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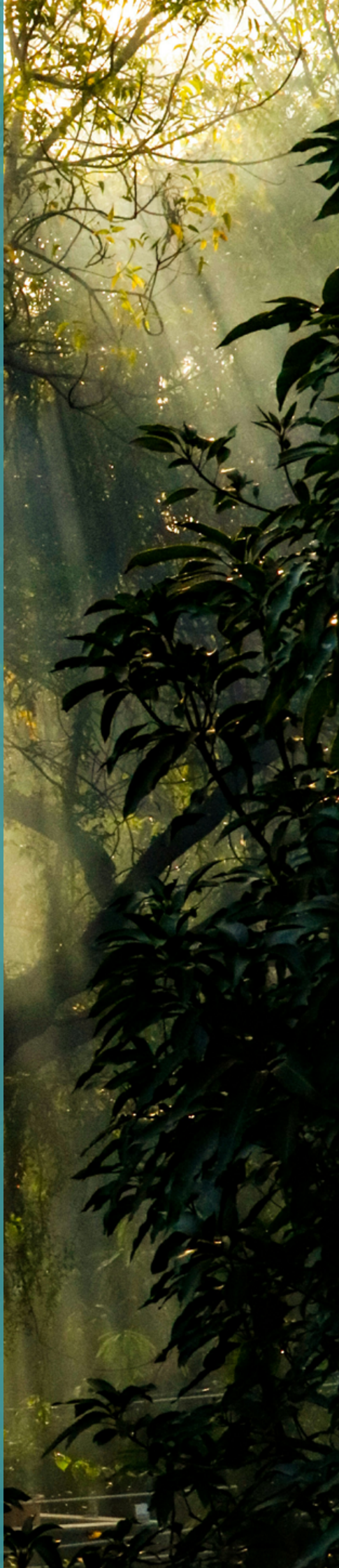
PRI Principles for Responsible Investment

UN-convened Net-Zero Asset Owner Alliance

Guidelines and Recommendations for Halting Deforestation



May 2025

Antitrust and regulatory disclaimer

The Net-Zero Asset Owner Alliance (the Alliance) and its members are committed to comply with all laws and regulations that apply to them. This includes, amongst others, antitrust and other regulatory laws and regulations and the restrictions on information exchange and other collaborative engagement they impose.

For the avoidance of doubt, the content set out within this paper do not constitute advice to members of the Alliance. This paper is not prescriptive as to actions or decisions to be taken by members—the Alliance's members set individual targets and make their own unilateral decisions. As such, the Alliance takes no liability for actions or decisions taken by members when applying the principles of this paper.

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Preface

As members of the United Nations (UN)-convened Net-Zero Asset Owner Alliance (the Alliance), we have each committed to transitioning our investment portfolios to net-zero greenhouse gas (GHG) emissions by 2050. Together, we manage over USD 9.5 trillion in combined assets on behalf of our beneficiaries and clients, taking on the fiduciary obligation to these stakeholders to safeguard their assets and achieve the best possible investment returns. By doing so, Alliance members improve risk management, increase long-term profitability and drive systemic change in the global economy.

Climate change and deforestation are intrinsically linked. Over one-fifth (22 per cent) of global GHG emissions are attributable to agriculture, forestry, and other land use (AFOLU), half of which originate from deforestation and land conversion. Deforestation represents the second-largest source of annual global GHG emissions behind fossil fuel combustion, with these emissions steadily increasing over the past few decades.

When forested land is cleared and converted to other uses, the stored carbon and other GHGs are released to the atmosphere. In addition, new sources of GHGs are introduced when carbon-rich forest soils are put into agricultural production.

The importance of protecting and restoring forests—and halting deforestation—is even more striking when considering the role of forests in sequestering carbon and mitigating climate change: around one third of global carbon emissions is absorbed by forests each year.

As recognised in the Global Stocktake adopted by all Parties to the Paris Agreement at COP28, enhanced efforts are needed to halt and reverse deforestation and forest degradation by 2030 to achieve mitigation in line with the Paris Agreement. The relevant policy environment is rapidly evolving in support of this urgent imperative, and a suite of tools is available for investors and companies to assess and manage their exposure to deforestation risks. Yet further action is needed to address both the systemic and portfolio-level financial risks associated with deforestation.

Addressing deforestation must be understood as necessary for achieving net-zero emissions targets and supporting members of the Alliance and other investors to manage climate risk in their portfolios. Through these Guidelines, the Alliance gives indicative direction for Alliance members. Financial institutions should consider the guidelines as resources and considerations that may be consulted as part of their broader efforts to transition to net-zero and 1.5°C aligned portfolios, not as a specific course of action.

Executive summary

The Alliance's definition of deforestation is guided by the Accountability Framework, which outlines the scope of deforestation and forest conversion as they relate to the loss of natural forests. Using these definitions as a foundation, the Alliance's guidelines on deforestation serve to describe the factors driving deforestation and why the issue is relevant for investors; highlight recent and ongoing investor action on curbing deforestation; and outline clear guidelines for investors, as well as key recommendations for companies, policymakers, and data providers, with a particular focus on the need for joint efforts from all stakeholder groups.

Drivers of deforestation and why it is relevant for investors

At a global level, deforestation is largely driven by agricultural expansion to meet demand for, and global trade in, forest-risk commodities. Key commodities linked to deforestation include beef, leather, coffee, cocoa, soyabeans, palm oil, pulp, paper, timber, and rubber. Addressing the issue therefore requires a comprehensive value chain approach that avoids deforestation and promotes alternative production methods.

Deforestation poses systemic risks to global economies. The loss of just four ecosystem services, including two directly provided by forest ecosystems, could contract global gross domestic product (GDP) by an estimated USD 2.7 trillion by 2030.[1] Deforestation also creates material systemic risks through the exacerbation of climate change and broader nature loss. For highly diversified long-term investors, such as the asset owners comprising members of the Alliance, these systemic risks have far-reaching implications across portfolios.

Investors also face significant, material portfolio-level risks through their investments in companies involved in, or dependent on, forest-risk commodities. These risks fall into two broad categories—namely: transition risks, emerging from the evolving regulatory environment, shifting market dynamics, and technological developments; and physical risks, from the dependence of key sectoral value chains on well-functioning forests.

1 The Economic Case for Nature: A Global Earth-Economy Model to Assess Development Policy Pathways, World Bank Group, 2021

Investor action on deforestation

While greater ambition is needed to achieve the global goal of eliminating deforestation this decade, there are already many initiatives and frameworks upon which to build. Asset owners are increasingly focusing on measuring and managing activities that contribute to deforestation, recognising the crucial role forests play in supporting thriving global economies and mitigating climate risk.

The growing availability of assessment frameworks, relevant datasets, and investor tools to support engagement and stewardship has enabled asset owners to better assess and manage deforestation risks. Notable examples include:

- **Assessment Frameworks** such as the Science Based Targets Initiative's Food, Land and Agriculture (SBTi FLAG) guidance, Ceres' Investor Guide to Deforestation and Climate Change, the Accountability Framework-aligned Finance Sector Roadmap, and Global Canopy's Due Diligence towards Deforestation-Free Finance guide provide structured approaches for setting targets and managing risks.
- **Datasets:** Deforestation-related data from commercial vendors, ESG [Environment, Social, Governance] rating providers, and non-governmental organisations (NGOs) aid in quantifying risks, conducting portfolio screenings, identifying high-risk companies and sectors, analysing companies' efforts to address deforestation, and engaging with companies, among other assistance.
- **Investor Tools:** Investors are increasingly addressing deforestation and forest conversion in their strategies through risk assessments, engagement, policy advocacy, and enhanced disclosure.

The COP28 Global Stocktake agreed in 2023 highlights that greater urgency and action is needed to halt and reverse deforestation by 2030. This necessitates ambitious action on deforestation and forest conversion from members of the Alliance and other investors (including asset managers), as well as corresponding action by companies, policymakers, and data providers.

Guidelines on deforestation and key recommendations for stakeholders

This paper is structured as guidelines for investors, as well as recommendations for three other key stakeholder groups: companies, policymakers, and data providers. The full set of Guidelines and Recommendations is set out at the end of the paper.

Group	Key recommendations for stakeholders
Investors	▪ Assess deforestation and related human rights abuse risks in portfolios. ▪ Integrate into policies and practices reasonable efforts to phase out deforestation, forest conversion, and related human rights abuses associated with forest-risk commodities in portfolios by 2030. ▪ Undertake stewardship activities on deforestation in line with investors' policies and practices. ▪ Disclose material deforestation risk exposures and related human rights abuses, as well as approaches and activities for addressing those risks.
Companies	▪ Develop and disclose commitments regarding no deforestation, no conversion of forests, and respect for human rights as soon as possible and consistent with global efforts to halt and reverse deforestation by 2030. ▪ Measure progress and foster transparency in corporate reporting, including deforestation and/or land use-related emissions where available. ▪ Conduct and disclose responsible political engagement aligned with deforestation-related commitments. ▪ Engage with suppliers and other stakeholders in the supply chain in support of the commitment(s) and best practices. ▪ Conduct regular due diligence to guarantee sourcing from commodities that are free of deforestation, forest conversion and related human rights abuses.
Policymakers	▪ Integrate targets and actions for reducing and eliminating deforestation and forest conversion into national emissions reduction pathways and nature-related action plans. ▪ Eliminate, phase-out or reform environmentally harmful subsidies ▪ Prohibit the import and export of commodities and goods linked to deforestation and enforce supply chain due diligence. ▪ Implement mandatory reporting requirements for companies, financial institutions, and sub-national governments, and support an enabling environment for traceability and transparency. ▪ Foster collaboration between producer (exporting) and consumer (importing) countries in support of just and equitable solutions.
Data Providers	▪ Provide transparency about the methodologies used to collect data and standardise data formats. ▪ Continue to expand offering of relevant data for different asset classes and improve data quality. ▪ Translate deforestation data into useable metrics aligned with reporting frameworks. ▪ Enhance collaboration between different stakeholders to manage the availability of data and overcome the increasing complexity of information. ▪ Incorporate additional information on social and human rights-related issues into datasets.

Introduction

Background on deforestation

Climate change and deforestation are intrinsically linked. Over one fifth (22 per cent) of global greenhouse gas (GHG) emissions are attributable to agriculture, forestry, and other land use (AFOLU), half of which come from deforestation and land conversion.[2] Deforestation represents the second-largest source of annual GHG emissions behind fossil fuel combustion.[3] These emissions have steadily increased over the past few decades.

When forested land is cleared and converted to other uses, the stored carbon and other GHGs are released to the atmosphere in the form of carbon dioxide (CO_2) as well as nitrous oxide and methane. In addition, new sources of GHGs are often introduced when carbon-rich forest soils are put into agricultural production.[4]

The importance of protecting and restoring forests—and halting deforestation—is even more striking when considering the role of forests in sequestering CO_2 and mitigating climate change: around one third of global CO_2 emissions are absorbed by forests each year.[5]

As recognised by all Parties to the Paris Agreement at COP28, enhanced efforts are needed to halt and reverse deforestation and forest degradation by 2030 in order to achieve mitigation in line with the Paris Agreement temperature goal.[6,7] This global commitment is buttressed by the UN-commissioned Integrity Matters report,[8] which: (i) outlined recommendations for high-integrity net zero emission pledges from non-state actors in alignment with the Paris Agreement; and (ii) called for the elimination of agri-

2 AR6 IPCC Working Group 3.

3 Pendrill F. et al. Agricultural and forestry trade drives large share of tropical deforestation emissions, Stockholm Environment Institute, 2019. Blanco G, Gerlagh R, Suh S, Barrett J, de Coninck HC, Morejon CFD, Mathur R, Nakicenovic N, et al. (2014). "Chapter 5—Drivers, trends and mitigation." In: Climate Change 2014: Mitigation of Climate Change. IPCC Working Group III Contribution to AR5. Cambridge University Press

4 Investor Guide to Deforestation and Climate Change, Ceres, 2020

5 A Large and Persistent Carbon Sink in the World's Forests, Science, 2011.

6 Global Stocktake (December 2023): "Further emphasizes the importance of conserving, protecting and restoring nature and ecosystems towards achieving the Paris Agreement temperature goal, including through enhanced efforts towards halting and reversing deforestation and forest degradation by 2030, and other terrestrial and marine ecosystems acting as sinks and reservoirs of greenhouse gases and by conserving biodiversity, while ensuring social and environmental safeguards, in line with the Kunming-Montreal Global Biodiversity Framework."

7 This is also in keeping with the 2022 call to action by the leadership of the Glasgow Financial Alliance for Net Zero (GFANZ), which states that deforestation must end in this decade in order to "maintain a safely habitable planet" and assert that all members of net-zero alliances in the finance sector "should strive to eliminate commodity-driven deforestation from their investment and lending portfolios".

8 Integrity matters: net zero commitments by businesses, financial institutions, cities and regions, report from the UN high-level expert group on the net zero emissions commitments of non-state entities, 2022

cultural commodity-driven deforestation from supply chains and portfolios by 2025, as well as halting conversion of natural ecosystems by 2030.

Given that deforestation is a major source of GHG emissions, addressing deforestation is critical to achieving net zero emissions targets and managing climate risk. For Alliance members and other investors, tackling these risks is essential to protect long-term value, ensure credible transition strategies and support meeting the temperature goals of the Paris Agreement.[9] Action to halt deforestation also brings extensive co-benefits—including conservation of biodiversity—and is aligned with the imperative to protect human rights among indigenous communities.[10]

The Accountability Framework,[11] a guide for achieving ethical supply chains in the agriculture and forestry sectors developed by a coalition of environmental and human rights NGOs, has established consensus-based definitions to guide the achievement of deforestation- and conversion-free (DCF) supply chains. This paper uses The Accountability Framework definitions of the terms 'deforestation' and 'conversion' as follows:

Deforestation: the loss of natural forest because of:

- conversion to agriculture or other non-forest land use;
- conversion to a tree plantation; or
- severe and sustained degradation.[12]

Conversion: loss of a natural ecosystem as a result of its replacement with agriculture or another land use, or due to a profound and sustained change in the composition, structure, or function of species in a natural ecosystem.[13]

9 GFANZ indicated that net-zero transition plans that lack objectives and clear targets to eliminate and reverse deforestation are incomplete.

10 Deforestation has a significant impact on the livelihoods of Indigenous Peoples and local communities, who formally and traditionally govern 15.5 per cent of total forests. Land grabbing and illegal deforestation impact the availability of resources needed to survive, and make Indigenous Peoples and local communities vulnerable to dispossession (see: WWF's work on Deforestation and forest degradation). As underscored by The Accountability Framework, as well as the Finance Sector Roadmap referenced below, deforestation and forest conversion are often accompanied by human rights abuses, including via violence, threats, and land conflicts. These abuses should be addressed through measures such as: attaining Free Prior and Informed Consent (FPIC) of Indigenous Peoples and local communities; committing to respect customary rights to land, resources, and territory; taking a zero-tolerance approach to violence and threats against land, forest, and human rights defenders; and respecting labour rights across supply chains.

11 Accountability Framework Initiative

12 UN Food and Agricultural Organization (FAO) has put forth the following aligned definition of deforestation: "The conversion of forest to other land use independently of whether human-induced or not." The FAO further clarifies that this definition includes permanent reduction of the tree canopy cover below a minimum 10-per-cent threshold, and includes areas of forest converted to agriculture, pasture, water reservoirs, mining, and urban areas. The term specifically excludes areas where the trees have been removed as a result of harvesting or logging, and where the forest is expected to regenerate naturally or with the aid of silvicultural measures. The term also includes areas where the impacts of disturbance, over-utilisation, or changing environmental conditions affect the forest to the extent that it can no longer sustain a canopy cover above the 10-per-cent threshold. FAO Global Forest Resources Assessment, 2020.

13 Care should be taken to avoid unintended consequences of increasing pressure on other natural ecosystems. Reductions in deforestation can increase pressure for land conversion in other important ecosystems and carbon sinks (such as grasslands, wetlands and peatlands). For example, the grasslands of the Cerrado, which is adjacent to the Amazon forest, saw increases in conversion rates from February 2023 to February 2024 that ranged from 136 per cent (Tocantins) to 316 per cent (Maranhão). These increases occurred during a period that deforestation rates in Amazonia were decreasing. WWF 2024

Drivers and scale of deforestation

Deforestation worldwide is primarily driven by agricultural expansion to produce agricultural commodities, which accounted for nearly 90 per cent of deforestation between 2000 and 2018.[14, 15,16] Key agricultural commodities linked to deforestation include beef, leather, coffee, cocoa, soyabeans, and palm oil. Other sectors driving deforestation are those linked to pulp, paper, timber, and rubber production, plus the infrastructure required to produce these commodities.

Ultimately, the impacts of deforestation are driven by the demand for, and global trade in, forest-risk commodities. Global food systems are heavily dependent on the aforementioned agricultural commodities, while other forest-risk commodities remain key components of economically critical sectors such as manufacturing and energy. Addressing deforestation and forest conversion therefore requires a just transition to the sustainable and deforestation-free sourcing, production, and trade of these commodities across geographies. It is also important to acknowledge that global efforts focus on addressing current deforestation, with the greatest change in forest cover currently happening in tropical regions. Temperate deforestation peaked in the first half of the 20th century, and countries in those geographies which have already undergone a forest transition will nevertheless be associated with deforestation and forest conversion principally through their imports of forest-risk commodities.[17,18]

There are indicators of progress that demonstrate the practical feasibility of addressing the drivers of deforestation in key geographies and sectors. One such example is in Indonesia, where significant efforts have been made to eliminate deforestation impacts from palm oil supply chains. Another is in the Brazilian Amazon where government enforcement efforts have made inroads against deforestation associated with land clearing for soya and beef production.[19]

However, efforts to halt deforestation globally remain far off track. Gross annual deforestation reached 6.6 million hectares worldwide in 2022, an area larger than Sri Lanka and nearly as large as Ireland. This figure is 21 per cent higher than what is needed to be on track to eliminate deforestation by 2030. Primary tropical forest loss reached 4.1 million hectares and is even further off track, at 33 per cent above the trajectory required to halt the loss of primary tropical forest by the end of this decade.[20]

14 Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services IPBES, 2019.

15 Global Forest Resources Assessment and Remote Sensing Survey., FAO, 2022

16 Forest Loss: Global Forest Review, WRI, 2024.

17 Hannah Ritchie (2021) - "Deforestation and Forest Loss" Published online at OurWorldinData.org. Retrieved from: 'ourworldindata.org/deforestation'

18 Deforestation displaced: trade in forest-risk commodities and the prospects for a global forest transition, 2018

19 Recent progress in the form of a 50-per-cent, year-on-year reduction in deforestation in the Amazon in 2023 under the presidency of Luiz Inácio Lula da Silva coincided with a concurrent 44-per-cent increase in land conversion in the adjacent Cerrado. The latter led to the loss of some 7,852 square kilometres of forest and savannah, which stores carbon underground, in addition to providing other valuable ecosystem services. This reinforces that deforestation and conversion must be addressed together. "Deter says deforestation migrates from the Amazon to the Cerrado in 2023", WWF, 2024

20 Forest Declaration Assessment, 2023.

Further, there is a risk of tipping points tied to deforestation. The most notable example is the Amazon rainforest, which is estimated to store between 100 to 200 gigatonnes of carbon. Should large portions of this unique forest biome become destabilised due to land use change, tree cover would become reduced and moisture cycling would become disrupted. This would allow wildfires to spread more rapidly, potentially 'tipping' over the whole ecosystem to a level of degradation from which the rainforest could not recover.[21,22,23] Crossing this threshold would result in forest loss at a continental scale, putting net-zero and 1.5°C targets even further out of reach by significantly reducing the Amazon's vast carbon sequestration potential. This would have profound systemic impacts on forest ecosystem services and the value chains that depend on them.

Why it is relevant for investors?

Climate change and nature loss have been identified as systemic risks to our economies.[24] The World Bank estimates that loss of just four ecosystem services (carbon storage and sequestration, crop pollination, provision of timber, and provision of food from marine fisheries) could result in a contraction in global GDP of USD 2.7 trillion in 2030.[25] Two of these ecosystem services are provided directly by forest ecosystems. Central banks and financial regulators have also highlighted the significant macroeconomic implications of nature loss, noting that failure to account for, mitigate, and adapt to these implications are a source of risk for financial stability.[26] Universal owners such as members of the Alliance are unable to diversify from such systemic risks, with impacts to be felt across industries and geographies.

Investors are exposed to additional material risks—including transition risks and physical risks—through their investments, services, or loans to companies with forest-risk commodities in their direct operations and supply chains.

Transition risk

Transition risk arises because of policy changes, market dynamics, reputation changes, liability risk, and technological developments. These risks can be invoked, for example, by taxes and regulations being imposed that increase cost or reduce market participation opportunities. Other possible triggers include increases in carbon pricing that affect forest-risk commodities, shifts in consumer demand towards alternative goods, or misalignment with new regulations. Through the exposure of value chains to forest-risk commodities, investors can suffer financial losses.

21 Ecosystem tipping points: Understanding risks to the economy and financial system (page 10), UCL and University of Exeter, 2024.
22 Amazon Assessment Report, 2021.
23 Nature-related Financial Risks: A conceptual framework to guide action by Central Banks and Supervisors", NGFS (2023)
24 The Implications of Climate Change for Financial Stability, G20 Financial Stability Board (2020)
25 The Economic Case for Nature, World Bank Group, 2021
26 NGFS statement, 2022

Policy developments that could expose an organisation to transition risk include the European Union's (EU) Regulation on Deforestation-free products (EUDR).[27] The EUDR covers commodities associated with both legal and illegal deforestation, as well as associated human rights, acknowledging that EU demand for forest-risk commodities would contribute almost 250,000 hectares of deforestation per year by 2030.[28]

In 2023, China and Brazil issued a joint statement announcing new efforts to combat deforestation linked to illegal trade, agreeing to collaborate on measures including sharing technologies and best practices related to forest conservation.[29] China also amended its Forest Law in 2019, effective from 2020, to explicitly ban the purchase, processing, and transportation of illegally harvested timber. Another example of positive policy developments is Indonesia's permanent moratorium on new forest clearance for selected commodities.[30] Similar policies that restrict trade in commodities linked to (illegal) deforestation are also being considered and developed in the United Kindgom of Great Britain and Northern Ireland (United Kingdom).[31]

In addition, the International Sustainability Standards Board (ISSB) standards IFRS S1 and S2 require companies to disclose sustainability-related and climate-related risks and opportunities that could reasonably be expected to affect an entity's cash flows, and its access to finance or cost of capital over time. Reporting of nature-related risks, including those related to deforestation and forest conversion, is increasingly requested from companies and/or financial institutions. FINMA Nature-related financial risks circular in Switzerland[32] and China Stock Exchanges' Sustainability Reporting Guidelines are two notable examples of this trend.[33] Such regulations also support the need of data providers for disclosed information.

Additional examples of transition risks include litigation and the stepped-up enforcement of deforestation laws. In 2018, for instance, several multinational grain traders and producers were issued a USD 29 million fine for growing on land that had been deforested.[34] Similarly, in 2017, a Brazilian meat packaging firm was fined USD 7.7 million for purchasing cattle from illegally deforested land.[35] In 2024, major meatpacking firm JBS was sued by New York State over its misleading claims on GHG emissions and deforestation.[36] Also of note are moves by various investors to sell shares in companies because of concerns over their links to, or direct involvement in, deforestation.[37]

27 Implementation of the EU Deforestation Regulation, European Union, 2023
28 Communication from the European Presidency to the Chair of the European Parliament Committee on the Environment, Public Health and Food Safety, 2022
29 Brazil-China Joint Statement on combating climate change, 2023
30 Indonesia thinks big on forest protection, WEF, 2021
31 Supermarket essentials will no longer be linked to illegal deforestation, UK Government, 2023
32 FINMA publishes new "Nature-related financial risks" circular, FINMA, 2024
33 China's Stock Exchanges Announce ESG Reporting Guidelines for Listed Companies, China Briefing, 2024
34 Brazil fines five grain trading firms, farmers connected to deforestation, Reuters, 2018
35 Brazil's JBS accused of violating Amazon rainforest protection laws, Reuters, 2017
36 New York sues meatpacking giant JBS over climate claims, Reuters (2024)
37 When the Bee Stings, Counting the Cost of Nature-Related Risks, BloombergNEF, 2023

Physical risk[38]

Deforestation-related physical risk manifests from the destruction of ecosystems when forested land is burned or cleared, causing release of GHG emissions, rainfall pattern disruption, soil erosion, pollinator species losses, increased flood risk, and land subsidence. Deforestation and forest conversion impact climate, biodiversity, and the broader ecosystem services that underpin many industries. Key sectoral value chains depend on well-functioning forests and their ability to regulate hydrological cycles, and other ecosystems for inputs like water, fibre, and genetic materials that are essential for their operations. Moreover, businesses across various sectors benefit significantly from the way that ecosystem services help regulate and maintain wider environmental conditions. Highly relevant ecosystem services for the agriculture sector, for example, include pollination, pest control, water provision, and climate and rainfall regulation. While the relevance for other sectors may differ, all have some reliance on the services that healthy ecosystems provide. In fact, research indicates that changes to six key ecosystems services in a business-as-usual scenario could reduce global GDP by as much as USD 479 billion per year.[39]

Physical risks can be acute, comprising either specific events with an immediate impact or chronic events that change the state of nature over time. The clearing of mangrove forests in South-east Asia provides an illustrative example of an acute physical risk arising from deforestation. The clearing of these forests for aquaculture lowered coastal resilience. As a result, the region was less equipped to withstand the 2004 tsunami that went on to cause USD 10 billion in financial losses.[40] Likewise, a study examining deforestation and rainfall patterns in Amazonia concluded that deforestation beyond a certain scale reduces rainfall and therefore negatively impacts agricultural revenues from core export commodities. By addressing deforestation in the region covered by the research, losses of up to USD 1 billion could be avoided annually, the study finds.[41]

38 TNFD (2023) defines physical risks as: "a direct result from companies' dependencies on nature. These are risks arising when natural systems are compromised, due to the impact of climatic events, geologic events or changes in ecosystem equilibria, such as changes in soil quality or ocean chemistry".

39 Global Futures: Modelling the global economic impacts of environmental change to support policy-making, WWF, 2020

40 Nature is too big to fail, pwc and WWF, 2020

41 Deforestation reduces rainfall and agricultural revenues in the Brazilian Amazon, Nature communications, 2021

A strong foundation for investor action to address deforestation risks

To manage the above-mentioned risks and advance commitments to achieve net-zero emissions, investors are increasingly starting to assess and manage deforestation risk exposures across their portfolios. Financial sector engagement on deforestation has evolved significantly over the decade since the New York Declaration on Forests was released at the UN Climate Summit in 2014. This declaration provided a collective commitment from public and private sector entities to eliminate deforestation from commodity supply chains by 2020, and to halt the global loss of natural forests by 2030. The fact that the 2020 target was missed has only served to increase the urgency of action to halt commodity-driven deforestation without further delay. These efforts are benefitting from a stronger and more comprehensive foundation of multilateral frameworks, private sector initiatives, tools, and data.

Governments are recognising the urgency of the issue at the multilateral level. At the UNFCCC COP 26 in 2021, the Glasgow Leaders' Declaration on Forests and Land Use was endorsed by 145 countries. Included within this commitment was a pledge to halt and reverse forest loss and land degradation by 2030. The declaration highlighted the essential and interconnected roles of all types of forests, biodiversity, and sustainable land use to achieve sustainable development goals. In a similar vein, the first Global Stocktake of the Paris Agreement, an outcome of the UNFCCC COP28 in 2023, brought together all countries in explicitly recognising the urgency of halting and reversing deforestation and forest degradation by 2030 to meet the objectives of the Paris Agreement. This built on the Kunming-Montreal Global Biodiversity Framework, which was adopted at the UN Biodiversity Conference COP 15 in 2022. Among other notable contributions, the framework emphasizes the link between climate change, the escalating nature crisis, and the imperative to end tropical deforestation.

Investor initiatives on deforestation have continued to evolve in parallel with these multilateral frameworks. The Finance Sector Deforestation Action (FSDA) initiative, launched in 2021, is illustrative of this trend. Consisting of over 30 financial institutions with USD 8.7 trillion in assets, the FSDA's signatories committed to using their best efforts to eliminate deforestation activities at the companies in their investment portfolios in the four years to 2025,[42] with a focus on addressing deforestation linked to the production of

42 The HighLevel Expert Group on the Net Zero Emissions Commitments of Non-State Entities (HLEG) report also recommends financial institutions eliminate deforestation from agricultural commodities in their portfolios by 2025 as part of their net-zero plans.

beef, leather, soya, pulp and paper, and palm oil. Participating investors also committed to a series of interim measures, which include the adoption of investor deforestation policies and the assessment and disclosure of portfolio deforestation risk exposures and related mitigation measures.[43,44] Another noteworthy example is the decision in 2022 by the Glasgow Financial Alliance for Net Zero (GFANZ), a group of financial institutions with collective assets over USD 140 trillion, to include deforestation as a priority topic in its recommendations for financial institutions' net-zero transition plans.[45]

Increasing availability of guidance, frameworks, datasets, and tools

Guidance and assessment frameworks

A series of guidance and frameworks for deforestation-related assessments and target setting has been released in the past decade to advance private sector action on deforestation, including:

- Science-Based Target Initiative's Food, Land and Agriculture (SBTi FLAG) guidance (2022), which requires companies to set a no-deforestation target before 2025.
- CERES Investor Guide to Deforestation and Climate Change (2020), which offers a risk assessment and engagement process with portfolio companies.
- Deforestation Free Finance—Finance Sector Roadmap (2021), which provides guidance for financial institutions to eliminate commodity-driven deforestation; endorsed by the Accountability Framework initiative and structured into five actionable phases: (i) understanding and mapping risk; (ii) setting an effective policy and managing risk; (iii) monitoring and engagement; (iv) disclosing; and (v) eliminating deforestation.
- Deforestation Free Finance—Due Diligence towards Deforestation-Free Finance (2023), which outlines an approach for financial institutions to identify, prevent, and mitigate the risks and impacts of deforestation, conversion, and related issues linked to human rights.
- GFANZ Nature in Net-Zero Transition Plans Consultation Paper (2024), which: (i) identifies how nature-related levers can support net-zero commitments by reducing GHG emissions from land, ocean, and freshwater sources, and by creating or increasing GHG sinks; and (ii) advises how these levers can be integrated within a strategic and credible net-zero transition plan.
- WBCSD Deforestation Disclosure Guide for Financial Institutions (2024), which outlines four essential steps for financial institutions to support effective deforestation disclosure.

43 Work of the Climate High-Level Champions, UNFCCC website
44 Progress report on implementation, Finance Sector Deforestation Action initiative, 2024
45 GFANZ Press Statement

Datasets and tools

Investors can choose from a variety of tools and deforestation datasets to understand and quantify risks from deforestation to their investments so as to form an appropriate response. Deforestation data are available from commercial vendors and ESG rating providers, as well as from non-commercial data providers and NGOs. Deforestation-related data and metrics can serve a range of functions, including: locating and quantifying deforestation and forest conversion; conducting portfolio screenings; identifying high-risk companies and sectors; analysing and benchmarking business efforts to tackle deforestation; and engaging individual companies. The growing availability of this information increases transparency on the deforestation risk of assets, companies, and their supply chains, as well as enhances the ability of companies and financial institutions to conduct deforestation-related assessments.

The types of information that feed into these metrics include:[46]

- Company or sector exposure to commodities (and their progress towards removing commodity-driven deforestation)
- Companies' product origin and supplier information
- Analysis and content of companies' commitments
- Assessment of companies' governance
- Information on land holdings and acquisition
- Information about companies' supply chains
- Country-level data on relevant issues such as land use and forest cover
- Geospatial data on assets and their location
- Geospatial data on 'deforestation hotspots'
- Qualitative information on controversies linked to deforestation
- Information related to social factors and human rights

Typically, this range of information is not provided by a single source. This can pose challenges to investors' ability to fully assess and understand material deforestation risks related to their portfolio. Limitations related to data coverage, accuracy, range of asset classes, and output metrics still exist, as do challenges linked to forward-looking information and its translation into financial risk or other relevant metrics. That said, there is now a growing set of tools and information on deforestation available to investors. These allow them to better assess their exposure to deforestation-related risks across different asset classes, while also enabling them to respond more easily to the increasing demand for disclosure.

46 For overviews of different available sources, see: Global Canopy's Data Overview, TNFD Catalogue, WBCSD Deforestation-free Finance: Tools and Frameworks

Increased disclosure and due diligence expectations and frameworks

The global corporate sustainability disclosure landscape has evolved rapidly over the past decade and is gradually becoming more harmonised. Climate-related disclosure frameworks are increasingly explicit in their requirement to incorporate the disclosure of deforestation risk exposures and activities. Examples of disclosure and due diligence frameworks that address deforestation, and their geographical applicability, are listed in Table 1.1 of the Appendix.

Approaches to addressing deforestation risk and exploring opportunities in investment portfolios

Investors usually begin to address deforestation in five key areas: risk assessments and screening, stewardship and engagement, policy engagement, investment practices, and disclosure. Development of investment policies that focus on signalling ambitions and targets as well as investee engagement activities provide a starting point for many investors on their journey towards addressing deforestation in their portfolios and for field building.

Risk assessments

Numerous investors, including signatories of the FSDA, have conducted—and in some cases published—assessments of their exposure to deforestation risk and associated human rights abuses through their financing or investment activities. These assessments often focus on key commodities. Typically, they use a combination of internal and external datasets, such as the Forest500 benchmarking tool[47] and ForestIQ,[48] or ESG data tools.

Corporate engagement

For over a decade, investors have participated in collaborative or individual engagement programs focused on deforestation issues, either directly or through networks and initiatives.[49] In addition to the FSDA, examples include:

- Ceres and UN Principles for Responsible Investment's (PRI) Investor Initiative for Sustainable Forests (IISF);
- Ceres: Food Emissions 50;
- Cardano (coordinator): Satellite-based engagement on no-deforestation;
- PRI Spring; Nature Action 100;
- Soy Trader Engagement; ICCR: Protecting Natural Resources & Pesticides; and engagements run by the Farm Animal Investment Risk and Return (FAIRR) initiative.

47 See Forest500
48 See ForestIQ
49 Collaborative engagements overview Annex 3 to the Guide on Engagement with companies, Finance for Biodiversity, last updated in November 2024: .

Similarly, investors have filed shareholder resolutions at companies with forest-risk commodity value chains aimed at addressing deforestation risks.[50] Some asset owners are also requesting asset managers to step up engagement on the topic. Investors can also introduce voting policies on deforestation, for example when there are concerns about a company's approach to managing deforestation.

Policy engagement

Investors are also signalling to governments and policymakers their support for policy and regulatory action to address deforestation risks. In 2023, for example, a group of investors representing USD 2.7 trillion called on the UK government to introduce mandatory deforestation due diligence.[51] This follows a move by a coalition of investors two years previously in support of the California Deforestation Free Procurement Act.[52] Similar letters have been signed by investor groups addressed to the Government of Indonesia targeting palm oil-related deforestation and to the Brazilian government targeting its Soy Moratorium. In both cases, these moves occurred in the context of a wider policy dialogue on deforestation that is taking place in the two countries as part of the Investor Policy Dialogue on Deforestation (IPDD). This dialogue process, which is coordinated by the Tropical Forest Alliance, also incorporates a number of leading consumer markets, such as the United States, the European Union, the United Kingdom and China.[53] Engaging policymakers to facilitate activities to mitigate deforestation risk and improve corporate disclosure on deforestation risks is a key lever for investors.[54]

Investment practices: Integration into investment strategies and asset allocation

Findings from deforestation risk assessments can inform engagements with companies and sovereigns, focusing these activities on companies with the highest risks. Where there is no progress, engagement strategies and activities can be escalated in line with the financial institution's policy. These findings can also be integrated in new strategies and asset allocation decisions. Examples include the use of negative screening, which relies on similar tools as those deployed in risk assessments. This approach excludes companies involved in harmful activities from investment strategies and reduces overall exposure. Investors are also increasingly looking at new asset classes and investment strategies to mitigate deforestation risk as well as broader nature- and climate-related risks. Research suggests that nature-based solutions in the form of conservation, restoration, and sustainable management of natural forests could provide up to 30 per cent of the mitigation needed to constrain the climate crisis by 2030.[55]

50 Top asset managers resist biodiversity resolutions this year despite growing investor interest in nature, Global Witness, 2024

51 Aviva and LGIM join investors handling more than £2.7 trillion calling for new mandatory deforestation checks in UK law, Global Witness, 2023

52 Investors Support California Act to Protect Forests Introduced Today, Domini, 2020

53 Investor Policy Dialogue on Deforestation (IPDD) Initiative

54 Investors, including insurers and pension funds, sometimes face regulatory hurdles to investing in nature-based solutions (NBS), including forests. These hurdles similarly could be addressed through effective policy engagement.

55 Integrated global assessment of the natural forest carbon potential, Nature Climate Change, 2023

Further, it predicts that tropical regions in Africa and Latin America are the most promising geographies for carbon sequestration through the restoration of forests.[56] It is important to note, however, that investments in reforestation, afforestation, and forest conservation should be regarded as complementary to, and not a substitute for, addressing deforestation within value chains.

Disclosure of policies, risk assessments and progress on meeting targets

Investors increasingly are making deforestation-related disclosures, supported by evolving disclosure frameworks and requirements. Disclosures commonly set forth concise positions and policies on deforestation. These typically describe approaches and initial high-level results of deforestation exposure assessments and activities. As of 2023, 45 per cent (67 financial institutions) of the 150 financial institutions assessed by Global Canopy had at least one public deforestation policy for any of the forest-risk commodities that they are exposed to in their portfolios.[57]

While investors are beginning to address deforestation risk, both within their portfolios and in a broader context, these actions are currently not sufficient for halting and reversing deforestation and degradation of forests by 2030, in line with global climate and nature goals. Closing this gap requires efforts from investors and all other stakeholder groups, including policymakers, companies, and data providers, as outlined in the following section.

56 Tropical forest restoration under future climate change, Nature Climate Change, 2022
57 2024: A decade of deforestation data, Forest 500, 2024

Guidelines on deforestation and key recommendations for stakeholders

Investors

Investors, companies, data providers and policymakers all have important roles to play in driving the elimination of deforestation and forest conversion and associated human right abuses.[58,59]

Taking action to mitigate the risks associated with deforestation is within investors' fiduciary responsibilities.[60] Such action should include assessing risk exposures, adopting investor policies on deforestation and forest conversion, engaging in stewardship activities to catalyse action by companies and policymakers, and reporting on such activities. Investors should:

- **Assess deforestation risks in portfolios:** Investors should use reasonable efforts to assess their exposure to deforestation, forest conversion risks, and associated human rights abuses[61] in their investment portfolios. Their prime focus should be on the value chains of 'forest-risk' commodities, including beef/leather, cocoa, coffee, soya, palm oil, pulp and paper, rubber, and timber.[62]

58 Human Rights Watch: Deforestation

59 Commercial and investment banks often are exposed to deforestation risks via their investment, lending and underwriting practices, and should take action to phase out these risk exposures. Commercial bank asset management units should follow the guidelines for investors as laid out herein. For an example of actions that can be taken with regard to bank investment, lending and underwriting, see the FSDA's Expectations for Commercial and Investment Banks, available at iigcc.org/hubfs/FSDA%20Banks%20Expectations%20on%20Deforestation.pdf."

60 Alliance members endorse this understanding of fiduciary duty through the Alliance's official Commitment, which states: "In order to enable members to meet their fiduciary duty to manage risks and achieve target returns, this Commitment must be embedded in a holistic ESG approach, incorporating, but not limited to, climate change, and must emphasise GHG emissions reduction outcomes in the real economy". Other investors may also look to the PRI's definition, which includes "encouraging high standards of ESG performance in the companies or other entities in which they are invested" and "supporting the stability and resilience of the financial system". The Modern Interpretation of Fiduciary Duty, PRI, 2020.

61 Assessment of exposure to deforestation-related human rights abuses should be considered in line with international norms, specifically: labour rights, gender rights, smallholder inclusion, Free Prior and Informed Consent of relevant communities, the protection of customary rights to land, resources and territory of Indigenous Peoples and local communities, and zero tolerance of threats and violence against forest, land, and human rights defenders. The Accountability Framework defines environmental and human rights defenders as "individuals or groups who, in their personal or professional capacity and in a peaceful manner, act to protect and promote human rights, eliminate human rights violations, or protect the environment, including water, air, land, flora, and fauna".

62 See: Eliminating Commodity-Driven Deforestation Finance Sector Roadmap.

- **Integrate efforts to phase out deforestation, forest conversion, and associated human rights abuses into investor policies and practices:** Investors should integrate efforts to address their exposure to deforestation risks and related human rights abuses into their policies and practices.[63,64] This should include the use of reasonable efforts to phase out deforestation associated with forest-risk commodities in their portfolios by 2030.[65] Investor policies and practices should integrate the organisation's investment strategies and identify the actions it will take (or is taking) to address deforestation, forest conversion, and associated human rights abuses. These actions should include active engagement and escalation approaches with companies and asset managers. Investors' net-zero transition plans, if any, should incorporate deforestation-related practices and actions. Investor deforestation practices may include investment in nature-based solutions, such as forest restoration alongside (and not instead of) addressing their exposure to deforestation.
- **Active engagement:** As an essential component of their deforestation actions, investors should undertake stewardship activities, including both direct and indirect levers of influence. Direct influence encompasses engagement with companies[66] and policymakers, either directly or through membership bodies discussed above, as well as engagement by asset owners of asset managers. In this context, indirect influence involves investors clearly voicing their long-term investment interests and fiduciary obligations to assist in shaping discourse in the business community. It also comprises support for policy and regulatory efforts aimed at phasing out deforestation and associated human rights abuses by 2030 as an integral component of addressing climate change and aligning with net zero.
- **Disclosure:** In addition, investors should use reasonable efforts to disclose or include in existing disclosures their material deforestation risk exposures and related human rights abuses as well as their approaches and activities related to addressing those risks. Such disclosure should include status of progress of their reasonable efforts toward phasing out deforestation, forest conversion, and related human rights abuses associated with forest-risk commodities in their portfolios by 2030.

63 For useful guidance on developing investor deforestation policies, see the "Finance Sector Roadmap" referenced on p. 87, and "Seeing the Forest for the Trees: A practical guide for financial institutions to take action against deforestation and conversion risks" (2022) on pp. 17-18

64 Given that deforestation is inextricably intertwined with climate and nature, a deforestation policy need not be a standalone policy; it may be integrated in investor policies on climate and/or nature so long as clear elements are explicitly identified with regard to addressing deforestation and forest conversion, plus associated human rights abuses.

65 In light of the inherent data challenges and opportunities for engagement with Sovereign Debt issuers, this asset class may be phased in over time.

66 For company engagements, investors may find that the investor expectations for companies by the FSDA initiative and PRI Spring serve as a useful guide, which can be adapted for use with individual companies in line with this position: Work of the Climate High-Level Champions, UNFCCC; Expectations for Commercial and Investment Banks, FSDA, 2024; Investor Statement, PRI Spring, 2024

Companies

In 2023, an unprecedented 1,152 companies disclosed their progress in managing deforestation to CDP, an almost sixfold increase over six years. However, despite acknowledging risks, only a limited number of companies claimed that they are on track towards eliminating deforestation from their supply chains (CDP, 2023). In addition, only a few companies cover all commodities subject to EU regulation (Ceres, 2023).[67] In this context, the Alliance recommends that companies ensure rapid progress on eliminating deforestation and forest conversion from their supply chains by:

- **Developing and disclosing commitments:** Companies are expected to develop and disclose commitments regarding no-deforestation, no conversion of forests, and respect for human rights. These commitments should encompass all forest-risk commodities that they are exposed to across geographies, including both direct and indirect suppliers. Commitments and disclosure from companies should be published as soon as possible,[68] with the aim of eliminating deforestation and forest conversion as well as associated human right abuses from their supply chains by no later than 2030.
- **Measuring progress and fostering transparency in corporate reporting:** Companies are expected to implement the most effective measures to achieve their commitments and targets while fostering supply chain traceability and certification (where relevant). They are also expected to publicly report their progress to enhance transparency in the supply chain data, including deforestation and/or land-use related emissions where available. This can be reflected in climate, nature, or integrated reports and strategic business plans.
- **Responsible political engagement:** Companies are expected to disclose their lobbying and advocacy activities pertaining to deforestation, forest conversion, and associated human rights abuses, including indirect lobbying and advocacy through their affiliation to trade associations, think thanks, and similar bodies. Companies are expected to assess and monitor the policy positions of such bodies and take corrective action where positions related to GHG emissions reduction and addressing deforestation are found to be misaligned with their own commitments.
- **Engaging actively with direct and indirect suppliers and other relevant supply chain stakeholders** in support of commitment(s) and best practices; for example, through supply chain mapping and capacity-building activities, including with small-holders, and reporting on these efforts.
- **Conducting due diligence and ensuring it is effective:** Companies are expected to conduct regular due diligence activities to guarantee sourcing from deforestation- and conversion-free commodities. These measures also aim to identify and prevent deforestation risks and associated human rights abuses, ensuring the prevention of recurring risks and the mitigation of new ones.

67 Deforestation Scorecard: Assessing Corporate Action on Deforestation Amid Growing Regulatory Risk, Ceres, 2023

68 2025 is the consensus recommendation set by the Accountability Framework Initiative for companies to eliminate deforestation and ecosystem conversion from their supply chains.

Policymakers

The Alliance recommends that policymakers undertake the following:

- **International commitments:** Governments should turn international commitments into actions. This includes implementing targets and activities for reducing and eliminating deforestation as part of their emissions reduction pathways in Nationally Determined Contributions (NDCs), in line with the Paris Agreement, domestic net-zero targets, and the Global Stocktake, as well as in National Biodiversity Strategies and Action Plans (NBSAPs) in line with the Kunming-Montreal Global Biodiversity Framework. This will enable companies and their investors to align investments and strategies with national targets.
- **Eliminate or reform environmentally harmful subsidies:** Policymakers should also eliminate, phase out or reform environmentally harmful subsidies for activities that enable deforestation and forest conversion, and catalyse investment in deforestation-free production, in line with global agreements such as the Kunming-Montreal Global Biodiversity Framework and the Paris Agreement.
- **Prohibit trade-linked and value chain deforestation:** Governments, including in consumer and producer countries of forest-risk commodities, should introduce legislation that: (i) prohibits the import and export of commodities and goods linked to deforestation and the conversion of forests as well as associated human rights abuses; and (ii) enforces supply chain due diligence. This measure should be focused on forest-risk commodities and those with the highest impact on deforestation. The legislation in question should clearly define relevant terms and what is in scope. The EUDR is an example of this.
- **Implement mandatory reporting requirements for companies, financial institutions, and sub-national governments:** Policymakers should support companies and financial institutions in addressing deforestation and forest conversion as well as associated human rights abuses by creating an enabling environment for traceability and transparency. This involves facilitating the collection of, and access to, publicly available data, in line with existing reporting standards and frameworks. Governments should collaborate on aligning disclosure requirements for non-state actors, including reporting of GHG emissions—especially Scope 3—linked to deforestation, biodiversity loss and land degradation, which can lead to further negative climate impacts.
- **Collaboration between producer (exporting) and consumer (importing) countries:** Governments of countries that are primarily importers of deforestation-linked commodities should collaborate with governments of countries that are primarily exporters, and vice-versa, to ensure that any trade regulations intended to address deforestation are designed and implemented in a just and equitable way.

Data providers

Currently, commercial and non-commercial data providers, along with NGOs, provide a variety of data to investors that enable them to assess deforestation risks in different contexts. It is now time for data experts and investors to connect these different datasets to take effective action against deforestation. For this purpose, the Alliance recommends that data providers undertake the following steps:

- **Provide transparency about applied methodologies and standardise data formats:** When collecting data and information, providers of information apply different methodologies and approaches. To tackle this heterogeneity, especially with regard to underlying spatial data, as well as tabulations, it is necessary to make the applied methodology transparent and standardise the format of data outputs. This may include documentation concerning definitions and methodology to allow for understanding and replication by investors, and to overcome concerns regarding the validity and accuracy of data that might hinder integration into investment decision-making.
- **Continue to expand the offering of relevant data for different asset classes and improve data quality:** For asset owners invested into different asset classes, insufficiency of data and data quality/reliability are still open issues. This is especially true for transparent data with regards to sovereign risks, private assets, complex supply chains and geolocation, and characteristics of sectors linked to deforestation. Data providers should also assess the level and quality of deforestation policies in place.
- **Translate deforestation data into useable metrics aligned with reporting frameworks:** investors need specific metrics at issuer level to evaluate and disclose deforestation risk and associated human rights abuses in their portfolio. This may include data on compliance monitoring systems and the number of complaints and grievances against companies. Furthermore, metrics that translate deforestation data into concrete financial and ecological impact metrics will help investors to understand the exposure to deforestation risk and related human rights abuses.
- **Enhance collaboration between different stakeholders:** Especially with regard to relevant initiatives outlined above, and with regulators, data providers should efficiently manage the increasing availability of data and overcome increasing heterogeneity and complexity of information.
- **Address social and human rights related issues:** A just and inclusive transition can only be ensured if the social impacts and dimensions of deforestation are addressed. Therefore, data providers are asked to incorporate additional information on social and human rights-related issues.[69]

69 The human rights blind spot in deforestation action, Forest 500, 2024

Appendix

Table 1.1: Disclosure frameworks that address deforestation and their geographical applicability.

	Description	Consideration of deforestation	Applicability
Disclosure and due diligence regulations			
Sustainable Finance Disclosure Regulation (SFDR)	The SFDR requires EU financial market participants and financial advisers to publish a statement of Principle Adverse Indicators (PAIs) on their website that describe negative impacts on sustainability resulting from investment decisions or advice.	PAI 7 of the Core Principle Adverse Indicators requires the disclosure of "activities negatively affecting biodiversity-sensitive areas", and the list of additional indicators includes an indicator describing exposure to deforestation: "Share of investments in companies without a policy to address deforestation".[70]	European Union
Regulation on Deforestation-free products (EUDR)	Agreed in December 2023, the new regulation aims to ban the import and trade of products associated with deforestation.	Importers must conduct due diligence on commodities (cattle, soya, palm oil, coffee, cocoa, wood, and rubber) to ensure and prove that they are deforestation-free. Land on which the commodities were produced must not have been subject to deforestation or forest degradation after the cut-off date of 31 December 2020.[71] Implementation of the regulation was delayed to the end of 2025 for large companies, and to the end of 2026 for small companies, after a vote by the European Parliament in late 2024.	European Union

70 Commission Delegated Regulation, Official Journal of the European Union, 2022

71 To effectively interpret, monitor, and report against a policy or commitment related to deforestation or conversion, a cut-off date is essential. This date can be incorporated into purchasing contracts and supplier codes, facilitating clear communication with suppliers regarding the acceptance of materials into supply chains. Cut-off dates must be in the past and prior to the issuance of a policy or commitment.

	Description	Consideration of deforestation	Applicability
Forest-Risk Commodities regulations	The regulations aim to ban imports of products associated with illegal deforestation.	Four commodities of focus; cattle products, cocoa, palm oil, and soya. What is considered "illegal" is defined by producer countries.	United Kingdom
Market-led disclosure expectations			
Taskforce for Climate-related Financial Disclosures (TCFD)	Set up by the Financial Stability Board to develop recommendations for companies on disclosure of climate-related risks to support investors, lenders, and insurance underwriters in appropriately assessing and pricing these risks, with the first guidance published in 2017. The TCFD recommendations have been integrated into the International Financial Reporting Standards (IFRS) (see below) and into individual jurisdiction regulations (such as in Brazil, Canada, the European Union, Hong Kong, Japan, New Zealand, Singapore, Switzerland and the United Kingdom).	While the TCFD recommends disclosure of Scope 3 emissions, which would include upstream value chain emissions associated with deforestation, reporting companies often fail to report deforestation-related emissions and other critical forest-related information,[72] and the associated risk may therefore be underestimated.	Global
International Sustainability Standards Board (ISSB)—IFRS Standards	The ISSB IFRS S1 and S2 standards require companies to disclose sustainability-related and climate-related risks and opportunities that could reasonably be expected to affect an entity's cash flows, its access to finance, or cost of capital over the short, medium, or long term.	ISSB announced in December 2022 that it would research incremental enhancements to its climate standard S2 in relation to biodiversity, water, and deforestation.[73]	Global

72 Chain Action Research, 2021
73 ISSB Concept of Sustainability, IFRS, 2022

	Description	Consideration of deforestation	Applicability
Taskforce for Nature-related Financial Disclosures (TNFD)	TNFD was launched in 2021 to develop a risk management and reporting framework for companies and financial institutions, focused on nature-related risks and opportunities. The disclosure recommendations, published in September 2023, allow companies and financial institutions to identify, evaluate, and manage risks that arise from their material impacts and dependencies on nature, including any form of land-use change.	Disclosure metrics related to deforestation and other ecosystem conversion include: ▪ "Extent of land use change (km^2) by type of ecosystem and business activity'; ▪ 'Total spatial footprint (km^2) sum of: ...- total disturbed area"; ▪ "Extent of land ... use change by type of ecosystem and business activity, for prioritised ecosystems"; ▪ "Quantity of high-risk natural commodities (tonnes) sourced from land, ... split into types, including proportion of total natural commodities"; ▪ "Quantity of high-risk natural commodities(tonnes) sourced under a sustainable management plan or certification programme, including proportion of total high-risk natural commodities."	Global
CDP Forests—now fully integrated into CDP's standard disclosure framework	CDP has collected company information to track progress on deforestation over the past 10 years. It uses its Forest Questionnaire to allow companies, investors, states, and regions to measure, manage, and report on their forest-related dependencies, impacts, risks, and opportunities. Investors who are CDP signatories can access company disclosures and datasets, and use these to inform their decision-making.	The 2024 Forest questionnaire covers both deforestation (commodity-driven and beyond) and conversion of other natural ecosystems.[74]	Global

74 Corporate Disclosure, CDP, 2024

	Description	Consideration of deforestation	Applicability
GRI 101	Released in early 2024 (formally in effect for reporting on 1 January 2026), GRI 101—the Global Reporting Initiative's (GRI) revised biodiversity reporting standard—allows companies to disclose their impact on biodiversity throughout their operations and value chains. GRI collaborated with the TNFD to align asks across the disclosure recommendations.	Disclosure 101-6 requires companies to report where activities (including in their supply chain) lead, or could lead, to land-use change, and to report size (in hectares) of nature ecosystems converted since a cut-off or reference date.	Global

UN environment programme | finance initiative

PRI Principles for Responsible Investment

UN-convened Net-Zero Asset Owner Alliance

unepfi.org/net-zero-alliance/