

Integrating nature & biodiversity into investment - an asset owner perspective

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Executive summary

Integrating nature & biodiversity into investment – an asset owner perspective

<u>Pensions for Purpose's</u> research paper, commissioned by <u>First Sentier MUFG Sustainable Investment Institute</u>,

expresses asset owners' views on investing in nature and biodiversity

Pensions for Purpose's nature and biodiversity report sheds light on asset owners' approaches to reporting on nature and biodiversity-related topics, the frameworks they use and their data collection challenges. We interviewed 20 asset owners and asset managers based in the UK, Asia, South America, North America, Oceania and Europe to understand:

How they are integrating nature and biodiversity into sustainability priorities

Sixty-five percent of interviewees integrate nature and biodiversity within their sustainability priorities.

Their governance frameworks and resource capacity for managing nature-related issues

Fifteen percent of schemes are yet to explicitly include nature and biodiversity into their strategies, addressing these areas more opportunistically within their broader ESG strategies. Meanwhile, 85% have already incorporated or are working to incorporate nature into their sustainability strategies, reflecting a strong commitment to action. Many are exploring how to enhance their climate action plans by integrating nature and the just transition. For 75%, financial materiality is their main driver.

Their reporting plans and data

Most interviewees are yet to report on nature. The majority of those who have started preferred to begin by including sections on nature in their responsible investment, stewardship or sustainability reports before adhering to the *Nature-related Financial Disclosures (TNFD)* framework.

Their perceptions of dependencies, impacts, risks and opportunities related to nature

Many are at early stages of assessing these risks and opportunities, often using tools like ENCORE.

Their expectations and the extent to which they delegate responsibilities for nature and biodiversity to asset managers

Among expectations pension schemes have from their managers on nature-related issues, are the recognition of the materiality of nature-related topics, active engagement with industry initiatives and a clear position statement or policy.



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Data collection

We asked our interviewees 15 questions to gain insights into how asset owners are integrating nature and biodiversity into their sustainability strategies. Our aim was to understand the governance structures they have in place for managing nature-related issues and examine how asset owners identify and assess nature-related risks and opportunities in their current or planned strategies for reporting on these topics.

We also explored their plans to report in alignment with frameworks such as the *TNFD* and how they navigate the complexity of nature and biodiversity considerations. Additionally, we sought to determine whether asset owners delegate nature and biodiversity activities to investment consultants and asset managers.

Best practice steps

This Impact Lens report presents examples of best practice highlighted during the interviews. These showcase demonstrable actions, based on the *TNFD*'s recommendations, organisations can take to begin assessing and disclosing nature and biodiversity-related topics. As it is still early days for pension schemes in addressing these issues, each *TNFD*-recommended stage has a corresponding case study, to highlight asset owners' approaches and their unique journeys. Best practices include simple first steps schemes can take to start considering nature, such as:

Deepen your understanding of the fundamentals of nature by educating decision-makers about the topic and mapping out risks, opportunities, impacts and dependencies.

Make the business case for nature and biodiversity and gain buy-in from the Board and management.

Start with what you already have, leverage other work, like expanding ESG beyond climate to include nature.

These best practice steps show pension schemes can incrementally integrate biodiversity into their considerations. By educating decision-makers, mapping risks and opportunities, and leveraging existing climate efforts to include nature, businesses can build a strong foundation. Gaining board-level buy-in and raising the business case for nature ensures these initiatives are embedded in long-term strategies.



Introduction



Why did we conduct this research?

Through this research, *Pensions for Purpose* set out to understand how UK pension schemes are addressing nature-related issues beyond their climate-related reporting responsibilities, which have been mandatory since 2022 for schemes managing over £1bn in assets and authorised schemes. The study examines whether schemes are reporting on nature, their future plans, governance structures and the extent to which they delegate this work to managers. This information is crucial for assessing how schemes are preparing to tackle nature-related risks such as biodiversity loss and ecosystem degradation, which pose systemic threats to long-term investment returns, besides growing regulatory pressures. By identifying current practices and showcasing best case studies, *Pensions for* Purpose aims to offer actionable insights into how schemes can navigate these emerging challenges. Additionally, the research draws on perspectives from schemes in eight countries, primarily the

UK, to highlight key steps the industry can take to advance the integration of nature within the broader sustainability agenda.

Nature in economic models

While nature has always been fundamental to economic activity, traditionally it has not been factored into economic models, since these were built on the assumption of a world of abundance.\(^1\)
This is now changing: in 2022, over 180 countries adopted the Kunming-Montreal Global Biodiversity Framework during COP15, concrete steps to reverse nature loss, including the protection of 30% of degraded ecosystems by 2030. This agreement positions financial markets at the forefront, aiming to mobilise at least \$200bn annually from public and private sources to support biodiversity. It also calls on financial institutions to monitor, assess and disclose the biodiversity-related risks and impacts in their operations, portfolios and value chains.\(^2\)

DEFINITIONS

Nature refers to all living organisms – plants and animals – and non-living things – landscapes, ecosystems and physical elements.

Biodiversity refers to the variety of life on Earth, including different species of plant, animal, fungi and bacteria.³ It indicates the richness of diversity in nature.

About half of greenhouse gas emissions stay in the atmosphere, while the other half are absorbed by land and ocean ecosystems, which act as natural carbon sinks. Protecting and restoring natural areas is essential for reducing carbon emissions and adapting to the impacts of climate change.⁴

Risks

According to the World Economic Forum (WEF), two of the top 10 global risks in the short term (over the next two years) are environmental: pollution and extreme weather. When extending the outlook to a 10-year horizon, environmental risks account for half of these most likely global threats. These include: extreme weather events, significant changes to Earth's systems, biodiversity-loss and ecosystem collapse, natural resource shortages and pollution.⁵

In 2022, the *Network for Greening the Financial System (NGFS)*, a network of over 100 central banks, warned ignoring nature-related risks could pose serious threats to the economy and financial stability. Despite the urgency, nature-dependencies, impacts, risks and opportunities are still poorly understood by investors. For this reason, the *TNFD* seeks to provide a framework that translates science into pragmatic recommendations to promote action through reporting and investing.

The TNFD recommendations are a tool for nature-related risk management and disclosure, which enables organisations to increase their disclosure ambition over time. It offers the guidance and the tools for companies and financial institutions to identify, assess, manage and disclose nature-related risks and opportunities in line with the Taskforce on Climate-related Financial Disclosure (TCFD) and International Sustainability Standards Board (ISSB)

requirements to avoid reporting burdens and to promote an integrated approach to nature and climate.

As the *TNFD* recommendations were launched in late 2023, asset owners worldwide are only in the early stages of reporting on nature and biodiversity. The present report aims to uncover the strategies asset owners adopt to integrate nature and biodiversity into their sustainability priorities, identifying the challenges they encounter and outlining best practice to inspire pension funds starting out. We emphasise the need for a holistic approach to address climate and nature.

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1 Literature review



Literature review

ost organisations are still in the early stages of Considering and reporting on nature-related issues. Our goal is to support those firms beginning their journey, as well as those who have recently started and need guidance or reassurance. To do this, in this section, we outline the significance of the TNFD and how it aligns with the TCFD. Our research shows increasing regulatory pressures are one of the primary drivers for financial institutions to address nature and biodiversity, and we provide an overview of the major recent regulations in this area. We also explore how the TNFD operates, outlining its recommended initial steps for organisations and highlighting useful tools suggested during interviews, that can assist asset owners in advancing their efforts.

About the TNFD

The *TNFD* helps organisations understand, assess and disclose risks related to nature and biodiversity loss using four pillars:

- Governance.
- Strategy.
- Risk and impact management.
- Metrics and targets.

These core elements build on the foundation of the *TCFD*, incorporating 14 recommended disclosures. Of these, 11 align with the *TCFD*'s recommendations to reduce reporting burdens and promote integrated climate and nature reporting.¹

As the *TNFD* emphasises, organisations are not required to follow the same pathway or disclose on all of these pillars from the outset. In the initial years following the *TCFD* launch (2017–2019), organisations reported, on average, only two of the recommended 11 disclosures. In 2019, this number gradually increased, with up to a quarter of organisations eventually disclosing more than five recommended disclosures, while fewer than 5% reported on 10 or more.²

TNFD adoption is likely to follow a similar trajectory to TCFD but at a faster pace, since its recommendations use a similar structure and approach. A global survey conducted by TNFD before the release of its final recommendations found 76% of companies and 63% of financial institutions plan to start reporting on TNFD by 2025. On average, organisations aim to start by reporting on seven out of 14 recommended disclosures. Most financial institutions (circa 60%) expect to begin reporting on governance, followed by under a third aiming to report on strategy, risk and impact management, and metrics and targets (each circa 30%). These findings highlight organisations can grow their reporting ambitions over time.³

The concept of double materiality expands beyond traditional financial materiality, which is focused on factors affecting a company's financial performance, to encompass broader impacts on the environment and society. This approach not only assesses business risks but also acknowledges



the interconnected influence between a company and ecological or social outcomes. Already integral to the EU's sustainable finance regulations, double materiality underscores the obligation for companies to address financial risks while contributing to environmental sustainability, integrating corporate responsibility with long-term value creation. However, the TNFD adopts a flexible approach to materiality, ensuring its recommendations are applicable across jurisdictions and align with diverse materiality frameworks in use today.⁴

Rising regulation

Although interviewees recognise risks and opportunities associated with nature and biodiversity, rising regulation and the expectation *TNFD* will follow in the path of *TCFD* by becoming mandatory, was one of the major reasons for biodiversity and nature to be considered by the industry. To give an overview of the current regulatory landscape, we have listed the main regulations.

UK Sustainability Disclosure Requirements (SDR)

The SDR framework is central to the 2023 Green Finance Strategy, aiming to ensure investors and consumers can access reliable information for sustainable capital allocation. While the SDR focuses on providing decision-useful data through measures such as investment labels, marketing rules to prevent greenwashing for *Financial Conduct Authority (FCA)*-authorised firms, and disclosure requirements, it does not

explicitly clarify whether nature and biodiversity are included in its scope. Further detail is needed to determine how comprehensively these aspects are addressed within the framework and whether they align with broader sustainability goals related to nature and biodiversity.

2 International Financial Reporting Standards (IFRS) 1 and IFRS 2

In 2023, the *International Sustainability Standards Board (ISSB)* issued two IFRS Sustainability Disclosure Standards:

- IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information.
- IFRS S2 Climate-related Disclosures.

IFRS 1 requires entities to disclose sustainability risks and opportunities relevant to investors' decision-making. Cash flow generation is linked to interactions with stakeholders, society, the economy and the natural environment, across the value chain. Its core content aligns with the *TCFD* and *TNFD* guidance, covering governance, strategy, risk management, metrics and targets.⁵

The UK Government is planning to assess the *ISSB* standards in Q1 2025 to implement its endorsed versions, these will be the UK Sustainability Reporting Standards. Pending a positive endorsement from the Government and a consultation process, the *FCA* will be able to implement these standards, requiring UK-listed companies to disclose sustainability-related information.⁴

Target 15 of the Kunming-Montreal Global Biodiversity Framework

Its goal is to reduce businesses' negative impacts on biodiversity and promote sustainable practices by requiring companies, particularly large and transnational firms and financial institutions, to assess and disclose their biodiversity-related risks and impacts. For these major players, such reporting should be mandatory, enforced through legal or policy measures. This includes providing relevant information to consumers and complying with access and benefit-sharing regulations, fostering more informed choices and positive biodiversity outcomes.⁶

4 The European Union Corporate Sustainability Reporting Directive (CSRD)

This is an EU regulation that enhances the requirements for large companies, listed small and medium-sized enterprises (SMEs), and certain non-EU companies operating in the EU market to disclose information on their social and environmental risks, impacts and opportunities. Introduced as part of the European Green Deal, the directive aims to provide stakeholders including investors, civil society and consumers - with reliable data to evaluate a company's sustainability performance and its financial risks related to climate change and other sustainability issues. The CSRD mandates companies to follow the European Sustainability Reporting Standards (ESRS) for their disclosures, ensuring consistency and alignment with international reporting frameworks.7

5 EU regulation on deforestation-free products

The rules emphasise the economic and social value of forests in supporting over a third of the global population, their role as carbon

sinks in combating climate change, and the risks associated with deforestation – including increased likelihood of disease and pandemic due to closer interactions between wildlife, livestock and humans. The regulation cites land use and agriculture – driven by demand for commodities like cattle, wood, cocoa, soy, palm oil, coffee and rubber – are fuelling deforestation. It mandates operators and traders to ensure these products do not originate from recently deforested areas or contribute to forest degradation when placed on or exported to the EU market.8

VALUABLE TOOLS

Locate, evaluate, assess and prepare (LEAP) methodology

To support asset owners in addressing biodiversity and nature-related issues, the *TNFD* has developed the LEAP approach. It provides accessible guidance for businesses of all sizes and sectors, offering a structured process to identify, manage and disclose nature-related impacts. Several asset owners we interviewed are either consciously or unconsciously implementing this approach, some in partnership with academic or scientific institutions⁸. There are four phases:

- 1 Locate interactions with nature.
- 2 Evaluate dependencies and impacts.
- **3** Assess associated risks and opportunities.
- **4** Prepare to respond and report in alignment with *TNFD*'s recommendations.

The *TNFD* has released a series of <u>webinars and</u> papers on these topics:

Exploring natural capital, opportunities, risks and exposure (ENCORE) tool

To help investors assess risks posed by environmental

degradation, ENCORE is a tool to complement *TNFD*'s LEAP approach. Its database spans 167 economic sectors and 21 ecosystem services (nature's benefits to business).

ENCORE highlights the sectors most reliant on nature:

- Agriculture.
- Aquaculture.
- Fisheries.
- Forest products.

The top ecosystem services for the global economy:

- Water provision.
- Climate regulation.
- Flood protection.

To protect portfolios, financial institutions need ways to identify and manage environmental risks. ENCORE integrates natural capital data into financial decision-making, covering impacts, dependencies and opportunities.9

The tool was developed by the *Natural Capital Finance Alliance (NCFA)* and links environmental changes, such as biodiversity loss and ecosystem degradation, to economic performance and investment risks. Features include:

- Risk identification: demonstrates how environmental risks like water scarcity and deforestation could affect various sectors and activities reliant on natural capital.
- Scenario analysis: allows asset owners to assess how various environmental degradation scenarios may impact their portfolios.
- Investor guidance: offers insights into ecosystem dependencies across industries and how disruptions in natural systems can translate into financial risks.⁴

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2 Nature & biodiversity within sustainability priorities

Nature & biodiversity within sustainability priorities

Increasingly, schemes are recognising nature and biodiversity within their sustainability strategies, with 65% of our interviewees doing so. Most said nature and biodiversity come under their environmental pillar, alongside climate action. Many see nature and biodiversity as core sustainability themes, interconnected with climate considerations and broader social priorities. For many schemes, this integration is relatively recent – mostly within the last five years – although a few funds have established nature and biodiversity as a foundation pillar:

••We've been working over the past few years to better integrate nature into our overall sustainability approach. We already have an engagement programme in place and we're developing key risk indicators for our portfolio.

Recently, we introduced minimum standards in two areas – nature and biodiversity – which our public portfolio must now meet.

ASSET OWNER

The adoption of minimum standards represents a practical way to use existing investment methodologies to extend current frameworks to nature and biodiversity. The increasing consideration of these topics aligns with a growing recognition of the urgency to protect and restore biodiversity loss, for environmental sustainability and due to its risks and implications. Additionally, 20% of interviewees

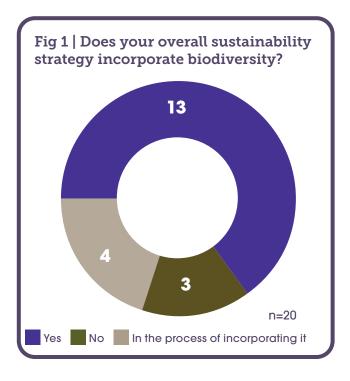
are actively working to incorporate nature into their sustainability funds, with many expecting to finalise these efforts next year. This timeline reflects an imminent commitment to action. One asset owner, for example, is investigating how their fund can enhance their existing climate action plan by integrating nature and the just transition into their approach:

We have a climate action plan in place to support the decarbonisation of our portfolio. We're exploring ways to expand this approach to include a stronger focus on nature and the just transition, going beyond decarbonisation alone.

ASSET OWNER

A small proportion of schemes (15%) are yet to explicitly include nature into their strategies, addressing these areas more opportunistically within their broader environmental, social and governance (ESG) strategies. Still, nature opportunities are starting to emerge more frequently for these schemes, reflecting their increasing importance in the broader investment landscape.

The integration of natural capital into sustainability strategies is gaining momentum. While most schemes are recognising them as an important environmental consideration, many have only recently formalised their approaches, indicating a relatively new but accelerating commitment.



One interviewee already had an impact strategy: "nature is somehow part of it, but not anywhere near as detailed." While they do not have targets or policies for nature, they view these elements as attractive when evaluating opportunities. They are not target-driven but focus on making investments they believe will positively affect housing, climate and local job creation. In the case of renewables, these align with environmental sustainability by reducing emissions and contributing to the climate agenda, ultimately protecting ecosystems that may be impacted by temperature rises. Biodiversity and nature are considered in this impact framework, even though they are not explicitly prioritised or measured in detail.

2.1 Reasons to incorporate nature into sustainability strategies

terviewees highlighted two drivers behind integrating nature into their sustainability strategies:

- Anticipated regulatory changes, with the TNFD potentially becoming mandatory.
- Financial materiality was the most common response (75%), highlighting a promising trend of asset owners proactively addressing the financial implications of biodiversity loss, rather than merely responding to compliance pressures.

Financial materiality

Financial risk has been the main motivation for schemes to integrate climate concerns and now, more often, nature and biodiversity. Schemes are increasingly recognising the dependence of global gross domestic product (GDP) on natural capital. One asset owner explained how their approach to integrating nature and biodiversity aligns closely with their climate strategies, highlighting the risks of overreliance on natural capital.

The motivation behind this integration is recognising biodiversity loss poses a substantial risk. The WEF ranks it as one of the biggest economic risks and our policy is designed to address this challenge directly. As investors, we understand the importance of science in reversing biodiversity loss to achieve net-zero goals.

ASSET OWNER

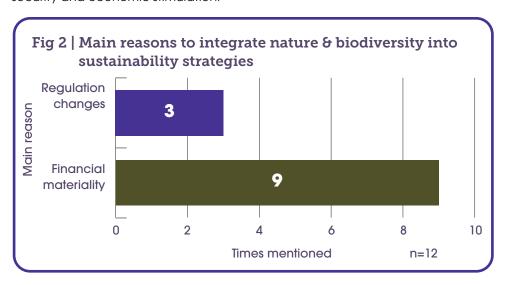
Although climate change has traditionally led environmental priorities, some asset owners emphasised nature and biodiversity are just as critical for long-term economic stability. Risk in supply chains were highlighted as especially concerning:

Nature is a significant systemic issue related to climate change – possibly even more critical than climate change itself. We are increasingly seeing risks in supply chains for companies, and addressing nature and biodiversity is clearly an important area of impact. As responsible investors, it's essential for us to lead in this mission.

ASSET OWNER

In regions like South America, where biodiversity loss and deforestation directly affect local economies, these issues pose significant financial risks. Local economies, particularly in food production and export, depend on natural ecosystems for food security and economic stimulation.

integrating nature into policy mirrors that for climate - it's increasingly seen as a financial risk. A large portion of GDP depends on natural capital, yet we've taken resources like water, clean air and timber for granted. We're beginning to realise these resources are finite or renewable only if managed responsibly.





deforestation activities, which we recognise have a systemic impact on the real economy. Without biodiversity and natural capital, our ability to produce and export commodities is significantly weakened. We understand biodiversity is vital for ensuring food security, supporting food production and export. It's essential to view biodiversity as a fundamental component of our economy, closely related to emissions and environmental health.

Anticipated regulatory changes

With the *TCFD* now mandatory in many regions, there is growing anticipation the *TNFD* will soon follow suit. This impending regulatory shift was presented, by interviewees as one of the main reasons behind the increased integration of nature and biodiversity considerations by asset owners.

Much of our work on climate is guided by the TCFD and we anticipate the introduction of the TNFD will strengthen our efforts in this area as well. We are aware of the biodiversity-related risks and opportunities in a similar way to how we approach climate. Our focus is on clearly communicating to trustees that these issues represent financial risks and opportunities.

ASSET OWNER

Potential regulatory incentives and taxes, along with changing consumer attitudes resulting from upcoming regulatory changes, would also contribute to the overall impact of the new rules.

financial risk involves considering regulations, potentially punitive taxes, and consumer reactions to companies that fail to steward nature effectively. These factors could ultimately have financial repercussions for companies in the future. As stewards of pension funds, our primary focus must always be on the financial outcomes for our investors.

ASSET OWNER

Insight: Interviewees highlighted two main factors in integrating nature and biodiversity into sustainability strategies: firstly, financial materiality and, secondly, anticipated regulatory changes. Schemes are increasingly recognising the high-financial materiality of nature and biodiversity, given the global economies' dependence on natural capital and supply-chain risks. With the anticipated regulatory impact of *TNFD*, schemes are proactively incorporating nature and biodiversity considerations into their strategies.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Climate change, biodiversity loss and environmental degradation threaten long-term stability. The depletion of nature undermines ecosystem services central to the economy and financial performance. Pension funds should include climate and nature considerations in their investment strategies to mitigate these risks and protect their portfolios from potential volatility. As regulatory frameworks tighten, adapting to avoid stranded assets in resource-dependent industries is crucial. By aligning investment strategies with sustainable practices, asset owners can mitigate risks and capitalise on opportunities in the green economy.

2.2 Nature and biodiversity in the broader context of ESG issues

Nature and biodiversity considerations are gaining importance within the ESG scope, with schemes realising the interdependence of environmental sustainability, climate adaptation and social equity. Many asset owners emphasised the close relationship between environmentally sustainable elements within the broader ESG considerations. As climate concerns intensify, schemes are paying closer attention to sustainable agriculture, forestry and other nature-based solutions that help sequester carbon and bolster ecosystem resilience.

Furthermore, one asset owner drew attention to the importance of ensuring climate change and nature are balanced and mutually beneficial, noting an integrative approach is essential for effective impact:

66 Our goal is to find the balance between climate and nature, ensuring they're aligned and mutually supportive. We're now looking to create that integrative approach.

ASSET OWNER

As these discussions evolve, asset owners are expanding their perspective to include social implications alongside nature and biodiversity. The link between environmental sustainability and social equity is strengthening, particularly on indigenous rights and community well-being. Although in the early stages, asset owners are starting to acknowledge the need to include social concerns in their environmental strategies. One asset owner we spoke to remarked on this evolving perspective,

highlighting this is an area they still need to explore further. Another asset owner elaborated on the importance of maximising the social benefits intrinsic in nature-based solutions, suggesting a holistic approach could enhance the social impact of ESG efforts:

solutions, we inherently consider the social characteristics that are essential to these approaches. For us, it's about maximising the benefits of combining these elements in a cohesive strategy.

ASSET OWNER

Additionally, issues related to biodiversity and nature are being included in ESG screening processes, particularly when identifying companies that fall short on environmental standards. Organisations that demonstrate biodiversity or natural resource management controversies may be flagged as ESG laggards. Biodiversity issues are increasingly influencing the data asset owners use to evaluate ESG compliance and identify companies potentially violating the UN Global Compact (UNGC) principles. These violations often relate to Principles 7, 8 and 9, which call on businesses to:

- Support a precautionary approach to environmental challenges.
- Undertake initiatives to promote greater environmental responsibility, and
- Encourage the development and spread of environmentally friendly technologies.¹

66 In many cases, nature and climate considerations go hand in hand. For example, carbon sequestration in forestry and sustainable agriculture highlights this link, as both practices contribute to reducing carbon emissions. We need to build resilience into our natural capital systems to cope with the changing climate, water and agricultural systems, so they are integrally linked. Within our strategic priorities, they are noted as separate factors because they need a slightly different approach, but we recognise they are integrally connected.99

ASSET OWNER



⁶⁶We do a significant amount of ESG overlay, from the data and reporting sides. We already have a climate focus, where we categorise certain companies as ESG laggards. This includes looking at UNGC violators and controversies. Part of that overlaps with biodiversity. Issues related to nature and biodiversity will then feed into that classification. I don't think the 'E' side is purely focused on climate anymore. The data we get from controversies, including the *UNGC* watch list, shows biodiversity concerns are increasingly integrated. Some companies may not be failing entirely due to biodiversity concerns, but elements of those concerns will contribute to their status. So, there's convergence in how we screen for these issues. 99 ASSET OWNER

Insight: Asset owners are acknowledging the connection between climate and nature within ESG. They emphasise nature-based solutions, like sustainable agriculture and forestry, and support carbon sequestration and resilience. A balanced, integrative approach is seen as important in aligning climate and nature goals. Additionally, social dimensions, such as indigenous rights and community wellbeing, are gradually being incorporated into environmental strategies. Biodiversity and nature resource management are starting to influence ESG assessments. However, an integrated approach should address trade-offs and synergies between climate and nature. Such assessments are emphasised in nature and climate transition plans.

FOOTNOTE

Nature-based solutions are strategies that leverage natural ecosystems to address environmental and societal challenges such as climate change and biodiversity loss, by harnessing processes like carbon sequestration.² Carbon sequestration is a prime example, where ecosystems such as forests, wetlands and grasslands capture and store atmospheric carbon dioxide (CO₂), helping to reduce greenhouse gases.³ For example, forests act as carbon sinks by absorbing CO₂ during photosynthesis, storing it in trees and soil, which mitigates climate impacts while providing additional benefits, like flood control and habitat preservation.

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PENSIONS FOR PURPOSE'S PERSPECTIVE

While ESG issues are naturally interconnected, such as the links between climate and nature, this interdependence can complicate impact investing for asset owners. Addressing biodiversity alongside climate means understanding multifaceted, region-specific factors that often lack standardised measurement. Biodiversity and nature impacts can be hard to quantify and assess, making it difficult for asset owners to compare investments and risks effectively. This complexity is compounded by the need to balance these elements with other ESG concerns. As a result, integrating these interconnected issues requires education, creating a steep learning curve for investors.



2.3 Governance structures and resource capacity for nature and biodiversity

ost interviewees mentioned not having IVI governance structures dedicated solely to nature and biodiversity within their organisations. Instead, these considerations were mostly covered in their broader sustainability investment policies, particularly climate-related polices. Dedicated governance frameworks for nature and biodiversity were rare among interviewees' firms, although a few organisations have established focused internal structures, such as biodiversity working groups. However, several interviewees reported they are working to build internal consensus around the feasibility of nature and biodiversity policies using the TNFD. For those schemes that cover nature and biodiversity indirectly, their governance structures were highly inclusive covering all ESG factors to ensure they protect their portfolios against risk.

We have governance structures in place that ensure we honour the commitment of protecting our portfolios against risks. We do not have a specific natural capital governance structure, but recognise it as part of ESG factors, which will be picked up in our overarching investment and governance strategies.

ASSET OWNER

Some asset owners reported a unified approach, applying the same governance structures across all sustainability factors. This allows them to address new, significant sustainability issues as they arise, such as nature and biodiversity topics. One asset owner emphasised this approach:

**The governance structure is the same as it would be for any sustainability factor. We've been clear about how our governance should pick up new, significant or material sustainability-related issues. That governance structure is the same for all sustainability factors. As we consider these additional broader environmental considerations, the same governance process applies. It's already fully in place.

The TNFD is a useful framework to identify governance gaps and assess alignment with best practices for funds with unspecific governance structures on nature and biodiversity and looking to enhance their current structures:

feasibility study on the TNFD to assess our alignment with 14 recommended disclosures to identify any governance gaps. While we already have a strong governance framework, guided by the Prudential Regulation Authority (PRA)'s expectations for managing climate-related risks, this study will help us pinpoint areas for improvement, particularly in governance-related disclosures.

ASSET OWNER

While direct governance structures for biodiversity and nature remain limited, the integration of these considerations within ESG and sustainably investment policies is widespread. For many, the *TNFD* serves as a valuable guide, enabling organisations to evaluate their frameworks and identify areas for improvement.

RESOURCE CAPACITY FOR NATURE AND BIODIVERSITY

Levels of internal expertise

Interviewees highlighted different levels of internal expertise on nature and biodiversity. One asset owner demonstrated the growth their internal expertise has taken over the last few years, spanning from one individual, and further explaining the need for education and internal training for this growth:

colleague and now we have five or six in the working group. We're still educating people. We do have some other mandatory training in place for the whole investment chain. There are segments of nationwide diversity in there, but the most expertise that we have is from that one colleague that is an environmental scientist.

For the schemes currently in the process of building internal resources, weight was placed on internal training and increasing teams:

Her skillsets do span over to nature, but we are in the process of building internal resource and having people with more direct expertise on managing nature issues. Also having to understand the investment angle of this, we can't just bring in a scientist on nature. They need to understand how this has implications for investments and risk. We are bolstering the team by one or two people to look more explicitly at nature.

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For the schemes with limited internal expertise, the crossover between climate and nature was presented as helpful, but still restricted:

We have limited internal expertise on nature. While we do have some experience with climate engagement with corporations, which overlaps to some extent, our nature-specific knowledge is still lacking.

The levels of outsourcing expertise

All the funds we interviewed required some level of external expertise, but these took different forms. Some schemes highlighted the need for external groups to support with in-depth understanding and resources, and some asset owners emphasised working with specialists, such as charities or experts in specific fields, like environmental science. One common sentiment shared by all interviewees was the importance of outside expertise due the complexities of nature and biodiversity. This support is essential for deepening knowledge and understanding, and also for preventing further harm to nature and biodiversity:

Mature is so nuanced. It's not like climate where there is a focus on reducing emissions. Addressing nature-related issues requires a location-specific, multi-pronged approach, and academia is essential to this effort. The investment industry risks causing more harm than good if we implement blanket policies without grasping the nuances of local contexts. Seeking external expertise is crucial.



We are reliant on external sources. We've used the ENCORE database to do a risk-mapping exercise across the portfolio. We're also reliant on external groups like *Global Canopy, Nature Action 100* and convening with UK pension funds to learn from the good work already being done.

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Leveraging partnerships and using their specific expertise within nature and biodiversity was highlighted as important. Some asset owners are creating formal partnerships with charities and academia, including the WWF, Zoological Society of London (ZSL), Cambridge University and Oxford University.

observed other financial institutions partnering with organisations like WWF and Cambridge University, highlighting we can't develop the necessary expertise in-house alone – formal partnerships are essential. The Natural History Museum has been proactive in engaging with the private sector, and I anticipate some exciting collaborations emerging from that effort.

ASSET OWNER

REFERENCES

- 1 Global Canopy, What we do, https://globalcanopy.org/what-we-do/>.
- 2 Nature Action 100, Supporting greater corporate ambition and action on tackling nature and biodiversity loss, viewed November 2024 https://www.natureaction100.org/>.

Insight: Most interviewees pointed to a lack of specific governance for nature, integrating these topics in broader ESG or climate policies. Some are adopting the TNFD guidance to identify governance gaps and improve alignment. Internal proficiency on nature-related issues varies, with many funds expanding teams or increasing training. External expertise is widely relied upon, using resources like the Global Canopy and Nature Action 100 to address the distinctions and challenges of biodiversity. Partnerships with academia and non-government organisations (NGOs) are seen as important for in-depth knowledge and effective ESG strategies, allowing funds to strengthen biodiversity practices collaboratively.

FOOTNOTE

Global Canopy is a non-profit organisation, which is data driven and focuses on environmental issues, specifically deforestation and biodiversity loss. They work to measure and track the impact of global supply chains on the world's forests, and provide critical data to businesses, governments and financial institutions to help them reduce their environmental footprint. Global Canopy are also a founding partner of the TNFD.1

Nature Action 100 is a global investor-led initiative focused on driving corporate action to address nature-related risks, particularly focused on biodiversity loss and ecosystem degradation. Launched in 2023, it aims to engage companies in high-impact sectors, such as agriculture, mining and energy, encouraging them to adopt practices that protect and restore natural ecosystems.²

PENSIONS FOR PURPOSE'S PERSPECTIVE

Leveraging collaborations with NGOs and academic institutions can help schemes align their strategies with nature and biodiversity goals. Partnerships provide expertise and education, enabling funds to collectively identify and strengthen their nature and biodiversity efforts. Working alongside charities and academia, pension funds can address environmental challenges more effectively, reducing the burden while advancing their sustainability initiatives. By building on shared knowledge and resources, schemes can amplify their impact and drive meaningful progress. However, in the long term, hiring in-house experts may be a more effective solution for asset owners ensuring up-to-date internal training due to the materiality of nature and biodiversity to portfolios.



3 Dependencies, impacts, risks and opportunities

3 Dependencies, impacts, risks and opportunities

Asset owners recognise the importance of deepening their understanding of nature-related risks and opportunities, aware the problem can pose substantial financial threats to their portfolios. Many are now beginning to assess these risks and opportunities, often using tools like ENCORE. However, perspectives on what constitutes materiality vary.

One asset owner shared a helpful definition:

- Impact materiality considers the extent of a business' impact on nature.
- Financial materiality assesses how these impacts could influence financial performance.

While there are two types of materiality, these dimensions are inseparable. They emphasised reducing environmental impact is crucial for mitigating long-term financial risks, stressing the urgency of moving towards lower-impact operations to prevent significant economic costs tied to environmental degradation.

While many asset owners understand the importance of material nature-related risks, gaps remain in how they address it. Some schemes acknowledge they have yet to define a structured method for evaluating biodiversity and nature risks, while others emphasised the complexity of connected risks, often requiring a case-by-case assessment. A few focus on distinguishing between short-term and long-term financial impacts, with financial materiality often prioritised when biodiversity poses a potential financial threat.

3.1 Risks and opportunities

Interviewees highlighted the financial and operational risks posed by dependencies on natural resources like water, forests and biodiversity. For sectors heavily reliant on these resources – such as food production – the risk of biodiversity loss, water scarcity and ecosystem degradation could disrupt business continuity and long-term profitability. These risks are further complicated by regulatory changes, as governments impose stricter environmental protections. Many asset owners are prioritising risk assessments to understand these dependencies within their portfolios, particularly in regions prone to environmental risks.

Me have conducted data analysis on our corporate credit and equity portfolios using publicly available data, which are quite robust. However, manipulating this data can be complicated. This analysis highlighted several critical areas, particularly within supply chains, that are consistently material across pension schemes. Water and agriculture emerged as issues, as both sectors are significantly impacted by water availability – whether too much or too little. 99

ASSET OWNER

regardless of our exposure to it, as it's important and tied into our climate objectives. Deforestation, afforestation and reforestation will be priorities.

Opportunities in nature

Asset owners had two opinions on opportunities in nature and biodiversity:

- 1 They hold promise.
- 2 Dearth of viable options.

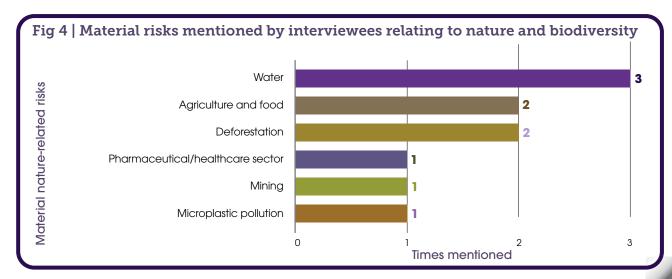
Some interviewees see nature-based solutions, such as carbon offsets, sustainable forestry and water conservation, as promising long-term investment opportunities. However, biodiversity-focused investments are still emerging, with challenges in liquidity, data confidence and financial return predictability, making integration into traditional portfolios more difficult than climate investments.

Long-term investments in nature-based solutions, supported by strong business cases, hold promise. We recently assessed how carbon offsets reduce emissions and promote biodiversity, exploring carbon credits as part of our materiality approach allows us to align biodiversity conservation with our sustainability objectives, offering risk mitigation and growth potential.

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2 Given the maturity of our scheme, we haven't seen many viable, liquid options for biodiversity investments, despite interesting projects in forestry and water. It's unlikely we'd pursue a nature-specific mandate, as proving such investments would deliver outsized returns remains challenging. In contrast, investments in climate benefit from ample data and trustee confidence that nature has yet to achieve."

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3.2 Processes

Schemes employ a range of processes to assess nature-related risks, opportunities, impacts and dependencies, reflecting varied stages of development and approaches. We divided these into five common processes.

Lack of formalised processes

Some acknowledge nature-related risks but lack systematic processes for tracking them. Their strategies involve general portfolio reviews or limited climate assessments. Example: one pension fund conducted a climate scenario analysis but hasn't fully integrated it into strategic asset allocation. They aim to better align their responsible investment team with their organisational goals, recognising the need for a more comprehensive climate and nature risk assessment.

Developing processes

Others are beginning to incorporate frameworks, tools and partnerships to address nature-related impacts and dependencies. These funds often start by focusing on climate, with plans to extend their scope. Example: one fund began reporting on climate, planning to expand to nature, health, social equity and environment.

ESG and materiality frameworks

3 A few incorporate nature-related risks within broader ESG frameworks, assessing financial

materiality across sectors with high nature dependencies. Example: one asset owner uses a 'worst-in-class' system to evaluate financial risk, weighting sectors with higher nature-related risks more heavily in their assessments.

Stewardship focus

A Some funds prioritise corporate voting and working groups to influence biodiversity and nature-related issues rather than direct investment adjustments. Example: one fund emphasises stewardship over stock-picking, focusing on biodiversity voting and joining initiatives like ShareAction's pesticide group, using engagement to drive corporate accountability; another scheme is a Nature Action 100 signatory, which inspired them to gradually engage with corporates on nature-related risks.

Sector-targeted initiatives

Schemes using tools like ENCORE benefit from a structured analysis of environmental risks across portfolios, identifying sector dependencies and impacts, though data limitations remain. Example: one UK fund said their ENCORE analysis reviewed 80% of their portfolio, revealing sectoral vulnerabilities to water scarcity and habitat loss. However, limited data granularity will lead to further assessments to evaluate how companies manage these dependencies.

Sector-specific approaches offen involve partnerships with conservation groups or proprietary data for high-materiality assets. Example: one manager uses specialised partnerships like the Natural History Museum - which is more granular than sector-specific assessments. Their Biodiversity Intactness Index (BII), for instance, measures biodiversity change using abundance data on plants, fungi and animals worldwide, showing how local terrestrial biodiversity responds to human pressures such as land use change and intensification¹ – and conservation collaborations for real assets like timberland, leveraging customised data to monitor environmental impacts.

Funds allocating mainly to public markets rely on ESG data providers to monitor biodiversity risks across portfolios, gradually planning to incorporate nature-related targets as data quality improves. For example, one scheme uses MSCI for ongoing ESG monitoring and plans to integrate nature-related mandates as data and analytical tools develop.

REFERENCES

1 Natural History Museum, 2024, Biodiversity Intactness Index, viewed July 2024, https://www.nhm.ac.uk/our-science/services/data/biodiversity-intactness-index.html>.



4 Reporting plans and data

4 Reporting plans and data

A lthough challenges related to reporting on nature were consistent across pension funds, strategies implemented to navigate these vary extensively, even in the UK. We divided the level of reporting on nature into:

1 | Reporting on nature

Of the seven interviewees already reporting on nature-related topics, only two – both outside the UK - are already adopting the *TNFD* guidance. Before reporting on *TNFD*, some funds incorporated nature-related sections in their responsible investment, stewardship, ESG or sustainability reports, including initial risk-mapping exercises, engagements and examples on how they are addressing nature loss within their investment portfolio. They plan to enhance their reporting in future.

There are two motivations for early adoption of *TNFD*: regulatory expectations – anticipating *TNFD* may become mandatory like *TCFD* – and the material risks and opportunities associated with nature. However, while schemes acknowledge the importance of addressing nature-related risks, they also face challenges in setting specific metrics and targets.

TCFD* has been widely adopted worldwide, setting a minimum standard for businesses. Similarly, as TNFD gains prominence, we understand the need to prepare for and analyse nature-related risks and opportunities.

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Schemes are adopting a similar approach by committing to annual progress reports. They are either about to publish or have recently shared insights from their initial ENCORE and risk assessment analysis, showing how they are addressing nature loss within their portfolio, engaging with companies and collaborating with managers. Although data and targets are still limited, they provide impact and vulnerability figures in their latest reports, expecting to align their reporting with *TNFD* soon.

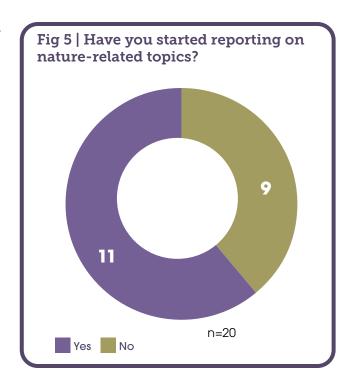
We disclose on nature in the generality of our ESG reports. When mentioning case studies, we often focus on natural capital or biodiversity.

As an industry, we're still awaiting standardised metrics and targets to better hold our managers and consultants accountable. This evolving landscape drives our motivation, as we aim to stay informed and engaged in conversations that will help shape these standards.

ASSET OWNER

66 Any reporting framework is seen as a burden by many. The challenge is reframing them as positive opportunities rather than obligations. 99

ASSET OWNER





2 | Not reporting on nature but considering integration with climate reporting

These asset owners are seeking to build internal capacity before transitioning to external reporting. One pension fund has hired a consultant to focus on this topic and plans to create an integrated report addressing nature and climate. Another scheme has evaluated its managers on various ESG topics, including nature and biodiversity, through a due diligence questionnaire.

Our goal is to integrate *TNFD* elements into our *TCFD* report, moving towards a combined report. While it may not be a full *TNFD* report immediately, we aim to establish a complete *TNFD* report potentially next year. Drawing on our experience with *TCFD* before it was a regulatory requirement, we found early adoption invaluable for understanding metrics and tackling challenges as they arise.

66 In the last couple of quarterly reports, we touch on nature-based solutions and outline the rationale for having made investments using nature as one of the drivers, on the compliance and on the value creation perspective.

3 | Not reporting on nature while still navigating climate metrics and reporting

Some pension funds have only recently started reporting on emissions and are struggling to quantify biodiversity impacts. While they address broader environmental issues, measuring nature-related metrics remains challenging. In jurisdictions like Australia and Canada, *TNFD* had minimal uptake. Although some are focused on nature, reporting is often limited and lacks intentionality.

We report on *TCFD* and we did consider reporting on *TNFD* as well. But with the burden of new disclosure regulations, we thought, 'let's leave our reporting as it is now'.

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Gurrently, only one client is focused on nature as an impact theme and plans to report on it. Other clients may include nature to the extent they align their portfolios with the SDGs, using data providers to indicate alignment (ie. 10% of our portfolio aligns with SDG 13). However, this approach is often unintentional and lacks detail on negative or unintended impacts.

ASSET MANAGER

4 | Will not extend beyond what is mandated

Schemes' reporting aligns with regulatory requirements but does not extend beyond what is mandated. They expressed a cautious approach to reporting, prioritising action over extensive documentation, which is particularly the case for smaller organisations with limited resources.

Currently, we don't have plans to go beyond what the regulators are asking for. Why aren't we doing more? As a small organisation, we prefer to focus our resources on active initiatives rather than additional reporting.

ASSET OWNER

Asset classes in scope

Interviewees are mainly taking a sequential approach to asset class reporting. While they aim to report on their entire portfolio, certain asset classes present greater assessment challenges. To address this, they plan to start gradually with classes where data is more readily available, similar to their climate strategy – initially focusing on public equity for climate reporting due to the abundance of information. One asset owner aims to provide a greater overview across all asset classes, focusing specifically on public equity for a detailed *TNFD*-style report.

Our primary focus is on listed assets, but we also examine real assets where feasible. For example, in our affordable housing portfolio, we consider biodiversity impacts based on location and material sourcing practices. While listed assets are the main priority, we do aim to include real assets as well. An industry-wide challenge is obtaining reliable data from various asset classes, but, where possible, we actively engage with our managers to gather insights and apply pressure for greater transparency.

ASSET OWNER

Two funds explained how real assets like property and infrastructure, along with listed assets, allow for easier data collection directly from managers, while government bonds remain challenging. Another scheme, focused on corporate equity and debt, aims to expand into other asset classes as additional tools and data become available.

In a region-specific strategy, a Latin American asset manager, despite difficulties with private debt, has chosen to focus on deforestation for this specific class, engaging companies to promote awareness and shared action: We understand the problem of deforestation. We have (made the companies) aware of the problems, so they are open to sharing information and discussing how we can engage. ASSET MANAGER

To address data complexity, in private markets, asset owners are tailoring their approach, prioritising asset classes with the greatest financial exposure. Two funds mentioned measuring 'value at risk' in the context of assessing financial exposure and nature-related risks. One interviewee mentioned it as part of their approach to understanding financial materiality, particularly in listed equity and credit, asset classes they are assessing. A second fund manager mentioned using an MSCI ESG manager (a platform with tools to manage research, analysis and compliance across ESG factors), to help them start assessing their climate value at risk, hence their climate exposure.

our work to date has focused on listed equity and listed credit. First and foremost, these are two large asset classes for us in terms of financial exposure. We are not trying to define financial materiality yet as the data is not robust enough. Instead, we are focusing on where we have the largest financial exposure and then trying to indicate the value at risk in our disclosures.

ASSET OWNER

Insight: Most interviewees are yet to report on nature. Among those who have started, the majority preferred to begin by including sections on nature in their responsible investment, stewardship or sustainability reports. This is an initial step towards adherence to the TNFD guidance. The main reasons for these early efforts are increasing regulatory pressure and the growing materiality of nature-related topics. Some organisations are focused on building internal capacity before they begin external reporting on nature. A small group of interviewees is still concentrating on developing and analysing their climate-related metrics. A minority of schemes indicated they would not report under TNFD unless it becomes mandatory.

PENSIONS FOR PURPOSE'S PERSPECTIVE

There is no one-size-fits-all approach to reporting on nature, and most schemes face the dual challenges of limited resources and increasing reporting regulations. Schemes should start by assessing their most material risks and opportunities, which will help make the reporting process more 'decision-useful'. While asset owners widely acknowledge *TNFD* builds on the foundations established by the *TCFD*, a key obstacle remains. This lies in effectively showing the

added value of *TNFD*-specific reporting or advocating for a unified approach combining both frameworks, ensuring it is not perceived as overly onerous or resource-intensive, particularly for smaller teams. In addition, to identify engagement themes, schemes can also pinpoint asset classes to prioritise initially, expanding their scope and ambition over time.



4.1 Frameworks for nature-related reporting

The TNFD was frequently cited by organisations exploring or implementing standards. Many are either in the early stages of adopting the framework or are considering its application in the future. Its structured approach and alignment with TCFD standards make it a popular choice for schemes looking to report on nature related issues.

We've participated in UK
Sustainable Investment Forum
roundtable discussions on nature
and the general sense is that
many are still figuring out where to
begin.

ASSET OWNER

because it aligns with our climate reporting initiatives. We will use the ENCORE methodology. Our goal is to identify and address data gaps at the open-source level.

ASSET OWNER

meaningful without overextending our two-person team. We're aiming for an efficient, targeted approach by using core *TCFD* metrics rather than the full framework. We may take a similar approach for nature-related reporting, prioritising climate initially due to its richer data availability. Currently, we're in learning mode, engaging in discussions to define our starting point.

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Schemes are investing in internal capabilities to respond to this evolving reporting landscape. Some are hiring dedicated personnel or tools to manage data and understand the risks and opportunities linked to nature and biodiversity. Smaller funds and those with limited resources often take a pragmatic approach, preferring to focus initially on climate-related reporting due to the relatively more mature datasets available, while keeping an eye on nature-focused frameworks as they evolve. In some cases, there's a preference to adhere only to regulatory requirements rather than adopting additional voluntary standards.

During the interviews, a popular topic was the importance of understanding the purpose behind nature-related reporting, rather than simply adhering to a framework. This is crucial to ensure reporting is not viewed as a hindrance but as a valuable decision-making tool. For example, one asset owner emphasised the need for their reports to effectively communicate nature-related information to stakeholders. They prefer storytelling and case studies over extensive technical details, aiming to present clear and digestible information, especially as discussions on nature-related risks can become complex. Another fund has decided to focus on the sectors ENCORE highlighted as the most reliant on nature - agriculture, aquaculture, fisheries and forest products.

Meanwhile, a few interviewees are developing custom methodologies. These bespoke approaches often use *TNFD* as a foundational guideline, emphasising the framework's flexibility to accommodate specific needs.

effectively with our members. Our focus is on providing case studies and real examples of how we've engaged with our managers, highlighting where we are in our journey and where we aim to go. Our goal is to clarify our objectives in these conversations. Overly complex reports can leave stakeholders confused rather than informed. By adopting a refined approach to storytelling and supporting it with case studies, we aim to bring our initiatives to life. This clarity helps us to strengthen our engagement with our members.

ASSET OWNER

we're developing our own framework using *TNFD* as a baseline. *TNFD* categorises 'ecosystem services' and two of them are provisions and regulating services, which are often intangible and challenging to assess. For example, (a local commodity company) produces soya beans (a provision) but also creates additional benefits through regenerative practices requiring evaluation. While TNFD will be our primary source for assessment and reporting, we're also exploring other frameworks.

ASSET MANAGER

to survey holdings and managers, assessing nature-related risks and impacts across our portfolio. This approach supports our ESG manager assessments.

ASSET OWNER

Overall, while the *TNFD* is a central touchpoint, organisations are at different stages of maturity and engagement, each seeking to adapt the framework to their specific needs.

Integrated reports: climate & nature

There is interest in aligning climate and nature reporting, with many interviewees supporting the idea of integrated reports that combine *TNFD* and *TCFD*. Those already reporting under *TNFD* expressed a desire to move towards integrated reports, which cover climate and nature issues, acknowledging how these areas are connected.

**Currently, we publish separate TNFD and TCFD reports, along with a sustainability report. Additionally, we release an ESG investment report. Our goal is to create a more cohesive report that encompasses nature and climate, as well as sustainability initiatives in the future. **

ASSET OWNER

Schemes recognise the complexity involved in expanding to nature-related disclosures, particularly given the challenges of data availability and standardisation. Private market managers, in particular, face hurdles due to limited resources and the difficulty of collecting location-specific and supply chain-related data. As a result, some are taking a phased approach, prioritising *TCFD* reporting initially and acknowledging comprehensive nature reporting will require more time.

markets in reporting, even on basic climate metrics like Scope 1 and Scope 2 emissions, due to limited resources. While there is hope for progress in nature-related reporting, it may take time. Our current focus is on advancing *TCFD* reporting, with plans to move to *TNFD* later.

Smaller teams are supportive of combined reporting to reduce the drain on resources. Some are tracking regulatory developments, like *ISSB* standards, that may drive further alignment in their reporting practices.

••I'm eager to see the first *TNFD* reports from our peers. We won't adopt TNFD until it becomes mandatory. If we could create a single comprehensive report under ISSB, that would be ideal. but it's uncertain at this point. As signatories to the Stewardship Code, we are monitoring the FRC's plans to review the code, which aims to streamline reporting and reduce redundancy for signatories. Although the Stewardship Code isn't as regulatory as TCFD or TNFD, we're watching for developments. Opportunities for combined reporting would be especially beneficial for our small team. 99

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Additionally, certain respondents are monitoring industry trends, including moves by industry associations and governing bodies towards reporting requirements, which could facilitate an easier transition to combined reports in the future. While many are still assessing how to fully incorporate nature into their frameworks, there is consensus on the value of an integrated approach, viewing it as a challenge and an opportunity.

Nature-related metrics

Organisations are still in the process of embedding nature into their governance structures and strategies, not really considering metrics yet. While

•• Focusing on metrics isn't the

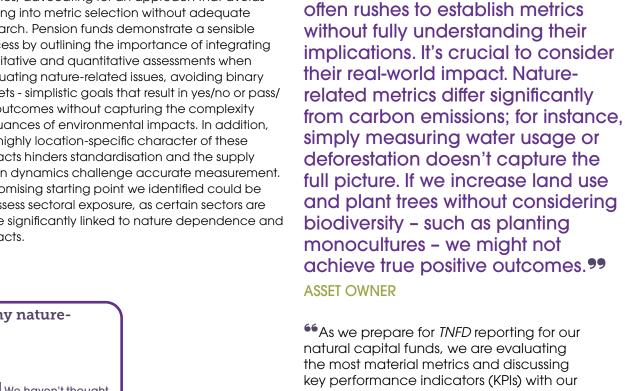
best starting point. The industry

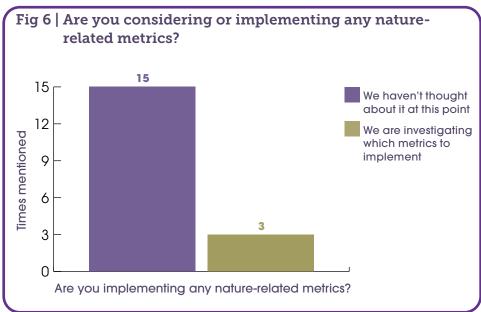
the need for nature-related metrics is recognised, many are in the exploratory phase, trying to identify the most meaningful metrics aligned with their strategies.

66 Many investors have good intentions but, without proper education and understanding, they may not create the desired impact. It's vital not to rush into developing metrics without thorough due diligence and collaboration with experts who have extensive knowledge in these areas. The industry should take the time to understand these complexities instead of moving too quickly. 99

ASSET OWNER

Some schemes emphasised the importance of understanding the real-world implications of metrics, advocating for an approach that avoids rushing into metric selection without adequate research. Pension funds demonstrate a sensible process by outlining the importance of integrating qualitative and quantitative assessments when evaluating nature-related issues, avoiding binary targets - simplistic goals that result in yes/no or pass/ fail outcomes without capturing the complexity or nuances of environmental impacts. In addition, the highly location-specific character of these impacts hinders standardisation and the supply chain dynamics challenge accurate measurement. A promising starting point we identified could be to assess sectoral exposure, as certain sectors are more significantly linked to nature dependence and impacts.





natural capital funds, we are evaluating the most material metrics and discussing key performance indicators (KPIs) with our managers - considering a range of options from reforestation rates to stream miles, carbon sequestration and bird counts. Our goal is to determine the most appropriate metrics for each strategy while avoiding perverse incentives. There is no one-size-fits-all approach; for instance, while planting trees can be beneficial, it can also harm existing valuable ecosystems. For reporting metrics, these are not binary targets, it's more about information and informing what managers have been able to do that's having a positive impact, and that can be quite varied. 99

ASSET OWNER

metrics for nature, so we may need to rely on qualitative assessments. Nature impacts are highly location-specific, making standardisation hard. Additionally, nature considerations often involve supply chains, which are notoriously complex and difficult to map out. A good starting point may be to assess our sectoral exposure, as some are more relevant in terms of dependence on and impacts on nature. By understanding the risks associated with these sectors, we can better map where we have exposure across different fund managers, allowing us to engage with them.

Among those exploring the metrics a prioritisation approach is being followed. One pension fund focuses on metrics related to industries they are most exposed to and areas where there is data available for analysis. They plan to apply these metrics primarily to public market asset classes, although their approach to government bonds is still under consideration.

66 Based on our early research, deforestation and water use will likely be our starting points since there is the most available data in these areas and where we have exposure. We plan to apply biodiversity metrics to public markets, though we haven't figured out how to approach government bonds yet. 99

ASSET OWNER

Another fund has conducted an exposure assessment targeting high-priority sectors identified by *TNFD* and ENCORE, acknowledging the need for more specific metrics.

A different fund is concentrating on value at risk and financial exposure related to water risk. They face

TNFD core global disclosure metrics

TNFD's recommendations centre on 14 core metrics related to dependencies, impacts on nature, and nature-related risks and opportunities. These metrics are chosen for their sector relevance, alignment with global policy and decision-usefulness for report users. *TNFD* emphasises materiality as the basis for reporting: organisations should disclose core metrics unless they are irrelevant to their business, location or immaterial. If relevant but unmeasurable, due to data limitations, methodology gaps or commercial sensitivity, disclosure is not required, but organisations should explain plans to address this.¹

Disclosure metrics

TNFD lists nine core global disclosure indicators and metrics for nature-related dependencies and impacts (in addition to the indicator for climate change) associated with the drivers of nature change:

Driver of nature change: Climate change

Indicator: GHG emissions

- (C1) Driver of nature change: Land/freshwater/ocean-use change
 - (C1.0) Indicator 1: Total spatial footprint
 - (C1.1) Indicator 2: Extent of land/freshwater/ocean-use change
- (C2) Driver of nature change: Pollution/pollution removal
 - (C2.0) Indicator 1: Pollutants released to soil split by type
 - (C2.1) Indicator 2: Wastewater discharge
 - (C2.2) Indicator 3: Waste generation and disposal
 - (C2.3) Indicator 4: Plastic pollution
 - (C2.4) Indicator 5: Non-GHG air pollutants
- (C3) Driver of nature change: Resource use/replenishment
 - (C3.0) Indicator 1: Water withdrawal and consumption from areas of water scarcity
 - (C3.1) Indicator 2: Quantity of high-risk natural commodities sourced from land/ocean/freshwater
- (C4) Driver of nature change: Invasive alien species
 - (C4.0) Measures against unintentional introduction of invasive alien species
- (C5) Driver of nature change: State of nature
 - (C5.0) Indicator 1: Ecosystem condition
 - (C5.1) Indicator 2: Species extinction risk

Disclosure metrics for dependencies and impacts on nature

TNFD lists five disclosure metrics for nature-related risks and opportunities:

- (C7) Risk
 - (C7.0) Assets, liabilities, revenues and expenses vulnerable to nature-related transition risks
 - (C7.1) Assets, liabilities, revenues and expenses vulnerable to nature-related physical risks
 - (C7.2) Fines/penalties received/litigation action due to negative impacts on nature

Opportunity

- (C7.3) Capital expenditure, financing or investment deployed towards nature-related opportunities
- (C7.4) Proportion of revenue from products and services generating demonstrable positive impacts on nature.

These are placeholder indicators and lack widely accepted metrics. While the TNFD encourages organisations to consider and report on them where possible, they are working to develop further guidance. This table was inspired by the TNFD core global disclosure indicators and metrics for nature-related dependencies and impacts Table, available at TNFD.1

challenges in data availability, particularly on the geographical impact of water and land use changes.

Few interviewees could name specific metrics they intend to consider. All the indicators mentioned during our conversations related to dependencies and impacts on nature, in particular on land, freshwater and ocean-use change. Turning to opportunities, 'agriculture' emerged as an important topic but no metrics for evaluation were mentioned.

REFERENCE

1 TNFD, (2023), Recommendations of the Taskforce on Naturerelated Financial Disclosures, viewed December 2024 https://tnfd.global/publication/recommendations-of-the-taskforce-on-nature-related-financial-disclosures/#publication-content. 66 As part of our exposure assessment, we've focused on high-priority sectors identified by TNFD and ENCORE. Internally, this has helped us understand our general level of exposure to these sectors. At this stage, we unable to report meaningfully against the detailed TNFD metrics. Our priority is obtaining the right data to support these measurements. We are exploring external data providers to ensure we have reliable data, which will determine the appropriate metrics to track in the future. 99

exposure metrics, particularly on water risk and impact. However, *TNFD* suggests measuring changes in freshwater usage based on the geographical extent of affected freshwater systems, but this data is often undisclosed. Similarly, assessing land use changes related to agricultural commodities purchased by consumer goods companies is complex. We struggle to obtain systematic geographical data to accurately attribute impacts to specific companies. While we aim to align with *TNFD*, we aim to identify sensible metrics supported by available data, enabling us to derive actionable insights.

Fig 7 | Metrics interviewees consider implementing









Insight: Although the *TNFD* is the primary framework asset owners are considering for nature-related reporting, schemes remain in a 'learning mode,' at an exploratory phase of nature-related metrics, understanding simplistic, binary metrics may not capture the full complexity of the issues. The lack of standardisation is a significant challenge, as investors must navigate the complexities and diverse issues across sectors and supply chains.

For this reason, some schemes have chosen to focus on specific sectors, such as those highlighted by ENCORE: agriculture was frequently mentioned by asset owners as a risk and an opportunity.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Nature is a complex topic. Although most financial market professionals come from finance and economic backgrounds, they are now challenged by an area outside their expertise. For this reason, collaboration is critical. Interviewees who hire climate and nature specialists or partner with academic institutions and organisations, such as *ZSL*, are experiencing a smoother journey. Having experts from relevant fields supports them effectively assess nature-related risks and opportunities.

4.2 Data challenges

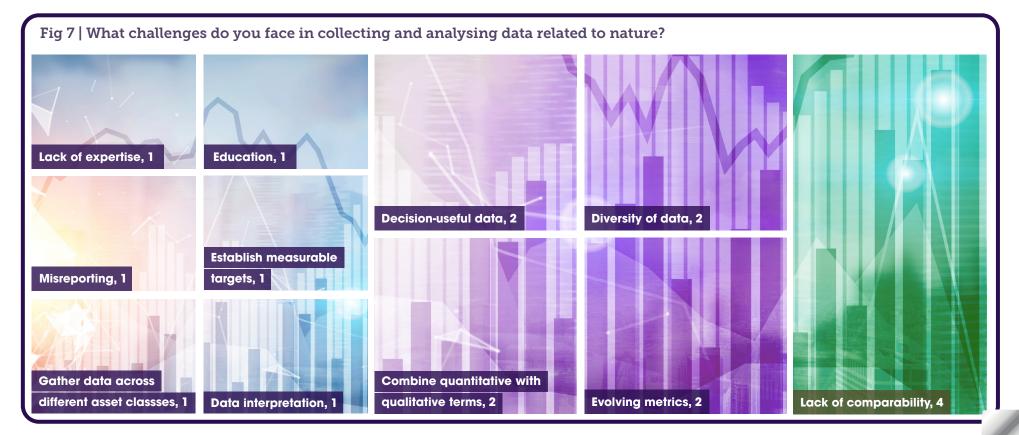
Interviewees were concerned about the challenges of reporting on nature and biodiversity. Surprisingly, they argued diversity of data and data interpretation, rather than data availability, are the problems asset owners and managers face reporting on nature. There are two contrasting challenges: on one hand, existing metrics tend to oversimplify complex ecological issues, making it difficult to derive conclusive insights; on the other, the lack of comparability among different

reports weakens consistency across the industry. Even when reporting is available, it often lacks depth, falling short in its usefulness for decision-making.

Nature is a complex topic, quantitative metrics can be too reductive and simplistic, not portraying the full picture. Asset owners argue establishing measurable targets for biodiversity is harder than climate metrics, which are more standardised and widely accepted.

Biodiversity encompasses many individual issues and there is no single measurable target to evaluate it effectively. Our current approach involves gathering data and analysing it on a case-by-case basis.

ASSET OWNER



66 Nature reporting is a nuanced exercise requiring a qualitative approach. The diversity of naturerelated data means what works well in one region may not be beneficial in another, and the focus areas differ significantly between companies and countries.99

ASSET OWNER

Data challenges add to other difficulties, such as the methodological complexities of natural capital accounting and valuation.

⁶⁶With climate, we at least have a key metric: greenhouse gas emissions. However, questions arise about how to interpret these figures. Are you considering market cap, absolute emissions or emissions intensity? It's not a single measure; there are various ways to analyse this seemingly straightforward data. In contrast, when it comes to nature, the range of factors to consider is vast, along with different methodologies for each, whether it's mean species abundance or other metrics. 99

ASSET OWNER

••Measuring nature in monetary terms is challenging. For example, how do we assign a monetary value to an endemic species? Take species found in the Cerrado region - how do we measure its worth? The assessment is often biased, focusing only on aspects that directly impact business, which overlooks general ecological value.

ASSET MANAGER

Integrating qualitative and quantitative analyses is challenging, particularly in ensuring that regional and ecological factors are not overlooked. The materiality and significance of biodiversity data often vary by region, and its availability is frequently inconsistent. These inconsistencies are especially pronounced across asset classes, with private markets lagging significantly behind public markets in reporting capabilities, particularly on climate data, which limits the ability to assess nature-related risks effectively. Access to technical expertise is essential to prevent reductive analyses and interviewees emphasised the need to educate staff. particularly those with financial backgrounds, on these topics.

The data available for assessing nature-related risks is not as robust or consistent as it could be, with significant variations in quality and relevance across regions and companies. Public markets generally have better data coverage than private markets, while inconsistencies are further exacerbated by differences in reporting levels between developed and developing markets, with one asset owner highlighting developing markets as somehow behind.

One pension fund mentioned the lack of consistent data particularly in asset classes like sovereigns or bonds, which complicates the engagement with and assessment of nature-related risks. Private equity managers were noted as particularly behind in data availability, with their focus on financial returns over nature-related issues. Limited reporting on climate and other sustainability metrics in private markets was identified as a major issue, with many private market managers failing to report such data at all.

Insight: Data challenges usually relate to accurate interpretation and incorporating qualitative assessments. In addition to varying levels of data availability across asset classes, data challenges often involve accurately interpreting and incorporating qualitative assessments. Furthermore, certain metrics can have different meanings across geographies and contexts, which complicates comparability due to the 'diversity of data'. Data availability also varies significantly between asset classes, with private markets often falling behind public markets.

PENSIONS FOR PURPOSE'S PERSPECTIVE

By clarifying their objectives when they begin reporting on TNFD, pension schemes can determine the most relevant metrics for their context. Engaging on an educational journey to build a shared understanding within the organisation, especially given the predominantly financial background of staff, is essential. This effort helps to align perspectives on the topic, enabling asset owners to make more informed decisions and ultimately enhance the real-world impact of the reporting process.



4.3 Asset managers assessment based on nature

A sset owners generally recognise the importance of engagement and actively seek information about managers' environmental practices, although the level of engagement varies significantly. One asset owner shared they have already assessed their managers on nature using a simple questionnaire, which helped them identify knowledgeable managers and facilitate information sharing. Several emphasised the need for asset managers to acknowledge biodiversity as a risk and provide relevant data, expecting them to identify at-risk companies and sectors.

Conversely, one asset manager noted a lack of personal incentives for incorporating nature-related considerations into decision-making, as asset owners often do not prioritise biodiversity risks in their mandates. While some clients are beginning to request assessments related to nature-positive investments, this area remains in its early stages. This interviewee mentioned receiving requests to look at and identify impact investments that are nature positive, indicating there is an interest in nature-positive investments from at least one client.

Actions on nature asset owners expect from asset managers

- Recognition biodiversity is a risk: asset managers should acknowledge biodiversity as a material risk and identify vulnerable companies and sectors.
- Engagement and collaboration initiatives: active collaboration in initiatives (for example, *Nature Action 100, PRI Spring*) to build collective knowledge. Prioritise engagement with investee companies on nature-related topics, focusing on a dialogue rather than blanket demands.
- Position statement or policy: while some asset owners expect all managers to disclose under *TCFD* and *TNFD* guidances, others focus these requirements on larger managers, 'meaningful engagement' taking precedence over standard reporting. Rather than public reports, they value receiving accurate, relevant answers to targeted questions to ensure managers are taking effective action.

managers) to establish a policy or positional statement outlining their view on nature and biodiversity and its relationship with climate. This should demonstrate their understanding of the issue and its relevance to their clients. Beyond that, I expect them to disclose their alignment with TNFD. For managers with smaller resources in private markets, this can be challenging. I have not got into the TNFD much, however, the advantage of the TCFD framework is it can be concise – often just a couple of pages – allowing them to cover points effectively. I believe TNFD disclosure will become widely accepted as well.

ASSET OWNER

- Risk mapping: conduct risk assessment across their portfolios to identify the nature-related risks and exposures, focusing on high-level disclosures, engagement and priorities.
- Me've asked managers to conduct risk mapping across the portfolio to identify risks and exposures and to develop a plan for addressing these issues. Rather than demanding they underweight or divest from certain securities, we seek a deeper understanding of the risks to portfolio investments. This dialogue will focus on identifying the pertinent issues and establishing high-level disclosures with prioritised actions.
- 66 I seek portfolio-wide disclosure of risks likely to cause financial harm, particularly those materialising in the short term.

 ASSET OWNER

- Meaningful disclosure: while adherence to frameworks like *TNFD* is encouraged, asset managers are urged to engage meaningfully beyond compliance. Effective disclosure should reflect genuine action rather than serving as a simple reporting exercise.
- Measuring impacts with accessible metrics: asset managers should begin reporting on nature by selecting accessible metrics, such as emissions data, water usage and operational presence in biodiversity-sensitive regions. Engagement with corporates is necessary for data to flow to asset manager and then on to asset owner levels, creating supply and demand for high-quality information.
- encourage greater disclosure, firstly by ensuring they understand what's materially relevant to disclose from an investment perspective. Our focus is on having them map portfolios to assess risks, opportunities, dependencies, and impacts, which will lead to more informed discussions on relevant reporting. While we're cautious about pushing for immediate reporting since metrics may still evolve or lack relevance we're aiming for a clearer industry consensus. Avoiding fragmented, inconsistent reporting is essential for meaningful, comparable disclosures across the industry.
- While none of our clients are reporting on *TNFD*, we anticipate this will evolve. Meaningful corporate-level information must be available before it can be reported by asset managers and, subsequently, by asset owners. However, we cannot simply wait for corporations to adopt these practices; a two-way dialogue is essential to create a supply and demand for this information. Initially, it may be more feasible to ask for easier-to-measure data: emissions footprints, water consumption and operational regions in biodiversity hotspots, rather than directly assessing impacts on nature.
- Using nature-related data to assess asset managers: asset owners are increasingly asking managers for nature-related information, although the comprehensiveness of these assessments significantly varies. Advanced managers have implemented ESG ratings that include nature and biodiversity metrics, while others start with general, open-ended questions, such as "What are you doing on nature?" to understand the manager's engagement on the topic, with plans to extend these assessments over time.

Fig 9 | Do you use nature-related information to evaluate the performance and strategies of asset managers?

Yes
Qualitative approach
Plans to incorporate

Use of nature-related information to evaluate asset managers



In some cases, general due diligence assessments already include nature-related questions, with the intention of evolving this criteria in future manager assessments. Overall, asset managers worldwide are seeing more emphasis on nature in assessments. However, some asset owners treat these metrics more as informative data points, like diversity, equity and inclusion data, rather than direct performance indicators. While nature-related metrics, such as the amount of pollutants, can measure portfolio-wide impacts and show performance, the challenge lies in giving these quantifiable metrics context through qualitative analysis, which would make them more decision-useful. Asset owners recognise the financial materiality of these metrics, as many began reporting on them specifically for this reason, but they struggle to turn this data into actionable insights for decision-making. The difficulty is in finding a balance between quantitative data and qualitative factors that can provide a clearer picture and guide investment decisions effectively.

There is a growing expectation for asset managers to map their portfolios' dependencies on the impacts of nature, track metrics and incorporate these insights into their evaluations. While many asset owners have standardised nature-related assessments, there is a global trend of considering nature and biodiversity in the evaluation and due diligence of asset managers. Those we interviewed had already been consulted on nature and biodiversity, although the depth and frequency of these questions vary.

- 66 expect the more sophisticated and insightful our assessment becomes, the more it will influence technical evaluation of asset managers on the theme of nature. As it stands, the indicative view we have of potential impacts and dependencies has helped to inform our stewardship programme, which is one area in which we evaluate managers. 99 **ASSET OWNER**
- Qualitative approach: as TNFD adoption progresses, asset owners expect to enhance manager assessments, with TNFD providing a more structured framework for evaluating biodiversity and nature considerations. Currently, many asset owners are engaging qualitatively with managers on these topics, recognising that achieving net-zero emissions is inseparable from reversing biodiversity loss.

One European asset manager acknowledged, although formal assessments on nature are not in place, asset owners are actively pushing for progress in this area:

••The investment committee is asking us to set targets to mitigate negative impacts (ie tackling nature). While initially we advocated ourselves for action on nature, now they're instructing us to bring forward concrete initiatives. This shift is also influenced by the Central Bank's proactive stance, as they increasingly question pension funds on their biodiversity efforts, which has accelerated our clients' interest as well.

ASSET MANAGER

- Plans to incorporate: all respondents are beginning to incorporate biodiversity considerations into portfolio considerations, but their focus varies, depending on asset class and mandate type. For example, one fund targets specific due diligence questions in request for proposals (RFPs) for timberland and infrastructure, and aims to build reporting objectives directly into investment management agreements (IMAs), developing a differentiated approach across asset classes.
- ⁶⁶We plan to incorporate specific questions into the due diligence process for certain asset classes during RFPs. For timberland and infrastructure, these questions will form part of our ESG enquiries. We expect fund managers in these areas to present a strategy for managing and monitoring these issues. Additionally, we will establish objectives for reporting and set requirements in IMAs. For asset classes like real estate, we can afford to be more detailed and specific. However, we are not adopting a one-size-fits-all approach; differentiation across asset classes is essential. In a passive equity mandate, we would prefer a risk-mapping approach, while, for real estate, we expect comprehensive ESG considerations to be already integrated into the due diligence for each asset in the portfolio. 99 **ASSET OWNER**

Another scheme, with substantial exposure to emerging markets and commodities, plans to prioritise collaboration with managers in these regions, potentially incorporating biodiversity data in future mandate selections, similar to their climate reporting process.

Nature considerations in manager selection

Some schemes argued fully integrating nature into selection processes depends on the development of frameworks and improved data interpretation.

One fund highlighted its commitment to include nature considerations in its ESG due diligence and assessment processes. They recently introduced an ESG questionnaire and rating system which emphasises stewardship, particularly in sectors critical to nature. Other funds explained a similar approach: nature is already part of their overall ESG criteria and managers with inadequate policies on these issues should not be on their list. Similarly, another fund mentioned their ESG assessment includes high-level nature-related questions, with further inquiries conducted upon client request.

One UK pension scheme highlighted their intention of including nature-related considerations into manager selection in the future although, for now, their focus has been on engaging with existing managers on the topic. Another scheme has made natural capital a core focus of its stewardship and engagement strategy, recognising it as a significant financial risk factor. Biodiversity and nature considerations are integrated into quarterly discussions with third-party managers to evaluate their rationale and engagement efforts with underlying companies. While nature-

specific metrics are not yet reported, the scheme is reviewing potential KPIs, such as reforestation rates, carbon sequestration and stream miles, ensuring they are context-appropriate and avoid creating perverse incentives. Recognising the complexity of nature-related issues, which vary by context, sector and location, the scheme plans to evaluate its portfolio in early 2025. This review will identify the types and locations of exposure, including direct impacts on nature and significant supply chain dependencies, particularly in industries like food production, pharmaceuticals and clothing manufacturing. Once key focus areas are identified, structured discussions with managers will ensure clarity on available information and actions already being taken.

The scheme is exploring tools from providers like S&P that offer datasets assessing nature-related impacts and dependencies at the asset, company and portfolio levels. While useful, they see these tools as requiring careful application to avoid oversimplified assessment. Unlike climate metrics, nature metrics demand deeper, nuanced understanding.

Although nature-based exclusions are not currently in place, and divestment remains a last resort, public market efforts focus on encouraging managers to engage with companies to improve practices. In private markets, the scheme directly engages with managers overseeing real estate, infrastructure, and other assets to address identified risks and opportunities. Nature and biodiversity considerations are partially embedded in the manager selection and assessment process through overarching ESG criteria. Managers are expected to have robust policies and demonstrate actions addressing nature-related risks and opportunities, or they risk exclusion from the approved manager list.

Insight: Pension schemes are engaging with their managers on nature-related issues to various degrees. They have five expectations from managers:

- To recognise the materiality of naturerelated topics.
- To actively engage with industry initiatives.
- To set a clear position statement or policy.
- To conduct comprehensive risk mapping to assess portfolio exposure to naturerelated risks.
- To provide meaningful disclosures; reports should be substantial, providing significant insights rather than marketing content.

PENSIONS FOR PURPOSE'S PERSPECTIVE

Asset managers are essential in advocating for sustainable practices and responsible stewardship. However, asset owners also have a crucial responsibility to ensure managers do not overlook nature and biodiversity issues. As some managers have noted, few of their clients actively engage on these topics or raise specific requests on nature or biodiversity. Still, we need to highlight some advancements, like schemes beginning to incorporate specific questions into the due diligence process during RFPs, tailoring their approach by asset class, with some reporting objectives and requirements established in *Institute of IMAs*.



Best practice

Examples of best practice

Building on the *TNFD*'s guidance for organisations in assessing and disclosing on nature and biodiversity-related topics – and recognising pension schemes are in the early stages of addressing these issues – we compiled case studies (on the following pages) corresponding to each of the 'Key steps to consider' in the *TNFD*'s starting guide. These examples show how each fund will go on its own unique journey, shaped by the issues it identifies as most material. Ultimately, making the first move, whatever it may be, is the most important part of the process.

How to get started: reporting on nature and biodiversity

As the *TNFD* paper¹ highlights, schemes don't need to report on all recommended disclosures immediately:

- Governance
- Strategy.
- Risk management
- Metrics and targets.

Funds can start reporting gradually and become more ambitious over time. Most financial institutions that responded to a *TNFD* survey, indicated they plan to start disclosing on the governance pillar first, before moving on to more specific aspects, following a similar approach to the one taken for reporting on *TCFD*.

In partnership with the Zoological Society of London (ZSL), an asset owner recorded their dependency and impact mapping efforts in line with the TNFD's LEAP framework. This collaboration has provided TNFD-aligned insights, advanced nature-related impact assessment and laid the groundwork for ambitious future disclosures.



In 2024, *ZSL* supported one of the UK's largest pension providers to assess their investment portfolio exposure to nature-related issues.

In this mapping, *ZSL* adopted a double materiality approach, considering both the impacts and dependencies of the asset owner's investments.

They also framed the findings using an impact driver approach, taking direction from

the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)'s classification.

Following in-depth sector analysis utilising both ENCORE and supplementary research into drivers of biodiversity loss, *ZSL* was able to identify which sectors and companies were impacting each driver, allowing the asset owner to conduct practical engagement on a

range of nature issues.

This work represents a useful case study which will help support further analysis into the ways in which nature-related issues may impact customer outcomes and the actions investors can take to address them. *ZSL* encourages other pension funds to carry out similar work to better understand their impacts and dependencies on biodiversity.

'KEY STEPS TO CONSIDER' - CASE STUDIES

Deepen your understanding of the fundamentals

Invest in teaching decision-makers about the topic and mapping out risks, opportunities, impacts and dependencies. In one case, the decision to start building expertise internally and partner externally began with one colleague who already had a background in environmental studies and started training other team members. Over time, this internal training evolved, and now there is a working group of five people with some expertise in the area. Rather than hiring externally, the organisation prioritised internal capacity building. In addition to internal training, they also sought external guidance, such as membership in the Financial Diversity Foundation, to enhance their understanding and approach. The decision to start with internal training and rely on external resources reflects a strategic choice to build knowledge incrementally, rather than making large financial investments upfront in hiring or partnerships.

with one colleague and now we have a working group of five or six people. We're still educating people. We do have other mandatory training in place for the whole investment chain. There are segments of nationwide diversity in there, but the most expertise we have is from one colleague, who is an environmental scientist.

ASSET OWNER

2 Make the business case for nature and biodiversity

After conducting a management assessment, which included questions focused on nature, a fund conducted calls with 30 managers to discuss tangible climate and nature-related risks, to access the relevance of these factors. They observed variability across asset classes: corporate credit managers demonstrated strength, real assets were advanced and public equity had its own dynamics, while private equity lagged behind. Their focus is on building engagement with managers, particularly in the more responsive real asset and progressing public markets.

explain to managers why this data is important and the rationale behind our need for it. Many of them may not be collecting nature-related data, but it's essential to set expectations. We incorporate requirements into IMAs, which means if it's legally mandated, they must address it. This is one approach we are pursuing.

ASSET OWNER

Start with what you have, leverage other work

In assessing companies' and managers' ESG compliance, asset owners are expanding their focus beyond climate to include nature. This quote from an asset owner illustrates the shift, highlighting how biodiversity and nature-related issues are becoming integral to ESG classifications, especially for identifying companies as 'ESG laggards' due to violations or controversies.

Me apply extensive ESG overlays through data and reporting, with a focus on climate and identifying ESG laggards, including UNGC violators and controversial firms. Biodiversity and nature issues are increasingly part of our laggard classification. The 'E' in ESG now encompasses more than climate alone, as biodiversity concerns are integrated into our screening processes.

ASSET OWNER

4 Plan for progression over time, communicate your approach

One scheme has conducted an exposure assessment targeting high-priority sectors identified by *TNFD* and ENCORE. Another pension fund emphasised the importance of storytelling in reporting. While frameworks offer guidance, a good narrative is crucial for conveying complicated information to members. This approach aims to make reports more accessible and interesting for members who may lack technical expertise in environmental issues. In this sense, they argue that having a purpose when reporting provides a good foundation for the outcome – in their case, their purpose is to communicate with members.

66 As part of our exposure assessment, we've focused on highpriority sectors identified by TNFD and ENCORE. Internally, this has helped us understand our broad level of exposure to these sectors. At this stage, we are not yet able to report meaningfully against the detailed TNFD metrics. Our priority is obtaining the right data to support these measurements. We are actively exploring external data providers to ensure we have reliable data, which will determine the appropriate metrics to track in the future. 99

ASSET OWNER

5 Encourage collective progress through engagement

By treating natural capital as a central focus, one fund emphasises its dedication to environmental stewardship. This approach involves protecting natural assets and including these values into investment strategies and engagement practices.

and refresh our stewardship priorities to ensure they reflect our evolving goals. Natural capital stands out a focus, guiding our stewardship efforts, shaping our engagement strategy and informing our investment decisions.

ASSET OWNER

A UK scheme has recently joined *Nature Action* 100. Each year, they report on their engagement activities to the Investment Committee, which operates under delegated authority from the board. These reports detail how they address the most significant risks across the industry and their portfolio, working alongside other investors:

"On the governance front, internally, the board and Investment Committee oversee and evaluate our efforts. Externally, we are integrating expectations into our voting and engagement policies. This includes advocating for board compositions with the necessary skills to oversee nature-related risks within their organisations and ensuring those risks are transparently reported."

ASSET OWNER

6 Monitor and evaluate your own adoption progress

For many asset owners, adopting and reporting in line with the *TNFD* guidance represents a critical step in aligning with emerging sustainability standards. One asset owner highlighted making this commitment, explaining that early adoption requiring review of internal practices:

We have committed to being an early adopter of *TNFD*, which requires us to look hard at what we are doing, whether it is working, and whether we've got the right governance and strategies in place. We've made the commitment; it is a project from January onwards to deliver on that.99

ASSET OWNER

REFERENCE

1 Taskforce on Nature-related Financial Disclosures (TNFD), 2023, Getting started with adoption of the TNFD recommendations, viewed November 2024, https://tnfd.global/publication/getting-started-with-adoption-of-the-tnfd-recommendations/.



Sponsor's view on the research



Sponsor's view on the research

Feedback from First Sentier Investors

he cascading impacts of climate change and society's overexploitation of nature is giving rise to unprecedented devastation of nature and biodiversity. Acknowledging the materiality and the systemic nature of the issue, First Sentier Investors (FSI) have selected nature and biodiversity as one of its priority areas to work on in responsible investment, and published an investor toolkit 'Investors Can Assess Nature Now (ICANN)' in 2023 to share our approach to assessing nature-related issues and company engagement with other investors. As such, we are encouraged by the report's findings that nature and biodiversity considerations are becoming increasingly important in the view of asset owners, pension fund members and asset managers.

We welcome the consideration of nature, climate and social issues by integrating these issues in examining companies and reporting. While such an approach may not be readily feasible by some

asset owners, these are crucial elements to be considered as investors plan for their net zero, nature positive and just, equitable transition. We would like to highlight the importance of taking a 'do no significant harm' approach, and encouraging companies to assess trade-offs and synergies between business practices and investment options. Topics like deforestation, as discussed by some asset owners in the report, are key to addressing these issues. In 2025, FSI plans to publish integrated climate and nature reporting. We believe this will help us understand where our most material opportunities lie to reduce negative impacts on nature and people while striving to meet our net-zero target. In this light, we echo the comment raised by one respondent on the importance of understanding the purpose behind nature-related reporting, rather than simply adhering to a framework.

We recognise the challenges raised by the

respondents to this research when making assessments, particularly stemming from resource constraints, comparability of data and consistency around metrics. The report summarised that respondents were applying various approaches to tackle the resource issue, through:

- In-house hire.
- External outsourcing (consultant).
- Partnership with non-governmental organisations and think tanks.
- Internal training.

As such resource issues are shared by many investors, we welcome pension funds' efforts to build inhouse expertise on this topic while continuing to collaborate and partner with other stakeholders. While nature-related data continues to be a challenge, we found from our experience that prioritisation of key material sectors, activities and impacts can help focus on key metrics and data to monitor. By working together with various data



MUTB feedback

MUFG Asset Management of which Mitsubishi UFJ Trust and Banking (MUTB) is a member, has already published its Natural Capital and Biodiversity Report 2023, a high-level analysis of the 'dependencies' and 'impacts' on natural capital and biodiversity of the entire group's investment portfolio.

It is very encouraging to see asset owners, who entrust us with their assets, are also making steady progress in analysing and responding to this issue, even as they have challenges with resource constraints and data and evaluation criteria. As asset managers we are keenly aware of the need for further analysis and disclosure to better understand the risks and opportunities and meet the expectations of our asset owner clients. We hope that this report will help to deepen understanding of this issue among investors.

*MUFG Asset Management is a brand name formed by Mitsubishi UFJ Financial Group's asset management companies, Mitsubishi UFJ Trust and Banking Corporation, Mitsubishi UFJ Asset Management Co, Ltd, Limited, Mitsubishi UFJ Real Estate Asset Management Co, Ltd, Mitsubishi UFJ Asset Management (UK) Ltd, and Mitsubishi UFJ Alternative Investments Co, Ltd.

and tool providers as well as companies, we believe investors have an important role in addressing data inconsistency and interpretation issues.

If there was one thing our own experience in assessing nature-related issues taught us, it would be to not let perfect be the enemy of good. We found that one of the key messages from the report, 'Start with what you have, leveraging other work' to be well aligned with our view, especially around the prioritisation of in-scope asset class, material sectors and nature topics.

On asset class prioritisation, we agree with following a sequential approach starting with asset classes where data is more readily available, such as listed equities and corporate fixed income. This is in line with *TNFD's* LEAP approach. As investors gain experience and access to data, more robust

methodologies will emerge for other asset classes, to be supported by wider industry.

We were also encouraged to see many asset owners having assessed sector-level exposure and/or impacts and dependencies through using external tools such as ENCORE. We have found such exercises to be helpful in understanding material sectors, activities, companies and impacts for prioritisation. In our ICANN guide, we focused on freshwater and deforestation issues, and disclosed results from a similar assessment using the Science-Based Targets Network's sector materiality tool. Using such tools, we believe investors can target a smaller set of material companies in their research, towards a more targeted engagement to reduce negative impacts and mitigate risks. In some cases, prioritising certain commodities such as palm oil and beef could be a way to focus the work given resource constraints. We

expect more discussions to take place around how to advance from this initial assessment to deepen the understanding.

The report highlighted a growing expectation from asset owners for asset managers to recognise the materiality of nature and biodiversity in investment management, map their portfolios' dependencies on and impacts on nature, track engagement progress and incorporate these insights into their investment decision making process. Some asset owners' requests in relation to nature may be high-level for now but the direction of travel seems clear - towards more granular questionnaires and meaningful disclosure on metrics and progress made. We hope that asset managers and other investors find many insights and best practice examples contained in this report useful as they continue with their work on nature.



Conclusion



When inviting asset owners for interview, many were reluctant to participate, citing either insufficient knowledge or uncertainty about their ability to contribute meaningful insights to this research, as their schemes are still in the early stages of considering nature and biodiversity. This hesitancy appears to be particularly rooted in limited internal expertise and resource capacities, with small sustainability teams and the challenges of translating nature-related data into useful information to base decisions upon. Most are at the early stages of their nature and biodiversity journey, conducting nature-related impact, dependencies and risk assessments for the first time this year and building internal capacity before starting reporting on TNFD.

Levels of reporting

Interviewing industry members from various countries provided insights into whether the industry is consistently integrating nature and biodiversity considerations into the broader sustainability agenda. Despite the geographic diversity, most of our interviewees were based in the UK. Even within this region, there is a wide range of views and approaches to addressing the topic, with some being more advanced than others.

While none of the UK schemes are currently reporting on *TNFD*, many interviewees noted active engagement with managers on this topic. They highlighted ongoing investment in educational initiatives to build internal capacity, driven by the growing influence of regulation and the financial materiality of nature-related issues. Similarly, in North America, the focus is on early steps, such as engaging managers through general surveys and follow-up conversations to better understand their approaches to nature-related challenges. In both regions, nature-related information is not yet being broadly considered in manager selection but there is increasing engagement with incumbent managers on the issue.

In Latin America, the topic is highly material due to the region's economic structure and the rich biodiversity. Our interviewees from this region are already reporting on nature-related metrics. Meanwhile, in the Asia-Pacific region, there has been notable progress, with some asset owners already reporting on nature. However, managers pointed out only a minority of asset owners are engaging on the topic in depth.

Despite the diverse approaches across regions, there is shared recognition of the financial materiality of nature-related issues. Several interviewees emphasised the reliance of GDP on natural ecosystems and the challenge of translating nature-related data into decision-useful insights. To address this, many asset owners are beginning by considering the dependencies and impacts of their current portfolios as an initial step toward defining their priorities.

Asset owners highlighted financial materiality and anticipated regulatory changes as their reasons for integrating nature into their sustainability strategies, with a stronger focus on the former. Recognising the financial implications of biodiversity loss – from ecosystem fragility to supply chain vulnerabilities – schemes are aware of the investment risks tied to nature degradation. Furthermore, the anticipated regulatory impact of the *TNFD* has encouraged many to proactively incorporate biodiversity considerations to prepare for future requirements.

More asset owners are acknowledging the connection between climate and nature within



ESG practices. Many see nature-based solutions as central to supporting carbon sequestration and increasing climate resilience. Levels of expertise within pension schemes on nature vary widely across funds; many are expanding teams or increasing training, although many continue to rely on external resources to understand the complexities of biodiversity. Partnerships with academic institutions and NGOs are also seen as essential, allowing funds to strengthen biodiversity practices through collaboration.

Although the *TNFD* is the framework asset owners are exploring for nature-related reporting, most remain in a learning phase. Schemes are in an exploratory period, assessing nature-related metrics and recognising simple, binary metrics may not capture the full gamut of biodiversity issues. The lack of standardisation across sectors and supply chains is a barrier, compelling some schemes to focus on specific sectors, such as agriculture, where biodiversity risks and opportunities are most apparent.

Data challenges add another layer of complexity, as accurately interpreting biodiversity data often requires qualitative insights which vary significantly across regions and contexts. This diversity makes comparability difficult, especially between asset classes, where data availability is inconsistent, with private markets frequently behind public markets.

Call to action

The rapid degradation of nature poses an urgent threat to ecological and economic stability and long-term investment security. This report calls for asset owners to act now, leveraging existing climate initiatives, frameworks like the *TNFD* and education to address the challenges of biodiversity integration.

The recent COP16 added further urgency to this call for action. Held in Colombia, The Biodiversity Conference intended to assess progress towards the

global biodiversity framework goals, with a central target of conserving 30% of the world's land and oceans by 2030. Alarmingly, reports indicate efforts are astray, with most countries struggling to keep pace with their conservation commitments.¹

Funding is a challenge, with developing countries, which host the majority of global biodiversity, advocating for increased monetary support. Without significant financial restructuring and commitment from the international community, the goal of halting biodiversity loss remains elusive.

This research and the outcomes of COP16 serve as reminders of the urgent and interconnected facet of biodiversity loss. Asset owners, and the investment industry as a whole, are vital in advancing biodiversityfocused investment practices and aligning with global frameworks. The TNFD recommendations require alignment with target 15 of the Global Biodiversity Framework (GBF), for corporate reporting of naturerelated risks, dependencies and impacts. Target 15 aims to reduce negative impacts by requiring firms to assess and disclose biodiversity-related risks and impacts. In this way, companies, asset owners and asset managers can align their corporate reporting with global policy goals, as they do with climate issues. By addressing biodiversity risks and opportunities, asset owners can safeguard the resilience and longevity of their portfolios while helping to preserve the ecosystems critical for the planet's future.

Nature and biodiversity are no longer a peripheral issue – it is central to sustainability, portfolio resilience and responsible investment. The time to act is now.

REFERENCES

1 World Resources Institute, 2024, Statement: COP16 biodiversity summit concludes with some progress, but major work remains, viewed November 2024: https://www.wri.org/news/statement-cop16-biodiversity-summit-concludes-some-progress-major-work-remains.



Appendix



Asset owners	Asset managers & Consultants
Bank für Kirche und Caritas eG	Cambridge Associates
Bedfordshire Pension Fund	Capital+ SAFI
Brightwell	Fama re.capital
Coal Pensions	JANA
Guy's and St Thomas' Foundation	
London CIV	
Nest Pensions	
Pension Protection Fund	
PGGM	
Phoenix Group	
Scottish Widows Mastertrust	
Strathclyde Pension Fund	

Asset owner questionnaire

Section 1 | Nature and biodiversity integration into sustainability priorities

- 1 | Does your overall sustainability strategy incorporate nature and biodiversity? If so, what is the main reason for integrating nature and biodiversity?
- 2 | How do you approach nature and biodiversity when considering other ESG issues? Please provide examples of how nature and biodiversity considerations have influenced your investment or operational decisions?

Section 2 | Governance structures and resource capacity

- 3 | What governance structures do you have in place specifically to address nature-related issues?
- 4 | What level of expertise and resources does your organisation have to address these issues internally and do you need to outsource to obtain expertise on nature-related issues?

Section 3 | Understanding of risks, opportunities, impacts and dependencies

- 5 | How do you define materiality? What do you consider the most material risk, and opportunity, related to nature and biodiversity for your organisation?
- 6 | What specific processes do you use to assess material risks, opportunities, impacts and dependencies you identify related to nature?

Section 4 | Governance structures and resource capacity

- 7 | Have you started reporting on nature-related topics? If not, do you plan to in future? If you do, what encouraged you to start this process?
- 8 | In your reporting/assessment, which asset classes are in scope?
- 9 | What methodologies, frameworks or standards do you currently use, or are planning to use, for nature-related reporting (eg, *TNFD*, *GRI* or a combination of different frameworks)?
- 10 | Are you considering an integrated climate and nature report, or a broader sustainability report, following the *International Sustainability Standards Board (ISSB)* approach?
- 11 | What challenges do you face in collecting and analysing data related to nature?
- 12 | Are there any nature-related metrics you are implementing or considering implementing?

Section 5 | How much of the process is delegated to asset managers

- 13 | What specific nature & biodiversity-related disclosure actions or initiatives do you expect asset managers to take?
- 14 | How do you currently use or plan to use nature-related information, such as *TNFD* assessments, in evaluating the performance and strategies of asset managers?
- 15 | In what ways do you intend to incorporate nature and biodiversity considerations into your decision-making process when selecting or assessing asset managers?

^{*} Only certain participants gave permission to be named.









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