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Nature-based risk assessment: Integrating project-related finance

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United Nations Environment Programme Finance Initiative (UNEP FI) brings together a large network of banks, insurers and investors that collectively catalyzes action across the financial system to deliver more sustainable global economies. For more than 30 years the initiative connected the UN with financial institutions from around the world to shape the sustainable finance agenda. It has established the world's foremost sustainability frameworks that help the finance industry address global environmental, social and governance (ESG) challenges. Convened by a Geneva, Switzerland-based secretariat, more than 500 banks and insurers with assets exceeding USD 100 trillion work together to facilitate the implementation of UNEP FI's Principles for Responsible Banking and Principles for Sustainable Insurance. Financial institutions work with UNEP FI on a voluntary basis and the initiative helps them to apply the industry frameworks and develop practical guidance and tools to position their businesses for the transition to a sustainable and inclusive economy.

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The Equator Principles (EPs) are a risk management framework for financial institutions to identify, assess and manage environmental and social (E&S) risks when financing Projects. First launched in 2003 by 10 founding financial institutions, more than 125 financial institutions are now Signatories to the EPs. Governed by a Steering Committee and supported by the Office of the EPs, the EPs are legally represented by Equator Principles Ltd. The EP community facilitates the development of technical guidance and related resources. It also provides opportunities for training, knowledge sharing, and discussion through Working Groups to support Signatories to consistently implement the EP framework using their own independent decision making. The EP network of dedicated and experienced E&S practitioners drives positive change across project finance, project finance advisory services, project-related corporate loans, project-related acquisition and refinance, and bridge loans as defined in the current version of the EPs (EP4) dated July 2020.



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Executive summary

A nature-based risk assessment (NBRA) evaluates the potential negative impacts and dependencies of a financial institution's (FI) activities on nature at the corporate level. The resulting insights can inform the management of nature-related risks and may also identify strategic opportunities.

The accelerating loss of biodiversity, rising water stress, soil degradation, and broader declines in natural capital pose material risks to FIs. As natural assets erode, the financial stability of FI clients—particularly those in nature-dependent sectors—is increasingly threatened. Managing exposure to nature-based risks is not simply reputational or regulatory, it is essential to the long-term resilience of FIs.

This guidance is designed for financial institutions, especially banks, and is intended for teams assessing risk in both project-related finance and portfolio-level transactions, as well as for those tasked with assessing an FI's nature-related risks at a corporate-level. The prominence of nature considerations within the corporate and financial sectors has grown rapidly, driven in part by the 2022 Kunming–Montreal Global Biodiversity Framework and the strengthened recognition of interconnections between climate change and biodiversity loss. New frameworks, such as the Science Based Targets Network (SBTN) and the Taskforce on Nature-related Financial Disclosures (TNFD), have catalyzed a proliferation of guidance, tools, and methodologies. Rather than duplicating these resources, this document provides direction on how to navigate existing resources and outlines key considerations for selecting tools appropriate to an FI's individual context. This document does not prescribe a specific methodology.

A comprehensive NBRA will span multiple departments within an FI. If information generated by project-related financing is included early in the scoping phase of the NBRA, it will provide a practical entry point; data on project-level impacts and dependencies is generally more accessible and can offer a robust foundation for broader assessments. Bringing project-related financing teams into the process also strengthens internal collaboration. Project risk teams often hold relevant expertise and experience on nature-related impacts that can significantly enhance corporate and portfolio-level assessments.

A generic approach to an NBRA, that includes project-related finance, involves the following steps:

1. **Prepare.** Identify staff roles and responsibility. Establish implementation timeline and build senior support. Secure external support if necessary. Project risk team members may provide invaluable nature knowledge.
2. **Scope.** Determine which business units/departments/services of the FI to include in the NBRA. Include project-related finance in scope early on to take advantage of accurate and detailed location and nature data.
3. **Prioritize.** Identify which sectors/clients, or FI facilities, are most likely to have significant nature risk. Potentially focus project-related finance efforts on Equator Principles Category A & B projects.
4. **Analyze.** Collate data on prioritized sectors and clients. Communicate with clients to obtain relevant information as required. Analyze data to identify impacts and dependencies. Quantify risks if appropriate. Consolidate data from project-related financing to highlight where risks are and how they might manifest.
5. **Act.** Develop a risk management approach using SMART (Specific, Measurable, Achievable, Relevant and Time-bound) practice, with clearly defined actions to meet the established impact targets. Projects that align with the International Finance Corporation's Performance Standards (IFC PS) should already be taking appropriate action.
6. **Report.** Summarize and publicly report on NBRA. Link to public summaries of financed projects.

In project-related finance, assessments typically focus on a project's potential impacts on biodiversity and water, and ultimately whether these impacts present risks to the financing institution through their provision of finance. While the project is responsible for assessing and reporting its impacts and dependencies, it is valuable for FI risk teams to also develop an independent understanding of these risks. This supports early identification of issues, improves internal and external communication, and strengthens due diligence review.

The long-term resilience of FIs will increasingly depend on their ability to understand and manage nature-based risks. Although portfolio-level NBRAs remain in early stages across the sector, tools and methodologies are rapidly evolving. An iterative approach—starting with best-available data and updating assessments as new information and tools emerge—is both practical and prudent.

Key recommendation: This document recommends that project-related financing teams (and the high-quality, location-specific, nature-related information sources they steward) should be incorporated throughout an FI's NBRA process. This provides a strong foundation on which to build a comprehensive and credible NBRA. It also allows for ongoing improvements to the NBRA, and enables useful actions for both business and nature to be considered and implemented over time.



1. Introduction

1.1 Purpose and use of this document

This document offers an overview of nature-based risk assessments (NBRAs) and discusses ways to incorporate project¹ finance information into these analyzes.

This document has been developed for use by financial institutions (FIs)—primarily banks—and specifically those within an FI that are tasked with understanding potential risk in project-related finance and portfolio transactions. It is also for those tasked with assessing the FI's nature-related risks at a corporate level.² For those responsible for understanding portfolio and corporate-level issues, this guidance provides an overview of what nature-based risks are, the value to FIs of understanding them, and offers a high-level framework for how to carry out an assessment. For those working on project risk, there is guidance on understanding nature-based risk in project-related finance transactions and advice on how this information can be used as part of an FI's NBRA.

Project-related finance has considered nature-based risk (see section 1.2.1 for more on how 'nature' is used in this document) for some time, such as by following robust, well-established frameworks such as the International Finance Corporation's [Performance Standards](#) (IFC PS). FI staff involved in project-related finance are likely to have considerable experience with nature-related issues, often unique to the FI. Their knowledge of biodiversity, water or pollution can be a valuable resource for the completion of portfolio-level and corporate-level assessments of an FI's nature-based risk. Thus, integrating project risk teams within broader nature-risk work can avoid duplication of efforts (or learning), increase efficiency, enhance portfolio-level understanding of nature-based risk, and provide a strong understanding of the resources and solutions to address such risks.

Information gathered as part of project financing is likely to be among the highest quality and most usable data for inclusion in a nature-based risk assessment. This can provide a strong starting point for understanding nature-based risk more broadly.

1 Note: wherever 'project finance' is referred to in this document this includes Project Finance, Project-Related Corporate Loans, Project-Related Refinance and Project-Related Acquisition Finance as referenced in the Equator Principles, July 2020. The salient issue of relevance to nature-based risk is that these financing structures facilitate the inclusion and assessment of high-quality location specific biodiversity, pollution and ecosystem services information.

2 This document uses 'corporate-level' as shorthand for the whole financial institution (including all divisions and units), regardless of whether it is a 'corporation'.

Section 1 presents a summary of nature-based risk in relation to project-related finance, and the business case for understanding and managing it.

Section 2 provides an overview and key concepts of the approach to carrying out a nature-based risk assessment (NBRA) at a corporate or portfolio level.

Section 3 offers a review of nature-based risk in project-related financing and how this relates to an NBRA at financial institute level.

Section 4 summarizes the topic with key findings.

Nature has climbed the agenda of the corporate and financial sector significantly in recent years, in part, driven by the [Kunming-Montreal Global Biodiversity Framework](#) (GBF) adopted in 2022 and increased recognition of the clear links between climate change and biodiversity loss. New frameworks on corporate target setting (e.g. [Science-based Targets Network](#) (SBTN)) and disclosure ([Taskforce on Nature-related Financial Disclosure](#) [TNFD]) have launched. With that a proliferation of guidance documents, manuals and tools have been created. These new resources contain advice on the business case for managing nature-based risk, how to evaluate nature-based risk and opportunities, and what to do with the gathered information. Key considerations are given to help the user determine which is the best tool or approach for their individual context.

This document does not seek to replicate this information for FIs, or promote one particular approach above another, but rather **signposts valuable existing resources and provides guidance on how to navigate the topic**. It is **not a manual** providing instructions on how to assess potential nature-based risk in any given institution.

This document is a primer for **risk identification** and contains no detailed guidance on how to develop and implement approaches to managing risks that are identified. Where possible, some links to additional information on risk management have been provided. There is also increasing interest from FIs in opportunities that may stem from the identification and management of nature and natural capital. As this document's focus is risk, it provides only limited information on possible nature-related opportunities and additional resources (Annex 2).

This publication is a joint initiative between the [United Nations Environment Programme Finance Initiative](#) (UNEP FI) and [the Equator Principles](#). It draws on the strengths of the two organizations to promote sustainable practices in the finance sector. As leading institutions promoting responsible banking practices, UNEP FI and the Equator Principles have both produced a range of resources, which are included throughout the text in addition to other sources.

1.2 Purpose of a Nature-based risk assessment

The purpose of an NBRA is to identify, analyze and evaluate the potential negative impacts of business activities on nature and the potential negative impacts of the loss and degradation of nature on business activities. This may be applied at the FI's own corporate-level, as well as when assessing individual or sector portfolios and corporate clients. The information obtained as part of the assessment can be used to manage relevant nature-related risks, but may also be used to scope potential opportunities. **Carrying out an NBRA will help to identify and prioritize risks—risks that can have both real implications for a business and long-lasting negative impacts on nature.**

The case for understanding nature risk at a project level is already well established through existing processes of assessing biodiversity, water, air and land pollution, and ecosystem services, and is enshrined in good international practices for environmental and social impact assessment. Nature-based risk is included, through these related disciplines, within the Equator Principles and is central to lender standards, including the [IFC PS](#) and the European Bank for Reconstruction and Development (EBRD) [Environment and Social Requirements](#). Understanding and managing risk at a portfolio- or whole bank-level is an emerging topic that has gained traction since 2020. This novelty means that methods and approaches are still developing.

Appreciation of the significance of nature-based risk for FIs is increasing and its impacts are becoming more manifest. A [2024 study by the Green Finance Initiative](#) estimated that nature degradation could cause a 12% loss to UK GDP by the 2030s. Other summaries, such as the [TNFD report on financial effects of nature risk](#) and CISA [Handbook for Nature-related Financial Risks](#), provide further evidence. Understanding and acting on nature risk can help an FI to:

- **Navigate new or anticipated regulatory change.** Understanding nature-based risk will position an FI for any forthcoming regulations.
- **Increase the security of investments.** The impacts of nature loss and climate change are beginning to manifest in more severe and direct ways. Understanding how investments are susceptible to the impacts of these challenges will help to secure the long-term future of the institution.
- **Open opportunities for new products or investments.** Understanding nature may present new opportunities (Annex 2) to diversify portfolios.
- **Improve reputation.** Stakeholder and shareholders are increasingly concerned about the loss and degradation of nature and the financial sector's role in it.
- **Enhance operational efficiency through integration of different risk factors.** Nature-based risk does not operate in isolation. Nature, climate and social risk are closely linked (Annex 3). Understanding nature risk can help identify ways to better manage other risks, rather than just magnify them.

1.2.1 What is nature?

Nature is a broad term that encompasses all aspects of the living and non-living world. It can be defined as:³

“Nature encompasses the collective phenomena of the physical world, including living elements (i.e., biodiversity) and non-living elements (e.g., landscapes, water, soil), which are interdependent, and with which humanity is intrinsically linked via socioecological systems.”

So, while ‘nature’ is often colloquially synonymous with ‘biodiversity’, in this context it is more broadly defined. Biodiversity is but one component of ‘nature’ and is [defined by the Convention on Biological Diversity \(CBD\)](#) as:

“Biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”

In other words, biodiversity is not just about the diversity of species, it also means the diversity of ecosystems, as well as the genetic diversity within a single species.

The non-living elements of nature include soils, water and the atmosphere, and their variability, such as the range of soil types, hydrological and atmospheric cycles, and how they interact.

While nature in this broadest sense also includes climate, this document is intended to primarily focus on impacts to, and risks stemming from, the loss and degradation of biodiversity and water-resources, and the impact from non-greenhouse gas pollutants.⁴

3 Hollie Booth *et al.*, ‘Operationalizing Transformative Change for Business in the Context of Nature Positive’, *One Earth* 7, no. 7 (2024): 1235–49, doi.org/10.1016/j.oneear.2024.06.003

4 Nature-based risk’ and ‘environmental risk’ cover similar topics. ‘Environmental risk assessments’ are legally defined in many countries, with specific expectations, so this term is not used in this document in order to avoid confusion.

1.3 What is nature-based risk?

1.3.1 Dependencies, impacts, risks and opportunities

Fundamental to an NBRA is an understanding of the dependencies and impacts an FI has that are related to nature loss and degradation. This helps to determine the magnitude of risk, but also to identify any potential opportunities.

- **Nature-related dependencies**—the portfolio or project may be at risk due to its reliance on nature and its services and their potential loss or degradation. For example, changes in hydrological regimes may lead to flooding of a client’s facilities, or invasive alien species may damage crops directly or via disease transmission (e.g., [spruce bark beetle](#)). Such impacts can negatively impact the client’s business.
- **Nature-related impacts**—the portfolio or project contributes to the loss of nature, thereby worsening risks related to dependencies, as well as potentially creating nature-related transition risk (e.g., legal compliance risk, reduced investor or consumer attractiveness, and civil society action). Nature loss may occur via direct operations, or through the value chain; it may happen upstream through purchases that negatively impact nature (e.g., coffee production that has caused deforestation), or downstream through investments (e.g., investing in a company that is deforesting land to grow coffee).

The EU’s Corporate Sustainability Reporting Directive and the TNFD frame dependencies and impacts around double materiality:⁵

- The risk that degradation of nature will impact a business.
- The risk a business poses to nature, i.e., the negative impacts on nature.

Understanding both the dependencies and impacts should form an essential part of the NBRA process and should drive decisions on if, and how, a risk may be addressed. For the purposes of this document, a nature-based risk may be material for the project or institution, and may be considered for mitigation measures if it is associated with significant financial risks from dependencies, or if it poses significant impacts to nature; such as:

- Increasing water stress/insecurity.
- Causing pollution above background levels, or which causes significant harm to natural ecosystems and species.
- Increasing the extinction risk of a species.
- Causing significant loss or degradation of natural ecosystems and/or.
- Introducing or spreading an invasive alien species.

5 TNFD, ‘Recommendations of the Taskforce on Nature-Related Financial Disclosures’, 2023, [tnfd.global/wp-content/uploads/2023/08/Recommendations_of_the_Taskforce_on_Nature-related_Financial_Disclosures_September_2023.pdf?v=1695118661](https://www.tnfd.org/global/wp-content/uploads/2023/08/Recommendations_of_the_Taskforce_on_Nature-related_Financial_Disclosures_September_2023.pdf?v=1695118661).

Box 1: Dependencies, ecosystem services and Nature's Contributions to People

Dependencies are similar to ecosystem services (ES), which are the provisioning, regulating, cultural and supporting services that the natural world provides to society.⁶ Generally, the term 'dependencies' is used when considering the ES a business relies on to function. Yet, the broader term of ES encompasses all the services that people depend on to live and thrive—services that might be negatively impacted by the operations or purchases of a business. IFC PS 6 uses the term 'Type 1 ES' to refer to the services on which a business depends, and 'Type 2' for those which are important to other people who may be impacted by a development or project. This NBRA guidance primarily considers Type 1 ES or dependencies. However, Paragraph 25 of IFC PS 6 does state that impacts to priority Type 2 ES should also be managed by the project. Therefore, project financing from an Equator Principles Financial Institution (EPFI) will also need to evaluate impacts to Type 2 ES where these are relevant.

[Nature's Contribution to People](#) (NCP) is a newer term that builds on the concept of ES. NCPs involve a broader view of the relationship between people and nature, and may also incorporate negative relationships, such as zoonotic diseases. Ecosystem services are usually framed around western economic concepts, such as stocks and flows, whereas NCPs acknowledge other perspectives drawn from the social sciences and are, therefore, more inclusive of some [Indigenous Peoples and other non-western cultures](#).

Nature-related risks

Nature-related risk can manifest in multiple ways.⁷ Different types of risk are recognized

Physical risks—the risks associated with the dependencies and impacts of an organization on nature. For example, the impacts of a mine on biodiversity, or the dependency of a food company on wild insect pollination of crops. These can be acute (i.e. specific events or activities that alter the state of nature and influence an institution's dependence on nature); or chronic (i.e. longer-term, possibly systemic changes such as those driven by climate change, or excessive/miss-use of agricultural inputs).

Transition risks—the risks related to the developments aimed at stopping or reversing damage to nature. This includes policy changes, market shifts, technology developments, reputational issues, and liability. For example, regulations such as the English Biodiversity Net Gain policy, or shareholder action on nature disclosure. As countries implement the Global Biodiversity Framework (Annex 1) this kind of risk may become more acute.

6 Millennium Ecosystem Assessment', accessed 15 September 2025, millenniumassessment.org/en/index.html

7 Brian M. Lucey et al., 'Biodiversity, Financial Markets, and Systemic Risk: A Synthesising Review', preprint, 2025, doi.org/10.2139/ssrn.5494407

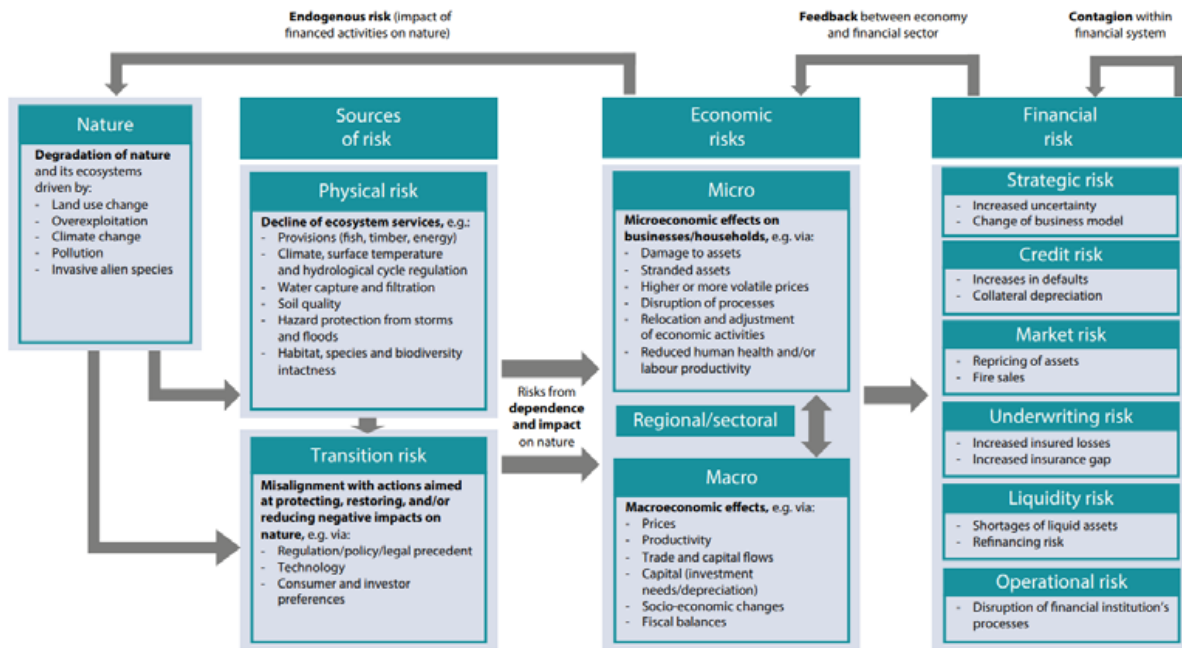


Figure 1: Overview of transmission channels in nature-based risk for FIs (Figure 2 from NGFS 2023).

In addition, TNFD recognizes **systemic risk**, which they define as: “risks arising from the breakdown of the entire system, rather than the failure of individual parts”. The transmission channels from nature degradation through physical and transition risk are often complex, but can lead to a range of financial risks. These risks often have negative feedback loops that can lead to further nature degradation (Figure 1).

Biodiversity-related risk is associated with the living elements of nature. This can mean species or ecosystems, and how they interact. It can cover life on land (terrestrial biodiversity), or in the water (both freshwater and marine biodiversity).⁸

The assessment of **water-related risks** is not related to aquatic biodiversity, but to the use of water as a resource. Water is essential to every business and every person on the planet. Using water in excess of the natural processes that recharge supplies can have significant impacts on a business, which may not be able to operate basic functions, or to other users who need water for their livelihoods. Water risk is a combination of how much is used and how much is available. Some industries are known to be more water intensive and water dependent, but the risk will be greater if those industries are located in areas that are naturally water stressed (e.g., arid lands or areas with low water flows).

Water risk has been identified as a major financial risk with the [possibility of destabilizing economies](#) and/or contributing to conflict. The Cambridge Institute for Sustainability Leadership (CISL) [modelled the impact of excessive water](#) use from heavy industry in East Asia and the credit rating impact that would result from water curtailment.⁹ The exploratory assessment revealed that for more than one third of the companies in the

⁸ Curtailment is the restriction of water supplies.

model their rating moved from 'Investment Grade' to 'Speculative'.¹⁰ Financial institutions are beginning to recognize this risk, with an increasing number reporting on [water risk through CDP](#).

Pollution risk links to water risk when pollutants enter the water system and negatively impact on water quality. When considering pollution risk on a broader level, however, it also concerns aerial emissions and soil contamination. For the purposes of an NBRA, pollution risk does not include greenhouse gas emissions.

Biodiversity, water, climate and human rights are closely linked, so managing risk in a holistic manner can be more efficient and help to avoid unintended consequences. Annex 2 has more detail on the linkages between these different issues and the case for managing them together. The Equator Principles have produced risk assessment guidance on [climate change](#) and [human rights](#). This document is a companion to these for project finance, so should be considered in conjunction with them.

Nature-related opportunities

Opportunities for banks may arise from avoiding risk, but also come from a growing range of [investment and financial opportunities](#). More detail on this topic can be found in Annex 1.

1.3.2 Value chain dependencies and impacts

The nature-based dependencies, impacts, risks and opportunities of an FI's clients will occur at all points in the value chain. An NBRA should, therefore, consider risks at different points in the value chain—upstream, direct operations, and downstream. An approach that is endorsed by frameworks such as SBTN, TNFD and Corporate Sustainability Reporting Directive (CSRD)¹¹ (Figure 2).

For an FI, there are two elements of the value chain to consider:

- **An FI's own impacts, dependencies and risks.** The impacts and dependencies of an FI's direct operations and upstream value chain are very likely to be a minor source of risk. For an FI's own operations, the direct impacts are the physical presence of offices and other facilities. Upstream impacts include all the materials that are required for operations (such as food and drinks, office furniture and equipment), and the nature impacts of power generation for offices and IT. Downstream impacts and risks of an FI's business are the impacts of its clients.
- **The impacts, dependencies and risks of an FI's clients.** For an FI's clients, impacts arise from direct operations (facilities and offices), and from upstream when sourcing to supply their business. In project finance, the most significant impacts are likely to come from direct operations and will be assessed as part of the impact assessment

10 University of Cambridge Institute for Sustainability Leadership (CISL) and HSBC, 2022. Nature-related financial risk: use case. Impact of water curtailment on credit rating of heavy industry companies in East Asia.

11 The concept of 'scopes' is well established in climate change assessment and action to delineate from what element of a business' operations the emissions are occurring. The concept does not translate simply to nature, however, and is not widely used. For example, Scope 2, impacts from energy use, is rarely a significant issue for nature and should rather be considered another form of upstream impact from purchased goods.

process. In other asset classes,¹² a client's most significant and material impacts and dependencies will be in the upstream value chain. These upstream value chains may be long and complex, but will need to be understood in order to gain a more complete understanding of risk.

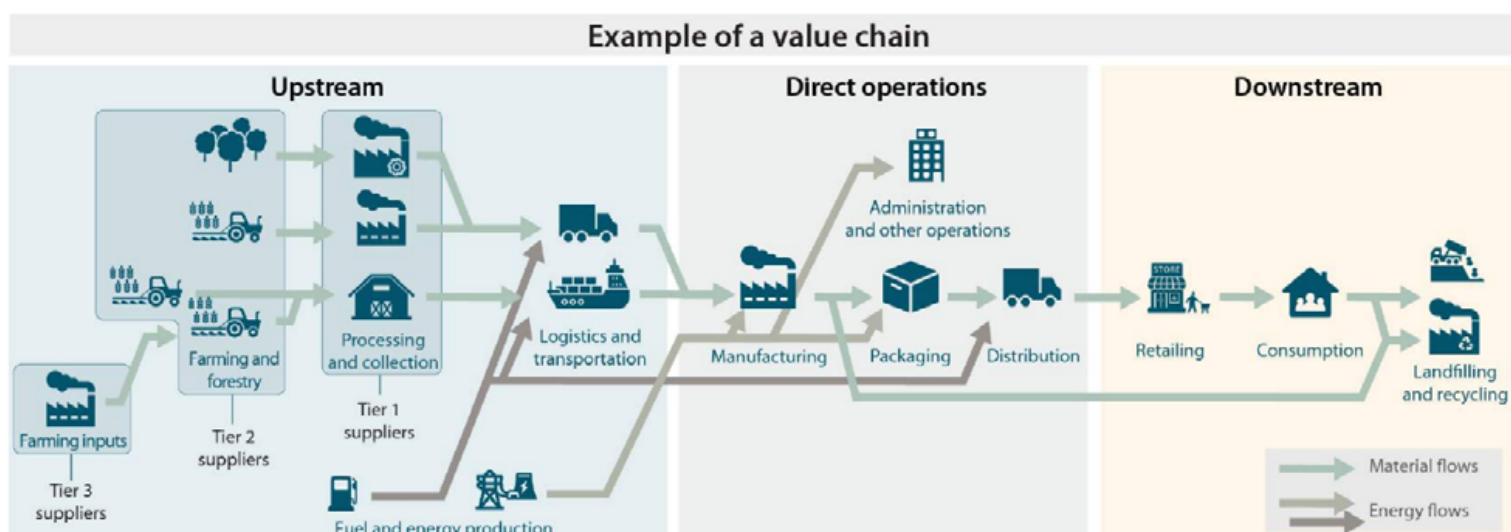


Figure 2: Generalized illustration of business value chain (source SBTN).

Source: Science Based Targets Network (SBTN) (2023). [Technical Guidance: Step 1 – Assess \(v1.0\)](#), Figure 3.

1.3.3 Nature-based risk is location specific

The major challenge when it comes to carrying out an NBRA is that nature-based risk is highly location specific. While this challenge may exist in some situations for climate change risk (for example, emissions from land-use change), knowing the locations where investments operate is vital for an accurate and precise NBRA. This should not be a problem for project-related financing, where the location of any given project should be precisely known, but it will likely be a challenge for other asset classes or bank departments.

Nature-based risk is location-specific because nature-related issues, such as biodiversity, soil and water, are inherently location-specific. For instance, the degree of biodiversity risk may depend on whether endangered species are present, which, in turn, depends on the global range and habitat requirements of that species. Additionally, water risk may depend on whether action occurs in an area of high or low water stress (water stress may be natural, such as in arid environments, or anthropogenic due to excessive water use). An industry that requires significant water resources might face high water risk if it is located in a water-stressed area, but could face low water risk if operating in an area with abundant rainfall and few competing water users.

Yet, in regard to these examples, simply being **present** in a high biodiversity or high water-stress location does not mean there is high risk by default. What a company or project is *doing* in a given area is also a key component of risk determination. The degree of risk is a combination of where, when and what. For example, the presence of a forestry operation

¹² Through this document 'asset class' is used to refer to different departments or products in a financial institution where there is financial exposure.

in a biodiverse forest may not necessarily have severe negative impacts on biodiversity or water. A nature-friendly, selective logging operation should have low impact, and therefore be low risk. On the other hand, a plantation of non-native, water-demanding eucalyptus in an arid forest zone will have significant impacts and risks regarding water and biodiversity.

The more accurate and precise location data there are on clients' operations and value chain, the more accurate the NBRA. This information may be hard to come by, but a lack of information should not be used as an excuse for not attempting to understand impacts and dependencies. Proxy data exist in some circumstances, and the data gaps can highlight the areas that require further investigation and revision of an NBRA.

1.3.4 The nature crisis and the financial sector

There is now ample evidence that the world is in the midst of a 'nature crisis'. Reduced abundance and species extinctions, ecosystem conversion and breakdown, water stress, and soil degradation are all occurring globally, both on land and in the seas (see [IPBES assessment](#) and [WWF Living Planet report](#)). It is becoming increasingly apparent that the unprecedented social and financial advances witnessed over the last 70 years have come at considerable environmental cost (this narrative is presented in the recent book [Becoming Nature Positive](#)).

The [Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services \(IPBES\)](#)¹³ produced the seminal report on the nature crisis in 2019. This report summarizes the evidence for global declines in biodiversity and identified five main direct drivers for biodiversity loss:

- **Land/sea use change**—for example, deforestation or degradation of seagrass.
- **Direct exploitation**—for example, natural forest management, hunting and fishing.
- **Climate change.**
- **Pollution**—for example, plastics or agricultural run-off.
- **Invasive alien species**—for example, [toads in Madagascar](#), [Lion Fish in the Mediterranean](#).

More recent IPBES reports have looked at the [distal factors that contribute to those drivers](#) (Figure 3), and the links between biodiversity, water and human health (Annex 3).

13 IPBES identifies itself as: "an independent intergovernmental body established by States to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development". It is the nature equivalent of the Intergovernmental Panel on Climate Change (IPCC).

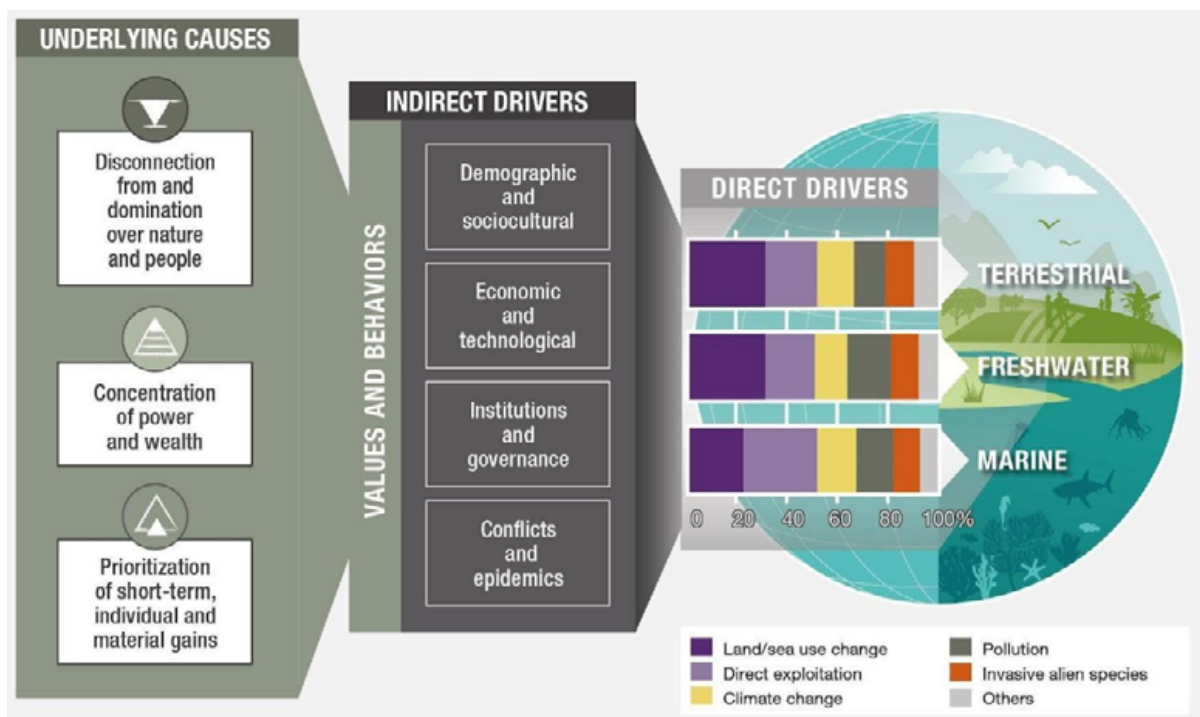


Figure 3: Drivers of biodiversity loss and their underlying causes (Source IPBES).

The Convention on Biological Diversity (CBD) is one of three intergovernmental treaties that emerged from the 1992 Earth Summit in Rio de Janeiro. It is the biodiversity equivalent of the [United Nations Framework Convention on Climate Change](#) (UNFCCC) and the [United Nations Convention to Combat Desertification](#) (UNCCD). The CBD came into effect in December 1993 and is the main guiding convention for government action to address biodiversity loss. A new overarching framework for biodiversity was agreed at the 15th Conference of Parties (COP15) in Montreal in December 2022. [The Kunming-Montreal Global Biodiversity Framework](#) (GBF) is now the key document for biodiversity and nature-related action in this decade. Although this is an intergovernmental treaty, implementation of its goals and targets could have notable implications for FIs and their clients (Annex 1).

The impacts of the loss and degradation of biodiversity on the economy are now well documented. [The Economics of Ecosystems and Biodiversity \(TEEB\)](#) report (2010) was one of the first to comprehensively look at the economics of ecosystems and biodiversity, followed by the 2021 [The Economics of Biodiversity: The Dasgupta Review](#) (Box 2). Both these reports clearly make the case that biodiversity fundamentally underpins the economy. The Green Finance Institute (GFI) recently quantified this for the UK and estimated nature degradation could cause a 12% loss to UK GDP by the 2030s. Nature-based risk appears regularly among the top five [medium-term risks](#) identified in the World Economic Forum ([WEF Global Risks Reports](#)). Additionally, Ranger *et al.* (2023) reported that “shocks to the global economy related to biodiversity loss and ecosystem damage could cost upwards of USD 5 trillion”.¹⁴ Thus, understanding nature-related risk is a business essential.

14 Nicola Ranger *et al.*, *The Green Scorpion: The Macro-Criticality of Nature for Finance* (Oxford: Environmental Change Institute, 2023), ngfs.net/en/publications-and-statistics/publications/green-scorpion-macro-criticality-nature-finance

“Our economies, livelihoods and well-being all depend on our most precious asset: Nature. We are part of Nature, not separate from it. We rely on Nature to provide us with food, water and shelter; regulate our climate and disease; maintain nutrient cycles and oxygen production; and provide us with spiritual fulfilment and opportunities for recreation and recuperation, which can enhance our health and well-being. We also use the planet as a sink for our waste products, such as carbon dioxide, plastics and other forms of waste, including pollution. Nature is therefore an asset, just as produced capital (roads, buildings and factories) and human capital (health, knowledge and skills) are assets. Like education and health, however, Nature is more than an economic good: many value its very existence and recognize its intrinsic worth too. Biodiversity enables Nature to be productive, resilient and adaptable. Just as diversity within a portfolio of financial assets reduces risk and uncertainty, so diversity within a portfolio of natural assets increases Nature’s resilience to shocks, reducing the risks to Nature’s services. Reduce biodiversity, and Nature and humanity suffer.”

**Headline messages of The Economics of Biodiversity:
The Dasgupta Review, 2021**

2. Approach to a nature-based risk assessment

2.1 NBRA overview

This section looks at approaches to assessing nature-based risk at a portfolio- or corporate-level. It includes a high-level overview of what an FI should investigate in order to understand this kind of risk, with links to some suggested additional detail on specific tools, approaches and methods. This document is not an endorsement of any particular tools or approaches, but rather highlights existing commonly used tools and approaches—while recognizing that new tools and approaches may be under development. Different approaches will be suitable for different institutions depending on their own needs, and an institution should be responsible for identifying the method that works best for them.

There is not one single way to complete a portfolio- or corporate-level assessment of potential nature-based risk. What is more important is the outcome, and that the process has resulted in the accurate and actionable identification of potential risks.

Risk assessments of a whole portfolio, or all bank activities, are currently nascent. Yet, new approaches, tools and resources are emerging regularly and rapidly. Therefore, **an iterative approach may be appropriate** with an initial risk assessment based on the current state of knowledge, and a stated plan to update and revise the assessment as new data become available. The Finnish [FI Sitra presents an iterative](#) approach to completing a TNFD assessment for. They suggest using a first iteration as an initial screening to understand potential impacts and dependencies qualitatively. The findings of this first iteration are then reviewed in greater, more quantitative detail, using a different set of tools and greater use of location data (which may, for example, be available from project-related financing information) (Figure 4).

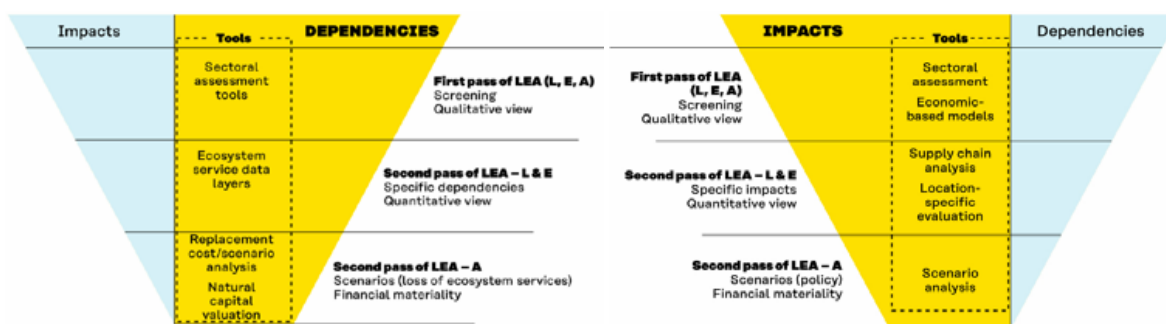


Figure 4: (Figures 3 & 7 from Sitra, 2024).

Sitra follow the TNFD LEAP (Locate, Evaluate, Assess, Prepare) approach, which is a widely adopted framework used to identify nature-related risks, and includes extensive guidance (Box 3). The system has been developed to be applicable to all sectors, but to complete it accurately requires a clear understanding of a business' supply chain and geographic footprint, e.g., where operations are located, where materials are sourced from, and how much is used, etc. [TNFD acknowledges the challenges in collating these data for an FI](#), including, for example, location-specific, nature-related information. This further reinforces the value of an iterative approach whereby the most relevant data are collected and then reviewed and updated as necessary.

Box 2: TNFD LEAP approach

The TNFD has prepared [comprehensive guidance](#) for companies and FIs on the steps required to assess and disclose nature risk—the LEAP approach. Within each step, the TNFD has outlined a series of additional questions to guide the analysis.

LEAP's four steps are:

Locate—understand where in the value chain impacts and dependencies might occur, not just geographically locating, but also understanding which sectors, activities, operations in the value chain might be relevant, i.e. understand your own business profile.

Evaluate—investigate in detail and specify the risks within your business profile. Consider which sectors, clients and services have significant impacts or dependencies on nature, including identifying what those impacts and dependencies are. This may include potentially quantifying the impacts and dependencies or, at the minimum, providing a qualitative estimate of the scale of the impacts and dependencies.

Assess—translate the impacts and dependencies into risk, determining what is currently being done to manage risk, and identifying which risks are material and should be disclosed.

Prepare—develop strategies to manage risk, set targets and allocate resources. Report and disclose the findings of the TNFD analysis.

TNFD has additionally prepared some [guidance for FIs](#). This includes useful metrics and recommendations on additional aspects to be disclosed.

Aligned with the LEAP approach, the [Capitals Coalition](#), [Business for Nature](#), the World Business Council for Sustainable Development ([WBCSD](#)), TNFD, [SBTN](#), [WEF](#) and the World Wide Fund for Nature (WWF) have collaborated to produce unified presentation of high-level business actions for nature: the [ACT-D framework](#)—Assess, Commit, Transform, Disclose. Following this framework, an NBRA is the 'Assess' step.

2.1.1 Integration of project-related financing information into an NBRA

An NBRA will investigate impacts and dependencies in multiple departments or services within an FI (see section 2.6.2 on scoping what to include). There is good justification for including project-related financing in scope for the NBRA, particularly for projects that are deemed high-risk (such as Category A and B projects; see section 3.1.1 on Equator Principles inherent risk categories). These projects may include those that are anticipated to have significant potential impacts on nature, and thus should be material to a NBRA.

There are additional benefits to including project-related financing information in an NBRA; for instance, it can provide a bridge between different departments in an FI that could facilitate information and knowledge-sharing. In many FIs, the risk team will have experience and expertise in aspects of nature, and in the management of nature-based risk—knowledge and understanding that can be of great value when carrying out an NBRA. Project finance and project-related finance risk teams may have access to more precise, higher-quality nature-related data than is available to other asset classes or FI departments. This is result of the site-specific nature of project-related financing, and the close link environmental and social risk teams have with the project proponents and their advisors. Good data supports a good NBRA (Figure 5).

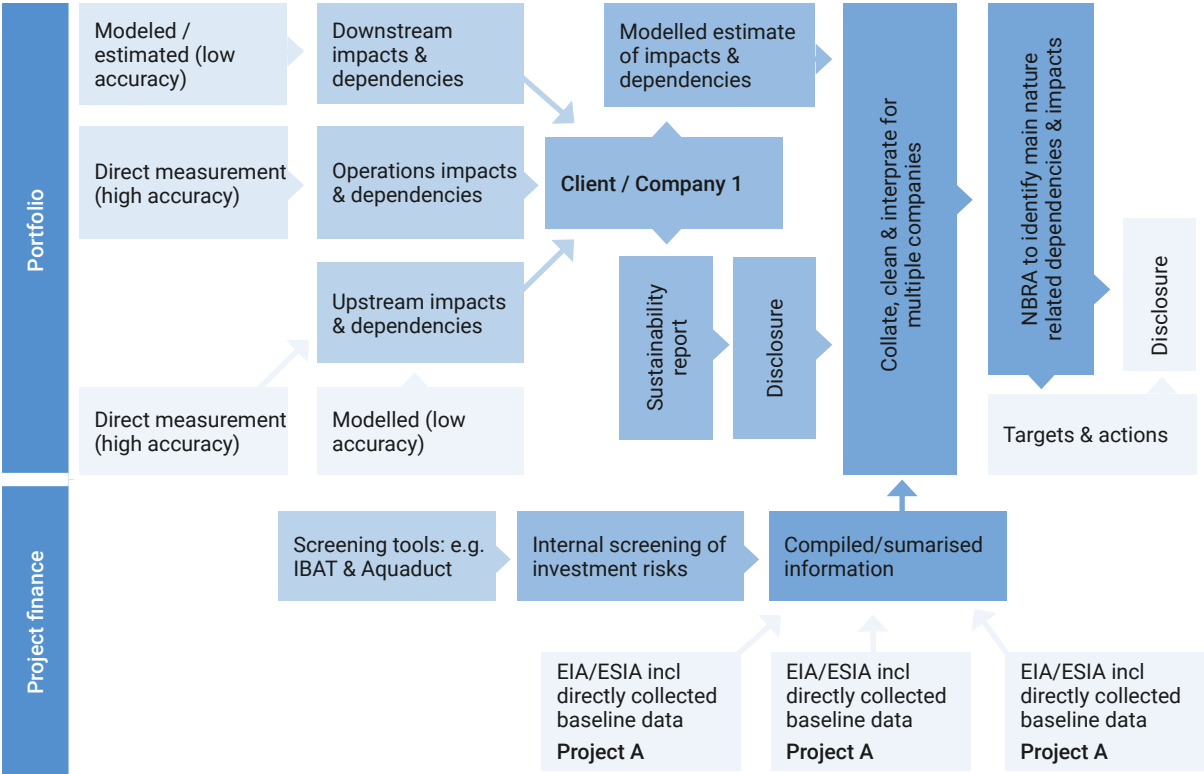


Figure 5: Flow of nature-related data in a corporate-level NBRA in an FI.

Section 2.6 presents a suggested generic approach to carrying out an NBRA for an FI. Each step includes recommendations on the potential support and contributions that can come from including information made available through project-related financing (Figure 6).

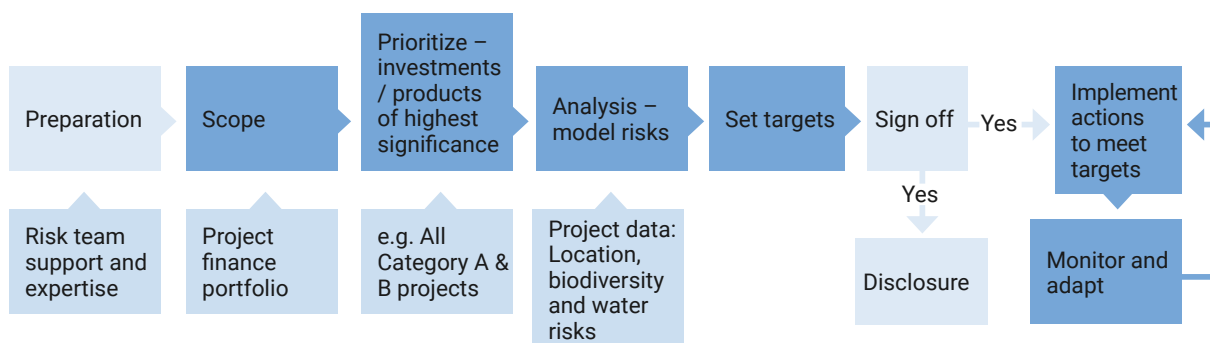


Figure 6: Summary of how project financing information can support a corporate-level NBRA.

2.1.2 Requirements and frameworks related to NBRAs

The general business case for understanding nature-based risks is outlined above (section 2.2.1). [Increasingly, NBRAs are being introduced as a regulatory requirement](#), as part of an [increasing range of nature-related regulatory measures](#).¹⁵

Completing an NBRA will contribute to successfully meeting the expectations of initiatives such as the TNFD, [Global Reporting Initiative \(GRI\)](#), and [CDP](#), among others.¹⁶ The emerging European regulations may be mandatory for FIs and their clients.¹⁷ Other frameworks are voluntary, but provide useful standardized and objective approaches for assessing and disclosing risks, opportunities, impacts and dependencies. In addition to helping an FI assess its own risk, they also provide valuable information for the FI’s clients to understand their own risks and impacts. The [UNEP FI Accountability for Nature report](#) provides a comprehensive review of different frameworks. Other useful sources of information on frameworks include those from [Business for Nature](#) and the [World Benchmarking Alliance](#). More information on relevant frameworks is provided in Annex 4.

15 In due course, understanding and disclosing nature risk may become a condition of listing on some stock exchanges.

16 Maheshika Senanayake *et al.*, ‘Toward More Nature-Positive Outcomes: A Review of Corporate Disclosure and Decision Making on Biodiversity’, *Sustainability* 16, no. 18 (2024): 8110, doi.org/10.3390/su16188110

17 UNEP FI report [Navigating Nature-related Regulations for Banks](#): Mapping the Policy Landscape from 2024 contains more information on potential regulations and policies.

2.1.3 Expectations under UN Principles for Responsible Banking

The UN Principles for Responsible Banking (PRB) has six [principles](#) for members to follow. Completing an NBRA can help contribute to meeting all of the Principles, but is most closely linked to Principles 1 and 2.

Table 1: UN Principles for Responsible Banking, including an interpretation of how an NBRA can help an FI meet the principles.

Principle	Member commitment	Value of an NBRA
Principle 1: Alignment	We will align our business strategy to be consistent with and contribute to individuals' needs and society's goals, as expressed in the Sustainable Development Goals, the Paris Climate Agreement and relevant national and regional frameworks.	An NBRA can help FIs align with the Global Biodiversity Framework (Annex 1), as well as the Sustainable Development Goals and Paris Agreement. ¹⁸
Principle 2: Impact & Target Setting	We will continuously increase our positive impacts while reducing the negative impacts on, and managing the risks to, people and environment resulting from our activities, products and services. To this end, we will set and publish targets where we can have the most significant impacts.	Understanding and acting on dependencies and impacts—core to an NBRA—is essential to meeting this principle.
Principle 3: Clients & Customers	We will work responsibly with our clients and our customers to encourage sustainable practices and enable economic activities that create shared prosperity for current and future generations.	Actions to address the findings of an NBRA are likely to include client and customer engagement.
Principle 4: Stakeholders	We will proactively and responsibly consult, engage and partner with relevant stakeholders to achieve society's goals.	Meeting nature-related targets (as outlined in an NBRA) will require collaboration with a range of stakeholders.
Principle 5: Governance & Culture	We will implement our commitment to these Principles through effective governance and a culture of responsible banking.	As outlined in section 2.5 of this document, an effective and useful NBRA benefits from good governance.
Principle 6: Transparency & Accountability	We will periodically review our individual and collective implementation of these Principles and be transparent about and accountable for our positive and negative impacts and our contribution to society's goals.	Section 2.2.4 in this document outlines why and how transparency benefits an NBRA.

¹⁸ Responsible Banking Blueprint is available [here](#).

To support signatories in meeting the PRB, UNEP FI have developed the [Responsible Banking Journey](#): “A 360-degree framework that enables banks to take action and make progress against the environmental and social sustainability priorities relevant for their bank. The three cornerstones of the PRB’s Responsible Banking Journey—Assessment, Strategy and Action—support banks as they continuously advance from foundational steps through to leading practice.” An NBRA is a useful framework that will help members meet the expectations of the PRB Journey.¹⁹

2.2 Transparency

Transparency over the process and findings of an NBRA inspires trust among stakeholders and helps to build a positive reputation. It also provides an opportunity for external parties to evaluate and provide feedback on the NBRA. In turn, incorporating constructive feedback in future iterations of an NBRA will strengthen its effectiveness in managing risk. Publicly reporting the findings of an NBRA is expected for alignment with CSRD, TNFD, and SBTN. Reporting on findings should, at a minimum, include a summary of *what* has been included in the NBRA (i.e., the scoping and prioritization findings), *why* those elements have been included, *how* the analysis was carried out—including, for example, what tools, datasets, methods and metrics were applied, and the main *findings*. i.e., what are the main areas of risk.

Transparency is also required for project-related financing under Principle 10 of EP4: “the client will ensure that, at a minimum, a summary of the ESIA is accessible and available online”.

19 The PRB Journey includes the following information, and NBRAs [align with](#) all of these aspects:

“Analysing impact, risks and opportunities, as well as measuring and monitoring progress, is essential for responsible banking. In this stage, banks conduct a thorough portfolio analysis to understand impacts of key financed sectors on global, regional and national sustainability priorities. Monitoring and transparently reporting their findings, banks identify greatest positive and negative impacts, forming a baseline for acting upon areas where the greatest change can be achieved.”

“Banks conduct an impact analysis of their portfolio to understand the relevant impacts of key sectors the bank is financing on the sustainability priorities of the society it operates in. Based on this understanding, the bank can identify and begin to manage relevant risk, define priority and relevant sustainability areas for their strategy and action, develop better advice and support to clients, and strategically position for business opportunities contributing to sustainability objectives.”

“Responsible banks are transparent about their activities, disclose information about their impacts and contributions to society’s goals and continuously monitor progress of their sustainability objectives and strategy. Transparency helps stakeholders to gather relevant information about banks’ performance and compare them to their peers, while monitoring enables banks to continuously track progress and thus manage their sustainability strategy and actions.”

2.3 Roles and responsibilities

Corporate- and portfolio-level assessments of nature-based risk in FIs is emerging. Most FIs are in the [process of enhancing their capacity to assess and manage nature risk](#). The experience and knowledge that may already exist in project-related risk teams can be useful in building out a broader nature team at the corporate level. FI teams or resources dedicated to climate change may also have relevant knowledge or data, particularly regarding emissions relating to forestry and land-use change. Additionally, teams in the FI that have social risk experience may have relevant knowledge, particularly location-specific information from clients.

While internal capacity is built within an FI, external resources and/or consultants might be required to help assess nature-based risk. However, to complete an NBRA, there needs to be a clearly defined lead—a person responsible for designing and running the process. Engaging an internal senior (ideally C-suite) leader as a ‘champion’ will not only ensure resources are made available to undertake an NBRA, but will also give a clear external signal that the institution is serious about understanding and managing nature-related risk.

Completing an NBRA at a corporate- or portfolio-level is likely to be a relatively time-consuming and resource-intensive initiative, requiring input from resources both inside and outside of the FI in order to collate the data, and analyze and interpret the results. Depending on in-house skills and resources, much of the process could be outsourced to specialist consultancies or advisors (Box 4). External agencies can also provide valuable training resources and capacity building. UNEP FI has developed extensive guidance, including offering webinars and other capacity-building resources. [CISL has also prepared guidance](#) on how to build capacity, and provides direct support to FIs.

Increasingly clients/investments will be required to (or may chose to) disclose their nature impacts or dependencies through CSRD, TNFD, GRI and similar frameworks. As more and more companies disclose this information, the necessity for an FI to do its own analysis of potential risks to clients/investments will decrease. Thus, NBRAs will become increasingly concerned with compiling such information supplied by clients/investments. Capacity to understand and interpret these reports will be beneficial.

In project-related financing, the main responsibilities for completing the assessment of nature-related impacts lies with the project proponent and its consultants. An FI’s project risk team should possess sufficient nature-related capacity to be able to appropriately apply EP4 and the IFC PS—knowledge and experience that may be helpful when including and analyzing this data across wider corporate operations.

2.4 Governance, management and monitoring

Nature-based risk is rising rapidly up the corporate agenda. In FIs it is no longer just the purview of project financing, but can influence all departments of an institution with potentially material impacts to financial security. Nature-based risk is also a cross-cutting issue that can manifest in diverse ways relating to social risk, climate change risk, reputation and regulation. Senior-level corporate governance is recommended to give a broad enough understanding of the influence of nature risk. Ownership of, and responsibility for, a corporate- or portfolio-level NBRA is recommended to sit at the Chief Sustainability Officer (or equivalent) level at the very least. However, given the far-reaching implications, it may be reasonable that the CEO and CFO are well-versed in the key aspects of nature risk.

In project-related financing, management and monitoring of nature-related issues at the project location(s) is the responsibility of the project itself, rather than the FI. It is probable that findings will need to be communicated to the lender(s). Within FIs, management of project risk is usually clearly defined within the risk or project finance teams. Managing and monitoring nature risk at a corporate level, however, is likely to be a new endeavour for most FIs, and additional resources may be required. A 'Head of Nature' (or similar) of a suitable level of seniority may be required to manage the NBRA process and its evolution. Examples of ongoing tasks include communication with the project finance teams to be familiar with the project-level monitoring, and identifying any potential risks to the institution as they emerge.

The methods and technology for assessing nature-based risk are developing rapidly. Additionally, over time, more accurate and precise information and data on client nature-based risks will become available as they themselves complete more sophisticated NBRA. Thus, an NBRA can and should be updated regularly in order to give a better, more actionable, understanding of potential material nature-based risk. A plan for regular iterations of an NBRA may include: annual reviews of the key findings and assumptions (such as which clients present the most significant potential risks); and a scheduled repeat of the whole NBRA process (every three to five years). Updated NBRA should document where findings have changed due to methodological changes rather than genuine changes in risk. For example, the risk exposure from agriculture might be determined to be lower, not because the clients have changed practices or the FI has stopped financing some bad actors, but simply because more precise information is available that shows the clients are not operating in high biodiversity areas.

2.5 Generic framework for carrying out an assessment of nature-based risk

The following section presents a suggested approach to preparing and implementing an NBRA (Figure 7). This aligns with frameworks such as the TNFD, and methods such as Partnership for Biodiversity Accounting Financials (PBAF) [Biodiversity Footprinting Standard](#). The approach is generic enough that it should be suitable for upcoming frameworks such as the anticipated International Sustainability Standards Board (ISSB) standard.

In each subsection, suggestions are provided regarding the incorporation of project-related financing information in the NBRA process.

Table 2: Overview of different steps for portfolio or project NBRA.

Phase	Portfolio
Prepare	Identify staff roles and responsibilities. Establish implementation timeline and build senior support. Secure external support if required.
Scope	Determine which business units/departments/services of the FI to include in the NBRA.
Prioritize	Identify which sectors/clients, or FI facilities, are most likely to have significant nature risk.
Collate and analyze	Collate data on prioritized sectors and clients. Communicate with clients to obtain relevant information as necessary. Analyze data to identify impacts and dependencies. Quantify risks if appropriate.
Take action	Develop risk-management approach with SMART practice and impact targets, and actions to meet them.
Report	Summarize and publicly report on the NBRA.

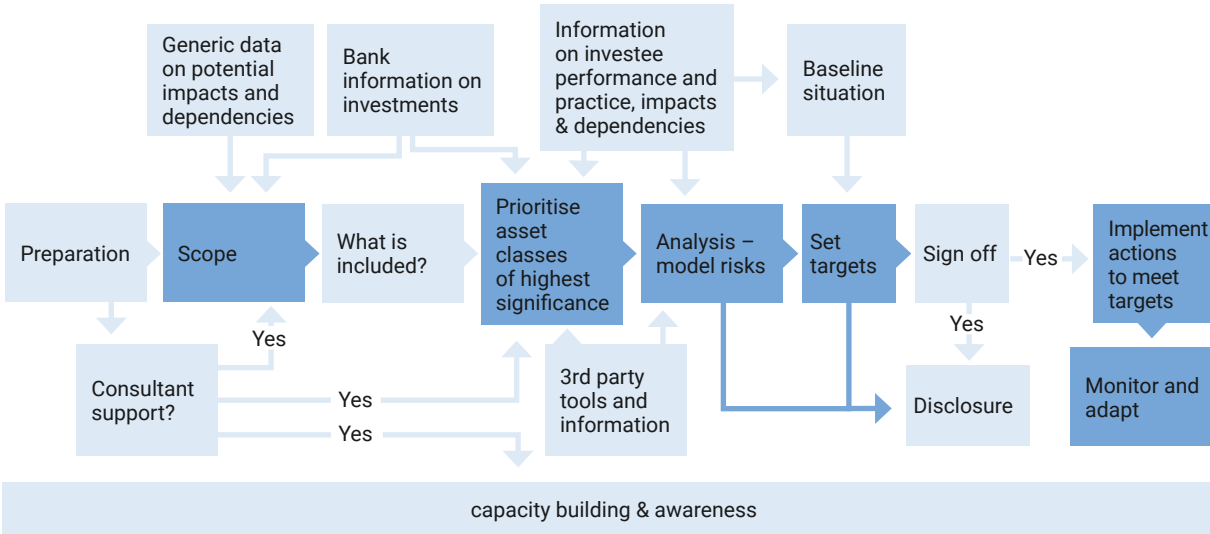


Figure 7: Summary of an NBRA process.

2.5.1 Prepare

Ensuring the human resources are available and briefed, and that sufficient time and financial resources are dedicated in advance, will improve the efficiency and influence of the NBRA.

To prepare for the NBRA, FIs should:

- **Ensure that sufficient resources are available to complete the NBRA.** This may mean convening a team and/or allocating financial and time resources to the assessment.
- **Evaluate whether there is sufficient capacity and expertise in-house to complete the NBRA,** or whether external support will be required. Should external support be needed, allow sufficient time to identify and contract support.
- **Consider the complexity of completing the NBRA process during planning.** For instance, complications and delays can occur when collating new data from a range of internal and external sources, and in the analysis and interpretation of results.
- **Brief key staff across the institution early in the process to facilitate the assessment.** Staff from many departments may be needed to supply and interpret information. If staff across the institution understand why the NBRA is being completed and what is entailed, they are more likely to give access to resources and information.
- **Decide if external help is needed and source the required expertise.** Note that it may be a time-consuming process to find the support that best fits the required needs.

Box 3: What to expect of external support.

External support, for example from consultancies and specialist advisors, may be necessary for many FIs where internal capacity is currently lacking. To get the most out of external support, the following questions should be considered:

- **Can they support all aspects of nature?** Some consultancies specialize in one aspect of nature, i.e. biodiversity-focused, or water experts. Others can provide expertise on multiple aspects (including climate change and social risk). The advantage of the specialists is that they typically provide in-depth, best-in-class expertise, while the generalists are better positioned to draw the links with other issues.
- **What methods will they use?** Do they plan to use their own method or an 'off-the-shelf' tool and why?
- **What are the limitations?** What are the known limits of their proposed tool? For example, does it only work for terrestrial biodiversity, or also marine and freshwater? Will it only work for some industrial sectors or impacts?
- **What data do they need?** What data will be needed from the FI? Particularly what spatial precision is required? And are there work arounds should the data not be available?
- **What are the outputs?** What will the outputs look like? Not just what sort of information, but how will it be presented and shared?
- **How sensitive to change is the analysis?** For instance, if the FI makes changes, will this be reflected in any future re-running of the analysis, or will the results be broadly the same?
- **Which frameworks will the outputs align with?** For example, to what extent will the results meet TNFD, CSRD, SBTN, or will additional analysis be required?

It is important to understand the pros and cons of third-party tools and methods. Having a clear understanding of what a given tool does or, perhaps more importantly, what it cannot do, is a critical part of selecting the right tool for a given situation. When identifying new tools and datasets from service providers, it can be helpful to ask:

- What gaps might exist in input data (e.g., species groups or geographical limitations)?
- Is there a minimum level of data granularity recommended for inputting (e.g., location data)?
- What are the [limits of any Life Cycle Assessments](#) being used?
- What assumptions have been made? (E.g., regarding how different sectors impact nature, yields, commodity prices, etc.)
- How sensitive are the tools to change?

Incorporating project-related finance

Involving staff from the project risk team that have experience with nature-related issues can add appropriate skills to the endeavour. Not only will they have some understanding of nature and nature data, but they may also have experience of working with appropriate external consultants and subject matter experts.

2.5.2 Scope

Financial institutions should determine the scope of the NBRA by defining which department, services/products are subject to the assessment.

Financial institutions usually have a wide array of divisions, departments and components. Clearly defining which of these divisions are subject to risk assessment, and why, sets boundaries to the efforts. Scoping should ensure that components that are likely to be the source of the majority of nature risks are included, while resources are not wasted on assessing aspects that are probably of minor risk. It is possible for the FI to include the entire group within the scope, but in many situations, this will not be feasible

There is no **right** system for scoping, but transparency over how the scoping is carried out will build trust with stakeholders and allow regulators and other interested parties to evaluate how comprehensive the risk assessment process is. Transparency may include leading by example and can encourage other institutions to disclose; in turn, this will increase the information available for an FI to understand its own risk—creating a virtuous circle.

Scoping should also consider which elements of nature will be part of the NBRA. Will the assessment look at biodiversity-related and water-related risk, or just one of these? Will pollution be considered as a standalone issue or as an impact on water and biodiversity?

Determining what is in scope can be based on a range of factors, including but not limited to:

- FI departments, e.g., business banking, corporate banking, investment banking; vs. consumer banking, retail banking.
- Commercial significance to the bank, e.g., revenue thresholds.
- Risk exposure. Some sections are more or less likely to have clients or investments in higher-risk sectors (Table 3).
- Ease of collating data. Is there accessible information on who the clients/investments are?
- Regions or countries of particular significance to the FI, or of known biodiversity importance or water-related issues, or where there is less stringent or weakly enforced nature-related legislation.

Scoping should consider dependencies and impacts on nature. The decision to scope something in or out should be influenced by both the potential risk to the FI, and the potential risks to nature. Thus, some knowledge of the FI's full range of services is required. Scoping will help define what internal or external resources will be needed later in the exercise.

Incorporating project-related finance

The case for the default inclusion of project-related financing teams in an NBRA is strong. Project-related financing is likely to be one of the few asset classes that already has good quality location data and nature information (see section 2.2.3 on the importance of location-specific information). This means that, compared to other asset classes or FI departments, it will be relatively easy to collate and analyze the relevant data. Regardless of commercial significance, including project-related risk information in initial iterations of an NBRA will provide a valuable opportunity to develop and test the approach without concerns over lack of suitable data on biodiversity, water, pollution, etc. Including project-related financing from the start will also foster further collaboration and knowledge transfer between different FI departments.

2.5.3 Prioritize

Within the scoped-in sections of the FI, further prioritization can focus resources on understanding the details of the most high-risk aspects.

An FI can have a vast number of clients and investments; therefore, it is not practical to screen them all for potential nature risk and prioritization is recommended. An NBRA should focus on clients or investments in sectors that are known to have a high likelihood of negative impacts to nature, or those which have a high dependence (Table 3).

Different methods for prioritization include:

- **Heatmaps.** Similar to other risk assessments, heatmaps look at two dimensions to assign a risk ranking or significance. Dimensions could include the severity of impacts, combined with the size of business in that sector. The readily available [ENCORE](#) tool can be used to identify sectors of high risk. If following a TNFD LEAP approach, ENCORE is a valuable tool for the 'Evaluate' step (Box 3). Ideally, this should be considered for both impacts and dependencies.
- **High-risk sectors.** Several initiatives have defined economic sectors that are documented to have had significant impacts on biodiversity or are potentially a source of risk due to the impacts of biodiversity loss on the business. Prioritization could focus on exposure to companies that produce or trade in these commodities. For example:
 - SBTN has a list of 47 'high impact commodities' from the agricultural and extractive industries sectors.
 - UNEP-FI PRB has identified priority sectors based on the work of UNEP-WCMC (ENCORE), SBTN, TNFD and Finance for Biodiversity. These are the sectors for which PRB members are recommended to set targets (Table 3).²⁰

²⁰ See the 2023 [PRB Nature Target Setting](#) guide for more detail. An excel sheet of priority sectors can be downloaded from unepfi.org/wordpress/wp-content/uploads/2023/11/2023_Nature-Key-Sectors-Mapping.xlsx

Table 3: Potential high-risk sectors for nature impacts or dependencies.

Biodiversity	Water	Pollution
<ul style="list-style-type: none"> ▪ Agriculture, logging and fishing ▪ Silviculture ▪ Mining ▪ Manufacture of metal and non-metallic mineral products ▪ Manufacture of coke and petroleum products ▪ Manufacture of chemical products and pharmaceuticals ▪ Manufacture of rubber, plastics and paper products ▪ Manufacture of textiles and apparel ▪ Electric power generation ▪ Construction ▪ Transport ▪ Waste management and sewerage 	<ul style="list-style-type: none"> ▪ Mining ▪ Chemicals ▪ Fossil Fuels ▪ Food and Beverages ▪ Apparel ▪ Agriculture 	<ul style="list-style-type: none"> ▪ Mining ▪ Textiles ▪ Electronics ▪ Pharmaceuticals ▪ Agriculture

Incorporating project-related finance

If project-related financing is a relatively minor component of an FI's operations, then it might be appropriate to include all projects in the NBRA. Otherwise, prioritization of which projects to include could be based on the Equator Principles categorization (section 3.1.1), and/or the sector. For example, the NBRA could prioritize the higher risk Category A and B projects, or those related to the sectors listed in Table 3.


2.5.4 Collate and analyze

Once prioritization is complete, the prioritized issues should be subjected to a deeper analysis.

Deeper analysis will provide more detail on how the risks manifest, thus informing the preparation of targets and actions to manage these risks. The analysis might quantify the potential financial implications of impacts and dependencies, but could also include a qualitative aspect with a detailed understanding of which departments or clients are more exposed to risk. PBAF has produced [detailed guidance](#) for FIs on how to complete a 'biodiversity footprint' to understand their impacts on biodiversity. This framework provides templates for how to incorporate information from different asset classes, including project finance.

A detailed analysis should endeavour to ask:

- Which clients are operating in areas of biodiversity significance or water stress?
- Which clients significantly depend on water or biodiversity?
- Is the client subject to emerging nature-related regulations that might impact on its operations or sourcing (such as EU Deforestation Regulation EUDR)?
- Are some FI departments, geographical regions or products more linked to nature-related impacts and dependencies than others?



Type	Examples	Information needed	How it works	Useful for	
Sectoral assessment tools	ENCORE SBTN Materiality Screening Tool	Subsectors represented in portfolio	Provides risk scores based on average impacts or dependencies in the sub-sector a company is in, based on common industrial classifications	Screening and prioritisation	First Pass
Economic-based models (and enhanced models)	BIA-GBS Iceberg Data Labs CBF	Economic volumes (+ additional information, e.g. companies)	Estimates average sector impacts as biodiversity footprints based on international trade data and literature. Can be augmented with additional information, to estimate company-specific impacts	Estimating impacts across a portfolio	
Supply chain assessment	Trase Forest IQ	Supply chain data, e.g. commodity volumes	Uses a combination of international trade data and supply chain tracing data to trace commodity usage to likely impacts in specific localities or landscapes	Transition risk exposure analysis	Second Pass
Location-specific assessment	WWF Risk Filters	Asset location and activity type	Uses precise operational location data and nature data layers to estimate location-specific risks	Estimating impacts at site Transition risk exposure analysis	

Figure 8: Potential scope of different tools (upper figure BioInt, lower Sitra 2024).

Clients may have already pursued some analysis of their own. For instance, they may have completed CDP water disclosure, which will reveal data on the client's knowledge of their own water risk. If geographic data on the location of client operations or key sourcing areas is available, screening tools such as [Aquaduct](#) and [Water Risk Filter](#) can provide additional information on the potential water risk. Analysis should determine the type of risk (e.g., physical, regulatory, reputational, transition, etc.), and the scale of the risk to either the FI or to water resources. Potential metrics could include: percentage of portfolio in water-stressed regions; percentage of loans to water-intensive sectors; and water CDP scores for clients.

Data gaps and challenges might become apparent while collating information, possibly making the chosen method no longer fit-for-purpose. FIs should be prepared to review and potentially update the method based on data availability. Some analytical tools model global data (such as EXIOBASE data), so produce generalized results that might not be sensitive to change (i.e., a model based on global averages does not account for changed practices by a given company/client). This might not be a problem during initial screening and prioritization, but company-specific information and analysis will be beneficial in the long term in order to understand the effectiveness of a client's risk management actions.

What is most important is that the results provide an accurate representation of risk. Initially, this does not mean they need to be precise, i.e. they do not have to be documenting the exact, actual risks, but that they are accurate enough to provide a true *picture* of the risks. Hence, providing enough information that the FI can act on.

The findings may include information on: the proportion of FI revenue (or clients) that significantly impacts, or is dependent on, biodiversity; particular countries or regions where there is higher impact or dependencies; types of business that have more or less risk; and particular operations or processes that are higher risk. It is important to acknowledge that, given the limitations of most of the methods, some issues might be artifacts of the process. Cross-checking findings that are unexpected or surprising is recommended.

Findings can also be presented in a matrix or heatmap. This will help to identify where the biggest areas of concern can be found, illustrating sectors of clients where targets and actions are most needed or will be most effective at reducing risk (Figure 9). This combines sector-level knowledge of the likely impact or dependence of a client with company specific information on how they actually operate and where to indicate the actual level of impact. Therefore, a client might be from a high-impact sector, such as agriculture, but if they have implemented low-impact policies and operate in locations of lower biodiversity significance, they may be of lesser concern.²¹

Ultimately findings need to be actionable, not just reportable.

21 Project-related financing should fall into this category (yellow, bottom right box in Figure 6). Even if a project is identified as having potentially high impacts or dependencies, the Equator Principles requirements mean that risk management measures may already be in place to reduce any impacts to tolerable levels (depending upon the stage of potential or actual financing).

Incorporating project-related finance

Project-related finance data and information that may be needed during analysis include:

- Locations of financed projects in relation to areas of biodiversity importance or known water issues, such as the potential to influence protected areas or Key Biodiversity Areas, presence in a biodiversity hotspot or deforestation frontier, or presence in water-stressed basins.
- Projects likely to impact on Critical Habitat.
- Projects related to high-risk commodities.
- Projects that have identified potential water or pollution risk.

For each of these topics, information on the total number of projects, and the total value of finance, will be needed.

It is likely that data aggregation will be required. For example, listing all the International Union for Conservation of Nature (IUCN) Red List species that are present at all the financed projects is an unnecessary level of detail. Aggregation that documents how many investments impact on Red List species, and the total related finance, is a more appropriate measure. This will help illustrate the scale and exposure of risk to the FI from negative impacts to Red List species that, in many cases, are covered by national protections and regulations.

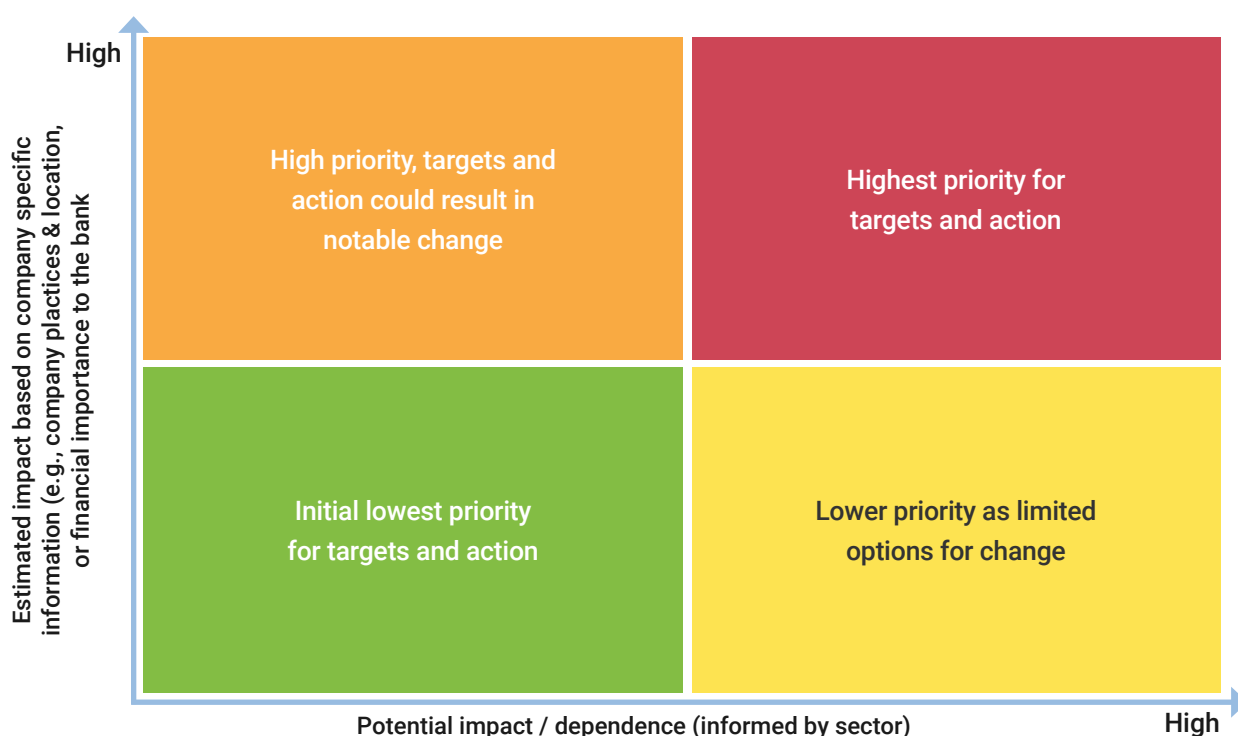


Figure 9: Matrix of results. Clients are placed on the matrix based on the potential for impact and dependence as determined by sectoral knowledge and company-specific information.

2.5.5 Take action

Once the NBRA is complete, additional steps should be taken to manage risk.

Targets should be set and action plans developed and implemented to manage the determined risk. Targets and action plans fundamentally reduce risk by both reducing the exposure of the FI to the impacts of biodiversity breakdown, and by reducing the impacts of the FI's financing on biodiversity; in turn, this supports the goals and targets of the GBF wherever the FI has influence.

UNEP FI has an ongoing programme on nature-related target setting for FIs, including guidance on targets that may be relevant to any PRB member, regardless of the findings of an NBRA. Targets should ideally be SMART, and can include a mix of practice and impact targets.

- **Practice targets** are those focused on the operationalization of a bank's nature strategy, specifically how an institution will manage risk and improve understanding, or how they may change their (and their client's) policies and processes. Actions may include commitments to capacity building, completing a TNFD assessment, or engaging with clients on key issues. Under a pressure-state-response (PSR) framework, these targets would be 'response' targets.
- **Impact targets** concern those that relate to measured changes in the state of nature or to stresses to nature. Targets are set to achieve a *reduction* in specific negative impacts on the state of nature across an FI's activities, but should also strive for *positive* outcomes. Under a PSR framework, these would be 'pressure', or 'state' targets.

UNEP FI has prepared guidance for banks on setting both [practice](#) and [impact targets](#). It has also prepared [sector-specific guidance](#) for setting targets in sectors known to be of high-risk (e.g., bauxite, copper, cattle, wood, soy, palm oil), which aims to empower FIs in their risk mitigation efforts.

Process targets will usually be easier to set and meet, and are likely to be the majority of targets set by FIs in the early stages of nature-based risk management. Impact targets are more significant in addressing nature impacts (and meeting the expectations of the GBF), but might be more challenging to implement and prone to external influences. The Nature Positive Initiative has prepared a list of strong [state of nature metrics](#), which FIs can consider when setting targets. These will be refined and updated periodically, allowing FIs to set more specific impact targets as new data become available. Additional guidance on metrics, including those for tracking measures to reduce threats to nature, is provided in [Financing Nature: A Practitioner's Guide to Results Metrics Selection](#). The [WBCSD Nature Action Portal](#) is an easy-to-use tool to help identify suitable actions to manage dependencies, impacts and risks. This can be useful to identifying actions for the FI to take, or those to recommend to clients.

In early iterations of an NBRA and any related strategy development, it is highly possible that targets will actually be commitments to gather more information and improve the assessment, rather than improving specific nature risks straight away. This is not problematic as long as the commitments are clearly timebound, and plans for future iterations with robust targets to genuinely reduce risk are disclosed.

The findings of an NBRA can help to determine a suite of targets and actions for biodiversity, water and/or pollution. Targets are not essential for all aspects of nature—only those where impacts and dependencies are material. Targets can be a mix of ‘easy wins’ and ‘big wins’:

- **Easy wins** are targets that should be relatively easy to achieve, come from minor changes to policy, or that might have limited financial implications. They might not have the most significant impact on reducing risk, but they are good at illustrating commitment, and as a starting point for building capacity and understanding.
- **Big wins** are targets that might be harder, more costly and more time-consuming to implement, but which will make the biggest difference to reducing risk. They are, therefore, the most significant targets and should not be avoided.

Incorporating project-related finance

Projects that follow the expectations of the IFC PS should already be implementing (or planning to implement) suitable actions to mitigate impacts and dependencies and manage risk. Consolidating some of this information will be valuable for reporting. Potential indicators could include, for example, the number of projects (and their value) that have prepared [Biodiversity Action Plans](#) (BAPs) or water management plans.

2.5.6 Report

Reporting on the NBRA is essential to inform internal and external stakeholders and shareholders.

Currently, there is no standardized format to reporting on biodiversity-related risks within the NBRA process. The results of an NBRA could be reported as a standalone publication or as part of annual sustainability report. The TNFD outlines a set of indicators for disclosure, which FIs can utilize. Future regulations or rules (for example, from stock exchanges) might provide additional standardization. In the absence of standardization, reporting transparently on the following aspects is recommended:

- **Scope:** What bank divisions or operations are included in the NBRA and why?
- **Methods:** What methods have been followed? Have external experts or other stakeholders been consulted? Why have those particular methods used? What are the potential limitations of the methods?
- **Findings:** What are the major risk areas? Why are they risks?

The findings section may also include targets and actions, although it might be more appropriate to include them in a standalone strategy or action plan.

Incorporating project-related finance

Summary information on project-related financing can be included in reporting. Financed projects will typically prepare public summaries on biodiversity- and nature-related issues. These can also be shared in relation to NBRA reporting.

3. Nature-based risk in project-related finance

3.1 What is nature-based risk in project-related finance?

In project-related financing, understanding of nature-based risk is typically focused on the potential impacts of the project(s) on biodiversity and water, and whether those impacts will present a risk to the FIs providing project finance. The assessment of impacts (and dependencies) is the responsibility of the project; the FI will determine the risk to them (Figure 10).

The expectations on Equator Principles FIs are presented in [EP4 \(2020\)](#). This requires FIs to apply the IFC PS. Issues related to biodiversity are outlined in IFC PS6. Sector-specific guidance on biodiversity impact assessment and mitigation has been prepared for several high-impact sectors, but the overall approach is similar. Water and pollution risk are primarily covered in IFC PS3, but additional expectations regarding water use and the use of other resources are covered in parts of PS1 (impact assessment), PS2 (working conditions), PS4 (community health), and PS6 (management of ecosystem services).

It is the responsibility of the project, with its environmental advisors, to complete the assessment of impacts. This is commonly communicated through an Environmental Impact Assessment (EIA), Environmental and Social Impact Assessment (ESIA), or equivalent. These are the primary tools for a project to inform an FI of the likely impacts and dependencies on nature. It is, therefore, critical that any EIA or ESIA is carried out to an appropriate standard and accurately identifies anticipated impacts and dependencies. The FI may require the impact assessment to be carried out following leading global practice—the Equator Principles have issued publicly [available and detailed guidance](#), with examples, on these topics.²² An impact assessment that follows leading practice will reduce the potential risks to the FI that may result from severe impacts to biodiversity and water resources. Independent advice may also be provided by the [Independent Environmental and Social Consultant](#) (IESC).

22 Equator Principles has issued publicly available guidance notes relevant to good practice environmental and social impact assessments including: [Guidance Note: Environmental and Social Impact Assessment Scope of Work](#); [Guidance Note: On Implementation of Human Rights Assessments under the Equator Principles](#); [Guidance Note: Evaluating Projects with Affected Indigenous Peoples](#); [Best-Practice Note on Biodiversity Baseline Surveys](#); and [Guidance Note: Biodiversity Data Sharing—For EPFI Clients](#)

Potential risks to an FI include:

- **Reputational risk** from financing a development that is being criticized by regulators or civil society for impacts to the environment.
- **Legal risk** from any infractions on nature-related regulations by the project.
- **Financial and credit risk** arising from project delays caused by the mismanagement of biodiversity impacts or water resources; increased community unrest where local dependencies on nature are impacted; and severe impacts or accidents resulting in the loss of the project’s license to operate, or its ability to generate revenue and/or repay loans.

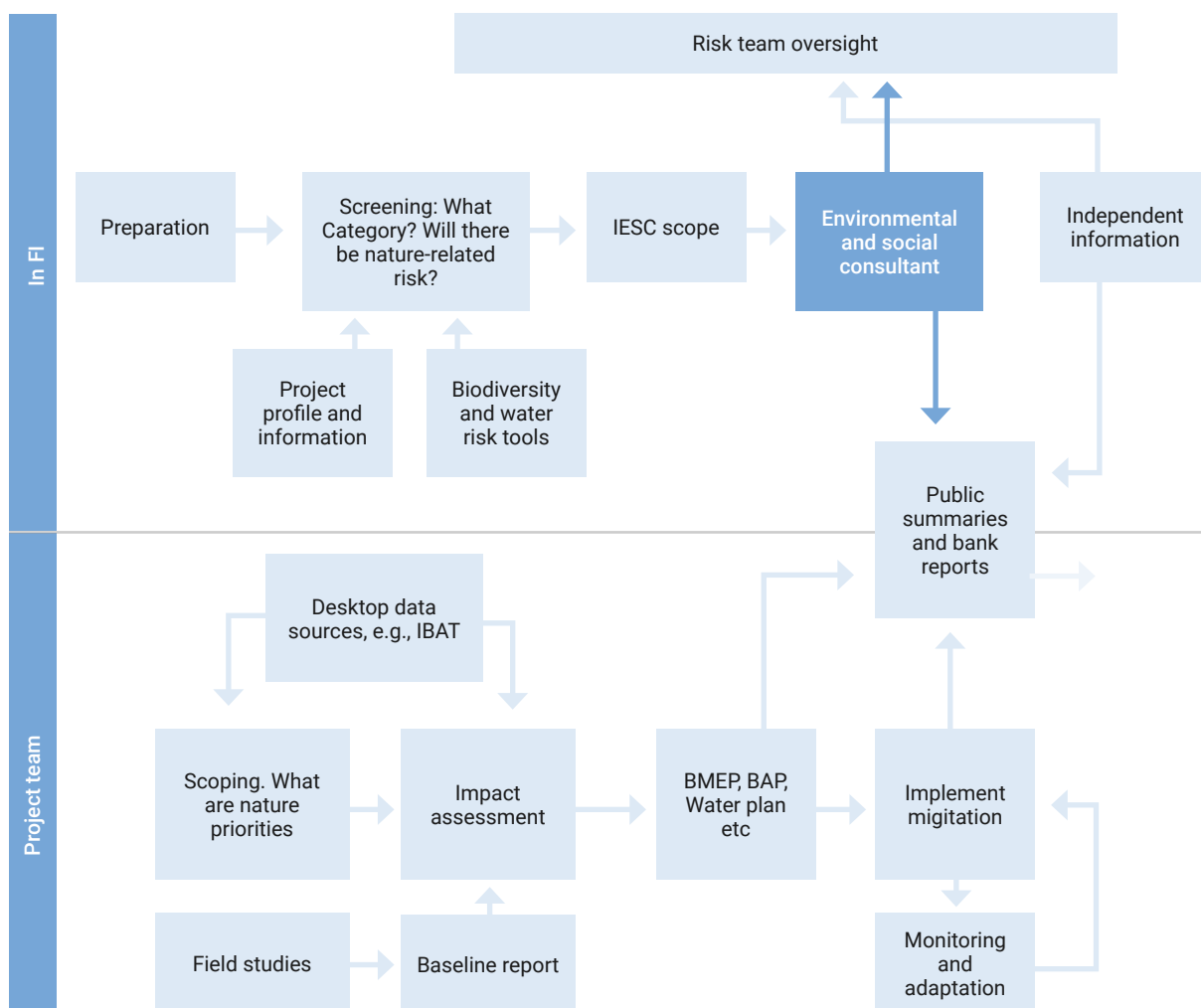


Figure 10: Summary of a process for understanding nature-based risk in a financed project.

3.1.1 Requirements under the Equator Principles

The requirements for Equator Principles Financial Institutions (EPFIs) are laid out in [EP4 from 2020](#), described as “A financial industry benchmark for determining, assessing and managing environmental and social risk in projects.” The Principles explicitly require a climate change risk assessment and that human rights risks are assessed, there is no explicit requirement for a ‘nature-based risk assessment’. Understanding nature-based risks and impacts is, however, an implied part of the IFC PS (particularly PS6: Biodiversity

Conservation and Sustainable Management of Living Natural Resources), so is required under the Equator Principles through the assessment of biodiversity risks.

EP4 has 10 Principles which include categorization (section 3.1.1), impact assessment, action plans, stakeholder engagement, grievance mechanisms, monitoring and reporting. Different Principles apply at different stages of the project cycle (Figure 11). The bulk of nature-related risk assessments will occur early in the cycle (for instance, through the assessment of biodiversity and ecosystem services), and should be completed and reviewed by the FI prior to financial close.

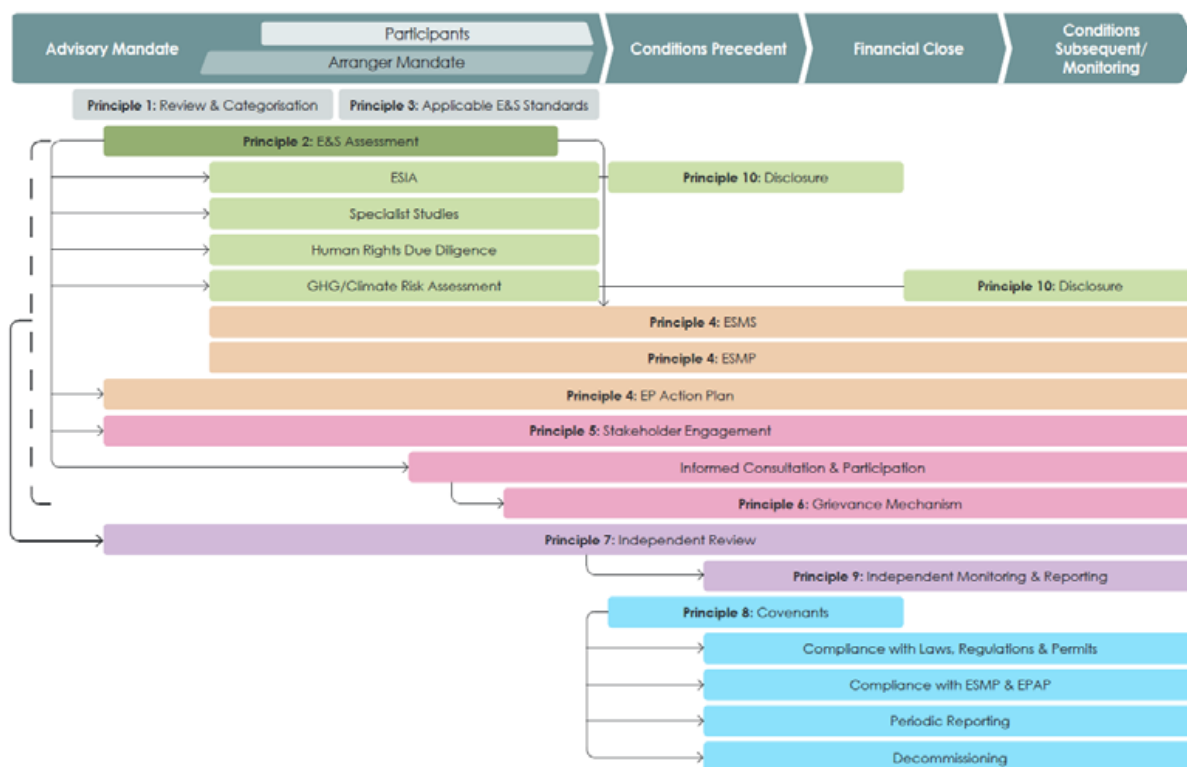


Figure 11: Project finance timeline taken from Guidance Note on Requirements & Mechanisms for Consistent Application of the Equator Principles at the Transaction Level (internal guidance available only to EPFIs).

The primary nature-related requirements and commitments defined in EP4 are as follows:

Preamble

- “As financiers and advisors, we work in partnership with our clients to identify, **assess** and manage **environmental** and social risks and impacts in a structured way, and on an ongoing basis.”
- “The Equator Principles are intended to serve as a common baseline and framework for financial institutions to **identify, assess** and manage **environmental** and social **risks** when financing Projects.”
- “EPFIs also acknowledge that we have broader responsibilities for identifying and managing adverse environmental and social risks and impacts”.

Principle 2

- “The EPFI will require the client to conduct an appropriate Assessment process to address, to the EPFI’s satisfaction, the relevant environmental and social risks and scale of impacts of the proposed Project.”
- “The Assessment Documentation will be an adequate, accurate and objective evaluation and presentation of the environmental and social risks and impacts, whether prepared by the client, consultants or external experts.”
- “For Category A and, as appropriate, Category B Projects, the Assessment Documentation includes an Environmental and Social Impact Assessment (ESIA)”.

Principle 3

- “For Projects located in Non-Designated Countries, compliance with the applicable IFC Performance Standards on Environmental and Social Sustainability (Performance Standards) and the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) (Exhibit III).”

Relevant requirements under the IFC PS include:

Overall risk management by the project is covered in Performance Standard 1. Noting:

- Paragraph 7: “The client will establish and maintain a process for identifying the environmental and social risks and impacts of the project.”
- Paragraph 8: “Where the project involves specifically identified physical elements, aspects, and facilities that are likely to generate impacts, environmental and social risks and impacts will be identified in the context of the project’s area of influence.”
- Paragraph 9: “In the event of risks and impacts in the project’s area of influence resulting from a third party’s actions, the client will address those risks and impacts in a manner commensurate with the client’s control and influence over the third parties, and with due regard to conflict of interest”.

Water and pollution risk for the project is primarily covered by Performance Standard 3–Resource Efficiency and Pollution Prevention. Noting:

- Paragraph 3: “During the project life-cycle, the client will consider ambient conditions and apply technically and financially feasible resource efficiency and pollu-

tion prevention principles and techniques that are best suited to avoid, or where avoidance is not possible, minimize adverse impacts on human health and the environment.”

- Paragraph 9: “When the project is a potentially significant consumer of water, in addition to applying the resource efficiency requirements of this Performance Standard, the client shall adopt measures that avoid or reduce water usage so that the project’s water consumption does not have significant adverse impacts on others”.

Biodiversity impacts and dependencies for the project; covered by Performance Standard 6 -Biodiversity Conservation and Sustainable Management of Living Natural Resources. Noting:

- Paragraph 6: “The risks and impacts identification process as set out in Performance Standard 1 should consider direct and indirect project-related impacts on biodiversity and ecosystem services and identify any significant residual impacts.”
- Paragraph 24: “Where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the client will conduct a systematic review to identify priority ecosystem services. Priority ecosystem services are two-fold: (i) those services on which project operations are most likely to have an impact and, therefore, which result in adverse impacts to Affected Communities; and/or (ii) those services on which the project is directly dependent for its operations (e.g., water)”.

Principle 10

- “The EPFI will encourage the client to share commercially non-sensitive Project-specific biodiversity data with the Global Biodiversity Information Facility (GBIF) and relevant national and global data repositories, using formats and conditions to enable such data to be accessed and re-used in future decisions and research applications”.

3.2 Understanding nature-based risk in project-related financing

While it is the project's responsibility to assess and report on impacts, dependencies and potential risks to the project, it is valuable for FI risk staff to have an independent understanding of the potential risks associated with a given project. This can help anticipate potential issues, facilitate internal and external communication on potential risks, and enable appropriate review and critique of project planning and execution.

3.2.1 Scoping

Prior to financing, some initial due diligence on potential nature-related risk from a project is recommended. This can provide early indications of risks, and even inform the FI if the risks are potentially too high. Some FIs have independently decided and dynamic restrictions on providing financing for some industries or activities. This should be checked before proceeding.

An EPFI's environmental and social due diligence should be proportionate to the categorized level of environmental and social risks and impacts (including those relating to climate change) of the project being reviewed. Such categorization is based on the IFC environmental and social categorization process, which divides projects into the following three categories:

- **Category A:** Projects with potential significant adverse environmental and social risks and/or impacts that are diverse, irreversible or unprecedented.
- **Category B:** Projects with potential limited adverse environmental and social risks and/or impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures.
- **Category C:** Projects with minimal or no adverse environmental and social risks and/or impacts.

Category A projects are typically—but not exclusively—those with a large footprint and/or planned for areas with limited previous industrial activity ('greenfield sites'). They are also more likely to occur in higher biodiversity zones, such as the tropics.

Global screening tools exist for biodiversity- and water-related issues. These screening tools are valuable for giving an initial insight into potential issues. They are dependent on having a reasonably accurate estimate of the potential location of the project. However, impacts to water and biodiversity might not be limited to the *exact* location of the project, so screening a wider area than the specific project location is advisable.²³ These tools will indicate the potential presence of features that might pose significant risk (e.g., threatened biodiversity, or water stress). Whether impacts are actually anticipated will depend on the activities planned by the project.

23 Buffering the project location by c. 50km, for example, will help identify potential risks in the land/seascape around the project. This can also help manage issues with data gaps; for instance, a threatened species might not have been recorded at the project location yet, but it could be present in the wider landscape, indicating it might occur at the project site too.

Tools for screening for the potential presence of biodiversity that could be negatively impacted by the project include:

- [Integrated Biodiversity Assessment Tool \(IBAT\)](#)—a portal that combines information from the IUCN Red List, World Database on Protected Areas, and Key Biodiversity Areas.
- [WWF Biodiversity Risk Filter](#)—an online tool that helps organizations understand biodiversity-related risks across their operations and supply chains.

Tools that can help to screen the potential for water or pollution stress include:

- [ENCORE](#)—provides a general overview of impacts and dependencies in different sector; some geographic specificity is possible.
- [Aquaduct](#)—a location-based water risk screening tool.
- [WWF Water Risk filter](#)—an alternative location-based tool.

Locally specific information might be available from regulators on the potential for any pre-existing contaminants from previous industrial activities. Additionally, information sources such as RepRisk can provide an indication of whether the client has had previous issues with nature-related impacts.

As per IFC PS1, the project needs to define the scope of assessment, including which project elements or associated components are included or not. This should include the consideration of cumulative impacts. Elements of the project may refer to different **phases** of the project, or different **physical** components (for example, a wind farm development could include just the wind farm, or also associated facilities, such as transmission lines and access roads). Scoping is typically uniform across all aspects of risk, i.e. the same elements are included for social and environmental impact assessment; but this does not have to be the case, especially if some aspects are potentially more significant for biodiversity than for social aspects.

For water and pollution, scoping means that the use of water resources by other industries in the region needs to be evaluated. Impacts of water use will be at least at a water basin level, and could include impact on surface water, or groundwater. Pollution could extend considerable distances downstream.

The cumulative effect of multiple developments or activities on water or biodiversity might need to be considered by the project proponent, where the additional impacts of one project could exceed the natural tolerance of the receptors to disturbance.

The project should provide rationale for what elements have been scoped in or out.

Value to a NBRA

Information on project categorization is important for determining whether the project will be included in a corporate-level NBRA. This information will also provide an early indication of potential impacts and dependencies that can be represented in the NBRA.

3.2.2 Baseline studies

The project and advisors will need to identify the priority biodiversity features. These are the species and ecosystems of the highest significance that might be a source of risk.

IFC PS6 presents two types of biodiversity significance:

- **A differentiation between anthropogenic ecosystems, termed “modified habitat”, and “natural habitats”.** Modified Habitat includes areas such as agriculture or urban environments. Natural Habitat can be degraded by human activities, but still classed as ‘natural’.
- **Features that qualify an area as ‘Critical Habitat’.** These are biodiversity features of global or regional importance. IFC PS6 includes five criteria for Critical Habitat (paragraph 16): “(i) habitat of significant importance to Critically Endangered and/or Endangered¹¹ species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes.” IFC [Guidance Note 6](#) includes greater detail on how these are identified, and thresholds above which an area would qualify as Critical Habitat.

The project must complete a Natural and Critical Habitat assessment to determine the presence of these features. Should Critical Habitat qualifying features be present, additional mitigation and management measures are required.

An ecosystem services assessment at this time can identify potential ecosystem services dependencies. The World Resources Institute [Corporate Ecosystem Services Review](#) approach is one robust method for such an assessment.

To determine whether a project will have significant impacts on water resources, which may impact on the viability of the project and other water users, the project needs to consider:

- How much water will the project need during construction and operations?
- Who else in the vicinity of the project might be using water resources, either surface water or groundwater?
- Is the project located in an area of high water stress?

Water risk to a project is a combination of how much water is needed, and how much water is available. Water-intensive industries will not always be a risk—it depends on whether they are operating in an area where water resources are limited. Water risk to others from a project will depend on how many residents are dependent on water, and whether it is the same supply as that used by the project. This should be determined during impact assessment. As per PS3 Paragraph 9, the project should not have significant impacts on others. This is clarified further in [Guidance note 3](#), GN25: “The intent of this clause of Performance Standard 3 is that clients’ projects should not cause or contribute to unacceptable water stress on third parties (including local communities).”

Some industries that receive considerable levels of project-related financing and are highly dependent on water, have produced additional, sector-specific guidance. Examples include:

- The International Council on Mining and Metals ([ICMM](#)) [Water Stewardship](#) initiative covers water risk in the mining industry.
- IPIECA has prepared [extensive guidance on water use](#) in the oil and gas industry, including its [water management framework](#).
- The American Chemical Council has some guidance on [water risk assessments](#).
- The [Plastic Pollution Assessment Methodologies Suitability Tool](#) (PLAST) is a framework for evaluating the suitability of different plastic pollution risk tools for different circumstances. This may be of use when appraising whether a project has adequately evaluated potential plastic pollution.

Box 4: Data, baselines and data sharing.

Effective risk management at the project level is dependent on [accurate baseline information](#) on the state of nature in the project area of influence. [Efficient and robust field-based data collection](#) can benefit from a [risk-based approach](#). This uses an initial desktop analysis to determine potential priorities for further field investigation, rather than a generalist approach to collecting field data on a wide range of features.

One important source of desktop information is the Integrated Biodiversity Assessment Tool (IBAT). This portal combines information from the IUCN Red List, World Database on Protected Areas, and other global data sets. It produces non-scientific summary outputs that can be used by FI risk teams as an initial snapshot of the potential presence of threatened species or protected areas (e.g., National Parks) that may be impacted by an investment. This can provide an initial impression of risks prior to the project completing an impact assessment.

IBAT should also be used by project proponents, along with other data sources, such as scientific literature and [GBIF](#), to prioritize field studies. Another important consideration with biodiversity field studies is seasonality—surveys should be carried out at the right time to confirm the status of priority species. For instance, some invertebrates might only be detectable for a few weeks every year.

[Sharing non-competitive data, such as biodiversity data](#), in publicly available portals is not only reputationally good (being seen to support science), but also builds the base of information available for assessing risk. EP4 encourages FIs to share all suitable biodiversity data in public databases such as GBIF (noting that some countries might have national databases with legal requirements, or that provide a more appropriate location for data).

Value to an NBRA

Aggregated information from baseline studies can be included in the NBRA as part of the analysis of potential impacts on biodiversity or water resources. A project ecosystem services review should also reveal potential project dependencies on nature.

3.2.3 Impact assessment

The identification of potential priority biodiversity and ecosystem services should inform baseline studies (Box 4). These studies should focus on determining the actual status of these features in the area potentially influenced by project activities.

Baseline findings and project information will inform an environmental impact assessment (EIA). The EIA should determine the significance of potential impacts based on the magnitude and likelihood of such impacts.

EIAs are primarily concerned with the impacts and dependences of their proponent's direct operations. For example, for a mine development, the assessment of impacts is not concerned about upstream impacts, such as the supply of food to a mine or equipment. Assessment of direct operations as part of project finance should consider the impacts of construction and closure (i.e. not just the operational phase), and also assess direct and indirect impacts.

- **Direct impacts** of a project to nature are those from the development's physical presence—the footprint, noise, light and/or transport disturbance.
- **Indirect impacts of a project are induced impacts**, such as the additional impacts to water or biodiversity from spontaneous in-migration of people looking for work related to the project.

Some proceeds from project-related financing might be used to support the construction of processing facilities or similar. In this situation, IFC PS6 Paragraph 30 will apply, which requires the assessment of potential impacts from commodities purchased for primary production.

Mitigation measures that reduce significant impacts to acceptable levels need to be identified and implemented. For Critical Habitat, additional requirements apply as outlined in IFC PS6 Paragraphs 17 and 18, which state that the outcome of mitigation and potentially offset measures should be a Net Gain in the qualifying features. It is the responsibility of the project to demonstrate how Net Gain has been estimated, and how it will be achieved.

For priority ecosystem services upon which the project depends, the project "should minimize impacts on ecosystem services and implement measures that increase resource efficiency of their operations, as described in Performance Standard 3".

The project and its advisors will determine the impact of water use and pollution based on data provided by the project on water use, effluent and emissions. Mitigation measures will be prepared and implemented to manage these impacts and presented in the ESIA and associated documents. IFC PS Guidance Note 3 GN27 provides additional information: "If it is not technically feasible to mitigate adverse impacts adequately at the proposed project site then an alternative project site should be selected. If the cost of the technical measures required to meet the Performance Standard objective makes the project unviable, then an alternative project site should be selected."

As per IFC PS3 Paragraph 10, the release of pollutants must be controlled: "The client will avoid the release of pollutants or, when avoidance is not feasible, minimize and/or control the intensity and mass flow of their release."

The impact of pollution needs to be compared to the ability of the environment to assimilate emissions (IFC PS3 Paragraph 11). IFC PS Guidance Note 3 GN35 provides additional context: “When developing a new project that is expected to produce potentially significant emissions of pollutants, clients should evaluate whether the existing background ambient levels are in compliance with the relevant ambient quality guidelines and/or standards. Ambient quality standards are ambient quality levels established and published through national or local legislative and regulatory processes, and ambient quality guidelines refer to ambient quality levels primarily developed through clinical, toxicological, and epidemiological evidence (such as those published by the World Health Organization). Receiving water quality standards may be established on a site-by-site basis and will depend on receiving water quality objectives.”

Non-greenhouse gas pollution that might need to be investigated includes pollutants of air, water or soils. Persistent chemicals, such as some novel entities or heavy metals, can be of particular concern because even small amounts can lead to accumulation over time to levels that will have negative impacts on biodiversity or human health. These also present a regulatory risk with anticipated regulations, for example, around plastics and Perfluoroalkyl and Polyfluoroalkyl Substances ([PFAS](#)).

3.2.4 Mitigation planning

Mitigation planning will be presented in project Biodiversity Action Plans, Management Plans, and Monitoring Plans.

Should Critical Habitat be present, the project will need to prepare a [Biodiversity Action Plan](#) (BAP). This is the primary document outlining biodiversity mitigation measures and how Net Gain (Box 5) will be achieved. Management and Monitoring Plans are recommended as tools to guide implementation. These documents can be used by lenders to understand what a project intends to do, and to determine whether this is sufficient to manage the FI’s own risk.

Value to an NBRA

Data on which projects have BAPs and other action plans relevant to nature is of value in an NBRA to demonstrate how the FI’s clients are managing nature-related risks.

3.2.5 Reporting

The impact assessment, including any documentation to satisfy the requirements of IFC PS6, should be shared with lenders. A public summary will also be made available.

Regular biodiversity monitoring is required under IFC PS6, the design of which will be determined by the biodiversity features being monitored and the mitigations measures being employed. Results of the monitoring should be presented regularly to lenders and/or their independent advisors.

Box 5: Net Gain and biodiversity offsets

IFC PS6 requires that projects achieve 'Net Gain' of those biodiversity features that qualify an area as Critical Habitat. Net Gain means that the status of the feature (e.g., population size, extent of ecosystem, ecosystem quality) is better after the application of mitigation measures than it was before the initiation of the project. It is related to the 'Mitigation Hierarchy', in that it is only achieved *after* the application of measures to avoid, minimize, restore or offset negative impacts.

[Some companies](#) have made voluntary commitments to achieve Net Gain (or similar) in some circumstances. Furthermore, in many jurisdictions, Net Gain is an official requirement (e.g., the [English Biodiversity Net Gain](#) requirements, or in [South Africa](#)). Additional guidance is available for some sectors, including [mining](#), [renewables](#), [forestry and agriculture](#), and [oil and gas](#).

[Biodiversity offsets](#) are mechanisms to generate positive biodiversity outcomes to compensate for 'residual' impacts from developments that cannot be mitigated for. Best practice dictates that they generate lasting gains in the priority features that have been impacted by the project. They are still considered controversial by some stakeholders and their [effectiveness is debated](#), but they are well-established mechanisms endorsed by the IFC. Considerable literature and guidance has been prepared, for example from [ICMM for the mining sector](#). Some impacts [cannot be offset](#), for example, if they cause the global extinction of a species or destroy globally significant areas of an ecosystem. A project cannot meet the expectations of IFC PS6—and, therefore, Equator Principles requirements—if it is likely that potential impacts cannot be offset.

Value to an NBRA

Sharing public summaries of financed projects as part of NBRA reporting can help to demonstrate how an FI's clients have identified impacts, dependencies and risks relating to nature, and how they are being managed.

3.3 Assessing non-project elements of project-related finance

The previous sections of this document cover site-specific project finance structures and applicable non-recourse financing methods. The EP also apply to project-related corporate loans, acquisition or re-financing, where the majority of proceeds are used for a defined project. In all these cases, the project- and location-specific information relevant to the financing may be applied in the same way as for project finance, in many cases adding high-quality, nature-related risk data to the NRBA process.

In addition, and as part of the NRBA process, a review of the risks associated with other activities of the client (including those activities where the minority proportion of the project-related loan may be utilized), is recommended. Issues to consider in this additional assessment include:

- Does the company operate in a sector known to have potentially high impacts or dependencies on nature? For example, screen in ENCORE, or see Table 3.
- With regards to the quality and coverage of existing biodiversity-, water- and pollution-related policies, does the company follow leading practices (e.g., net-positive impact for biodiversity, or water neutral)? Do policies only apply to managed facilities or also to joint ventures? It may be necessary to review existing impact assessments and site action plans.
- Where are the client's existing operations relative to areas of biodiversity significance or water stress? Assessing this will require obtaining location data for a company's operations and screening with the tools suggested in section 3.1.1.
- Have there been any nature-related legal or regulatory infringements by the company?

The FI risk team will have to determine whether any issues identified present significant risks that may warrant deeper investigation, and potentially the inclusion of loan conditions to manage pre-existing issues.

4. The benefits of integrating project-related financing information into an NBRA

The entire economy depends on nature. PricewaterhouseCoopers (PwC) estimates that “55% of global GDP—equivalent to about USD 58 trillion—is moderately or highly dependent on nature”.²⁴ Thus, an FI’s business depends on functioning, predictable nature. For some FIs, such as those that have a significant number of clients from more highly nature-dependent sectors, this reliance is even greater. The loss of biodiversity, increased water stress, soil erosion and degradation, and other indicators of the decline in nature all present a clear risk to FIs. The natural capital that underpins FI clients is decreasing, threatening their financial security. Understanding and managing exposure to this nature-based risk is not just about good optics—and not just a potential regulatory expectation—but is vital for the long-term resilience of an FI.

Project finance has valued the importance of understanding and managing nature-based risk for longer than other aspects of finance. Including project finance and project-related financing within emerging approaches to assessing risk at a portfolio- or whole-FI level can reap several benefits, including:

- **Accessing in-house knowledge of nature-based risk**—project finance risk teams may already have experience of collecting and understanding nature-related data.
- **Encouraging a holistic view of risk**—nature-based risk is entwined with climate change risk and social risk; through the Equator Principles and IFC PS, project finance has taken an integrated approach for many years.
- **Providing a starting point of what you know**—the in-house knowledge and more readily available data on potential impacts and dependencies from project finance is a solid starting point for carrying out a nature-based risk assessment. The lessons learned from including project-related financing in initial iterations of a risk assessment will be valuable when other asset classes, clients or FI departments are included.

Overall, involving project financing risk teams has the potential to improve efficiency and enhance the quality of an NBRA by bringing in the FI’s existing knowledge, and using location-specific highly granular nature data. To enable this, those tasked with carrying out an NBRA at a corporate or portfolio level are strongly encouraged to reach out to their colleagues in project risk. These risk teams can start the process by enabling

24 Will Everson *et al.*, *Back to Nature and Biodiversity Managing Nature Risks: From Understanding to Action, Insight, Strategy+business* (pwc, 2023), pwc.com/gx/en/issues/esg/nature-and-biodiversity/managing-nature-risks-from-understanding-to-action.html

assessment-ready data, collating information on where project-related finance has clear impacts and dependencies on nature, and supporting colleagues in understanding and managing nature-based risk.

The long-term resilience of an FI will depend on understanding and managing nature-based risk. Incorporating project-related financing teams at the start of the process will help build solid foundation on which other elements can be built.

In summary, there are significant benefits to incorporating project-related financing teams, and the high-quality, location specific nature-related information sources that they steward, throughout an NBRA process. This will create a strong foundation on which to build a comprehensive and credible NBRA, allowing ongoing improvements, and enabling business-useful actions to be considered and implemented over time.

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Annex 1: Kunming-Montreal Global Biodiversity Framework links to the financial sector

The [Kunming-Montreal Global Biodiversity Framework](#) (GBF) is the most important global agreement on biodiversity to date. This intergovernmental treaty has four overarching goals for 2050, and 23 targets for 2030 that will help to reach the 2050 goals. Full implementation of the GBF by signatories could have implications for financial institutions (FIs), including all four of the 2050 Goals and several of the 2030 Targets. Goal D is potentially the most significant for business and finance:

“Adequate means of implementation, including financial resources, capacity-building, technical and scientific cooperation, and access to and transfer of technology to fully implement the Kunming-Montreal global biodiversity framework are secured and equitably accessible to all Parties, specially developing countries, in particular the least developed countries and small island developing states, as well as countries with economies in transition, progressively closing the biodiversity finance gap of the USD 700 billion per year, and aligning financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for Biodiversity.”

Additionally, through their influence (e.g., with clients), FIs can support Goal B:

“Biodiversity is sustainably used and managed and nature’s contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050.”

While many of the 2030 Targets are relevant to FIs, the most important are:

- **Target 19**—which concerns the mobilization of finance for biodiversity. Opportunities may arise for the finance sector in helping to meet this target. Part C of the Target 19 states how: “[by] leveraging private finance, promoting blended finance, implementing strategies for raising new and additional resources, and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments”.
- **Target 15**—which asks that signatories take action to encourage businesses to assess and disclose biodiversity-related risks. If implemented, there will be legal requirements for FIs and their clients to disclose.

Other targets are relevant to FI clients, such as those which, when implemented, may act as transition risks to clients, and so, pose a potential risk to investments. Key targets of note include:

- **Target 5**—the sustainable use of wild species. This influences sectors that extract wild resources, such as forestry and fisheries.
- **Target 7**—the reduction of pollution. This would not only impact the chemical and plastics sectors, but also other sectors, such as farming.
- **Target 10**—enhancing biodiversity in agriculture, aquaculture, fisheries and forestry.
- **Target 13**—benefit-sharing from genetic resources and digital sequence information. This could impact on the pharmaceuticals sector.
- **Target 14**—the integration of biodiversity into decision making. This is not just focused on policy and regulators, but also businesses and finance.
- **Target 18**—the reduction of harmful subsidies. This will impact sectors that have been historically highly subsidized, such as oil and gas, and farming.
- **Target 21**—ensuring that biodiversity data are accessible. Data collected as part of nature-based risk assessments (NBRAs) should be made public.

Further progress on implementing the GBF was made at Convention on Biological Diversity (CBD) COP16 in 2024 (and the continued negotiations in 2025). [This resulted in a new framework for mobilizing financial resources](#). The new biodiversity finance strategy outlines three priority actions for FIs:

1. Strengthening environmental and social safeguards:

Financial institutions must develop standard methods, principles, and guidelines for tracking, reporting, and disclosing biodiversity investments and impacts. This includes frameworks such as biodiversity credits and emerging disclosure standards.

2. Scaling up biodiversity investments:

Institutions should expand investments through impact funds, blended finance, and public-private partnerships to drive financial flows towards nature-positive solutions.

3. Enhancing transparency and disclosure:

Financial institutions should regularly assess and disclose their risks, dependencies, and impacts on biodiversity through nature-related disclosure frameworks and reporting standards.

Alignment with National Biodiversity Strategy and Action Plans (NBSAPs)

National Biodiversity Strategy and Action Plans ([NBSAPs](#)) are the national-level implementation documents for the CBD. They outline targets and actions a country will take to meet the GBF. Every signatory of the GBF is expected to prepare an NBSAP, providing guidance on each country's nature conservation priorities. Project-level interventions, particularly if biodiversity offsets are used, should align with national targets. For national banks, or FIs with significant presence in particular countries, NBSAPs can also provide additional information on specific risks or issues in each country. These can be used for identifying priority issues or risk to an FI operating in those countries. Some NBSAPs also include targets for private-sector investment in nature, and [the role of business and finance in meeting the NBSAP targets](#).

Annex 2: Nature-related opportunities

[Nature-related opportunities are increasingly available](#). These are not just opportunities that arise from avoiding risk, but a growing range of [investment and financial opportunities](#). A high-level summary of some potential opportunities includes (but is not limited to):

Regulated markets

In some jurisdictions, regulated nature markets are being developed. These provide direct opportunities to invest in nature recovery or conservation, usually through the returns made on the trade in forms of nature credits. Examples include [water markets in the USA](#) and Biodiversity Net Gain [credits in England](#). Most of these markets are nascent and it remains to be seen how successfully they deliver in terms of both financial returns and positive outcomes for nature.

Investment nature-related businesses

There has been a notable growth in the 'nature tech' sector since 2020. [Nature tech has been defined](#) as "any solution that enables, accelerates and scales the transition to a nature-positive economy". More loosely it can be any company that provides services supporting nature conservation and recovery. There are investment opportunities in companies that are providing solutions such as nature monitoring, reporting and verification (MRV), nature assessments, or nature restoration. Many nature-tech start-ups are following a venture capital (VC) route, with some specialist VC firms, such as Superorganism, also emerging to meet this market; for example, see [BNP Paribas' approach](#).

Forestry/regenerative production

The transition from high-impact and/or extractive production methods that have dominated the forestry and agricultural sector in recent decades in many parts of the world, to more regenerative approaches is providing opportunities for patient capital. Investment provides the up-front capital for transition (or covers short-term reductions in productivity), while long-term returns are generated from expected increased profitability of regenerative approaches.

Blended finance/bonds

There is a growing market for [nature-related bonds](#), some associated with blended finance of debt relief. Recent examples include the [Indonesia coral bond](#), [rhino bond](#) and [The Conservation Fund \(TCF\) Green Bonds](#).

Co-benefits to climate-related investments

Opportunities exist to enhance the positive biodiversity and water outcomes of climate-related investments. Biodiversity co-benefits from [natural climate solutions](#) can potentially enhance the value of a climate-investment and improve its resilience, as well as providing additional social benefits.

The time scale for nature recovery is inherently limited by ecology. This means that most opportunities for investment in nature yield relatively slow returns. As such, they are more suited to long-term, patient capital as part of a diversified portfolio.

Additional resources on nature-related opportunities

- [UNEP FI 2024 summary on the scale of private finance to nature.](#)
- [Financial Sector Guidebook on Nature-Based Solutions Investment: Aligning Investment With Impacts and Showcasing Examples](#)

Annex 3: Links to climate change and human rights

The different aspects of nature, biodiversity, water, soils and the climate are intrinsically linked. They are all part of an interconnected system with complex feedback loops. As such, the climate crisis and the biodiversity crisis are intimately related.

Climate change is identified by IPBES as one of the five main drivers of biodiversity loss. The inverse is also true with ecosystem conversion and species loss being a significant contributor to greenhouse gas emissions, and to reduced effectiveness in greenhouse gas sequestration. The role of nature in the mitigation of the impacts of climate change is also [widely acknowledged](#). IPBES and IPCC have produced robust [documentation on these links](#). For many businesses that have a small footprint, but are energy intensive, the impacts of climate change will be the most significant impact they have on biodiversity.

Impacts to nature can also carry significant social risks. This is most apparent where Indigenous People and local communities (IPLC) are closely dependent on the land and natural resources. Investments and projects that negatively impact natural resources can have significant economic and cultural impacts on the peoples who depend on them. There is an increasing body of evidence regarding the links between biodiversity loss and human health (the links between water, pollution and human health are more obvious). For example, a recent study indicates that there might be tens of thousands of heat-related deaths per year in the tropics attributable to forest loss.²⁵ Forest clearance can also contribute to the spread of zoonotic diseases.²⁶

The IPBES *Thematic Assessment Report on the Interlinkages among Biodiversity, Water, Food, and Health*, also known as the '[Nexus Report](#)', comprehensively presents the links between these topics and the implications for different stakeholders. Similarly, the concept of 'Planetary and Earth-system Boundaries' has gained notice in recent years. This approach has defined nine global systems that are fundamental for the maintenance of life on earth and are, therefore, grounding our economy. This unified view of interconnected systems has defined boundaries that, when breached, result in lasting negative impacts on society and the global economy (Box A1).

25 C. L. Reddington *et al.*, 'Tropical Deforestation Is Associated with Considerable Heat-Related Mortality', *Nature Climate Change* 15, no. 9 (2025): 992–99, doi.org/10.1038/s41558-025-02411-0

26 Serge Morand and Claire Lajaunie, 'Outbreaks of Vector-Borne and Zoonotic Diseases Are Associated With Changes in Forest Cover and Oil Palm Expansion at Global Scale', *Frontiers in Veterinary Science* 8 (March 2021), doi.org/10.3389/fvets.2021.661063

The Equator Principles have produced risk assessment guidance on [climate change](#) and [human rights](#), which can be used by FI risk departments to understand these issues within project finance.

The tight inter-relationship between nature, climate and people necessitates close coordination between resources deployed to understand and manage these different risk areas. The siloing of efforts to manage risk into separate, unconnected teams, will be inefficient at best, but can also lead to ineffective programmes to understand and manage risk. At worst, efforts to manage risk in one area can have significant negative impacts and risk in another. Examples include initiatives to address climate change that negatively impact biodiversity, such as tree plantations in natural grasslands, or efforts to manage human rights risks that have an unintended consequence of increasing pressure on biodiversity.

Box A1: Planetary and Earth-system Boundaries

[Planetary and Earth-systems Boundaries](#) are two related concepts that illustrate clearly the interconnectedness of different aspects of nature, with climate and human well-being. These science-based systems are designed to understand the fundamental limits of various bio-physical processes, and how these limits can be used to set policies and goals for a sustainable future.

Planetary boundaries were first proposed in 2009 and have since been refined. This concept presents nine domains, each with a safe operating space for planetary health: biosphere integrity; climate change; land-system change; freshwater change; nutrient cycles; ocean acidification; aerosol pollution; ozone; and 'novel entities' (which includes pollutants like plastic). There is a regular 'health check' of where we stand relative to these boundaries. A 2023 study determined that we have now exceeded the boundaries [for six of the assessed elements](#). Annual [Planetary Health Checks](#) will track the state of these boundaries.

Safe and Just Earth System Boundaries is a more recent evolution of planetary boundaries (first proposed in 2023), which considers human needs. These are boundaries that not only take into account the planetary cycles, but also minimizing human and nature's exposure to significant harm. Significantly, these have been developed with target-setting explicitly in mind. They can be used by an entity—country, city or company—to help determine what actions they can take to stay within the safe and just limits of each boundary. This framework focuses on: climate; biosphere (natural ecosystems and working landscapes); water (surface water and groundwater); nutrient cycles (nitrogen and phosphorus); and aerosol pollutants.

Safe and Just Earth System Boundaries provides a framework for FIs and their clients to understand the different elements of the natural world they interact with and, therefore, where to target action. A strategy that focuses only on climate, ignoring the other boundaries, will not adequately address risk. Holistic approaches are needed to combat these interacting crises. The recent Planetary Health Check showed we are exceeding these boundaries, but results are reversible. An NBRA can help an FI identify the risks of exceeding the boundaries, and guide strategies to bring the Earth back within them.

Annex 4: Reporting frameworks

The following frameworks are notable at the time of publication:

[Sustainable Finance Disclosure Regulation \(SFDR\)](#)

The SFDR is a European Union (EU) regulation aimed at improving transparency over the sustainability claims of financial product. It is aimed at asset managers, institutional investors, pension funds and insurance, in particular. There are varying levels of disclosure required, depending on whether the product has specific sustainability claims, or is a more mainstream product. For sustainability-linked products, for example, there are stricter requirements for how environmental factors and risks are considered in the product disclosure documents.

[Taskforce on Nature-related Financial Disclosures \(TNFD\)](#)

The TNFD is a voluntary framework for businesses, including FIs, to disclose on their nature-related risks and opportunities. The TNFD provides a standardized framework, with additional sector- and biome-specific guidance. It is possible that the TNFD disclosures could become mandatory in some jurisdictions, or as requirements for listing on stock exchanges.

The key elements of the TNFD include:

- Double materiality.
- The LEAP approach to Locate, Evaluate, Assess, Prepare on risks.
- Disclosure is expected for four pillars: Governance, Strategy, Risk and Impact Management, and Metrics and Targets.

The TNFD is designed to be interoperable with other standards, including:

- TCFD.
- ISSB (IFRS S1 and S2).
- CSRD/ESRS.

Corporate sustainability reporting directive (CSRD)

CSRD is an EU regulation that will affect companies above a given size which are headquartered in the EU, listed on an EU stock exchange, or have a significant presence in the EU. The directive mandates minimum requirements for sustainability reporting through a set of [European Sustainability Reporting Standards](#) (ESRS). Users will determine whether a given issue is material to their business and, therefore, where they need to disclose.

- ESRS 2 concerns pollution.
- ESRS 3 concerns water and marine resources.
- ESRS 4 concerns biodiversity and ecosystems.

ESRS lay out the expectations of identifying risk and opportunities, including what metrics are used, and targets and actions to address impacts and risks. As of November 2025, the CSRD entered a period of revision.

[International Sustainability Standards Board \(ISSB\)](#)

ISSB is a standard-setting body that is developing a comprehensive set of sustainability reporting standards. Two standards have been prepared to date. IFRS 1 is a general standard that expects companies to disclose information about all sustainability-related risks and opportunities that could reasonably affect their enterprise value; this may include nature-related risks (note the focus of IFRS 1 in single materiality only). IFRS 2 is focused on climate-related reporting.

ISSB has commenced work on a nature-related standard, but this will not be finished for some time. In the meantime, TNFD is coordinating with ISSB to ensure interoperability.

[Global Reporting Initiative \(GRI\)](#)

GRI is a standardized framework for sustainability reporting with a focus on impact materiality, i.e. the effects of the organization on the environment and people, rather than financial impacts. It can be completed by FIs and their clients. There is a set of core, universal standards, as well as a set of topic-specific standards covering key issues, such as sectors (e.g., energy) or topics. Biodiversity is covered by [GRI 101](#), a new topic standard on pollution is under development, and water issues are covered in [GRI 303](#). GRI is preparing a new [sector standard for Financial Services](#), expected in 2026. It is anticipated that this will include nature as a topic for FIs to report on.

[CDP](#)

CDP (formerly Climate Disclosure Project) is a voluntary disclosure framework whereby companies complete questionnaires on topics including climate, water and forests. Additional questionnaires are reportedly under development covering biodiversity and oceans. CDP disclosures can be a valuable resource for understanding client awareness of environmental issues.

[Nature Action 100](#)

Nature Action 100 is an initiative aimed at supporting institutional investors to engage with the companies in which they invest. It focuses on 100 companies deemed to have major impacts and dependencies on nature, who are encouraged to assess and disclose on nature-related impacts (among other aspects).



Annex 5: Glossary

This is a short glossary of key terms used in this document.

More comprehensive glossaries are available from:

TNFD	tnfd.global/publication/glossary/
SBTN	sciencebasedtargetsnetwork.org/wp-content/uploads/2023/05/SBTN-Steps-1-3-Glossary_2023.docx-1.pdf
UNEP-WCMC	biodiversitya-z.org/

Term	Definition	Reference
Biodiversity	'Biological diversity' means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems.	cbd.int/convention/articles?a=cbd-02
Biodiversity credit	Biodiversity credit is a certificate representing a verifiable, measured unit of positive biodiversity outcome that is durable and would not have occurred otherwise, serving as a financial instrument to fund conservation and restoration activities. (BCA definition)	biodiversitycreditalliance.org/wp-content/uploads/2024/05/Definition-of-a-Biodiversity-Credit-Rev-220524.pdf
Biodiversity offset	Measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure and ecosystem function and people's use and cultural values associated with biodiversity. (BBOP definition)	forest-trends.org/bbop/bbop-key-concepts/biodiversity-offsets/
CBD	Convention on Biological Diversity	cbd.int/
Critical Habitat (sensu PS6)	Areas with high biodiversity value, including (i) habitat of significant importance to Critically Endangered and/or Endangered ¹¹ species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes.	ifc.org/en/insights-reports/2012/ifc-performance-standard-6
Dependencies	Dependencies are aspects of environmental assets and ecosystem services that a person or an organization relies on to function.	SBTN
Direct impacts	Impacts directly attributable to a project or action.	iaia.org/wp-content/uploads/2025/02/BEST-PRACTICE-Biodiversity-Ecosystem-Services.pdf
Direct operations	All activities and sites (e.g., hydropower plants, buildings, mines, farms, stores) over which a company has operational or financial control.	TNFD
Double materiality	Two dimensions of materiality: impact materiality and financial materiality, i.e. impacts of nature, and impacts/dependencies on an institution from nature.	TNFD

Term	Definition	Reference
Downstream	All activities that are linked to the sale of products and services produced by an institution.	Adapted from SBTN
Ecosystem services	Benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation, and disease; supporting services such as soil formation and nutrient cycling; and cultural services such as recreational, spiritual, religious and other non-material benefits.	millenniumassessment.org/en/index.html
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.	CBD
Indirect impacts	Impacts resulting from the project that may occur beyond or downstream of the boundaries of the project site and/or some time after the project activity has ceased.	iaia.org/wp-content/uploads/2025/02/BEST-PRACTICE-Biodiversity-Ecosystem-Services.pdf
Induced impacts	Impacts that are not directly attributable to the project, but are anticipated to occur because of likely socioeconomic changes (and thus patterns in biodiversity and resource use) catalyzed by the presence of the project.	iaia.org/wp-content/uploads/2025/02/BEST-PRACTICE-Biodiversity-Ecosystem-Services.pdf
GBF	Kunming-Montreal Global Biodiversity Framework	
LCA	Life Cycle Assessment	
Leakage	A collateral effect caused when an environmental policy indirectly triggers impacts that go against its aims, thus reducing the overall benefit of the intervention.	iopscience.iop.org/article/10.1088/1748-9326/ab4551/meta
Metric	A system or standard of measurement.	cbd.int/doc/meetings/ind/ahteg-sp-ind-01/other/ahteg-sp-ind-01-bipnational-en.pdf
Mitigation hierarchy	The sequential use of impact avoidance/prevention, then minimization, restoration of damage, and offsets or compensation, to ensure no adverse effects.	iaia.org/wp-content/uploads/2025/02/BEST-PRACTICE-Biodiversity-Ecosystem-Services.pdf
Nature	Both the non-living components (i.e. geodiversity) and the living components (i.e. biodiversity) of the natural world.	iucn.org/sites/default/files/2025-01/meaning-of-nature_pdf-final.pdf
Nature-related opportunities	Activities that create positive outcomes for organizations and nature by creating positive impacts on nature or mitigating negative impacts on nature.	media.wwf.se/uploads/2022/05/wwf-a-biodiversity-guide-for-business.pdf

Term	Definition	Reference
Net Gain	A situation where the biodiversity gains from mitigation measures exceed the negative impacts on biodiversity caused by the project.	iaia.org/wp-content/uploads/2025/02/BEST-PRACTICE-Biodiversity-Ecosystem-Services.pdf
Physical risk	Risks resulting from the degradation of nature (such as changes in ecosystem equilibria, including soil quality and species composition) and consequential loss of ecosystem services that economic activity depends upon.	TNFD
Planetary boundaries	Nine processes that together maintain a stable and resilient Earth system.	stockholmresilience.org/research/planetary-boundaries.html
Pollution	The indirect or direct alteration of the biological, thermal, physical, or radioactive properties of any medium in such a way as to create a hazard or potential hazard to human health or to the health, safety or welfare of any living species.	leap.unep.org/en/knowledge/glossary/pollution
PRB	Principles for Responsible Banking	unepfi.org/banking/bankingprinciples/
Project	A development in any sector at an identified location (the location does not need to be contiguous—a Project may be located over one or more geographic areas). It includes an expansion or upgrade of an existing operation.	EP4
Project finance	A method of financing in which the lender looks primarily to the revenues generated by a Project, both as the source of repayment and as security for the exposure.	EP4
Project-related finance	Financing, made to business entities (either privately, publicly, or state-owned or controlled) related to a Project, either a new development or expansion (e.g., where there is an expanded footprint). Includes Project-related corporate loans, project-related refinance, and project-related acquisition finance.	EP4
Protected area	A geographically defined area which is designated or regulated and managed to achieve specific conservation objectives.	CBD
Reputational risk	Changes in perception concerning an organization's actual or perceived nature impacts, including at the local, economic and societal level. This can result from direct company impacts, industry impacts and/or impacts of activities upstream and/or downstream in a value chain.	TNFD

Term	Definition	Reference
SBTN	Science-based Targets Network	
Sensitive area/ location	Locations where the assets and/or activities in an organization's direct operations—and, where possible upstream and downstream value chain(s)— interface with nature in: Areas important for biodiversity; and/or Areas of high ecosystem integrity; and/or Areas of rapid decline in ecosystem integrity; and/or Areas of high physical water risks; and/or Areas of importance for ecosystem service provision, including benefits to Indigenous Peoples, Local Communities and stakeholders.	RNFD
Systemic risk	Risks arising from the breakdown of the entire system, rather than the failure of individual parts.	TNFD
Threatened species	Umbrella term for any species categorized as Critically Endangered, Endangered or Vulnerable by the IUCN Red List of Threatened Species.	portals.iucn.org/library/node/10315
TNFD	Taskforce on Nature-related Financial Disclosure	
Transition risk	Risks to an organization that stem from a misalignment of economic actors with actions aimed at protecting, restoring, and/or reducing negative impacts on nature.	TNFD
UNEP FI	United Nations Environment Program Finance Initiative	
Upstream	All activities associated with suppliers, such as production or cultivation, sourcing of power, commodities or goods, and the transportation of commodities to manufacturing facilities.	Adapted from SBTN
Value chain	A value chain encompasses the interactions, resources and relationships an entity uses and depends on to create its products or services from conception to delivery, consumption and end-of-life, including interactions, resources and relationships in the entity's operations, such as human resources; those along its supply, marketing and distribution channels, such as materials and service sourcing, and product and service sale and delivery; and the financing, geographical, geopolitical and regulatory environments in which the entity operates.	TNFD



The Equator Principles (EPs) are a risk management framework for financial institutions to identify, assess and manage environmental and social (E&S) risks when financing Projects. First launched in 2003 by 10 founding financial institutions, more than 125 financial institutions are now Signatories to the EPs. Governed by a Steering Committee and supported by the Office of the EPs, the EPs are legally represented by Equator Principles Ltd.

The EP community facilitates the development of technical guidance and related resources. It also provides opportunities for training, knowledge sharing, and discussion through Working Groups to support Signatories to consistently implement the EP framework using their own independent decision making. The EP network of dedicated and experienced E&S practitioners drives positive change across project finance, project finance advisory services, project-related corporate loans, project-related acquisition and refinance, and bridge loans as defined in the current version of the EPs (EP4) dated July 2020.

UNEP Finance Initiative brings together a large network of banks, insurers and investors that catalyzes action across the financial system to deliver more sustainable global economies.

For more than 30 years the Initiative has been connecting the UN with financial institutions from around the world to shape the sustainable finance agenda. We've established the world's foremost sustainability frameworks, helping the finance industry achieve sustainability goals, address sustainability risks and identify the business opportunities in taking a responsible approach to banking and insurance.

Convened by a Geneva, Switzerland-based secretariat, more than 550 banks and insurers are individually implementing UNEP FI's Principles for Responsible Banking and Principles for Sustainable Insurance. Financial institutions work with UNEP FI on a voluntary basis to apply these industry frameworks and develop practical guidance and tools that drive institutional change, shaping the future of sustainable finance and positioning their businesses for the transition to a sustainable and inclusive economy. In parallel, UNEP FI also drives systems change and fosters enabling conditions in service of the broader mission to mobilize and align private finance to help achieve the UN Sustainable Development Goals.

Founded in 1992, UNEP FI was the first organization to engage the finance sector on sustainability and incubated the Principles for Responsible Investment, now the world's leading proponent of responsible investment.

Today, we cultivate leadership and advance sustainable market practice while supporting the implementation of global programmes at a regional level across Africa & the Middle East, Asia Pacific, Europe, Latin America & the Caribbean, and North America.

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