

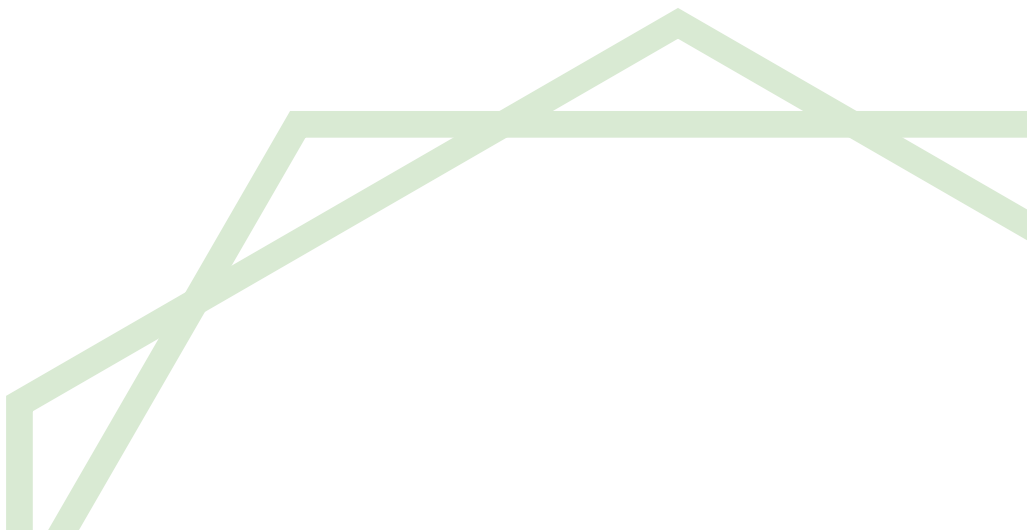


ACCOUNTING FOR
SUSTAINABILITY

MANAGING NATURE RISKS AND INVESTING IN THE OPPORTUNITIES

TOP TIPS FOR PENSION FUND CHAIRS
AND TRUSTEES

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FOREWORD



Russell Picot, Chair of the HSBC Bank (UK) Pension Scheme and Chair of A4S's Asset Owners Network

As chairs and trustees of pension funds and other retirement vehicles, we are responsible for overseeing billions of dollars of investments that cover all parts of the global economy. As such, we have an important role to work to ensure an economy that operates within the ecological boundaries of our planet, serving a healthy society. If we fail to achieve this, then the markets on which we rely may well demonstrate increasing volatility and suffer from lower risk-adjusted returns.

Business as usual that prioritizes short-term financial incentives over long-term considerations may lead to considerable damage to our planet. This in turn is likely to cause damage to our economy, alongside the human and ecological costs. As pension fund chairs, we have a duty of care to our beneficiaries to identify and act on significant systemic risks which would have a financial cost to our portfolio. But how should we do this? What to focus on first? And how to make sure our actions are amplified throughout the markets?

As Chair of the A4S Asset Owners Network, I work with many of my peers to look at challenges such as these and how we can learn from each other in order to improve our own investment decision-making processes. What is clear to me is that our work to embed climate-change

considerations into our investment decisions needs to be accompanied by action to address the risks arising from the worrying decline in ecosystems and biodiversity. We are facing twin crises, and we need to address them together. As a universal owner, I know that the impact of these risks will be felt throughout my portfolios – directly or indirectly. Therefore, understanding how my investee companies are addressing the nature-related risks (as well as climate-related) in their business is critical to how we manage these risks.

This guide is written for us custodians, providing practical steps in how to get started, how to price nature into financial risks and, importantly, how to look at the opportunities as a driver for action.

While we have many barriers to effective action still to overcome – such as data or, indeed, inertia – progress is being made towards tackling these challenges and protecting our global ecosystem. The recent launch of the Taskforce on Nature-related Financial Disclosures is a key milestone to providing a consistent, global approach. This is an important first step, and while we may not have all the answers, the urgency of our planet's needs demands urgent action. We need to be bold in how we re-examine traditional approaches to investment decision making and not unduly constrained by the availability of only limited amounts of data before we take action. We need to start our work now!



David Craig, Co-Chair, Taskforce for Nature-related Financial Disclosures (TNFD)

A majority of the vital ecosystem services on which business, the economy and society depend are in decline, posing new and immediate risks for businesses and capital providers. For universal owners these risks will manifest throughout their portfolios. Various biodiversity and impact assessment studies have shown that between 35% and 54% of assets held by financial institutions are highly or very highly dependent on ecosystem services, according to OMFIF's Sustainable Policy Institute. It is important then to understand how individual investee companies are dealing with the nature challenge and to develop a global view of how the economy will evolve in the face of declining ecosystems.

The Taskforce on Nature-related Financial Disclosures (TNFD) provides a basis to reflect and redesign engagement strategies, manage nature risks, and develop investment in relevant opportunities. For many pension funds, this is integral to a continued and financially sustainable return on investment: the future of the planet, and the industries which rely on its nature and biodiversity, will directly impact the financial health of businesses and investments. Importantly, nature-related opportunities will continue to grow for pension funds and finance overall, as flows of capital shift to align with net zero and nature positive goals. In addition to strategic decisions

about investments, managing nature-related issues using TNFD can also lead to adjustments in existing portfolios towards more sustainable outcomes.*

Starting now is better than not starting at all – understanding and addressing the ways in which nature and climate interface with finance can no longer be delayed. The TNFD aims to make this process as streamlined as possible by: building on the structure and approach of the Task Force on Climate-related Financial Disclosures; aligning with Target 15 of the Kunming-Montreal Global Biodiversity Framework; and being consistent with the Global Reporting Initiative and the International Sustainability Standards Board. In addition, we have published sector guidance for financial institutions, to help pension funds, investors, asset owners and asset managers understand how to apply the TNFD recommendations to their portfolios. With these tools, pension funds can take steps to understand their risks and impacts on nature to enable better decision making and realize opportunities to invest in the future.

* Pensions Expert (2023, 4 October), [How to invest in natural capital](#)

ABOUT THIS GUIDANCE

This ‘top tips’ guide is written for pension fund chairs and trustees to provide you with peer-tested, practical actions to align your pension fund(s) with a nature-positive approach. The guide also lays out why embedding nature-related considerations is compatible with upholding your fiduciary duty to act in the best interests of your members.

While this guide contains mainly European examples, the suggested top tips are applicable to asset owners globally (subject to local regulatory frameworks), including pension funds, sovereign wealth funds and family offices.

This guide:

- Defines why nature is a financial and fiduciary risk
- Provides an overview of some of the key frameworks and tools, and how these relate to each other
- Provides some top tips from pension fund chairs and trustees who are currently embedding nature into their investment and strategic decision-making processes

In the context of this guide, we have predominantly used the terms ‘nature’ and ‘nature-related’ to include biodiversity, nature resources and habitat.

NB: Details on investment strategies presented in this guide are for informational and illustrative purposes only and do not constitute professional advice.

INTRODUCTION

Nature is in crisis – which presents a financial and fiduciary risk

A thriving natural world is essential for our health, our livelihoods, and the resilience of our supply chains and economy. While some sectors are particularly dependent on nature, all companies rely on some ecosystem services, such as fresh water and clean air. Nature is also essential to the fight against catastrophic climate breakdown, helping to absorb the greenhouse gas emissions that we put into the atmosphere and protecting us from the physical impacts of a warming climate.

Yet nature's lack of visibility in our financial system means that it is being destroyed at a faster pace than any time in human history. Approximately one million plant and animal species are threatened with extinction, and the WWF's Living Planet Index shows a 69% average decline in global wildlife populations between 1970 and 2018.¹ The World Economic Forum estimates that half of the world's economic output, US\$44 trillion, is highly or moderately dependent on nature, and is therefore at risk.² The European Central Bank estimates that 72% of eurozone companies and three-quarters of bank loans are exposed to loss of biodiversity.³

Without urgent action, the resulting collapse in ecosystems and biodiversity presents an existential risk to the economy. The size of the economic and financial risks mean that oversight of nature-related risks is an important part of an asset owner's fiduciary duty.

The direct and indirect financial consequences of nature-related risk can be classed similarly to climate-related risks.

- **Physical risks** – this relates to physical risks from the degradation of nature and the resulting loss of ecosystem services (those directly dependent on nature). These include acute risks (eg forest fires) and chronic risks (eg climate change or pollution from pesticide use). In addition, destruction of ecosystems can accelerate climate change and increase vulnerability to it.

- **Transition, including (legal) liability risks** – investments can be negatively affected by regulatory changes or increasing demands from consumers to address environmental harms. These changes can be abrupt or disorderly, impacting business lines, supply chains and profitability, and they can even lead to stranded assets. Business activities that lead to biodiversity losses or infringements of regulations can lead to legal liabilities or, at the very least, reputational damages.
- **Systemic risks** – arising from the breakdown of the entire system, such as ecosystem stability risk and financial stability risk.⁴

Separately or together, these risks can disrupt business activities or the value chain, lead to price volatility (inflation) or destroy value. Loss of natural habitat can significantly increase the vulnerability to extreme weather, affect the health of local communities, and, at a larger scale, heighten the risk of epidemics and pandemics. These risks, as we've seen with COVID-19, can have significant and global economic impacts.

Nature as an investment opportunity

With over 50% of global GDP highly or moderately dependent on nature,⁵ nature also represents a significant investment opportunity. Investments can be made directly in nature for its 'services' (eg our food systems or forests). Investments can also be related to 'goods' (eg bioplastics or clothing/textiles). The growing awareness of the need to preserve and replenish nature also creates scope for investments in using or supporting nature more efficiently. For example, 'smart' agriculture, which uses less chemicals and water, or improvements in waste management services.

Direct investment in nature, and in forests and wetlands in particular, is increasingly recognized for its ability to be part of the solution to climate change, through natural carbon sequestration (often referred to as nature-based solutions). The growing market for carbon credits offers payment

¹ WWF (2022), [Living Planet Report 2022](#)

² World Economic Forum (2020), [Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy](#)

³ Elderson, F (2023, 8 June), [European Central Bank, The economy and banks need nature to survive](#)

⁴ TNFD (2023), [Recommendations of the Taskforce on Nature-related Financial Disclosures \(TNFD\)](#)

⁵ PwC (2023, 19 April), [PwC boosts global nature and biodiversity capabilities with new Centre for Nature Positive Business, as new research finds 55% of the world's GDP – equivalent to \\$58 trillion – is exposed to material nature risk without immediate action](#)

where this carbon capture can be certified and audited. The equivalent payments for biodiversity credits are not as well established yet but are starting to develop.

The regulatory landscape

Governments and regulators are increasingly recognizing the scale of the nature challenge and the economic consequences if it is left unchecked. In 2022, 188 governments around the world agreed a set of global policy goals and targets for nature – the Kunming-Montreal 2022 Global Biodiversity Framework. This has been seen as a seminal moment in shifting the focus on environmental issues to include nature alongside climate, and has set the scale of ambition for future guidance and regulation.



The Kunming-Montreal 2022 Global Biodiversity Framework

Often dubbed the ‘Paris Agreement for Nature’, the Kunming-Montreal 2022 Global Biodiversity Framework was adopted during COP15, the United Nations Biodiversity Conference held in 2022.

The framework sets out four key goals:

1. Restoring ecosystems
2. Supporting sustainable use
3. Engaging local communities
4. Promoting financial investment

Underpinning these goals are 23 targets all to be achieved by 2030, including conserving at least 30% of land and inland waters, at least 30% of marine and coastal areas, and restoring at least 30% of degraded ecosystems. There are also three financial targets: promoting the integration of biodiversity into investment decision making (target 14), disclosure of biodiversity-related risks, dependencies and impacts (target 15), and direct private-sector investment (target 19).

Our blog post on COP15, [Key outcomes from the COP15 UN Biodiversity Conference](#), goes into more detail about what this means for businesses.

The global regulatory ecosystem is increasingly developing consultations and legislation to better protect nature and to increase the reporting requirements and expectations of both corporations and the financial sector. Often, regulators are leveraging the progress that has been made on climate change regulation to help deliver on the Global Biodiversity Framework goals in the broader context of our financial dependency on nature. Many recent developments on regulation and on standard-setting and guidance have been made.

Regulation:

- The European Commission has adopted the European Sustainability Reporting Standards (ESRS) for use by all companies subject to the Corporate Sustainability Reporting Directive. This is in addition to other related EU regulations, including the Sustainable Finance Disclosure Regulation (SFDR). Under these requirements, companies and financial institutions with substantial activity in the EU must now make nature-related disclosures.
- The EU Regulation on deforestation-free products, in force as of 29th June 2023, seeks to ensure that the products consumed by EU citizens do not contribute to deforestation or forest degradation worldwide.
- The European Commission has proposed a continent-wide ‘Nature Restoration Law’ for the long-term recovery of nature in the EU’s land and sea areas, with binding restoration targets for specific habitats and species.
- The UK’s Financial Services and Markets Act 2023 places a duty on the Financial Conduct Authority and the Prudential Regulation Authority to have regard to the government’s statutory net zero targets and environmental targets in relation to air quality and particulate levels, water, biodiversity and species abundance, resource efficiency, and waste reduction.
- Other regulators, such as those in India and Brazil, already require nature-related corporate disclosures or have signalled their intention to introduce nature-related disclosure requirements. Article 29 of the French law on Energy and Climate requires French financial institutions to disclose both climate- and biodiversity-related risks.

Standard-setting and guidance:

- The International Sustainability Standards Board (ISSB) has issued its first two IFRS Sustainability Disclosure Standards: IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures. While neither standard focuses on nature specifically, IFRS S1 refers to sustainability as a whole, and the ISSB has recently consulted on which areas to prioritize, suggesting biodiversity, ecosystems and ecosystem services as potential options.⁶
- The Taskforce on Nature-related Financial Disclosures (TNFD) published a framework to help companies disclose the risks, opportunities, dependencies and impacts of their activities on nature, aligning with the goals and targets of the Kunming-Montreal 2022 Global Biodiversity Framework.
- The Network of Central Banks and Supervisors for Greening the Financial System (NGFS) released a paper in September 2023 – Nature-related Financial Risks: A Conceptual Framework to Guide Action by Central Banks and Supervisors. This paper summarizes how nature loss affects, and is affected by, the financial sector. It also categorizes climate risk as a subset of nature risk. It will almost certainly form the basis of further guidance and regulation of financial institutions and markets.
- The Science Based Targets Network (SBTN) released its first science-based targets for nature, which are being piloted in 2023 with the aim of a full rollout in early 2024.

As the regulatory and standard-setting landscape continues to evolve, so will regulators' expectations of both companies and financial institutions. Keeping abreast of these changes is recommended, and an area in which trustees should ask for support from their advisers.

⁶ See our [A4S response to ISSB consultation on agenda priorities](#)



A spotlight on the Taskforce on Nature-related Financial Disclosures

The TNFD is a global, market-led, science-based initiative established in 2021. It seeks to:

- Provide companies and financial institutions of all sizes with a risk management and disclosure framework to identify, assess, manage and, where appropriate, disclose nature-related issues
- Balance the need for transparency and comparability for investors with simplicity and flexibility for report preparers
- Support a shift in global financial flows away from nature-negative outcomes and towards nature-positive outcomes

Following a two-year process of development, consultation and pilot testing, the final framework was released in September 2023. It leverages the TCFD framework, structuring 14 recommended disclosures into four pillars:

Governance	Strategy	Risk & impact management	Metrics & targets
Disclose the organisation's governance of nature-related dependencies, impacts, risks and opportunities.	Disclose the effects of nature-related dependencies, impacts, risks and opportunities on the organisation's business model, strategy and financial planning where such information is material.	Describe the processes used by the organisation to identify, assess, prioritise and monitor nature-related dependencies, impacts, risks and opportunities.	Disclose the metrics and targets used to assess and manage material nature-related dependencies, impacts, risks and opportunities.

Figure 1: The four pillars of TNFD recommended disclosures (source: TNFD)

The TNFD recommendations and additional guidance draws from, and feeds into, pre-existing frameworks, including standards from the IFRS's ISSB and the GRI standards. By using pre-existing tools, definitions and metrics, TNFD aims to avoid duplication and support the creation of a coherent global framework for nature-related risk management and disclosure. It is currently voluntary, but coverage is expected to grow rapidly and become embedded in sustainability reporting standards.

To support the development of nature-related disclosures, the taskforce also developed its LEAP approach to help companies identify and evaluate the key elements of their assessment and reporting:



Figure 2: The LEAP approach (source: TNFD)

Companies that have piloted the TNFD have found that the LEAP approach has helped them develop their understanding and approach to nature-related risks. For these companies, LEAP has become part of their governance and risk management.

Finally, TNFD has published specific guidance for the financial sector that recognizes the difficulty of producing quantitative disclosures without consistent data from an entity's underlying investments. The guidance includes recommendations for global metrics on areas such as greenhouse gas emissions, water usage, pollution and changes in land use. At the sector level, TNFD recommends calculating exposures to companies in high-risk sectors or locations. At the next level down, additional metrics may include assessments of an individual company's risk policies and practices, but the TNFD guidance acknowledges that this information is not readily available.

TOP TIPS FOR CHAIRS AND TRUSTEES ON MANAGING NATURE RISKS AND INVESTING IN THE OPPORTUNITIES

As a significant financial risk, managing nature-related risks is an important part of trustees' fiduciary duty. However, despite a recent increase in guidance and tools, there is currently no off-the-shelf dashboard that you can use to embed nature-related considerations at the portfolio level.

For individual companies within a portfolio, the TNFD recommendations and additional guidance will help identify the most important risks and opportunities that they face, and their approach to managing and mitigating them. So it is important to encourage the adoption of these methods throughout the investment chain, to help drive high uptake. This will increase the flow of disclosures, enable companies to identify risks and encourage the embedding of nature into corporate decision making.

Addressing data limitations

The TNFD recommendations are specific to an individual corporation and will reflect the idiosyncrasies of its location and its interactions with individual ecosystems. Even as reporting improves, nature-related metrics are unlikely to aggregate into a simple portfolio dashboard. For many years yet, investors will have to think differently about how best to manage nature-related risks and invest in nature-related opportunities.

As an industry, we have grown to expect that robust data, supported by sophisticated tools and metrics, will drive our investment decisions. Incomplete data and complex metrics present a challenge to this traditional approach, which can result in inaction and avoidance. However, nature-related risks and opportunities are often straightforward to identify – they are just hard to quantify.

We need to take a different approach to nature, focusing on step-by-step actions and investing in opportunities rather than managing aggregated metrics. For example:

- **Focus on material risks** – rather than a dashboard ranking of all risks in order, start by identifying where some common risks may be material and then investigate how to manage these better. It is not about defining an acceptable level of risk but instead about identifying where nature is being destroyed within your portfolio and the direct and indirect impact of this damage across your portfolio. You can then investigate ways to reduce or reverse the damage.
- **Embrace investment opportunities** – seek investment opportunities that are suitable for your portfolio, then start investing. Investing in nature is not a substitute for managing nature-related risks, but any portion invested is nature positive rather than nature negative and helps to address the financing gap.
- **Recognize the limited role of metrics** – metrics can guide the broad direction of our efforts (ie reducing harm or increasing gain). But they are not complete measures and focusing on a specific metric could have unintended consequences. For example, a focus on measuring canopy cover might lead to planting a single type of faster-growing tree rather than supporting a diverse blend of different plants which would help to stabilize the wider ecosystem, increase soil fertility and provide a wide range of habitats for other species.

To guide pension trustees through this approach, we have provided five top tips around deepening your knowledge, controlling the risks and investing in the opportunities. Even if you can't yet do all of it, the most important thing is to start now.

TOP TIPS

1. DEEPEN YOUR, AND YOUR BOARD'S, UNDERSTANDING OF NATURE-RELATED RISKS AND OPPORTUNITIES

2. GET STARTED BY IDENTIFYING ONE KEY RISK AND OPPORTUNITY

3. MANAGE THE PORTFOLIO RISKS

4. ENGAGE AT BOTH A MICRO- AND MACRO-STEWARDSHIP LEVEL

5. INVEST IN THE OPPORTUNITIES

TOP TIP ONE: DEEPEN YOUR, AND YOUR BOARD'S, UNDERSTANDING OF NATURE-RELATED RISKS AND OPPORTUNITIES

Explore examples of nature-related risks and their financial consequences

Lead your board in exploring how nature-related risks can be real, material and have a financial impact, as well as how business-as-usual investment decisions are impacting nature and its precipitous decline. Consider different aspects of nature-related risks, exploring the associated investment risks and opportunities – see Table 1 for examples.

Aspect of nature-related risk	Associated investment risks	Associated investment opportunities
Water pollution	<ul style="list-style-type: none"> • Polluted rivers may impact nearby property values (real asset portfolio) or service activities such as tourism • Regulations (eg restrictions and taxes) may directly impact local businesses or those supplying chemicals responsible for the pollution • Shutting down or reducing food production could increase inflation and geopolitical conflicts 	<ul style="list-style-type: none"> • Business opportunities may arise from those that help purify water or provide smarter, less-polluting techniques
Climate change	<ul style="list-style-type: none"> • Failure to preserve and regrow nature will result in failure to meet net zero climate goals • This will magnify climate-related risks – both transitional risks (eg more regulation) and physical risks (eg extreme weather damage) 	<ul style="list-style-type: none"> • Investing in forestry and other nature-based solutions can create both positive nature and carbon sequestration • Suitably certified and audited investments may provide carbon credits as an additional revenue source
Health	<ul style="list-style-type: none"> • Greater risks of pandemics with significant global disruptions and economic impacts • Greater regulation and control of business activities including greater costs from controlling air or waste pollutants 	<ul style="list-style-type: none"> • Investing in sustainable ecosystem uses to avoid habitat encroachment (eg ecotourism and deforestation-free agricultural practices) • Developing alternatives to intensive antibiotic use in livestock

Table 1: Investment risks and opportunities linked to nature-related risks

Identify your pension fund's training needs – from board-level down

Many boards currently managing nature-related risks within their portfolio's investment decisions say they had several training sessions before they were able to make meaningful progress. Typically, this has included training first on nature-related risk, then on financial implications, and then on potential actions and responses. More granular and technical training is often delegated to a working group or subcommittee. Work with your advisers to determine the training needs that reflect your governance and risk management structures.

“The Trustee has identified biodiversity and nature as one of its ESG priorities. As with climate change, this is a major systemic risk, with strong financial materiality for long-term investors such as ourselves. After some initial training, the Trustee recognized the sheer breadth and depth of this topic, and that tackling it would require a different approach to the one put in place for climate change. Given the size of the topic, being able to break [the training] up into more manageable chunks, enabling some prioritization, was a helpful way forward.”

Emma Hunt, Head of Responsible Investment, HSBC Bank (UK) Pension Scheme

Surround yourself with experts

Consider whether your service providers can offer sufficient nature-related expertise. Where their lead adviser hasn't been a specialist, some pension funds have asked that adviser to bring nature-specialist colleagues to support or lead training sessions. In addition to training, consider whether you need more regular access to specialist advisers, and incorporate delivery on nature-related risks into your review and appointment processes for advisers.

Seek out experts throughout your established networks. This is an emerging field where you may find pockets of deep expertise outside of

your usual contacts. Ask if you can speak with those who are most knowledgeable at your asset manager, even if they manage different portfolios. See if there are areas of expertise among your other service providers, including actuaries, custodian banks and covenant advisers, or even your sponsor. Leverage the work being done by your peers, industry groups and NGOs such as the Finance for Biodiversity Foundation and Nature Action 100 to enhance training, collate good practice examples and ask questions.

Finally, don't be afraid to challenge advisers who may come across as cautious or sceptical. Help to raise the bar by pushing for options on what can be done, using other funds' experience of incorporating nature-related considerations.

Once you understand the risks, addressing them is a fiduciary duty where action can't wait for perfection.



Role of Indigenous peoples and local communities

One way in which nature differs from other financial risks is how closely it is linked to the local context. Local ecosystems and ecology are bound to the local community and its economy. Indigenous peoples manage or have tenure rights over a quarter of the world's land surface⁷ and conserve 80% of our global biodiversity.⁸

So successful engagement and management of nature should not only include but also leverage the skills and insights of Indigenous peoples, local communities and local stakeholders. Instead of imposing top-down approaches, it is important to partner with local communities on nature's conservation, restoration and sustainable use. This is a key feature to scrutinize in the management and mitigation of risks, ensuring that local communities are engaged in the design and operation of any investment opportunities.

⁷ Garnett, ST, et al (2018), A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability*, 1(7), 369–374.

⁸ The World Bank (2023, 6 April), [Indigenous Peoples](#)

TOP TIP TWO: GET STARTED BY IDENTIFYING ONE KEY RISK AND OPPORTUNITY

Over the last ten years, significant progress has been made in identifying and measuring climate-related risks, with broader measurement of greenhouse gas emissions. Efforts on nature-related risks are typically far newer, with data collection often less than five-years old and related metrics only starting to emerge. Therefore, trustees need to apply a more flexible and more narrative approach to nature-related risks and opportunities.



What is a narrative approach to risk?

Many pension schemes are looking to use narrative or qualitative approaches to complement more traditional ways of identifying and assessing risks. Quantitative (numeric) techniques are good at generating a baseline and first estimation, but these are calibrated using past data. If the future is going to be different, or encompasses newer risks and opportunities, then quantitative approaches will need complementing with other techniques.

Narrative approaches start with facilitating debate and discussion on the real-world risks and opportunities. They have more flexibility, with the ability to explore tipping points and feedback loops in physical risks as well as the non-linearity and pathway dependencies of transition risks. Quantification of potential impacts then follows, and the process emphasizes expert judgement and the types of uncertainty being faced. Risk management can then focus on seeking resilience to these scenarios.

Identify an actionable risk and get started

There is no complete, consistent set of nature-related risk metrics. Indeed, from a financial perspective, the uncertainties around policy and regulation changes and macroeconomic forces are likely to predominate in the projections of risk. Accepting the lack of universal and consistent data points can, though, give you more space to focus on one specific, identifiable risk, such as deforestation or water use. You can then expand the number of identified risks over time.

The initial risks to focus on will differ from one asset owner to the next, given the different portfolios, motivations and resonances to different risks. You can also draw on expertise from your service providers on which risks to focus on first. As a starting point, five areas that tend to align with existing investment efforts and be material, in terms of both investment risks and opportunities, are:

1. Deforestation
2. Water (and waste)
3. Agriculture (soil)
4. Plastic and packaging
5. Marine

An approach in which you begin with one or two priority areas and then move on to others, means that the specific risk you choose to focus on initially is less important than making a start in the first place. In many ways, it is helpful for different investors to focus on different risk areas, as this is a multidimensional, systemic issue. Some boards have even identified attractive investment opportunities before delving into ways to manage their portfolio risks.

Identify the opportunities coming out of risks

There is a clear need to manage nature-related risks to mitigate and offset harm. For each identified risk there will often also be opportunities to help manage or reduce that risk. Sometimes, the cost of managing a risk can turn into new revenue streams. For example, livestock slurry is a waste pollutant. However, smart slurry management can convert it into water and a soil-like fertilizer, both of which are valuable commodities and represent potential revenue streams. There is more discussion on opportunities in Top Tip Five.

“When we reviewed our priority engagement themes, we considered financially material risk factors, regulation, and input from our investment team and board. We also asked our Partner Funds what issues were important to them. As an environmental issue, waste and water management was a common theme which we took forward. To support this theme, we joined a collaborative engagement initiative led by Royal London Asset Management, engaging with the UK water utility companies, and we are now leading engagement with two of the companies. More broadly, we partner with Robeco for our portfolio-wide engagement activities. They have been active on deforestation, single-use plastics and life cycle management of mining. Their engagement efforts will continue through a focus within Nature Action 100.”

Jane Firth, Head of Responsible Investment, Border to Coast Pensions Partnership

TOP TIP THREE: MANAGE THE PORTFOLIO RISKS

Act, whether managing passively or actively

Having identified some of your key nature-related risks, the next step is to manage the current risks within your portfolios. At the time of publication, there are few indices that include nature-related risks, leaving limited options for passive portfolios to manage these risks. However, you can still exercise your influence – for example, by asking your advisers and managers to update you regularly on index developments and, crucially, taking an active stewardship approach (see Top Tip Four).

For actively managed portfolios and private assets, asset owners should identify their key exposures, understand how the risk is managed and find aligned metrics to monitor progress. Currently, metrics are likely to simply reflect investment exposures in high-risk sectors or locations. However, understanding the exposures enables you to ask how well the relevant risks are managed. A more complete assessment of nature-related risks is possible for a small number of asset classes, such as direct real estate. Over time, this should be possible for more asset classes and a larger part of your portfolio.

Identify key exposures

As yet, there are very limited corporate-level metrics that reliably identify all nature-related risks. ENCORE⁹ and other mapping tools can help identify the most dependent and affected sectors for a given risk. The TNFD recommends financial institutions start by identifying exposures to high-risk sectors and investments in high-risk geographies. This is not yet common practice, but you can ask your asset managers for a report on high-risk exposures, and your advisers can then help you identify the actions you need to take.

Understanding the risks within your exposures is typically more challenging, due to a lack of data and independent assessments. However, this is improving. On deforestation, Global Canopy has developed the Forest 500, identifying the 500 companies most influential when it comes to deforestation risk, with risk ratings against each of them. Similar sources are likely to emerge for other nature-related risks.

⁹ ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) is a tool that can help financial institutions assess their dependencies and impacts at a portfolio level

“Mapping and understanding biodiversity risks across the whole portfolio, and especially on a granular company or project level, is a huge challenge as we are still in the process of navigating how to assess and measure biodiversity impacts.

So, we split our approach. For our listed equities and credit portfolios, we look at the risks from Principal Adverse Impacts (PAI), including measures on our investments’ negative impacts on biodiversity-sensitive areas, deforestation and water. We hope to build on these going forward.”

Thomas Henriksen, Senior Analyst, PensionDanmark

Scrutinize your managers’ integration and management of nature-related risks

For each security in key sectors, ask each of your asset managers for their rating of the company’s approach to the nature-related risk and, where possible, compare that to an independent assessment (eg the Forest 500). Where the company is deemed to have medium or high nature-related risk, ask your manager to explain why they hold the security and how they seek to manage the risk. With the support of both your adviser and manager, identify suitable metrics to monitor your nature-related risks, both at the total portfolio level and for key securities.

Nature-related risk integration is still in its infancy for many asset managers, and while you should be mindful of this, it shouldn’t be a barrier to progress. Managers should be tasked with illustrating their understanding and integration of nature-related risks within your portfolio, and your advisers can help measure progress and make comparisons to industry peers. Asset managers can look to emerging tools, such as the [Let’s Discuss Nature with Climate Engagement Guide](#) from the Cambridge Institute for Sustainability Leadership (CISL), to kickstart engagement on nature with investee companies. Furthermore, while embedding nature-related risks into investment decisions is less developed than for climate-related risk, the ability to manage

and report on nature-related risks should be included in your monitoring and selection criteria for both asset managers and service providers, as for climate.

“The initial steps were for the Trustee to signal this topic as an environmental, social and governance (ESG) priority to its asset managers and advisers, and to understand the capabilities and practices being employed by these groups. In parallel, the Trustee is starting to explore the data, metrics and tools that are available to industry players so that proper assessment can be undertaken, recognizing that this is still a relatively nascent area for industry players. What is evident is that this is still an underdeveloped area and that a huge amount of work will need to be done by all those in the investment chain, including the asset managers, investment advisers and data providers, so that we can confidently understand the risks and opportunities of biodiversity and nature and develop a pathway to address it. We know this won't be easy, but we must start somewhere and are prepared to work at pace. We expect our asset managers and advisers to be proactive, and we will continue to challenge each group on their thinking in this area as we all develop a pathway through it.”

Emma Hunt, Head of Responsible Investment, HSBC Bank (UK) Pension Scheme

Practical example – Developing a more complete assessment of nature-related risks in direct real estate

Direct real estate can have the advantage of being wholly owned and being at a single, fixed location. This makes it possible to do a more holistic assessment of nature-related risks. Particularly for construction, it is possible to consider both before and after scenarios, with countries such as the UK requiring biodiversity net gain¹⁰ to be part of future construction projects.

“We are undertaking more direct biodiversity risk measurement within six direct real estate construction projects as we have full ownership, and it is both physical and local. We identified three quantity (total green/blue space, canopy cover, and biofactor) and three quality (habitat, protected nature and species diversity) indicators. We reported on these in 2022 and intend to include more of our real estate portfolio during 2023. Focusing on a specific portfolio element has helped us extend our knowledge of biodiversity and its challenges. We have committed ourselves to making all our investments in urban development and new construction have a positive contribution to biodiversity by 2030.”

Thomas Henriksen, Senior Analyst, PensionDanmark

¹⁰ Biodiversity net gain is a way to contribute to the recovery of nature while developing land. It ensures that the habitat for wildlife is in a better state than it was before development.



TOP TIP FOUR – ENGAGE AT BOTH A MICRO- AND MACRO-STEWARDSHIP LEVEL

Market participants have a responsibility and a self-interest to help preserve the integrity of the whole financial system, keeping it in healthy service of society and the planet. Stewardship is a key lever to address this systemic risk. This means engaging with regulators, policymakers and other changemakers at a macro-stewardship level, as well as the more familiar practice of micro-stewardship, which focuses on engagement with companies and issuers.

With regards to nature, engaging on a micro-level with companies to address both nature-related risks and opportunities will improve their risk and return profile. Meanwhile, engaging with policymakers, regulators and standard setters to protect nature supports over 50% of the global economy dependent on it and thus supports long-term market returns more broadly. Pension funds with the resources can engage directly. Other funds can leverage asset managers and broader industry efforts.

Embed nature into current stewardship plans

First, make nature one of your stewardship priorities – making it clear to your investment teams and investment managers that this is an area of importance to you.

For all companies, you can set an objective for them to provide reports based on the TNFD framework, along with evidence that their board understands and manages their most material risks. Companies operating in high-risk sectors or locations should be encouraged to set science-based targets.

Then seek to be more granular. Align your stewardship efforts to the key nature-related risks that you have already identified (such as water or plastic and packaging) to focus in more depth on the companies that have the most impact. Ask your investment managers to report back on the companies with significant exposures to your identified risks. Ask your managers to report on how they adapt their engagements – including objectives, milestones, and escalation efforts – when company management is not delivering.

Historically, many nature-related risk engagements focused on addressing reactions to incidents or controversies. More strategic approaches will enable investors to influence not only the longer-term strategies of investee companies, but can also help to address more systemic risks. CISL's Let's Discuss Nature with Climate Engagement Guide shares insights on strategic approaches to engagement.

“In 2022, Brunel updated its stewardship priorities, producing a separate plan on nature we communicated to our asset managers. Our specialist engagement and voting provider also developed a dedicated biodiversity engagement programme. Selection of the target companies to engage with was based on multiple factors, including higher-risk companies on the Forest 500 (deforestation), Farm Animal Investment Risk and Return benchmarks (agriculture), companies with low World Benchmark Alliance Seafood Index ratings, or those selected as having poor water-related performance.

As initial steps, our engagement and voting provider wrote to each identified company outlining the risks of not addressing nature loss. They then held individual and collaborative engagement meetings to highlight their expectations and discuss how each company could contribute to halting and reversing nature loss. As part of this, we will be encouraging the use of the TNFD framework and want to see more companies disclose information on their nature-related risks and opportunities in a standardized and decision-useful manner.”

Faith Ward, Chief Responsible Investment Officer, Brunel Pension Partnership

Leverage climate and other engagement efforts

There is a risk of creating an ever-growing list of demands and engagements with individual companies. Leveraging pre-existing efforts on climate change or other sustainability issues can reduce fatigue for both asset managers and corporate executives. The TNFD recommendations closely follows the TCFD framework, so companies can be encouraged to think of these together rather than seeing TNFD as a new reporting burden.

Asset owners can become supporters of [Nature Action 100](#), helping to show the depth of investor support for its engagements. Collaborating both increases the demonstrable ownership stake and focuses the messages that corporate executives receive from their shareholders.

Recognize the role you can play in macro-stewardship

Our economy depends on nature – but without regulation, short-term exploitation can overwhelm long-term preservation. Often, interventions by governments and regulators can act more swiftly and powerfully than individual companies. Particularly for nature-related risks, taking a systems perspective can be powerful, encouraging improvements in regulatory standards to better protect nature. Asset owners can be particularly influential, as they are seen to be independent and without the conflict of interests of industry participants.

Taking action at this level is about stewardship of the system that you operate within and rely on, to promote its integrity in the interests of those whose money you steward. As lenders of money to governments, pension funds should take an active interest in the governments' policy frameworks related to nature, challenging the outcomes or level of ambition where relevant. This can be done, reactively, via consultations, or more proactively through regular engagement.

For example, engaging with governments on improving standards on water pollution can support a long-term, systems-wide response to water management, and therefore help to manage risks that exist in your current portfolio. This complements – and can often be more effective than – individual investee company stewardship on this topic, especially as their own efforts to address water pollution will, in many cases, be on a voluntary basis.

TOP TIP FIVE – INVEST IN THE OPPORTUNITIES

Understanding nature-related risks helps investors to identify investment opportunities. These opportunities relate to both investing in nature as well as investing in the supporting services that help manage nature-related risks. The Kunming-Montreal 2022 Global Biodiversity Framework identified a US\$700 billion annual financial gap to support nature.

It can be helpful to think about opportunities in three areas – aligned core, enabling tech and supporting solutions – as the risk characteristics of these investments are often distinctive and diversifying. This can make them attractive from a portfolio construction point of view.

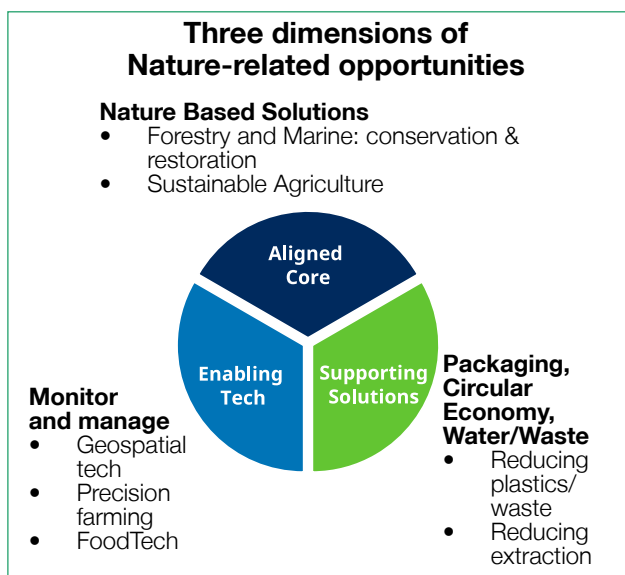


Figure 3: Three dimensions of Nature Based Solutions (Source: Gordian Advice)

Investing in aligned core opportunities

The simplest of the opportunities available is to invest in nature. Timber and agriculture are arguably one of the oldest forms of investment. However, you should consider the quality and sustainability of how these assets are managed, making sure robust sustainability characteristics are embedded alongside financial risk and returns.

More recently, nature-based investments can generate income for conservation or carbon sequestration (via carbon credits). These newer and innovative approaches will typically require greater due diligence and investigation. However, there could potentially be an innovation premium for early adopters of approaches that then become mainstream.

Investing in enabling tech

A whole range of technologies and innovations support nature-positive impact, especially within the food system. These include geospatial imaging to support forestry and land management, precision farming for better application of fertilizers and water, producing food supply from alternative proteins and vertical farming. As innovations, these investments will typically be higher risk than established approaches but offer the potential for higher rewards.

Investing in supporting solutions

While often less glamorous, investing in the circular economy and reducing plastic and waste can support nature by reducing demand from extractive industries or for food. These supporting solutions can offer attractive opportunities, especially if other investors have overlooked their growth potential.

“Our Master Trust trustees considered ways to make impact allocations within the default portfolio. As part of this, we considered the Principles for Responsible Investment’s impact investing market map with the criteria of seeking to maintain, or even enhance, risk and returns without increasing overall costs for members. Following a review of all types of impact funds, two of the most compelling strategies were climate and nature-related – one biodiversity impact equity fund and one green impact bond strategy. This enabled us to allocate more than twice our initial target of c.5%, and we are considering ways to grow our allocation to impactful strategies further. They are both EU SFDR Article 9 funds,¹¹ which is not something we required but may be unsurprising given our focus on impact as an essential element of their selection.”

Fiona Smith, Investment Proposition Manager, Smart Pension

¹¹ The European Commission’s Sustainable Finance Disclosures Regulation (SFDR)

FURTHER READING

Nature-related considerations is a rapidly growing field with ever-broadening insights and expertise. Below are a few quick references that will help you and your board get started.

Introductions to nature-related risks, the current crisis and engaging your asset managers:

- A4S (2022), Briefing for Finance: Biodiversity
- Zoological Society of London and Caceis (2023), Why Biodiversity Matters
- Scottish Widows (2023), Nature and Biodiversity: The pensions imperative
- CISL, Let's Discuss Nature with Climate Engagement Guide
- Capitals Coalition, Valuing Nature and People to Inform Business-Decision making (free online course)

A4S 'getting-started' resources to help your investee companies get started:

- Supporting the TNFD recommendations: What finance teams need to know about the Taskforce on Nature-Related Financial Disclosures
- TNFD Maturity Map
- Top Tips for Finance Teams: Getting Started on Implementation of the Taskforce on Nature-related Financial Disclosures
- A4S Essential Guide to Incentivizing Action Along the Value Chain

Other resources:

- **Policy**
Institute and Faculty of Actuaries (2023), Biodiversity: Managing Risk and Uncertainty (Policy Briefing)
- **Biodiversity Economics**
HM Treasury (2021), The Economics of Biodiversity: The Dasgupta Review – Headline Messages
- **How nature-related risks impact markets**
Network for Greening the Financial System (2023), Nature-related Financial Risks: A Conceptual Framework to Guide Action by Central Banks and Supervisors
- **High-level roadmap on aligning public and private finance to reach biodiversity goals**
UNEP FI et al (2023), Aligning Financial Flows with the Kunming-Montreal Global Biodiversity Framework

ABOUT A4S

Our aim is to make sustainable business, business as usual.

HM King Charles III established Accounting for Sustainability (A4S) in 2004, when he was The Prince of Wales, with the aim of working with the finance and accounting community to:

- Inspire finance leaders to adopt sustainable and resilient business models
- Transform financial decision making to reflect the opportunities and risks posed by the climate crisis and other environmental, social and governance (ESG) issues
- Scale up action to transition to a sustainable economy

A4S has three global networks:

- **CFO Leadership Network** – CFOs from leading organizations seeking to transform finance and accounting
- **Accounting Bodies Network (ABN)** – members comprise approximately two thirds of the world's accountants
- **Asset Owners Network** – Pension Fund Chairs who integrate sustainability into investment decision making

THE A4S ESG TOOLKIT FOR PENSION CHAIRS AND TRUSTEES

A4S's [ESG toolkit for Pension Chairs and Trustees](#) contains resources designed specifically for pension fund trustees. It contains:

1. An ESG maturity map with suggested steps that funds can take to progress on their ESG integration journey
2. Practical examples of pension funds to bring to life what good looks like
3. Guidance material to highlight the practical steps (eg embedding ESG factors into different asset classes), including this guide.

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