April 2023

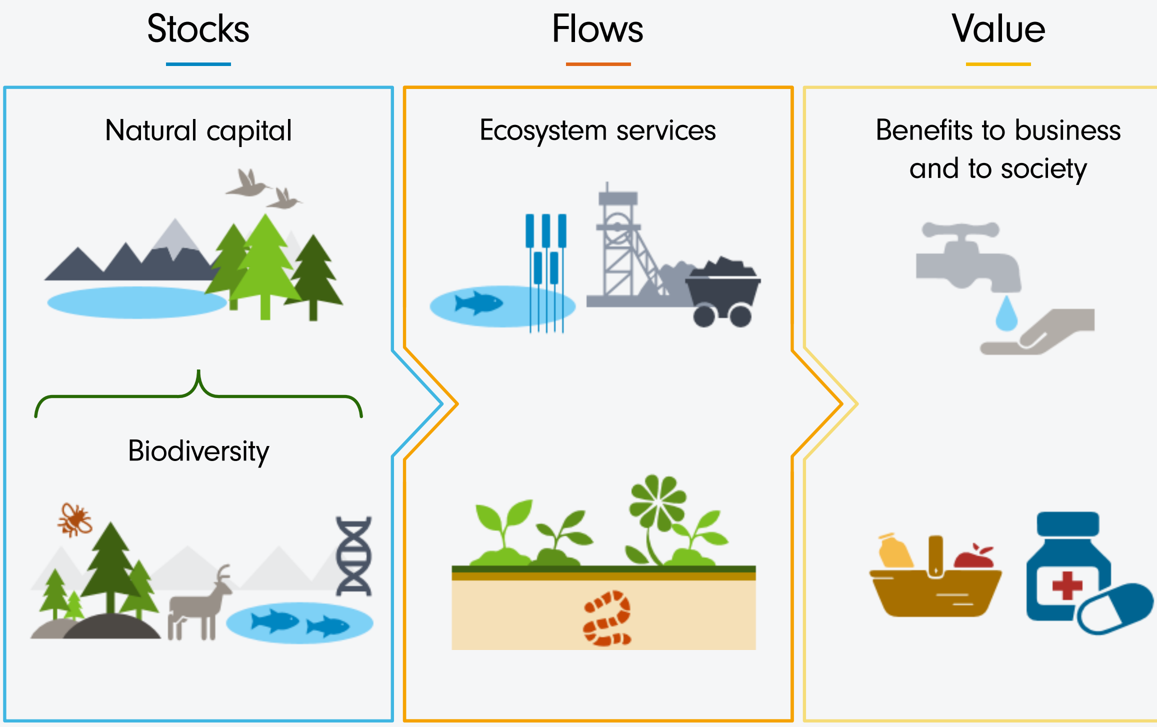
Fidelity Sustainability Series: Biodiversity

Fidelity INTERNATIONAL

Overview

Biodiversity is the balance and variety of life on earth. It refers to the living component of natural capital, which more broadly encompasses the world's stock of natural resources, including geology (rocks and minerals), soil, air, and water.

Together all components of natural capital interact to provide ecosystem services, such as pollination and food production, air circulation, climate regulation, flood protection and carbon sequestration, from which we derive social, economic and cultural benefits.



Source: Fidelity International, 2022. For illustration purposes only.

Biodiversity loss is considered to be unprecedented and accelerating. Since 1970, there has been around a 69% decline in global wildlife populations[1] and this is occurring across all geographic regions, but most strikingly in Latin America and the Caribbean where wildlife populations have fallen 94% in the last 50 years.[2] Extinction rates are estimated to be 100-1000 times the natural background rate[3] with up to 1 million animal and plant species, out of a total of 8.1 million, facing extinction[4].

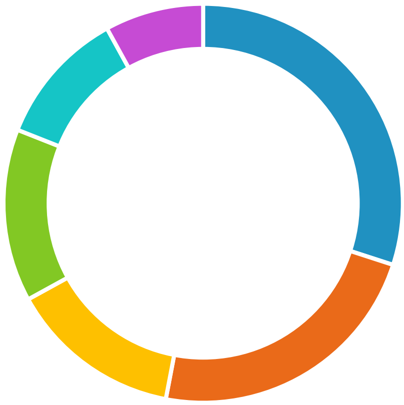
Unabated loss of biodiversity leads to the degradation of the ecosystem services upon which we depend, posing a serious threat to global economic and social prosperity.

Moreover, biodiversity loss and climate change are closely linked. The preservation of biodiversity and natural capital is expected to play a critical role in achieving net zero. The Intergovernmental Panel on Climate Change (IPCC) 1.5°c 'safe landing' pathway assumes nature will continue to be a provider of carbon sinks and ecosystem services implying the critical importance of halting nature loss with immediate effect. On the other hand, climate change is expected to be one of the major threats to biodiversity and is expected to become the dominant driver in coming decades, acutely so in tropical regions.

Failure to address biodiversity loss in tandem with climate change is considered to be a failure to address either issue.

As well as climate change, the four other key direct drivers of biodiversity loss are land and sea use change, pollution, direct exploitation, and invasive species[5].

Drivers of Biodiversity Loss



- Changes in land and sea use **30%**
- Direct exploitation **23%**
- Climate change **14%**
- Pollution **14%**
- Invasive species **11%**
- Other **8%**

Source: IPBES

Biodiversity is under intense pressure and its loss poses material financial risk. It is estimated that more than 50% of global GDP is moderately or highly dependent on nature[6]. The 'Global Risks Report 2023' by the World Economic Forum has ranked 'biodiversity loss' among the top five 'risks that may have the most severe impact over the next 10 years'[7]. As such, the preservation of biodiversity and ultimately the management of related risks is considered to be critical to ensuring long-term global social and economic prosperity.

[1] WWF (2022) Living Planet Report 2022 – Building a naturepositive society. Almond, R.E.A., Grooten, M., Juffe Bignoli, D. & Petersen, T. (Eds). WWF, Gland, Switzerland
[2] WWF (2022) Living Planet Report 2022 – Building a naturepositive society. Almond, R.E.A., Grooten, M., Juffe Bignoli, D. & Petersen, T. (Eds). WWF, Gland, Switzerland
[3] Extinctions - Our World in Data
[4] IPBES Global Assessment Report on Biodiversity and Ecosystem Services
[5] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), The global assessment report on biodiversity and ecosystem services, 2019
[6] World Economic Forum (2020) Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy
[7] World Economic Forum (2023) The Global Risks Report 2023 18th Edition

Risks associated with biodiversity loss include:

- **Physical risks:** Unabated degradation of natural capital and biodiversity will lead to the depletion of key ecosystem services. These can be acute episodic risks, such as droughts and disease outbreaks, as well as chronic risks such as declining crop yields and supply chain disruptions due to natural resource scarcity.
- **Transition risks:** New policies and regulatory initiatives are needed to help shape the economic incentives to preserve natural capital and biodiversity. A wave of relevant legislation is already emerging in Europe, while other regions are expected to follow. In parallel, the Taskforce on Nature-related Financial Disclosures (TNFD) is under development. Once finalised in late 2023, the TNFD is positioned to become the market standard biodiversity risk management and reporting framework. Companies and financial institutions must to the extent possible anticipate these changes to help futureproof their businesses and ensure they can manage the rising compliance costs.
- **Disintermediation Risks:** Many value chains will be disrupted, including animal proteins, plastic production, internal combustion engines and thermal power generation. Companies investing in products solving the biodiversity crisis are likely to gain market share in this transition.
- **Legal risks:** Parties who have suffered biodiversity-related loss or damage may seek compensation from those they hold responsible. There has been an acceleration in the number of climate change litigation cases. Globally, the cumulative number of climate change-related cases has more than doubled since 2015, bringing the total number of cases to over 2,000. Around one-quarter of these were filed between 2020 and 2022[8]. As biodiversity rises up the agenda of policy makers, companies, investors and other stakeholders, biodiversity-related litigation is expected to follow the same trend as climate.

> A wave of relevant legislation is already emerging in Europe, including the EU Nature Restoration Law, UK Environment Act, and the EU Commission's Deforestation-Free Products Regulation, while other regions are expected to follow

- **Reputational risks:** Lack of consideration for biodiversity can result in lower brand value and loss of customer base. In recent years, mining, oil and gas, and soft commodities companies, have been some of the key sectors targeted by awareness campaigns, whistleblowing mismanagement of biodiversity risks. As greater awareness of the consequences of biodiversity loss builds, such controversies could translate into financially material consequences for companies.

By contrast, the scale of investment needed represents a huge opportunity. The United Nations (UN) Environment Programme estimates that meeting international commitments will require US $8.8 trillion of cumulative investment in nature-based solutions between now and 2050. Currently, the annual investment is US$146 billion. Moreover, private capital accounts for just 17% of the total.[9] Comparing that to climate finance, where private sources now account for more than half of all investment, means there is a significant gap to be closed.

In this document, we provide an overview of Fidelity's approach to managing biodiversity-related risks and opportunities.

[8] Setzer J and Higham C (2022) Global Trends in Climate Change Litigation: 2022 Snapshot. London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science
[9] United Nations Environment Programme (2022) State of Finance for Nature. Time to act: Doubling investment by 2025 and eliminating nature-negative finance flows. Nairobi

Fidelity's approach to biodiversity

Fidelity's fiduciary role is to safeguard and enhance the funds that we manage for the benefit of our investors. In the context of biodiversity, this means:

- Understanding the key risks and their potential impact on our portfolios and ensuring that issuers are working to mitigate and manage those risks in a timely manner through engagement
- Investing in nature-based solutions to help mitigate and manage relevant impacts

Integration - ESG ratings and research

At Fidelity we have developed our own proprietary ESG tools that is designed to enable the integration of sustainability into our fundamental investment research. In this regard, our proprietary ESG ratings framework provides an absolute assessment of companies' sustainability characteristics across different sectors.

Biodiversity is explicitly captured within our proprietary ESG ratings framework for those sectors where our investment teams deem it material, with 78 of the 127 sub-industries mapped to at least one explicit biodiversity indicator. Furthermore, other contributing factors across biodiversity impacts and dependencies are also considered, for example, water consumption, greenhouse gas (GHG) emissions and waste management. In addition, the Fidelity sustainable development goals (SDG) tool can be used to identify contribution from a corporate's products and services towards relevant SDGs (14 and 15, 'life below water' and 'life on land'), helping identify potential investment opportunities.

To understand our biodiversity-related risk exposure, we are also undertaking biodiversity exposure analysis across our investment portfolios. In 2022, Fidelity conducted an initial heatmap analysis for our French domiciled funds using ENCORE data to assess the potential biodiversity impacts and dependencies based on the fund's sub-sector exposure. Furthermore, we also used Global Canopy's Forest 500 to assess potential exposure to deforestation risks.

Building on this foundational work, we continue to review additional data to enable further biodiversity integration, impact assessment and target setting in line with our commitments. We are active members of several industry working groups on metrics, impact assessment and target setting. This work will help identify biodiversity hotspots, enabling targeted engagement and greater visibility on the management and evolution of biodiversity impacts and dependencies across portfolios.

The *Exploring Natural Capital Opportunities,* Risks and Exposure tool or *ENCORE* seeks to help financial institutions better understand their potential exposure to biodiversity impacts and dependencies, such that they can better integrate natural capital risks and opportunities in the investment process and their overall risk management[10].

[10] https://encore.naturalcapital.finance/en

Active ownership

Given the dependence on ecosystem services for the functioning of the global economy, we expect issuers to understand their dependencies and impacts on biodiversity. We believe issuers must conduct biodiversity impact and dependency assessments of their operations and supply chains, and work to minimise the negative externalities from their direct operations and across their supply chains, including but not limited to, water usage, waste management, product quality, chemical safety, and deforestation.

In line with our active ownership approach we frequently engage issuers on nature-related topics and, we have a comprehensive thematic and collaborative engagement program.

Our sustainable investing beliefs reflect the fact that long-term value creation is affected by system-wide sustainability themes. Biodiversity loss is increasingly acknowledged as a systemic risk to capital markets. It therefore requires responses at multiple levels. We have developed an influence framework to help us identify where and how we can align and further our efforts. Below is an illustration of how these distinct levels of influence relate to biodiversity loss, with examples at each level.

Engagement case study

Since 2021, Fidelity has been engaging with Suzano, the Brazilian paper and pulp producer, on biodiversity and climate. In late 2021, following one to one engagement and collaborative engagement via Climate Action 100+, Suzano committed to its first ever biodiversity target: to reconnect 500,000ha of previously unconnected rainforest by 2030, creating conditions for native animal and plant species to grow and expand their range thus improving the region's biodiversity. Since then, Fidelity has continued to engage with the company, who are working with third parties to map their supply chain, overcoming traceability challenges to address biodiversity impacts across all scopes of their operations. The company has also conducted some analysis on the impact of climate change on forests' productivity and is hoping to expand scenario analysis.

Fidelity's spheres of influence

Aiming to effect **real-world change** on **biodiversity** through a range of connected, influencing strategies.

Levels of influence in relation to biodiversity	Examples of Fidelity's actions	
System level Our economic, social and ecological systems are interconnected, and affected by the loss of biodiversity and natural capital in ways that are not yet fully understood but that have wide-ranging implications for capital markets.	▪ Finance for Biodiversity pledge signatory and foundation member ▪ Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation signatory ▪ Signatory to the Financial Sector Statement on Biodiversity for COP15	▪ Taskforce on Nature-related Financial Disclosures (TNFD) forum member ▪ Natural Capital Investment Alliance (NCIA) member ▪ Member of the Business Coalition for a Global Plastics Treaty
Industry/sector/portfolio Addressing global biodiversity-loss is already starting to inform change across industries, particularly in high-impact sectors. This change requires collaborative efforts to accelerate the necessary transition.	▪ **Thematic Engagement:** plastic packaging, deforestation ▪ **Collaborative Engagement:** satellite engagement; sustainable proteins: FAIRR & ARE[11] ▪ **Research:** Bioacoustics study	▪ Advocate for sectoral decarbonisation pathways[12] ▪ Member of Principles for Responsible Investment (PRI) Plastics Investor Working Group ▪ Thought leadership
Firm/entity Capital allocation, engagement, and voting inform company behaviour change.	▪ Fidelity's proprietary ESG Rating ▪ Company engagement ▪ Voting	▪ Fidelity's proprietary Climate Rating ▪ Sustainably-linked and green bonds ▪ Deforestation Framework
Individuals Individuals' knowledge, skills, and experience are key to effecting and informing change.	▪ Internal training webinars ▪ Primers ▪ Client engagement	▪ Quarterly internal sustainable investing townhalls ▪ Sustainable investing team collaboration with portfolio managers and analysts

Source: Fidelity International 2022.

[11]Farm Animal Investment Risk and Return (FAIRR) and Asia Re-engage (ARE) collaborative engagements,

[12]Signatory to the investor letter, coordinated by FAIRR calling for the Food & Agriculture Organisation (FAO) to produce a global roadmap to 1.5 degrees

Thematic engagement

We have launched several biodiversity-related thematic engagements. Through these engagements we aim to raise several topics with investee companies:

- The evaluation of nature related risks and opportunities across the supply chain
- Improved monitoring and traceability of supply chains, including the use of technology
- Setting time bound commitments, underpinned by clear and comprehensive policies on biodiversity
- Increased transparency and improved disclosures

Key issues on which we engages to encourage progress through thematic and collaborative engagement include, deforestation, plastic pollution, sustainable proteins, and sustainable fashion.

Plastic pollution

Plastics have become ubiquitous due to their low-cost and versatile nature. Plastic production has therefore increased exponentially in the last 65 years, with volumes growing from just 2.3 million tonnes in 1950 to almost 450 million tonnes in 2015, with production expected to double through to 2050[13]. However, plastic pollution has become a global problem and pollution is one of the key drivers of biodiversity loss (along with land use, natural resource use, climate change and invasive species). Plastic pollution contributes to the degradation of ecosystems, loss of wildlife and climate change, with much of the plastic ending up in oceans: plastics account for over 85% of total marine waste[14].

In 2021, Fidelity embarked on the first phase of our plastic packaging engagement, engaging with nine consumer goods companies. The objective of our engagement is to encourage progress to address the issue of plastic pollution, encouraging companies to embed the principles of the circular economy in their business models, ultimately decoupling growth with plastic use. In conjunction we supported the business call for an ambitious global plastics treaty, signalling the need for a supportive policy environment to address the issue.

The engagement sets the following expectations of companies:

1. Reduce: Set quantifiable, time-bound targets for reducing overall plastic use, as well as implementing quantifiable, time-bound targets to increase the use of recycled content in plastic packaging
2. Reuse: Set quantifiable, time-bound targets for making a proportion of plastic packaging reusable
3. Recycle: Implement a time-bound target to achieve 100% practically (not technically) recyclable, compostable or re-usable packaging

   All targets must be supported by well-articulated strategy to achieve the respective commitments
4. Disclose: Companies must provide transparent disclosures, clearly articulating progress against vs targets and reporting on key initiatives towards achieving these targets

[13] Plastic pollution facts and information
[14] From Pollution to Solution: A global assessment of marine litter and plastic pollution. United Nations Environment Programme (2021)

Our engagement highlighted examples of best practice, which we used to guide less-progressive companies to develop their approach. For example, **Unilever** has set a total plastic reduction target, in addition to its virgin plastic reduction target, focusing on the top of the waste mitigation hierarchy. Some companies are investing in research and development to innovate new products. For example, **Colgate** has designed what is billed as the first recyclable toothpaste tube. **Nestle** has also channelled significant investment into substitution and reformulation of products to reduce plastic usage.

Following our first round of engagement, in 2023, we are embarking on our second round of engagement. Many companies will struggle to meet their 2025 targets. Therefore, our engagement will highlight the need for progress towards targets, with a focus on addressing flexible packaging use, the need for innovation to reduce overall plastic use, and under-utilisation of the opportunity to scale reuse solutions. This will be complemented by our ongoing engagement as a member of the Business Coalition for a Global Plastics Treaty.

Deforestation

Deforestation has long been a focus of our engagements. Fidelity has run a thematic engagement on palm oil since 2019, advocating for an end to tropical deforestation. We focused these engagements on palm oil growers in Southeast Asia. For example, in 2021, we engaged with five upstream growers in Indonesia and Malaysia, where palm oil production accounts for over 80% of global output, to understand their progress and approach towards achieving sustainable palm oil. Moving forward, we continue to push for companies to align with the seven principles of the Roundtable on Sustainable Palm Oil (RSPO) through better disclosures and best-in-class management practices.

In 2022, we widened the scope of our existing palm oil thematic engagement to create a deforestation thematic engagement covering the key forest-risk commodities identified by the pledge: palm oil, soy, beef and leather, pulp and paper. Our deforestation thematic engagement prioritises companies with weak practices that are materially exposed to potential tropical deforestation risk. We also prioritise our engagements based on our holdings. To identify our target list of companies, we leverage third-party data, including Global Canopy's Forest 500 data, to determine those companies most exposed and able to influence tropical deforestation risk, complemented by bottom-up due diligence by our analysts.

In 2023, we will continue our thematic engagement on deforestation. To encourage progress to address agricultural commodity-driven deforestation risks we will focus on encouraging boards to act on the issue as a matter of urgency, communicating the practices we highlight within 'Investor expectations' below. We will continue to report on the progress of our deforestation thematic engagement in our quarterly stewardship report and in our annual sustainability reporting.

Deforestation Framework

In December 2022, we published our Deforestation Framework, it explains how we plan to continue to engage with stakeholders to encourage progress to address agricultural commodity-driven deforestation risks across investment strategies in a way that aligns with our active, bottom-up research approach to investing. It also defines our minimum expectations of exposed investee companies, the objectives of our engagements, and our escalation approach where companies do not meet expectations, in line with our updated Voting Principles and Guidelines. The Deforestation Framework should be considered within the context and scope of our overarching Sustainable Investing Principles.

Thematic engagement case study

In 2022, Fidelity engaged with a European luxury goods company on both deforestation and modern slavery in the supply chain. One of the greatest challenges in addressing deforestation risk is considered to be supply chain traceability. Leather is the most significant raw material for the company, which is associated with significant potential deforestation risk and with issues of sourcing traceability. We identified areas where the company's disclosures, policy and targets should improve and underlined the importance of industry collaboration to improve traceability in leather and beef more broadly. Positively, they were clearly aware of the work that needs to be done, with the company in the process of making changes to many of the points we raised. Importantly, as a part of their public commitment to the Fashion Pact, they flagged that they have already made a commitment to support zero deforestation and sustainable forest management by 2025 and will be looking to disclose more clearly in their own reporting.

Investor expectations

We believe that corporate disclosure around deforestation exposure and risks must improve. To effectively manage deforestation risk, companies with material direct or indirect deforestation exposure should have practices covering material key forest-risk commodities (including: palm oil, soy, beef and leather, pulp and paper) that include:

1. Assessment and public disclosure of deforestation risk and a plan to address the risk.
2. A timebound deforestation-free commitment.
3. Effective supply chain traceability and engagement.
4. Monitoring and disclosure against deforestation commitments.
5. Board-level oversight of forest related issues.

Collaborative engagement

Fidelity participates in several collaborative initiatives and investor working groups, helping to develop standards and address biodiversity at the system level.

Satellite and bioacoustics

To complement our thematic engagement on deforestation, we have joined two collaborative projects. Unlike climate change and GHG emissions, biodiversity loss is hard to measure with a single metric. However, there are innovative solutions to measurement and monitoring of actual biodiversity loss emerging to address this challenge.

In 2020, Fidelity joined a collaborative engagement led by Dutch asset manager, ACTIAM. ACTIAM partnered with Satelligence, a company that uses satellite imagery and artificial intelligence to identify cases of deforestation across palm oil supply chains. The engagement programme enables financial institutions to challenge and work with companies using real-world data to enhance traceability and disclosure and reduce deforestation in the supply chain, facilitating evidence-based engagement. Following a successful first phase of engagement, where Fidelity acted as co-lead, the engagement has now moved into its second phase, in which Fidelity is leading four engagements. The innovation around the engagement was recognised at the UK's Environmental Finance Awards 2021, where it won 'ESG Engagement Initiative of the Year'.

In parallel, Fidelity, in partnership with three other investors is co-sponsoring a collaborative project with Green PRAXIS, a nature-based solutions provider using bioacoustics technology to measure biodiversity impacts. The aim of the project is to develop a new biodiversity metric for understanding impacts and risks associated with land-use developments of investee companies. The insights gained could have the potential to inform more responsible land management practices and aid effective engagement with investee companies to promote more sustainable management.

We are also signatories to and active participants in several key industry initiatives that are focused on improving the financial sector's understanding and action on biodiversity. Below we detail our key biodiversity-related initiatives.

Key biodiversity-related initiatives

Finance for Biodiversity Pledge	Signatory & Foundation member	In 2021, Fidelity became a signatory of the Finance for Biodiversity pledge. The pledge now brings together over 120 financial institutions representing €18.8 trillion AuM, committing to collaborate and knowledge share, engage with companies, assess impact, and set targets to report on biodiversity matters before 2025. We are active participants in four working groups on Engagement with Companies, Impact Assessment, Public Policy Advocacy and Target Setting. Jenn-Hui Tan, Fidelity's Global Head of Stewardship and Sustainable Investing, also sits on the Finance for Biodiversity Foundation's Advisory Board.
Financial Sector Deforestation Action (FSDA)	Signatory	At COP26 in 2021, Fidelity signed the Financial Sector Commitment Letter on Eliminating Commodity-Driven Deforestation, an initiative now named Financial Sector Deforestation Action (FSDA). As a signatory, Fidelity committed to use best efforts towards the goal of eliminating forest-risk agricultural commodity-driven deforestation activities in investment portfolios by 2025 via engagement and stewardship.
Natural Capital Investment Alliance (NCIA)	Member	The NCIA unites investors to adopt Natural Capital as an investment theme and targets the mobilisation of US$10 billion into Natural Capital by the end of 2022. Fidelity is an active participant in the alliance, participating in the Policy, Industry and Government Liaison working group and co-chairing a working group on Metrics and Disclosures.
Taskforce on Nature-related Financial Disclosures (TNFD)	Forum member	The TNFD aims to develop a risk management and disclosure framework to incorporate evolving nature-related risks. This will promote a shift in global financial flows away from negative nature outcomes to nature-positive outcomes.
WWF Biodiversity Risk Method for Investors	Advisory Investor Group Member	Fidelity has been a part of the investor advisory group helping to highlight the financial industry's needs. Its goal is to develop a methodology to allow investors to actively manage biodiversity-related financial risks for assets and across portfolios.
Member of the Business Coalition for a Global Plastics Treaty	Signatory	In 2021, Fidelity supported the call for the UN to develop a global treaty on plastic pollution, which was approved by 200 countries at the United Nations Environment Assembly (UNEA). Fidelity has since joined the Business Coalition for a Global Plastics Treaty, a group of corporates, financial institutions and non-governmental organisations, convening as an advisory body to the support the development of an ambitious and effective global treaty to end plastic pollution.

Policy engagement

To support our bottom-up company engagement, we also engage at the system-level, for example last year we supported the call for a Global Plastics Treaty, and we are subsequently involved in the coalition to help shape this policy. We believe this micro-macro approach is an effective way to influence change, pressing companies to increase their ambition, while helping to shape the incentives to enable that change.

For example, in December 2022, Fidelity signed the Private Financial Sector Statement on Biodiversity for COP15, a statement drafted by Principles for Responsible Investment (PRI), the United Nations Environment Programme Finance Initiative (UNEP FI) and the Finance for Biodiversity Foundation calling for an ambitious Global Biodiversity Framework at COP15.

Voting

Voting is a fundamental part of our approach to active ownership. We seek to influence and improve issuer behaviour through voting and will consider supporting shareholder resolutions on key environmental issues including climate, biodiversity and deforestation.

In December 2022, we published our Deforestation Framework which included an update to the Voting Principles and Guidelines. We believe companies should meet minimum standards of deforestation oversight, practice, disclosure, and action on deforestation disclosures and activities.

We expect investee companies to have a plan in place to address deforestation, underpinned by deforestation-free commitments. Following continued deforestation related engagement in 2023, we intend to begin the application of our Voting Principles and Guidelines on deforestation effective from 2024.

We plan to vote against members of the board at companies in high-risk sectors that do not adequately meet our deforestation-related expectations. We will take into account the company's position within the supply chain, industry exposure, operating and supply chain location, engagement progress, and the urgency with which we believe they should be addressing deforestation.

Important Information

All information is current as at 30 April 2023 unless otherwise stated.