Mercer

welcome to brighter

Nature alert

the next major environmental, social and governance (ESG) theme

Executive summary

"Every breath of air we take, every mouthful of food that we take, comes from the natural world. And if we damage the natural world, we damage ourselves." Sir David Attenborough

Nature and biodiversity have risen to prominence as a significant ESG theme. At Mercer, we see that today's asset managers and owners are seeking to integrate nature into their investment portfolios. At a minimum, we believe that climate policies designed to navigate the climate transition (the move toward a low carbon economy) should include the objective of **nature positivity**. Policies that show no regard for the broader impacts of economic activity on nature run the risk of working against environmental sustainability. Where investors have set net-zero targets, it is important that these take nature into consideration. This is vital given the fact that the reversal of biodiversity loss and the restoration of biodiverse ecosystems are fundamental to achieving a successful climate transition.

The 2020s will be a decisive decade for the natural environment. A global agreement on nature conservation is expected to be reached at the end of 2022 at the COP15 Biodiversity Conference in Montréal, Canada. We argue that nature as an issue has reached a critical point in terms of its significance. Nature as an ESG theme can be likened to that of climate change before the development of the Paris Agreement. In our view, nature is likely to experience a secular shift and will gain traction as one of the prominent ESG themes for investors and financial markets.

The natural world is the basis of our existence on this planet. Nature supports our societies and our economies. Forests, rivers, oceans and soils provide us with the food we eat, the air we breathe and the water we drink. Nature underpins all life on Earth. Quite simply, we could not exist without well-functioning natural ecosystems.

The Stockholm Resilience Centre has highlighted the growing peril to nature and determined that six of its nine "planetary boundaries" have been pushed beyond their safe operating limits and that this constitutes a serious and growing threat to life support systems on Earth as a direct result of global warming, unsustainable land management, overfishing and the destruction of nature.

There is a near universal consensus on the importance of maintaining a world characterized by diverse and productive ecosystems and thriving wildlife populations. This paper presents a number of steps that investors can take to make **nature positivity** a priority when choosing the companies and assets in their investment portfolios. These steps will help ensure that they contribute to the restoration and regeneration of natural ecosystems.

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Steps investors can take today to integrate nature as an investment theme

Although frameworks for incorporating nature and biodiversity considerations into investment portfolios are still emerging, there are actions that can be taken today so that investors can be proactive participants in supporting the future of all life on this planet. We believe that over the next 12 months, nature and biodiversity considerations are likely to become increasingly financially material to asset valuations. This change will be driven by a number of key market developments.

Preparing ahead of time could put investors in a position to try to take advantage of these market changes as they occur.

In advising on how best to proceed, we differentiate between two types of investors: those pursuing ESG good practice and those striving to be ESG leaders.

In advising on various courses of action, we use the Mercer Sustainable Investment Pathway as a framework to help investors integrate ESG themes into their portfolios. For each investor type, we have a number of recommendations. These are presented in Figure 1, with more detail provided later in this paper.

Figure 1. Mercer's Sustainable Investment Pathway and nature recommendations
(for more information on the pathway click here).

1. Beliefs → **2. Policy** → **3. Process** → **4. Portfolio**

ESG Good Practice

1. **Revisit your ESG beliefs and policies.**
   - Understand nature and climate linkages.
   - Include nature in climate policies.
2. **Monitor the stewardship activities of asset managers.**
3. **Conduct audits of asset managers.**

ESG Leader

1. **Revisit your ESG beliefs and policies.**
   - Conduct belief sessions that include nature.
   - Include nature positivity in investment policy.
2. **Include nature as a stewardship priority.**
3. **Understand exposure to the TNFD priority sectors.**
4. **Look for opportunities to allocate to natural capital opportunities.**

In light of the significant developments in nature and biodiversity policy that will occur over the next year, Mercer will be drafting a follow-on paper to this one. We will give an update on the Global Biodiversity Framework and its implications for financial markets. We will also cover the final recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) and discuss what impacts we think these will have on investment portfolios.

At Mercer, we recognise that this space is fast evolving as nature will become an increasingly important investment consideration for asset owners. In light of this we are reviewing our investment advice and consulting tools to continue to align with sustainability best practice. In our next paper we will provide an update on the progress of the changes that we are making in response to market developments, including how we are updating our climate analytics tools to help investors integrate nature considerations into their sustainable transition journey.

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Introduction

"Climate change would be much worse right now without that natural sink function that nature provides us; it's a free subsidy that we really haven't sufficiently appreciated."[1]

Pam McElwee, Associate Professor of Human Ecology at Rutgers University

This paper highlights the central importance that conserving nature and mitigating biodiversity loss has for financial markets. We believe nature, as an investment theme, is coming of age. We make the case that investors should start integrating the risks and opportunities associated with nature into their investment strategies. Over the next few years, it is likely that the protection of biodiversity will rise in prominence as a financially material investment issue. In our view, it will become central to the work investors do to meet their net-zero objectives.

This is Mercer's second research paper on the investment considerations surrounding nature and biodiversity themes. It follows on from the 2021 paper *Biodiversity on the Brink.*[2] This highlighted how crucial it is to protect and restore nature, due to the vital role functioning ecosystems and natural capital play in supporting economic development and ultimately life on earth. As part of our ongoing research in this area, we recently produced the paper Embracing Nature — *How Business Can Engage with New Environmental Imperatives*.[3] This examined the nature-related risks and opportunities that businesses should incorporate into their corporate strategies.

In this paper, we put forward a number of suggestions on the steps that we believe can be taken today to help prepare investment portfolios for the challenges and changes ahead.

As this issue is fast evolving, we will produce a follow-on paper to provide an update on how we are both adapting our sustainability approach and incorporating all new developments occurring over the course of next year.

Key terms

Biodiversity: The variety of living organisms found on the planet, such as animals, plants, fungi and bacteria.

Carbon sink: Anything that absorbs more carbon from the atmosphere than it releases — for example, plants, the ocean and soil.

Dependencies: Ecosystem services that an organization relies on for their business processes to function.

Ecosystem: A community of organisms that live in a geographic area and interact with each other, the natural environment and the weather.

Ecosystem services: The benefits to humans provided by the natural environment.

Impacts: The effects, positive or negative, that an organization's business processes have on nature.

Nature-based solutions: Measures that leverage natural systems or processes to protect, manage and restore ecosystems, while providing socioeconomic co-benefits such as improved water management or climate-change adaptations.

Natural capital: The collection of renewable and non-renewable natural assets providing resources and services to people and economic systems.

Nature-related opportunities: Activities that can create positive outcomes while avoiding or reducing any impact on nature or contributing to its restoration.

Nature-related risks: The potential threats posed to organizations and economies by virtue of their dependencies on nature.

Nature-positive: A concept/approach aligned with the restoration and regeneration of ecosystems, species and natural capital in pursuit of a healthier natural environment.

Natural realms: The division of nature into different domains, for example the TNFD categorizes nature into land, ocean, freshwater and atmosphere.

Sources: Client Earth; Food and Agriculture Organization of the United Nations; Global Footprint Network; MSCI; Organization for Economic Co-operation and Development; Taskforce on Nature-related Financial Disclosures; The Grantham Research Institute on Climate Change and the Environment (London School of Economics); United Nations Environment Programme; World Economic Forum.

[1] IPBES and IPCC co-sponsored workshop report, (2021)
[2] Mercer, "Biodiversity on the Brink," (2021)
[3] Marsh & McLennan, "Embracing Nature: How Businesses Can Engage with New Environmental Imperatives," (2022)

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1. The importance of nature

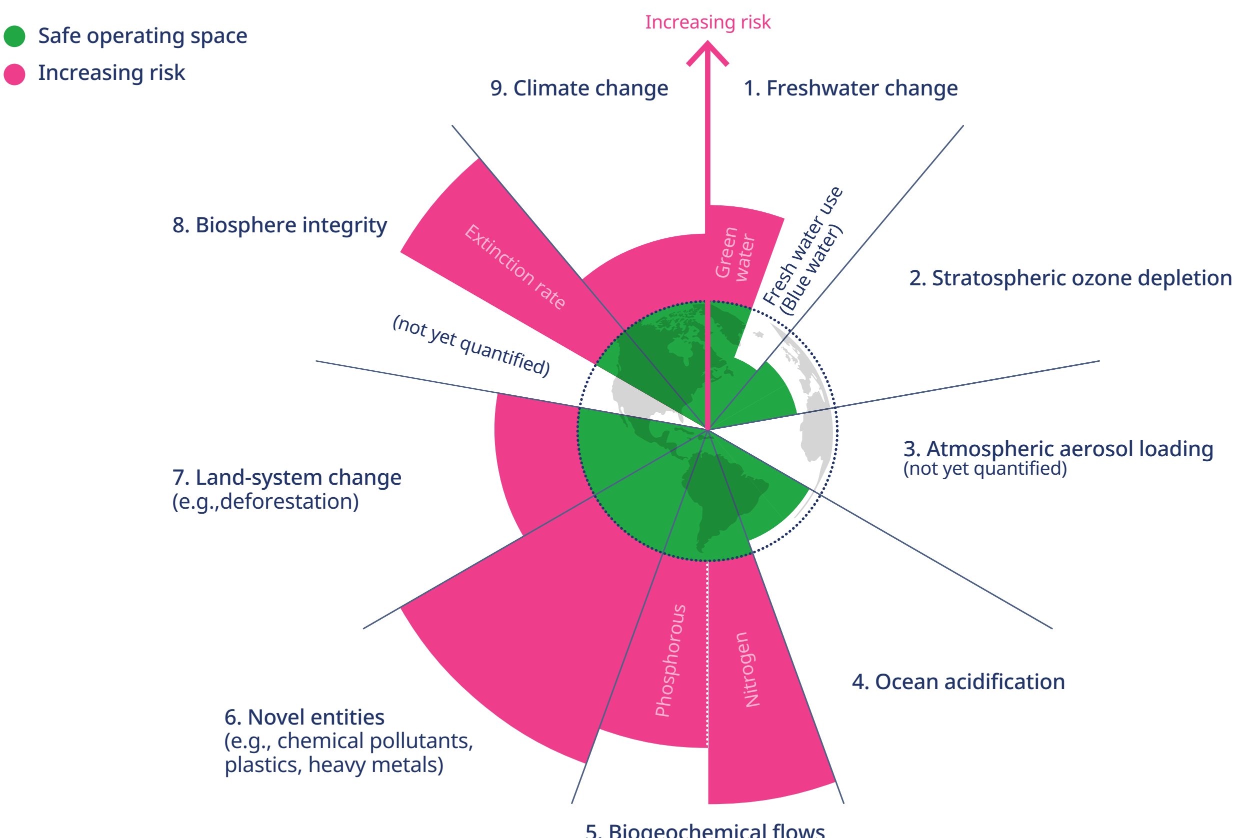
The natural world is the basis of our existence on this planet. Nature supports our societies and economies. Forests, rivers, oceans and soil provide us with the food we eat, the air we breathe and the water we drink. Quite simply, we could not exist without well-functioning natural ecosystems. Nature underpins all life on this planet.

There is a wealth of research highlighting the importance of natural ecosystems to economies and societies. The World Economic Forum (WEF) estimates that about $44 trillion of the total economic value generated globally is moderately or highly dependent on nature.[4] This is equivalent to around half of the world's total GDP. Furthermore, the World Bank highlights that nature underpins all 17 Sustainable Development Goals (SDGs) and that current rates of habitat and wildlife loss could cost the global economy $2.7 trillion annually, or 2.7% of global GDP, by 2030.[5]

The Stockholm Resilience Centre (SRC) has highlighted the growing peril that nature faces by introducing the concept of planetary boundaries. These are quantifiable boundaries that can be used to measure and monitor the health of natural ecosystems. Going beyond these limits threatens life on earth.

In its last update in April 2022, the SRC calculated that six of the nine boundaries have been pushed beyond their safe operating limits. The breaching of these boundaries constitutes a serious and growing threat to the systems that support life on earth. This situation has come about as a direct result of global warming, unsustainable land management, overfishing and the destruction of nature.

Figure 2. The planetary boundaries 2022
(Six of the nine boundaries exceed their safe operating limits)



Source: The Stockholm Resilience Centre

[4] World Economic Forum, "Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy" (2020)
[5] World Bank, "The Economic Case for Nature" (2021)

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2. Why investors should pay attention to nature

The World Economic Forum (WEF), in collaboration with Marsh McLennan, the Zurich Insurance Group and the SK Group, runs an annual survey of nearly 1,000 global experts and leaders. This is done to understand their views on the most severe global risks that will be faced by individuals, governments and businesses over the next 10 years. Biodiversity loss was the third-highest risk identified by respondents in the 2022 survey.

WEF 2022 Global Risks Survey — Biodiversity a top risk[6]

It is clear that the destruction of biodiversity and the environment is a key business risk, as economies are highly dependent on nature. There are, however, even more direct links between the environment and financial markets that relate to the interrelationship between nature and climate change.

Figure 3. WEF 2022 Global Risks Survey

Identify the most severe risks on a global scale over the next 10 years	
1st	Climate action failure
2nd	Extreme weather
3rd	Biodiversity loss
4th	Social cohesion erosion
5th	Livelihood crises
6th	Infectious disease
7th	Human environmental damage
8th	Natural resource crises
9th	Debt crises
10th	Geoeconomic confrontation

Economic Environmental Geopolitical
Societal Technological

[6] World Economic Forum, "The Global Risks Report 2022 – 17th Edition," (2022)

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Intersection of nature and climate change

Nature and biodiversity are intrinsically linked to climate change. Crucially, there can be no solution to global warming unless natural systems are restored around the world.

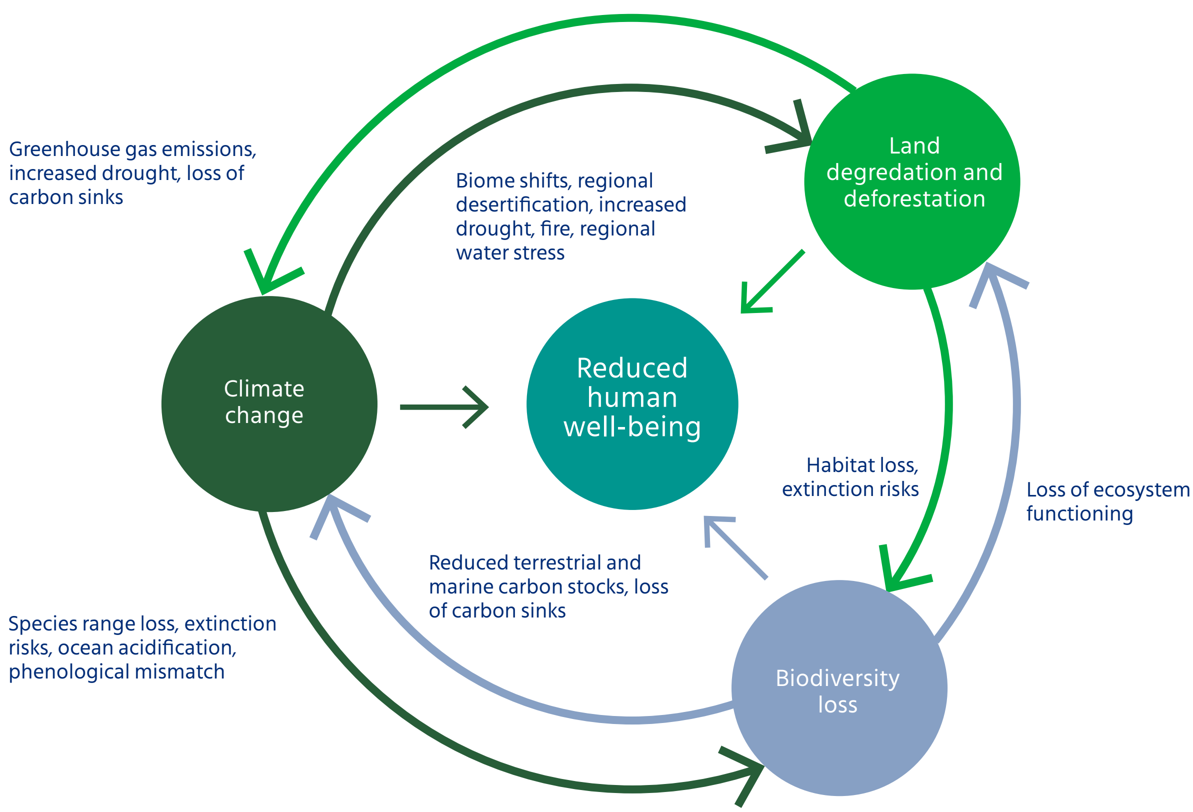
- Preserving the diversity of plant and animal life and the integrity of ecosystems is one of the most effective ways to remove carbon from the atmosphere and so combat climate change. For example, forest ecosystems are the largest terrestrial carbon sink.[7]
- Conversely, increasing global temperatures will result in the extinction of species and a reduction in biodiversity. Climate change is becoming an increasingly important driver of many destructive changes in nature.[8]

Investors who are considering the climate change issue are increasingly seeking to understand the links and interconnections between biodiversity loss and their climate-related commitments and investment ambitions.

At COP26, nature featured prominently, with global leaders from over 100 nations committing to end deforestation and reverse land degradation by 2030.[9] This highlighted the fact that reversing biodiversity loss and achieving net-zero climate objectives go hand in hand. Indeed, meeting the goal of the Paris Agreement to keep global warming temperatures to "well below 2°C" is dependent on biodiverse ecosystems being protected and restored.

Investors considering the potential impacts of climate-related risks and opportunities typically undertake climate scenario analysis. This is in line with the recommendations of the Taskforce for Climate-related Financial Disclosures (TCFD). As investors gain a better understanding of the physical risks and damages linked to climate change, we expect that the impact of the different warming scenarios on nature (and vice-versa) will become even more of a focus for action.

Figure 4. Interactions between biodiversity, climate change and land use



Source: UNEP (2021)

[7] UN FAO, "Global Forest Resource Assessment," (2020).
[8] IPBES "Global Assessment of Biodiversity and Ecosystem Services," (2019).
[9] UK Government, "Over 100 leaders make landmark pledge to end deforestation at COP26," (2022)

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Nature is increasingly becoming a financially material investment risk

Nature is starting to have direct and profound impacts on financial markets. This is happening for a variety of reasons:

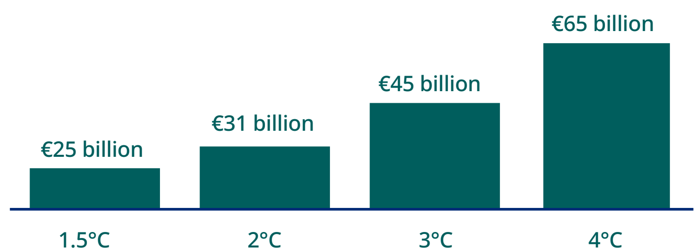
1. **Biodiversity loss can create financial risk:** A reduction in biodiversity can pose a risk for businesses whose revenues depend on ecosystem services. Examples of this include a decrease in the diversity of pollinators, such as bees, which will negatively impact the agricultural sector, or cases in which vegetation is lost around coastal areas or from river systems, which increases the frequency of flooding, causing damage to property. We believe it likely that many investors will experience heightened financial risk in their portfolios due to biodiversity loss caused by climate change.

Drought: The €65 billion risk

A study published in 2021 by Nature Capital Change found that annual drought losses could rise from €9 billion per year currently to more than €65 billion per year in 2100 if we fail to halt climate change.

Drought is an event characterized by prolonged water supply shortages. Droughts are becoming more common due to changing atmospheric conditions and global warming. The economic effects of droughts are often felt through damage caused to ecosystem services, for example through crop failures, which cause financial loss to the agricultural sector. The link between drought and both climate change and biodiversity loss is an example of the intersection between these two ESG themes.

Figure 5. Predicted cost of drought damage per year in EU and UK under different warming scenarios in 2100



Source: Nature Capital Change 2021

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2. **Investing in companies that negatively impact nature can create reputational and legal risk:** As awareness of climate change increases, more attention is turning to the impact companies have on the natural environment. Companies that degrade natural ecosystems, such as forests, are seen to be destroying the very assets needed to mitigate the worst effects of climate change. Such companies are already facing intense scrutiny from the public and pressure from regulators. An increasing number are dealing with costly lawsuits. It is important for investors to be cautious of investing in companies that damage the natural environment. Such investments may have negative reputational repercussions. They may also face financial challenges. For example, if a portfolio company suffers financial loss and/or has to pay costly fines as a result of environmental regulatory breaches or litigation, then its financial value will drop. It should be noted that certain companies have strong policies to protect or restore nature. Investors who can identify these type of market leaders may benefit from the positive repricing of these assets, as the market places more value on actions taken to rejuvenate biodiversity.

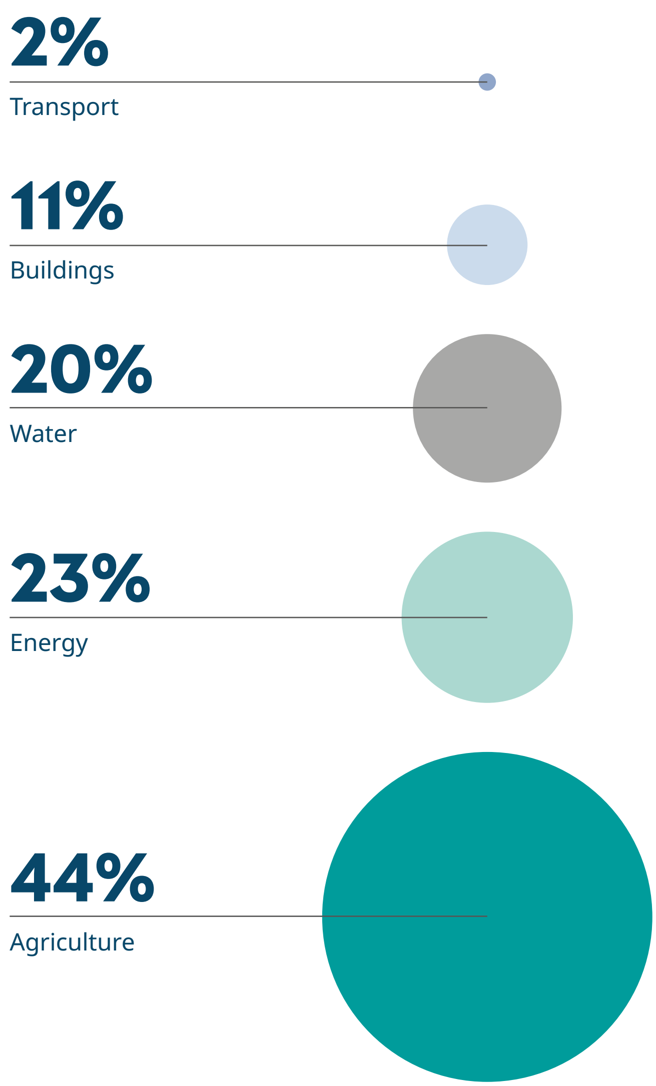
3. **Investing in nature can help realize net-zero objectives:** Currently, natural assets (known as nature-based solutions) are one of the few investment opportunities that are net negative in terms of carbon emissions. For example, we have observed some forestry funds stating an intention to maximize the carbon sequestration potential of their forests alongside their other financial objectives. It is likely that natural capital opportunities will form a vital and increasingly important part of many investment portfolios as investors seek to realize their net-zero ambitions. There is more detail on the opportunity set presented by natural capital investing later in this paper.

Nature is emerging as a strong parallel theme in investing to support the climate transition. Given the potential financial losses linked to biodiversity risks and impacts, we believe that nature considerations will become increasingly important to investors. It is also likely that there will be increasing demand for the opportunity set linked to nature-based solutions. This should drive the valuation of such solutions. This, in turn, could allow investors to both earn a return and make progress toward their climate objectives. In addition, there are a number of key market developments that, we believe, will move nature up investors' agendas in the near future. These are covered in the following section.

Nature Capital Change's study finds that the financial losses due to drought will fall predominantly on the agricultural sector, however, other sectors critical to a well-functioning economy will also be hit. Energy, for example, will suffer large losses through the failure of both power station cooling systems and hydroelectric generating plants due to a lack of access to water.

Investors in these sectors will be at risk of financial loss due to the impact climate change is having on nature.

Figure 6. Predicted economic losses due to drought damage by sector in 2100 in EU and UK



Source: Nature Capital Change 2021

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3. Key market developments to be aware of

We believe that nature as an issue has reached a critical point in terms of its significance. Its position can be likened to that of climate change before the development of the Paris Agreement. The 2020s will be a decisive decade in the recognition of nature as a key issue for the public, politicians, business and the investment community. There are many upcoming market developments that will support natural capital investment and transform investment portfolios from delivering nature-negative to seeking nature-positive outcomes. Regulation in this area is already starting to gather momentum. Agreement on a Global Biodiversity Framework (GBF) is targeted for the end of 2022. Some say this framework could be as significant for biodiversity as the Paris Agreement is for climate change.

As a result, we believe that nature considerations will become as important to investment portfolios as climate considerations currently are. Below we summarize what we see as the key market developments. We believe that, together, they will provide the catalyst for a system-wide shift in focus towards nature positivity for businesses and investors alike.

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Market developments

1. Global agreement on biodiversity likely to be finalized in December 2022 at COP15: After delays related to the COVID-19 pandemic, the UN Biodiversity Conference of Parties, COP15, will take place in December 2022 in Montréal, Canada. COP15 will convene governments from around the world to agree to a new set of nature conservation goals for the decade ahead. At the conference, it is anticipated that the GBF will be adopted by governments. This will be a watershed moment for nature.

The GBF is expected to set out 21 targets and 10 milestones designed to halt biodiversity loss. Governments will be expected to meet these by 2030. COP15 will look to agree a 2050 Vision for Biodiversity, which will set out a roadmap for the recovery of global biodiversity and natural capital.

We expect the GBF to affect financial markets, as the framework is expected to explicitly seek to align financial flows with nature positivity. The United Nations Environment Programme – Finance Initiative (UNEP-FI) has been working to ensure that private finance is incentivized to plug a large part of the $4.1 trillion financing gap needed to achieve global nature positivity.[10] (UNEP-FI is a founding partner of the Taskforce on Nature-related Financial Disclosures (TNFD)).

It is likely that the GBF will lead to nature-based solutions becoming a larger investment opportunity set. We therefore think that natural capital opportunities are likely to become a growing allocation in investment portfolios.

2. TNFD framework on nature to be published in September 2023: The TNFD is a global industry-led working group. It is focused on developing risk management practices and disclosure requirements for corporations and financial institutions. The TNFD is looking to replicate the success of the Taskforce for Climate-related Financial Disclosures (TCFD). It aims to agree a framework to monitor the impacts that businesses and investors have on nature, and to encourage them to minimize their negative and maximize their positive impacts.

We expect the TNFD to have a similar significance as the TCFD. We believe that it will harmonize biodiversity reporting and create common objectives for business leaders and the financial community to assess the impacts they have on nature.

Governments (including the UK[11]) have indicated that they may enact legislation to make the TNFD's disclosure recommendations a statutory requirement for investors such as pension schemes. It is also likely that investors will have access to new data sets and metrics that will enable them to better value the

[10] UNEP, "The Global Biodiversity Framework: Why Aligning Financial Flows is Key," (2022)
[11] UK Government, "Update to Green Finance Strategy: call for evidence," (2022)

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biodiversity impacts of their investment decisions. These developments should lead to capital being allocated away from nature-negative and towards nature-positive outcomes.

3. Nature is high on the agenda for the United Nations Framework Convention on Climate Change (UNFCCC): The recent UN COP26 climate talks in Glasgow focused on topics around nature and preserving biodiversity. For the first time, there was clear acknowledgement from world leaders of the close relationship between the global biodiversity crisis and the climate crisis. There was also a clear acknowledgement of the critical role that nature can play in climate change mitigation and adaptation.

At COP26, there were pledges to protect biodiversity. For example, over 100 world leaders pledged to reverse forest loss and land degradation by 2030. Nature-based solutions were also discussed widely at the conference, with the final text of the Glasgow Climate Pact recognizing the importance of natural sinks and reservoirs of greenhouse gases.[12]

We expect that nature will continue to move up the climate agenda. It should be noted that the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the two key scientific-policy bodies for climate change and nature, have started collaborating to inform future policy.[13]

4. Rapid global increase in regulations relating to nature: Recently, there has been a recognition by governments that more regulation is needed to protect biodiversity on a system-wide basis. This is required to provide new incentives for corporations and financial markets to protect nature. A recent example is the Nature Restoration Law, which set legally binding targets across EU member states to restore nature and reverse biodiversity loss. There has been a multitude of other such legislation in Australia, New Zealand, China, India and Japan and many other countries.[14] There are more interesting developments in the pipeline. For example, the UK government's Green Finance Strategy is looking at making corporations report on nature-related risks by mandating disclosures in line with the TNFD recommendations.[15]

In our view, nature as an issue is likely to experience a profound shift in importance, and will gain traction as one of the prominent ESG themes for investors and financial markets. The advent of the Global Biodiversity Framework, combined with the TNFD framework expected in 2023, could create a much-needed system-wide framework for nature conservation. By the end of next year there is likely to be much clearer guidance on global biodiversity targets, as well as the creation of new reporting frameworks for both corporate firms and financial institutions. We firmly believe that we are on the cusp of a paradigm shift, with nature and biodiversity considerations becoming increasingly financially material to asset valuations. We urge investors to prepare for these changes in good time.

[12] UNFCC, "Glasgow Climate Pact," (2021)
[13] Carbon Brief, "COP26: Key outcomes for food, forests, land use and nature in Glasgow," (2021)
[14] Capitals Coalition, "Natural Capital for Biodiversity Policies: What, why and how," (2021)
[15] UK Government "Update to Green Finance Strategy: call for evidence," (2022)

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4. Overview of the Taskforce on Nature-related Financial Disclosures (TNFD)

The TNFD is an international cross-sector initiative backed by the G7 and G20 political leaders. The TNFD taskforce aims to develop a disclosure framework to help companies report financially material risks to nature and biodiversity. The objective of this work is to provide investors with consistent information to help them better assess the value of assets. The TNFD hopes to replicate the success of the Taskforce for Climate-related Financial Disclosures (TCFD).

We believe the TNFD could prove to be a very important initiative, one that will prompt a reweighting of investor focus towards nature. The TNFD's final guidance will be published at the end of 2023. Following this, we believe companies in certain sectors will experience valuation changes should they fail to appropriately safeguard the natural environment in their corporate strategies. It will be important for investors to keep a close eye on emerging guidance from the TNFD. Investors will also need to monitor how their investee companies respond to the TNFD's disclosure recommendations.

The TNFD is putting forward a number of **priority sectors** in which it believes biodiversity risks are heightened. It will recommend that investors use additional risk controls and due diligence on companies operating in these sectors. The TNFD will also create a toolkit for business leaders and the financial community to allocate capital away from nature-negative and towards nature-positive outcomes.

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TNFD priority sectors — sectors with heightened financial risks due to their natural dependencies and impacts

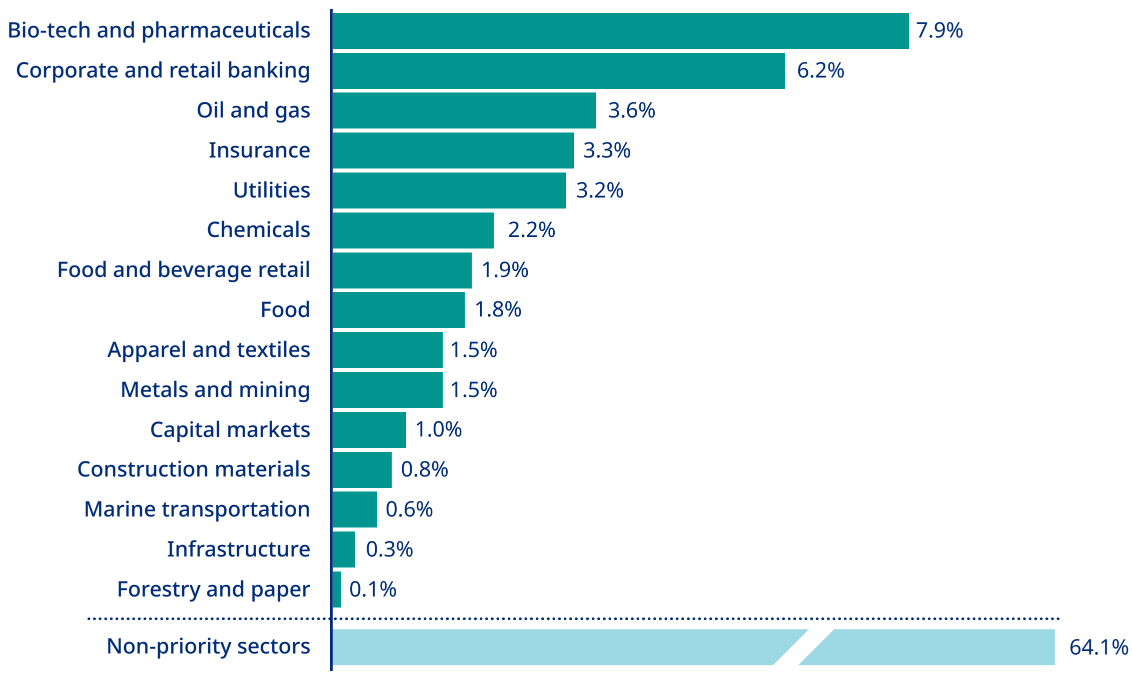
The TNFD has developed a list of eight non-financial priority sectors (as shown in Figure 7). Although all sectors will be affected by nature-related risks and opportunities, the priority sectors are more likely to experience financial impacts due to both their strong dependencies on nature, and the significant effects they have on it.

The priority sectors are also those that are likely to be most significant in terms of determining future outcomes for nature. Organizations in these sectors may gain financially if they prioritize nature positivity, either by reducing their impact on the environment or by contributing to its restoration. Figure 8 shows that about 35% of the MSCI World consists of companies in the TNFD's priority sectors. (MSCI is a leading provider of financial indices and data for the global investment community.)

Figure 7. TNFD priority sectors

1. Food and beverage
2. Infrastructure
3. Healthcare
4. Consumer goods
5. Renewable resources and alternatives
6. Extractives and mineral processing
7. Resource transformation
8. Transportation

Figure 8. Weight of priority and non-priority sectors in the MSCI World Index



Source: MSCI, Mercer analysis, as at June 30, 2022

An awareness of these priority sectors will help investors understand which parts of their investment portfolio may be more exposed to nature-related risks. Investors may also want to consider monitoring corporate environmental stewardship activity to ensure that companies within these sectors are a focal point for engagement.

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The challenges of assessing nature-related risks in investment portfolios

Unlike climate change, where the risks of global warming are shared at a global level and can broadly be measured by a single metric (i.e., tonnes of greenhouse gas emissions emitted annually), measuring nature-related risks is a lot more complex. Biodiversity metrics vary widely between the natural realms. For example, freshwater supply needs different units of measurement to soil fertility. In addition, nature-related risks vary by region and are dependent on the health of local ecosystems. For example, companies that require water as an input into their production processes will experience far higher nature-related risks if they are located in areas prone to drought.

The TNFD acknowledges these complexities, and aims to build on existing frameworks to bring coherence to measuring nature-related risks and to standardize reporting where possible. The TNFD is still developing a comprehensive framework for measuring and aggregating biodiversity risks at the investment-portfolio level. However, the TNFD has developed the LEAP assessment tool (which stands for locate, evaluate, assesses, prepare). This tool is designed to help organizations understand the steps they should take when conducting nature-based risk assessments.

Mercer is a participant in the TNFD Forum. This forum meets regularly to seek feedback on the TNFD's initial recommendations. It will continue to do this in the run-up to the planned final release of its disclosures in September 2023.

To support this guidance, Mercer is undertaking pilot testing by trialing the TNFD's LEAP-FI assessment tool for financial institutions. This trial is being done on one of Mercer's sustainability-themed equity funds.

LEAP-FI nature assessment tool

LEAP-FI is the TNFD's nature assessment tool designed for financial institutions. LEAP consists of a series of recommended steps that investors can take to attempt to quantify the level of biodiversity risk that is present in investment portfolios. The LEAP steps are:

1. **Locate the interface with nature**
2. **Evaluate dependencies and impacts**
3. **Assess risks and opportunities**
4. **Prepare to respond and report**

The LEAP-FI assessment is still under development. The TNFD need to finalize its recommendations before the assessment can be made available for wider use.

After the TNFD framework is published in September 2023, it is hoped that more investors will be able to quantitatively assess biodiversity risks in their investment portfolios.

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Mercer LEAP-FI pilot testing

In pilot testing the LEAP-FI assessment, Mercer will assess how well the guidance from the TNFD (including advice on nature-related metrics) overcomes the complexities and challenges of quantitatively assessing the environmental risks in investment portfolios.

We will evaluate the LEAP-FI framework against a series of criteria, which we believe will show whether the risk assessment will be of practical use for financial institutions.

Figure 9. LEAP-FI evaluation criteria

Financially material	The LEAP-FI metrics assessed should have a proven link to those natural risks that are most material to financial markets, economies and society.
Science-based	The natural risk metrics assessed should be science-based, and similar to climate science and the notion of a carbon budget, they should include/apply a nature budget or damage threshold beyond which a natural realm or ecosystem will be degraded or fail.
Regional nature budgets/thresholds to be agreed centrally	Central guidance should be provided to determine the nature budget/threshold for each region. A central body should agree nature budgets at both global and regional levels. This body should play a similar role to the Intergovernmental Panel on Climate Change (IPCC), which is the foremost policy advisor on carbon budgets.
Calculation of an aggregate score	As far as is possible, the LEAP-FI assessment should allow the quantification of natural risk into an aggregate score. This should allow different investment funds, asset classes, sectors and companies to be compared against each other.

While data and metrics will help investors understand their portfolios' exposure to nature-related risks and impact on the environment, investors should also engage with policy-makers and underlying investee companies to ensure real-world changes are achieved. To have the maximum impact, it is important that TCFD and TNFD are closely aligned and that there is consistency between the two frameworks.

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5. Steps investors can take today to help integrate nature as an investment theme

The frameworks for incorporating nature and biodiversity considerations into investment portfolios are still emerging. However, there are actions that investors can take today that can enhance risk management and ensure portfolios are positioned to support nature-positive opportunities. In considering how to proceed, we differentiate between two different types of investors — those pursuing ESG Good Practice and those striving to be an ESG Leader.

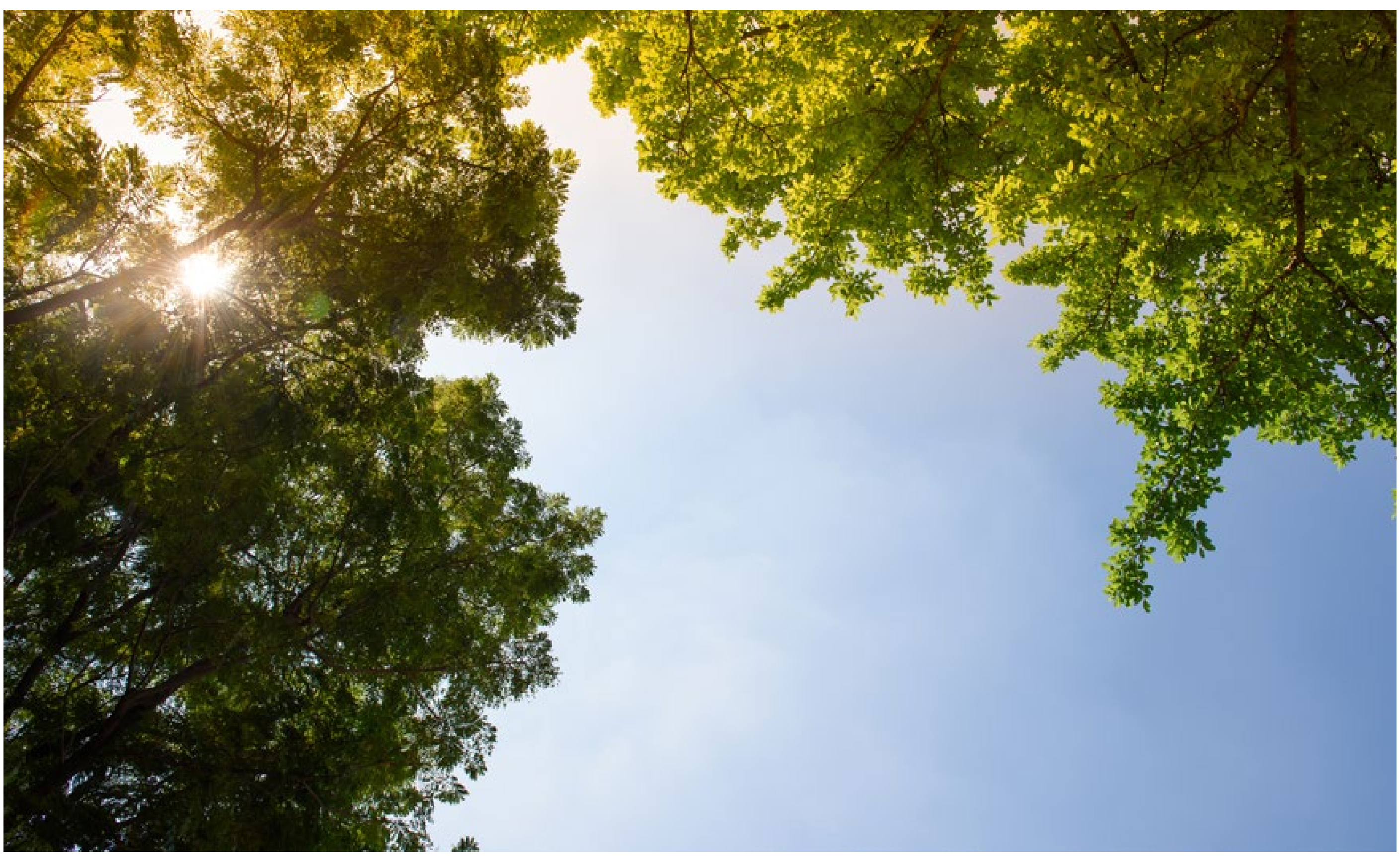
Figure 10. Differentiating investor types

ESG Good Practice
Following best practice

Smaller governance budget
Complying with regulation
Minimizing ESG risk

ESG Leader
Setting best practice

Greater governance budget
Shaping regulation and standards
Maximizing positive ESG impacts



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Due to the complexities involved in integrating biodiversity as an investment theme, we divide recommendations into priority levels. The first level comprises ESG Good Practice recommendations that we feel any investor can aim to incorporate, where possible, on the basis that they will improve risk management and regulatory compliance.

The second level of recommendations is aimed at more advanced investors, ESG Leader, who are looking to set best practice in this area and pursue nature-positive outcomes.

In outlining the various actions we will use the **Mercer Sustainable Investment Pathway**, which is a framework we use to help investors integrate ESG themes into their portfolios.

Figure 11. Mercer's Sustainable Investment Pathway and nature recommendations
(for more information on the pathway click here).

1. Beliefs | **2. Policy** | **3. Process** | **4. Portfolio**

ESG Good Practice

1. **Revisit your ESG beliefs and policies.**
- Understand nature and climate linkages.
- Include nature in climate policies.

2. **Monitor the stewardship activities of asset managers.**
3. **Conduct audits of asset managers.**

ESG Leader

1. **Revisit your ESG beliefs and policies.**
- Conduct belief sessions that include nature.
- Include nature positivity in investment policy.

2. **Include nature as a stewardship priority.**
3. **Understand exposure to the TNFD priority sectors.**
4. **Look for opportunities to allocate to natural capital opportunities.**

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Recommended step #1 — revisit your ESG beliefs and include nature-positive ESG policies

After understanding how material the environment is to your investment portfolio, we believe it is important to review your ESG beliefs and sustainable investment policies to ensure nature-positive statements are included.

Given the intersections between nature and climate change, we would advise that investors consider including nature and biodiversity considerations in their climate policies. This can help avoid some of the unintended consequences of the climate transition. This is important because there are some climate solutions that degrade the natural environment and wildlife. For example, if they do not properly prioritize nature when they are being planned, hydroelectric schemes can have deeply negative impacts on the natural environment. Climate policies that disregard the wider environmental impacts they might have run the risk of damaging environmental sustainability.

Additionally, policies that are nature-positive are likely to help move the climate transition forward. For example, natural capital investments can deliver a powerful climate solution. Investors should therefore consider setting targets to allocate to this theme as part of their overall allocation to climate solutions.

Finally, where investors have set net-zero targets, it is important that these take nature into consideration. This is vital as the reversal of biodiversity loss and the restoration of biodiverse ecosystems is a fundamental part of achieving net-zero.

ESG Leaders may wish to develop a separate nature or biodiversity section in their sustainable investment policies. Setting environmental policies and priorities is an important first step in the pursuit of nature-positive outcomes in an investment portfolio. In the boxes below, we include some considerations for the development of nature-related beliefs and investment policies.

Conduct an ESG beliefs workshop

Important belief considerations:

- Should your climate targets incorporate policies on nature and biodiversity?
- Do you have a corporate sponsor and is there alignment with their policies on biodiversity?
- Are you well positioned for upcoming biodiversity regulation?
- Do you see nature primarily as an investment risk or do you believe nature-based opportunities can add value?
- Will you prioritize divestment or active ownership of positions through a stewardship program?

Example of nature-positive policy statements

- Our climate policy recognizes the central role of nature in combatting climate change and we will consider the biodiversity impacts at all stages of our net-zero journey.
- Impacts on nature and biodiversity loss are financially material risks and we aim to manage these in our investment portfolios.
- We expect our asset managers to have policies on biodiversity and/or nature.
- We will seek to invest in nature-based solutions and opportunities, which protect, manage, and restore ecosystems.
- We will use our position as an active owner to recognize nature in our stewardship activities.

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Recommended step #2 — collaborate with organizations on nature by including nature and biodiversity in investment stewardship activities and by working with nature-focused ESG initiatives

Our view is that investment stewardship is a vital tool that asset owners can use to promote nature positivity in their investment portfolios. The TNFD's priority sectors provide a good starting point for a nature-focused stewardship programme. The TNFD encourages investors to engage with companies in these priority sectors to ensure they are minimizing their impacts on the environment and also managing biodiversity risks.

Most asset owners invest their capital through asset managers. It is therefore important to understand how these managers are engaging on nature-related topics. We recommend that all investors seek to collect information on how their asset managers are voting and engaging on their behalf. As part of this work, is important to separate out the various ESG themes as far as possible. This will allow the identification of engagements that pertain to nature and the climate.

To bring about change through active ownership, ESG Leaders can consider including nature and biodiversity among their key stewardship priorities. This could be implemented by working in partnership with asset managers to encourage them to prioritize the environment in their engagements. Other approaches can be taken, such as working with an engagement advisor or participating in collaborative initiatives.

Figure 12. Considerations for nature stewardship priorities

Is nature/biodiversity stated as a stewardship priority within your sustainable investment policy?	✓
Do you have a stewardship framework setup and/or do your asset managers engage on your behalf?	✓
Can you map your portfolio companies to the TNFD's priority sectors? Do you know what topics you should engage on with each priority-sector company? (For more details please see our engagement checklist for priority companies in Figure 14).	✓
Do you receive regular reporting on stewardship activity including the results of the engagement or proxy vote?	✓

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Example engagement topic checklist for TNFD priority-sector companies

Figure 13 sets out an example checklist to run through with companies that are categorized as priority-sector companies. If any of the following questions cannot be answered with a "yes" then the issue raised could be used as an engagement topic with the company.

Figure 13. Engagement checklist for priority-sector companies

Policies and governance	Does the company have a nature/biodiversity policy that is publicly available?
	Does the company state an intention to reduce its impacts on nature and/or support public policy initiatives such as the UN Sustainable Development Goals?
	Has the company agreed a climate-transition plan and has it been approved by a qualified third party, such as the Science Based Targets Initiative (SBTi), Science Based Targets Network (SBTN)[16] or Transition Pathway Initiative (TPI)?
	Is there a sustainability officer or equivalent who reports directly to the senior management team?
Company operations	Can the company map which facilities are located in biologically sensitive areas?
	Can the company quantify what natural inputs to the production process are known to be from ecosystems under stress?
	Can the company quantify what outputs from the production process are known to be hazardous to the natural environment?
	Has the company conducted a natural risk assessment or can it provide evidence that it assesses the nature/biodiversity risks that might affect its business model?
Regulations and fines	Does the company display an awareness of the relevant environmental regulations covering its activities and can it provide evidence of how it complies with these regulations?
	Has the company conducted itself in accordance with environmental legislation and is it unlikely to be subject to legal action or fines?

A further step to maximize the power of your stewardship activity would be to work alongside other investors by joining an ESG initiative focused on nature. Having already established Climate Action 100+, the World Bank is currently setting up a sister institution, Nature Action 100+.[17] The aim of this new institution is to target the 100+ most systemically important companies to restore nature positivity globally. Nature Action 100+ is likely to be open for membership towards the end of 2022. In our view it will be an excellent framework to mobilize collective engagement and action. There are a number of other investor initiatives being developed that have a focus on sharing best practice on the integration of natural considerations into investment portfolios. Initially, we recommend joining the TNFD Forum, as this will help monitor developments in this space.

[16] SBTi are currently looking into setting up Science Based Targets Network (SBTN) to evaluate company action on climate change and nature
[17] World Bank, "Nature Action 100+: Changing and greening investors and corporate behaviour to protect ecosystems and biodiversity," (2021)

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Recommended step #3 — evaluate your exposure to nature-related risks in your investment portfolio

Investors should consider conducting an audit of their asset managers to understand what policies they have in place to manage nature-related risks. The audit should also ascertain whether asset managers have dedicated sufficient resources to oversee these risks. We suggest using the indicators set out in Figure 14.

Figure 14. Checklist for asset managers

Does the manager have a nature/biodiversity policy in place or does their climate policy make reference to nature/biodiversity?	✓
Can the manager provide evidence that they engage with portfolio companies on nature/biodiversity to deliver nature-positive outcomes?	✓
Does the manager consider nature/biodiversity risks when making investment allocation decisions?	✓
Does the manager produce any nature/biodiversity risk metrics for its portfolios?	✓
Does the manager participate in key ESG initiatives focused on climate (e.g., Net-Zero Asset Managers initiative) or nature (e.g., the TNFD Forum)?	✓

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How are asset managers assessing nature-related themes today?

We conducted a survey of managers we consider leaders in the ESG space. From this, it is clear that most respondents are finding it difficult to source financially material data related to nature and biodiversity risks. However, we are seeing some common approaches emerging in the market.

Figure 15. Asset manager approaches to nature-related themes

1. Controversies and misconduct

Most managers screen their investments for environmental controversies or evidence of misconduct and breaches of environmental law. We would expect to see this step undertaken as part of standard due diligence procedures by all asset managers.

2. Enhancing sector risk assessments

Some managers have mapped sectors of heightened exposure to biodiversity risks and have conducted enhanced due diligence for companies in these sectors. Companies within these sectors must demonstrate more advanced policies and risk mitigation strategies surrounding nature/biodiversity.

3. Opportunities

There are a few managers in the impact space incorporating frameworks to measure and track nature positivity metrics. These managers often assess the degree of alignment of their portfolio with the UN SDGs that are focused on nature themes.

The approaches asset managers are taking to integrate natural capital risks into their investment decisions are evolving in line with environmental best practice standards. While there are data limitations, some managers are working to overcome these and are incorporating climate change and natural capital/biodiversity risks and opportunities into their investment approaches. A subset of managers have nature-positive targets and are actively pursuing engagement agendas around natural capital and biodiversity.

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What can asset owners do to assess nature-related risks?

ESG Leaders can consider conducting additional portfolio analysis to understand their exposure to the TNFD's priority sectors across their investment portfolios. This will highlight the portfolio areas that are likely to exhibit the highest concentration of nature-related risks. It will also help to guide and refine the development of stewardship strategies.

The TNFD recommends a series of steps for analyzing the priority sectors. These include:

- Undertaking a qualitative assessment of the exposure your investment portfolio has to priority sectors. This should involve summarizing the activities included within a sector, and disclosure of the nature-related dependencies, impacts, risks and opportunities relevant to each.
- Undertaking an overview of sector-specific requirements to enable an evaluation of the nature-related risks and opportunities. This should include developing an understanding of who is responsible for the oversight of these investments.
- Seeking an understanding of what data points might be needed to quantitatively assess natural risk.
- A full portfolio assessment carried out according to the TNFD's LEAP assessment framework.

The TNFD has provided initial guidance on analyzing priority sectors in a recent guidance release, with more advice expected in future versions.

We recommend that investors be pragmatic and tie any environmental assessment in with their climate policies. It is likely that some of the risks and opportunities related to nature will also support climate priorities. For example, an ambition to demonstrate sustainable farming practices (made, for example, by an agricultural production company) will both restore biodiversity and support the climate transition.

Example: an initial qualitative assessment of agricultural companies

Activities assessed: The processing, trading and distribution of vegetables and fruits, and the production and milling of agricultural commodities such as grains, sugar, consumable oils, maize, soybeans and animal feed.

Assessment of nature-related dependencies, impacts, risks and opportunities

Dependencies: Growing agricultural products depends on a variety of natural inputs, including water, fertile soil and pollinators.

Impacts: Biodiverse forested areas can experience an elimination of biodiversity as they are converted to arable land. This can also cause a loss of soil fertility and a dependence on chemical fertilizers, as well as heavy water use and an increased risk of flooding.

Risks: There is risk of financial loss if the local ecosystem is degraded, as this can lead to lower crop yields. Drought or pest infestation can also affect the crop leading to financial losses.

Opportunities: More sustainable farming practices can provide a financial upside for agriculture producers. Techniques such as crop rotation and more efficient water use restore soil fertility and ease the strain on local water systems. In turn, this can allow the land to be more productive for food production for longer. It can also increase crop yields, making sustainable farming more profitable.

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Recommended step #4 — consider an allocation to natural capital opportunities

The opportunity set for investment strategies focused on natural capital and biodiversity (i.e., products and solutions that specifically address natural capital challenges) is relatively new but growing rapidly.

Due to the complexities of some of the investment structures, as well as the relatively short track record of many of the funds, we advise that investors conduct thorough due diligence on any prospective investments. They should also ensure that any investments align with the sustainable investment principles and beliefs of the overall asset owner.

The majority of investment ideas we see in the market are within the public equities and private markets/real assets spaces. We have mapped some of the key investment themes across public and private markets that we have come across in our due diligence reviews.

Figure 16. Natural capital - spectrum of investment ideas

More liquid	Less liquid
Listed equity	**Private equity**
Waste management Circular economy Sustainable forestry and agriculture Renewable energy Sustainable packaging solutions Ocean and water	Early and growth stage companies in a range of themes e.g., circular economy, energy efficiency, environmental support and waste management
	Real assets
	Agriculture — funds that include projects, facilities and businesses that are involved in the purchase of and/or management of agricultural land, and in the production of agricultural products. **Timber** — funds that are involved in the purchase of and/or management of timberland or timber production. **Sustainable oceans** — funds that focus on the protection and restoration of oceans as well as regenerating ocean biodiversity. **Biodiversity and natural capital** — funds that are investing in the protection of and restoration of biodiversity and ecosystems.

Within public markets, investment opportunities may be linked to the preservation and harnessing of natural capital, through solutions that preserve nature and focus on delivering a resource-efficient and zero-waste economy. Asset managers are differentiating themselves into those investing in solutions to mitigate biodiversity loss, and those investing in companies that are working through their supply chains to ensure a net-positive impact on biodiversity (some investors might label the second type as "transition leaders").

Investment ideas around biodiversity tend to focus primarily on addressing the key drivers of biodiversity loss: climate change, pollution, changes in land and sea use, invasive alien species and the exploitation of organisms (e.g., overfishing). Many of these strategies focus on investing in companies that are aiming not only to mitigate, but also to reverse, biodiversity loss.

The most common themes across biodiversity strategies tend to include the following issues: waste management, the circular economy, sustainable forestry and agriculture, natural capital, renewable energy, energy infrastructure and efficiency, sustainable packaging solutions, and ocean and water.

Within the private markets/real assets space, we have seen a range of ideas across the following themes: sustainable agriculture and forestry, sustainable oceans and biodiversity and natural capital (with varying degrees of overlap across the funds).

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Below we list a number of key investment themes that could be of interest to asset owners.

Sustainable agriculture. These are funds that include projects, facilities and businesses that are involved in the purchase of and/or management of agricultural land, and in the production of agricultural products. This investment focus could support sustainable farmland strategies, or sustainable agrochemicals and soil improvement funds (e.g., funds investing in the production of sustainable fertilizers, seed, insecticide and soil improvement materials).

Sustainable timberland/forestry. These are funds that are involved in the purchase of and/or management of timberland and forests, with the aim of harvesting trees in a certified sustainable manner and/or purchasing tracts of timberland to create and sell the carbon credits from sequestration. To ensure best practice in terms of ESG issues, it is important to make sure any funds adhere to the highest standards of certification.

Biodiversity and natural capital. These are funds that are investing in the protection and restoration of biodiversity and ecosystems. These could include investments in nature-based solutions to protect, restore and regenerate ecosystems (e.g., landscape regeneration, rewilding, coastal restoration and sustainable aquaculture) or projects that derive revenues from payments for ecosystem services. Where possible, such projects should promote the well-being of people as well as the conservation of biodiversity.

Sustainable oceans. These are funds that focus on the protection and restoration of oceans and which also drive the regeneration of ocean biodiversity. Examples include the restoration of mangroves and coral reefs. These habitats support sea life and help prevent flood damage. Other sustainable ocean projects include carbon dioxide removal schemes involving the cultivation of seaweed, which can then be sold for use as food or fertilizer. There are also opportunities involving sustainable fishing, although controversies remain as to how sustainable fisheries can be. There are also animal cruelty issues to consider in relation to fishing and aquaculture, which can make such projects less attractive from a broad ESG perspective.

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Next steps and what to expect in the next paper

We urge investors to be proactive in integrating nature and biodiversity into their portfolios. We believe that, due to the various market developments that will happen in the next 12 months, nature and biodiversity considerations are likely to become increasingly financially material to asset valuations. Preparing ahead of time could put investors in a position to take advantage of these market changes as they occur.

In light of the significant developments in nature and biodiversity policy that will take place over the next year, Mercer will be drafting a follow-on paper to this one. In that paper, we will give an update on both the Global Biodiversity Framework and its implications for financial markets, and on the TNFD's final recommendations and what impacts we think these will have on investment portfolios.

At Mercer, we recognise that this space is fast evolving as nature will become an increasingly important investment consideration for asset owners. In light of this we are reviewing our investment advice and consulting tools to continue to align with sustainability best practice. In our next paper we will provide an update on the progress of the changes that we are making in response to market developments, including how we are updating our climate analytics tools to help investors integrate nature considerations into their sustainable transition journey.

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Mercer is proud of its ESG commitments, which are reported by Marsh McLennan, as well as its responsible investment policy and TCFD report.

For further information, please visit https://www.mercer.com/investing-sustainably,or https://www.marshmclennan.com/about/esg.html

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