resource

- Meaningful engagement with Indigenous Peoples and Local Communities and affected stakeholders is a critical part of any organisation's identification and assessment of nature-related issues.
- You can find many useful and practical insights on stakeholder management in TNFD's guidance:

<https://tnfd.global/publication/guidance-on-engagement-with-indigenous-peoples-local-communities-and-affected-stakeholders/>



# slido



**Which of the following should be a priority action for your bank in supporting public policy changes towards nature-positive activities?**

ⓘ Start presenting to display the poll results on this slide.



# slido



**Which partnerships are most beneficial for your bank to improve understanding of nature-related impacts and dependencies?**

ⓘ Start presenting to display the poll results on this slide.

# Stakeholder engagement – example

Rabobank in engaging with WWF, farmers’ organisations, food supply chain partners, land users, consumers, academia and (local) governments, to develop a Biodiversity monitor for sustainable dairy and crop farming

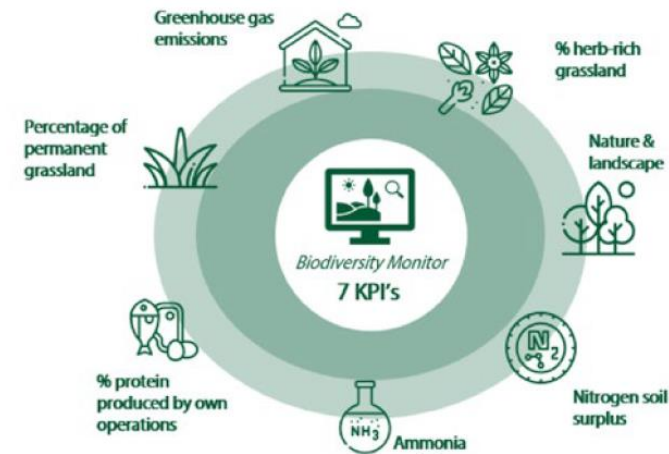
## What?

Rabobank played a pivotal role in funding, co-developing and operationalising the Biodiversity Monitor for Crop Farming<sup>9</sup> and Dairy Farming.<sup>10</sup> This tool serves as a means to measure and reward biodiversity preservation in the dairy and farming sector, with the goal of restoring biodiversity in these areas. The tool provides insights through metrics which quantify efforts of dairy farmers in improving biodiversity on their farms and in broader contexts, and it also aims to develop new revenue models across the supply chain to reduce dairy farmers’ dependence on government funding.

## How?

The Biodiversity Monitor is an innovative tool designed to support regenerative agriculture among dairy and crop farmers. It quantifies, measures, facilitates and rewards continuous improvement in on-farm biodiversity performance. This is achieved through the measurement of seven target-based KPIs aimed at measuring and rewarding biodiversity.

### 7 KPIs to measure and reward biodiversity



These multiple rewards by stakeholders act as an important incentive for dairy farmers to meet KPIs. The biodiversity monitor for dairy is part of the “on the way to planet proof” certificate. Within Rabobank the biodiversity monitor is the standard for measuring sustainability performance, the frontrunners are rewarded by a interest discount as part of the multiple rewarding.



# — Client engagement in practice: bank examples

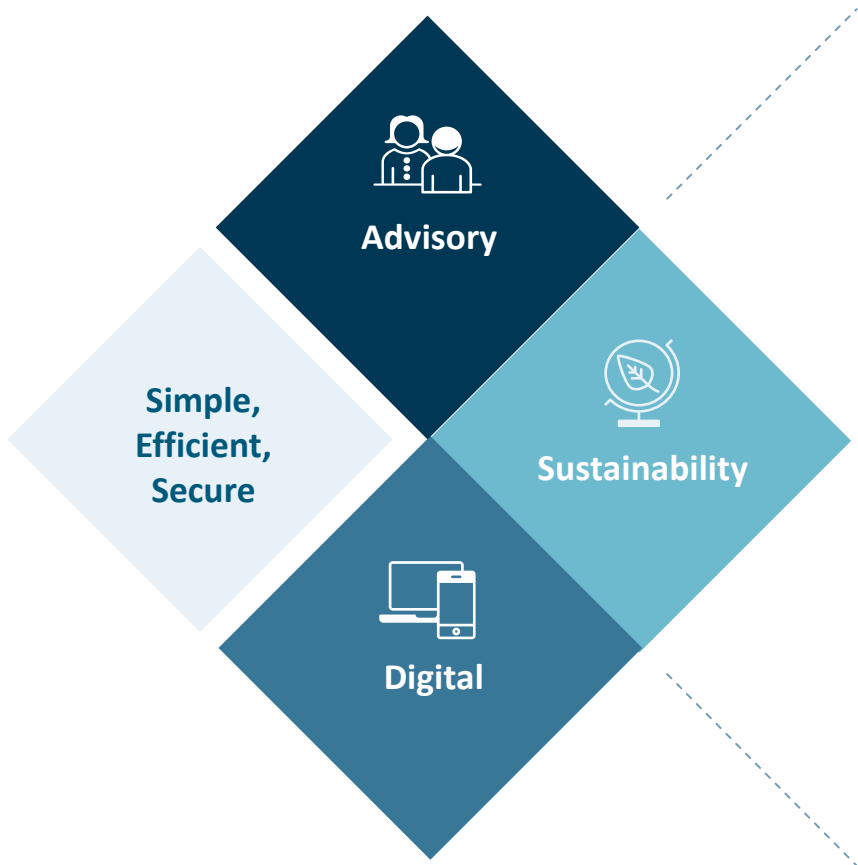
# Biodiversity engagements at Danske Bank



# Danske Bank has identified Nature & Biodiversity as a core part of its strategy towards 2028

Sustainability is a key component of Danske Bank's commercial strategy

'Nature & biodiversity' is one of three key impact themes within Danske's sustainability strategy



## 1. Climate change

Supporting the transition towards net zero

## 2. Nature & biodiversity

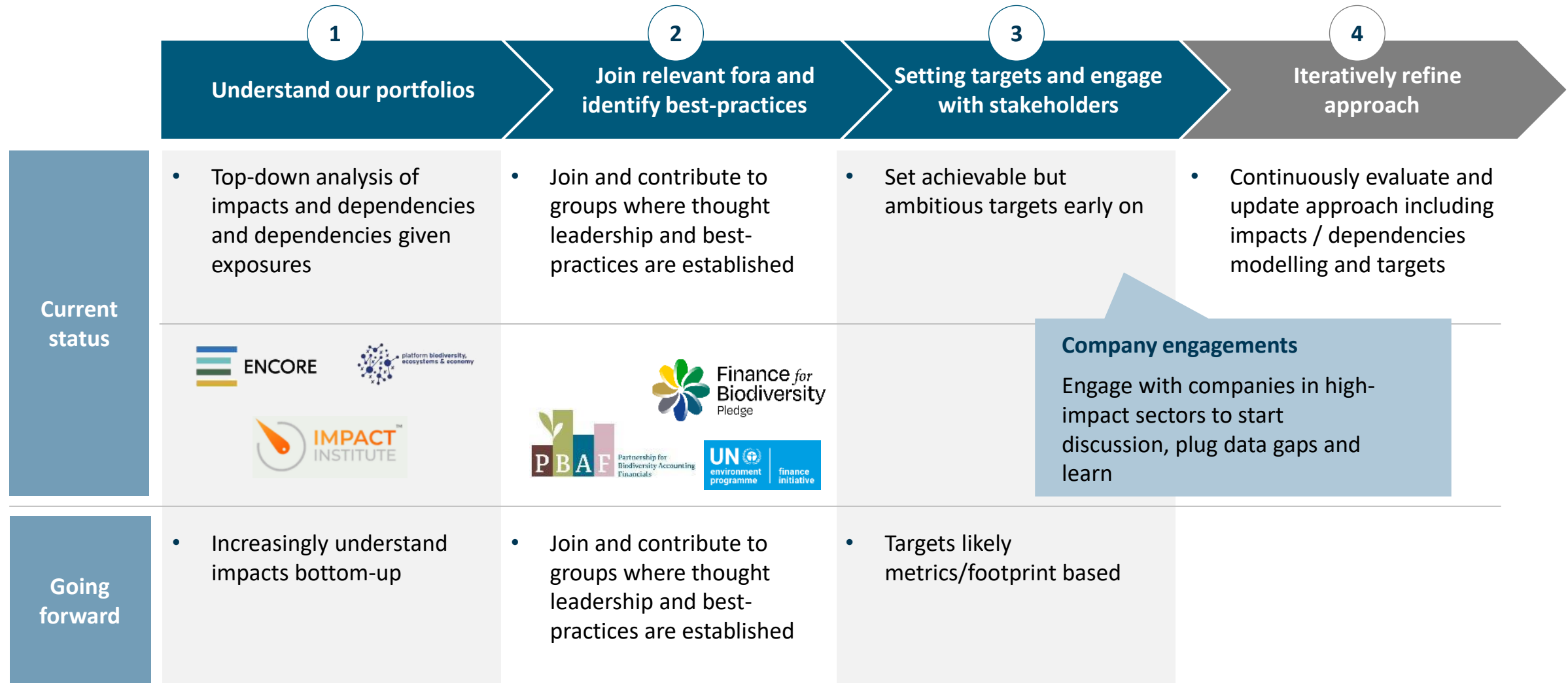
Supporting the protection of nature and ecosystems

## 3. Human rights & Social impact

Supporting the protection of human rights across our value chain

# To address the nature and biodiversity agenda we follow a four-step approach

Deep-dives next slides



# Through our engagement targets we commit ourselves externally and initiate a dialogue on the nature agenda

**Engage with our clients on “biodiversity indicators”** – proxies that give a sense of how companies are managing operations

## Purpose

- Initiate dialogue
- Assess company readiness for reducing nature-related risks, TNFD, SBTN
- Gather data for our next target-setting phase

## Targets

### Asset Management

**By 2025, we will engage 30 companies** with a potential significant impact or dependency on nature.

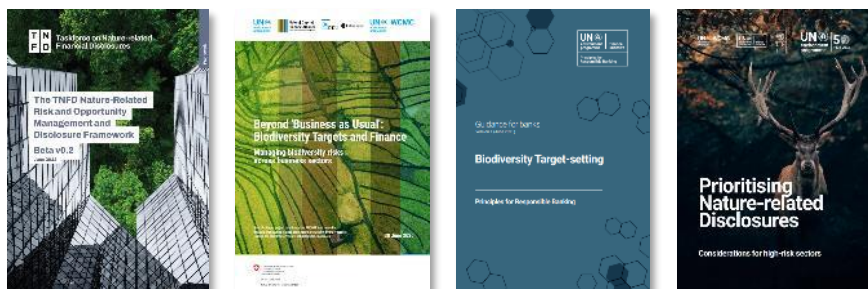
### Lending

**By 2025, engage with 50+ LC&I and 300+ Business Customers** across:

- Agriculture
- Forestry
- Shipping

Represents between 1/3 & 2/3s of lending volumes in identified sectors

**Best practices currently WIP**



**Slight difference in approach between business units but same governing thought – engage with customers at risk of generating high biodiversity impacts**

# Engagement topics (impact areas) and underlying indicators

**Deforestation focus**

**1 Regulation (EUDR)**

- Compliance with the EU Deforestation Regulation

**2 Animal fodder**

- Soy alternatives for animal feed
- RTRS certified soy in animal feed
- RSPO certified palm oil in animal feed

**3 Certified food products**

- RTRS (Roundtable on Responsible Soy)
- RSPO (Roundtable on Sustainable Palm Oil)
- EU organic label
- GlobalG.A.P.
- FAIRTRADE
- Rainforest Alliance
- Global Coffee Platform
- Bonsucro
- Any other ISEAL Code Compliant schemes

*Drivers of biodiversity loss:*

Climate change	Land use change	Resource use/replenishment
Pollution	Invasive alien species	ipbes

*Mitigation action:*

**4 Sustainable farming practices**

- Regenerative farming
- Circular agriculture
- Organic farming
- Other/similar agroecological approaches

**5 GHG emissions**

- Absolute emissions (CO2e) GHG emission
- Science-based reduction targets (scope 1, 2, 3)

**6 Circularity & waste**

- Generated (hazardous) waste
- Circularity initiatives

**7 Water use**

- Water consumption
- Water consumption in areas of high-water stress
- Water footprint

<p><i>Drivers of biodiversity loss:</i></p> <table border="1"> <tr> <td>Climate change</td> <td>Land use change</td> <td>Resource use/replenishment</td> </tr> <tr> <td>Pollution</td> <td>Invasive alien species</td> <td>ipbes</td> </tr> </table>	Climate change	Land use change	Resource use/replenishment	Pollution	Invasive alien species	ipbes	<p><i>Mitigation action:</i></p>
Climate change	Land use change	Resource use/replenishment					
Pollution	Invasive alien species	ipbes					
<p><i>Drivers of biodiversity loss:</i></p> <table border="1"> <tr> <td>Climate change</td> <td>Land use change</td> <td>Resource use/replenishment</td> </tr> <tr> <td>Pollution</td> <td>Invasive alien species</td> <td>ipbes</td> </tr> </table>	Climate change	Land use change	Resource use/replenishment	Pollution	Invasive alien species	ipbes	<p><i>Mitigation action:</i></p>
Climate change	Land use change	Resource use/replenishment					
Pollution	Invasive alien species	ipbes					
<p><i>Drivers of biodiversity loss:</i></p> <table border="1"> <tr> <td>Climate change</td> <td>Land use change</td> <td>Resource use/replenishment</td> </tr> <tr> <td>Pollution</td> <td>Invasive alien species</td> <td>ipbes</td> </tr> </table>	Climate change	Land use change	Resource use/replenishment	Pollution	Invasive alien species	ipbes	<p><i>Mitigation action:</i></p>
Climate change	Land use change	Resource use/replenishment					
Pollution	Invasive alien species	ipbes					
<p><i>Drivers of biodiversity loss:</i></p> <table border="1"> <tr> <td>Climate change</td> <td>Land use change</td> <td>Resource use/replenishment</td> </tr> <tr> <td>Pollution</td> <td>Invasive alien species</td> <td>ipbes</td> </tr> </table>	Climate change	Land use change	Resource use/replenishment	Pollution	Invasive alien species	ipbes	<p><i>Mitigation action:</i></p>
Climate change	Land use change	Resource use/replenishment					
Pollution	Invasive alien species	ipbes					





—  
**Key takeaways**

# Key takeaways

## Policy and Processes:

- **Develop Specific Nature-Related Policies:** Addressing nature-related impacts and dependencies, and setting clear guidelines for sectors like agriculture, forestry, and mining.
- **Key Strategy Building Blocks:** Vision, rationale, policy commitments, risk management, and reporting mechanisms.

## Capacity Building, Culture & Governance:

- **Building Awareness and Capabilities:** Training staff at all levels to understand and act on nature-related risks and opportunities.
- **Embedding Nature in Governance:** Integrating nature considerations into the bank's overall governance and decision-making processes.

## Client Engagement:

- **Establishing Dialogue and Collaboration:** Helping clients integrate nature-related considerations into their business practices.
- **Strategic Support for Clients:** Offering advisory services, tailored financing solutions, and support for transition plans.

## Stakeholder Engagement:

- **Engaging with Policymakers and Communities:** Collaborating to support policy changes and community-led solutions.
- **Collaborating for Research and Data:** Working with civil society, research groups, and data providers to improve understanding and metrics for nature impacts.





—  
Q&A





# — Closing



# Any questions about the practical exercise we circulated?

Categories	Questions	Additional support information	Your input
Bank name	<i>[Please insert your bank's name]</i>		Please provide your responses in the below cells. Note that you will be able to continuously build upon these questions throughout your participation in the capacity building workshops.
Name and Role of Respondent	<i>[Please insert your name and role]</i>		
Analysed country	Please complete the analysis for at least one country where you have significant operations. If you want to cover more countries, please create a copy of this sheet.		
State of Nature	Examine the critical nature and biodiversity issues within your country, such as key biodiversity areas and protected regions, impacts of invasive species, habitat fragmentation, and pollution on biodiversity . Identify the most pressing challenges and areas of significant ecological value. These elements will provide a comprehensive background for understanding how various economic activities or sectors contribute to nature loss	As a first step, it is recommended to review the country's profile on the CBD webpage: <a href="https://www.cbd.int/countries">https://www.cbd.int/countries</a>	
Evolving policy and regulatory framework on Nature and Biodiversity	National priorities: Identify your country's National Biodiversity Strategy and Action Plan and any other relevant strategies and/or designed to mitigate, protect or restore nature and biodiversity.		
Existing/emerging ESG-related frameworks and requirements with nature component relevant to the banking sector	Nature in bank/corporate ESG regulations: Identify if nature is/planned to be included in your national/regional bank regulatory framework (e.g. regulatory requirement to set up processes to identify nature risks) and also if corporations are/planned to be subject to ESG regulations that include nature (e.g. disclosure requirements that include nature related issues)		

# Coming soon...

Workshop 3# – 25 September

- Categorization of clients
- Mobilizing financial resources for nature
- Products and innovative solutions
- Briefly about practice target setting

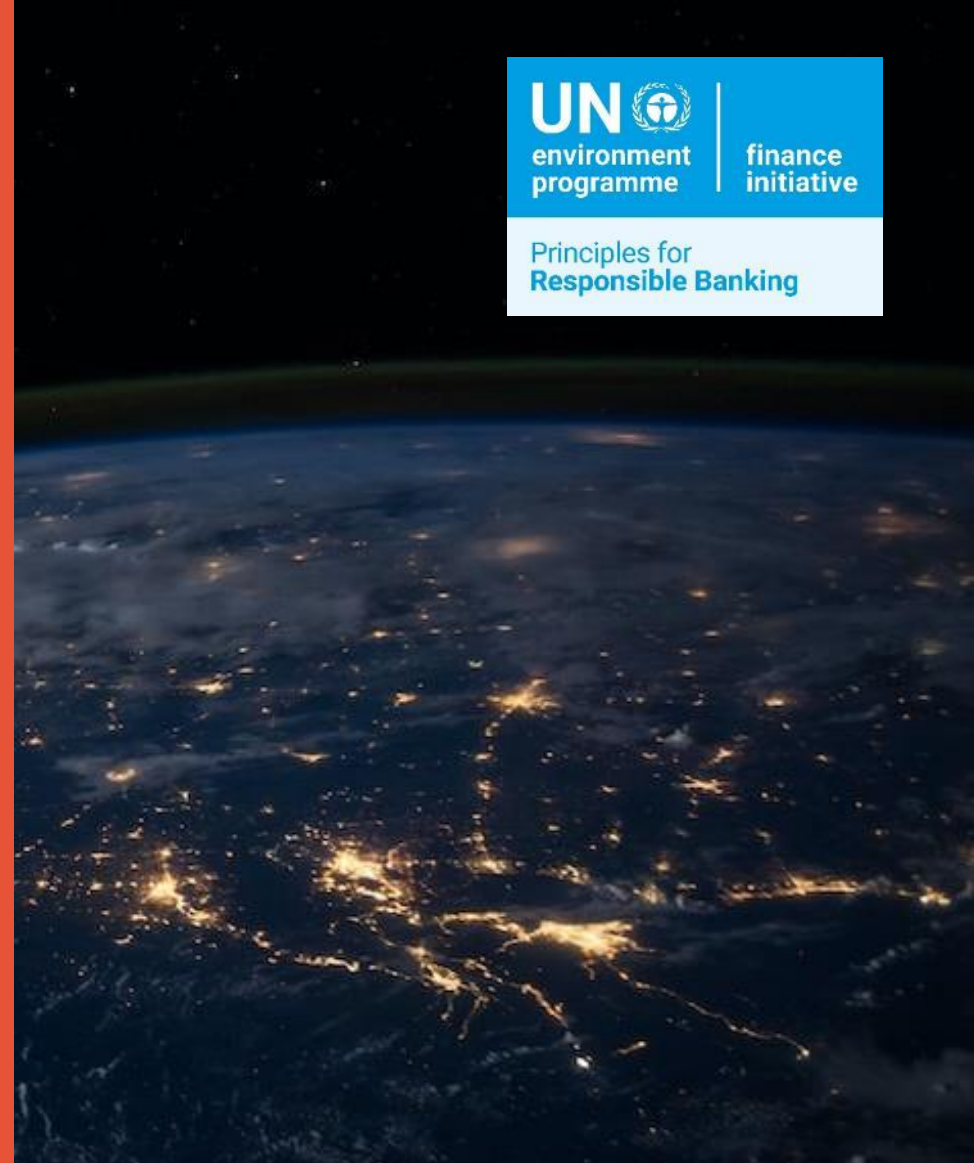
# Thank you for your attention!

Slides will be shortly shared in email.

General UNEPFI contact: [nirnita.talukdar@un.org](mailto:nirnita.talukdar@un.org)  
(Regional Lead for APAC)

Specifically for the climate capacity building:  
[gabor.gyura@un.org](mailto:gabor.gyura@un.org)  
(Capacity building consultant)

Please stay with us for 2 more minutes and evaluate the session on Slido.  
The link on the next slide is active even after the presentation.  
This is important for us to further develop the programme.



# slido



## Evaluation survey

ⓘ Start presenting to display the poll results on this slide.