Investment Guidance paper on Environment

Supporting document to the RI Framework Policy

April 2026

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Contents

1. Introduction

At NN Group, we aim to conduct our business in a manner that is environmentally and socially responsible. This guidance paper focuses on our approach to the environment in our role as an investor. It provides background on environmental protection and illustrates due diligence processes we apply. It further highlights relevant standards and principles to promote best practices and, where relevant, how we use our leverage to address negative impacts of companies in which we invest.

Background Guidance Papers

NN Group adopted its Responsible Investment Framework policy in 2014. We define Responsible Investment (RI) as the systematic integration of environmental, social, and governance (ESG) factors into investment decision-making and active ownership practices. Our RI Framework policy reflects our commitment to various international and sector-specific standards and initiatives. A key part of our approach to responsible investing is that, where possible and feasible, we aim to mitigate the negative impacts of our investments on sustainability matters. These negative impacts are also called adverse impacts, the most significant of which are referred to as principal adverse impacts (PAIs). PAIs can occur in different areas and be related, for example, to environmental, social and employee matters, human rights, corruption, and bribery.

NN Group has developed guidance papers that are intended to be a basis for discussion with our stakeholders. These are living documents that are regularly reviewed to ensure that they reflect evolving risks and best practices. They also reinforce our ongoing education on these topics. The guidance papers are also intended to help our external asset managers to evaluate investments from a topic-specific perspective. By publishing these papers externally, we aim to express our position and use it to leverage change in the sphere of our investment activities.

Any references to risks in this document should not be interpreted as describing NN Group's key risks. For a description of NN Group's risk management and control system and key risks, reference is made to the section 'Managing our risks' in the NN Group N.V. Annual Report 2025 (pages 45–55).

NN Group and the environment

The basis of our approach to the environment is embedded in the NN Environmental Statement. It sets out our approach to environmental topics in our various roles: employer, provider of financial services, business partner, investor, and corporate citizen.

When investing in companies, there is a potential that we become linked to challenging environmental situations. Implementing a due diligence process that incorporates ESG considerations into investment analysis and active ownership practices supports informed investment decision making. It enables us to assess investee companies' sustainability risks and impacts, including those related to environmental considerations.

This paper begins with an introduction to the international frameworks and principles that are the foundation of environmental protection. This is followed by an explanation of how companies and industries are exposed to environmental risks, illustrated with a nature-related impacts and dependencies assessment that we performed. It also provides examples of sub-themes and developments within these themes which we believe are important in relation to environmental risks, impacts and opportunities in the investment context.

2. The environment and the role of companies

The environment is a complex and intricate system that encompasses air, water, land, and living organisms. It sustains life on Earth and plays a crucial role in maintaining ecological balance and supporting our human well-being and economy. Unfortunately, the environment is currently facing a range of challenges, including climate change, biodiversity loss, pollution, and overexploitation of natural resources. These challenges pose significant threats to the health and resilience of ecosystems, as well as to human health and economic stability.

This chapter provides an overview of the framework, conventions, international norms, and standards that address environmental issues, some of which are also mentioned in the Appendix. It also explains the main standards and guidelines for corporate behaviour that companies are expected to follow. As investors, we have expectations from companies, which are derived from these standards and guidelines. This chapter describes what we expect from companies in terms of environmental responsibility, whilst the next chapter covers more detailed topics related to environmental issues.

International frameworks and conventions

The environment is a global issue that requires international cooperation and action. The UN Conference on the Human Environment, held in Stockholm in 1972, was the first global environmental meeting of governments, which recognised the need to link long-term economic progress with environmental protection. Some argue that this conference had a real impact on the emergence of international environmental law.

Building upon the Stockholm Declaration, the Rio Declaration on Environment and Development of 1992 was established during the second global environmental conference. It is a significant environmental legal landmark that clearly outlines principles, including the precautionary principle and the polluter pays principle. These principles promote responsible environmental management and hold companies accountable for their impact on the environment.

Since the Rio Declaration, there has been a growing recognition of the need for businesses to take responsibility for their environmental impact. The International Organisation for Standardisation (ISO) developed ISO 14000, a set of internationally recognized standards focused on environmental management. These standards provide practical tools for organisations to address their environmental responsibilities, including the implementation of the precautionary and polluter pays principles mentioned in the Rio Declaration. By adopting ISO 14001:2015, the only standard that can be certified, organisations can demonstrate their commitment to environmental sustainability and gain a competitive advantage in an increasingly environmentally conscious market.

Climate change frameworks and conventions

Climate change is one of the most pressing challenges of our time, and international cooperation is essential to address it. The United Nations Framework Convention on Climate Change (UNFCCC), established in 1992, sets out a framework of action aimed at stabilising greenhouse gas (GHG) concentrations in the atmosphere to avoid dangerous anthropogenic interference with the climate system. The convention led to the adoption of the Kyoto Protocol in 1997 and the Paris Agreement in 2015, which established a framework for a new era in climate action.

The Paris Agreement is a key international framework to mitigate GHG emissions, with both developed and developing countries submitting ambitious nationally determined contribution plans every five years. The agreement sets out commitments to limit the global average temperature increase to well below 2°C above pre-industrial levels, and pursue efforts to limit the temperature increase to 1.5°C.

In 2018, the Intergovernmental Panel on Climate Change (IPCC) released a report stating that global carbon emissions must reach net zero by around 2050 to limit global warming to 1.5°C above pre-industrial levels. Since then, many countries and organisations have set their own net-zero targets. However, current plans fall short of keeping global temperatures to 1.5°C, above pre-industrial levels in 2100. There is still a lot of work to be done to create a global consensus on climate pricing, and the phase-out of fossil fuels in order to achieve global climate ambitions.

Biodiversity frameworks and conventions

Biodiversity loss is one of the most significant environmental challenges we face today. To help halt biodiversity loss, several international agreements and frameworks have been established. One of the earliest agreements was the Ramsar Convention, established in the 1970s to conserve and use wetlands and their resources. Wetlands are critical ecosystems that provide crucial contributions to climate change mitigation, disaster risk reduction, and biodiversity preservation.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was another significant convention established in 1973. This convention resulted in a list of over 40,000 endangered and vulnerable species of animals and plants, whose trade is strictly regulated or prohibited, to ensure their protection.

In more recent years, efforts to protect nature have increased. The Convention on Biological Diversity (CBD) was established in 1993 to protect biodiversity, support innovation, and ensure the equitable sharing of benefits. Building upon the CBD, the Kunming-Montreal Global Biodiversity Framework (GBF) was established in 2022, with 196 countries adopting the agreement. The GBF includes four long-term goals for 2050 related to the 2050 Vision for Biodiversity and 23 specific targets to be achieved by 2030. The GBF focuses on transformative action by governments and society to halt and reverse biodiversity loss, ensuring that biodiversity is valued, conserved, restored, and used responsibly.

Pollution frameworks and conventions

Pollution is a major threat to the environment and human health, and international cooperation is necessary to prevent it. Several conventions have been established to protect the environment from pollution, including those that address marine pollution, ozone depletion, and harmful waste transfer. Table 1 outlines significant pollution prevention conventions and treaties. Among them, the Montreal Protocol on Substances that Deplete the Ozone Layer stands out as a shining example of successful international cooperation. Since its establishment in 1987, this agreement has significantly reduced the production and use of ozone-depleting substances, leading to a remarkable recovery of the ozone layer in many regions. This highlights the importance of concerted efforts to address environmental issues and the positive impact that international cooperation can have on the environment.

Companies and the environment

Incorporating environmental responsibility into companies' sustainability strategies is crucial for promoting a sustainable future. The UN Global Compact (UNGC) and the OECD Guidelines for Multinational Enterprises (OECD Guidelines) are authoritative and widely accepted standards that outline environmental responsibility for companies. The guidelines require enterprises to avoid and address negative environmental impacts and contribute to goals such as climate change mitigation and adaptation, sustainable use of resources and energy, and pollution prevention. They also promote sustainable consumption and production, including circular economy approaches. These voluntary initiatives promote corporate responsibility and sustainable business practices. Additionally, the International Finance Corporation (IFC) Environmental and Social Performance Standards and the Equator Principles for project finance contain important references for environmental responsibility.

NN Group expects companies to comply with environmental regulations and aim to continuously improve their environmental performance and protect public health, in accordance with these standards. We encourage companies to apply the mitigation hierarchy as recognised best practice for reducing environmental risks – avoiding impacts first, then minimising, restoring, and offsetting as a last resort. Refer to the box on the next page for a mitigation hierarchy for managing biodiversity risks.

Table 1: International conventions focused on pollution prevention

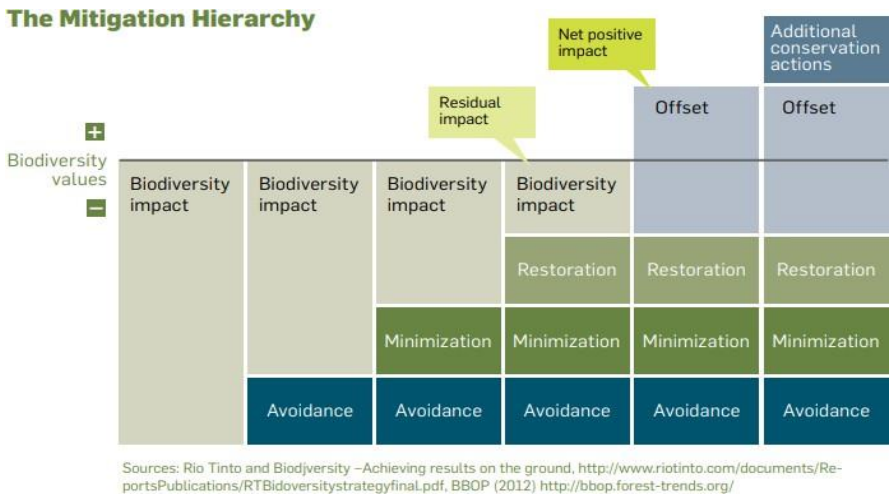
Convention	Objectives
MARPOL (1972)	Prevent marine pollution from ships and promote measures to prevent and respond to marine pollution incidents.
Vienna Convention (1985)	Establish international cooperation to control and reduce ozone-depleting substances to protect the Earth from harmful ultraviolet radiation.
Montreal Protocol (1987)	Phase out production and consumption of ozone-depleting substances, leading to a significant recovery of the ozone layer in many regions.
Basel Convention (1989)	Prevent transfer of harmful substances, ensure safe and environmentally sound waste management, and restrict export of hazardous waste to countries lacking the capacity to manage it properly.
Rotterdam (1998), **Stockholm** (2001) and **Minamata** (2013) **Conventions**	Address specific hazardous substances and their impact on human health and the environment, regulate their production and use, and ensure safe and environmentally sound management.

To demonstrate their commitment to improving the environmental performance of their processes, companies can implement an Environmental Management System (EMS) such as ISO 14001. Other actions companies can take include[1,2,3]:

- Setting measurable objectives and targets for environmental performance
- Align greenhouse gas emissions and carbon sink impact with IPCC international temperature goals.
- Implement science-based policies, strategies, and transition plans for climate change mitigation and adaptation, prioritizing emission reduction over offsetting, and publicly reporting the use of carbon credits or offsets.
- Promote environmental responsibility by collecting, evaluating, and transparently reporting information, including risk assessments where necessary.
- Measure and disclose emissions of air pollutants, such as particulate matter from diesel vehicles, which have negative impacts on human health.
- Contribute to the conservation of biodiversity and sustainable use of natural resources and ecosystems, avoiding land, marine, and freshwater degradation. Companies should also conduct due diligence to prevent adverse impacts on protected areas and species and follow the biodiversity mitigation hierarchy to avoid or minimize harm.
- Monitor and report on progress and obtain third-party verification.
- Conduct regular environmental impact assessments using tools such as environmental impact assessment (EIA) and life cycle assessment (LCA) in the development of new technologies and products.
- Adopt sustainable consumption and production patterns, such as resource efficiency and circular economy models, to reduce their environmental impacts. The circular economy approach involves designing products and materials for reuse, repair, and recycling to minimize waste and greenhouse gas emissions.
- Engage with stakeholders and provide relevant information about their environmental practices.
- Establish effective grievance mechanisms (based on the scale of activities) that seek to resolve concerns promptly.

The mitigation hierarchy and biodiversity offsets

The mitigation hierarchy, developed by the Business and Biodiversity Offsets Programme (BBOP, 2010), is a widely used approach for managing biodiversity risks. It works in stages. First, projects should aim to **avoid impacts** on biodiversity wherever possible. If some impacts cannot be avoided, the next step is to **minimise** them. After that, any damage that has occurred should be **restored**. Finally, for residual impacts that remain after these measures, **biodiversity offsets** can be applied. These are measurable conservation actions designed to compensate for significant remaining impacts, with the aim of achieving no net loss of biodiversity - or ideally a net positive impact.



Source: A framework for corporate action on biodiversity & ecosystem services, UNGC, IUCN

[1] OECD Guidelines for Multinational Enterprises on Responsible Business Conduct

[2] The Equator Principles - Equator Principles (equator-principles.com)

[3] The Ten Principles | UN Global Compact

- Refocus research and development towards making operations sustainable and developing environmentally friendly technologies.
- Contribute to partnerships or initiatives that will enhance environmental awareness and protection.
- Take precautionary measures to prevent harm to the environment by avoiding operating in locations where consequences of an accident to the environment and/or society are unmanageable.

In addition, companies are expected to include ESG criteria, such as climate change, protecting biodiversity and nature, health issues in their procurement and operational policies, as well as in contracts with suppliers and (sub)contractors where appropriate. By integrating sustainability criteria into their policies and contracts, companies can work towards a more sustainable supply chain.

NN Group further expects companies to publish a sustainability report that is set up in accordance with recognised international sustainability frameworks and standards.

To integrate material sustainability indicators into financial reporting, companies are encouraged to use industry-specific guidance such as the SASB Standards and apply integrated thinking principles from the International Framework.

In addition, the Corporate Sustainability Reporting Directive (CSRD) and the Taskforce on Nature-related Financial Disclosures (TNFD) are key frameworks for many European companies to report on environmental sustainability. The CSRD is part of the EU Sustainable Finance agenda and requires companies to conduct materiality assessments to determine which sustainability topics should be included in the annual report.

3. Understanding environmental risks and impacts

A good understanding of environmental issues will allow investors to identify investment impacts (positive and negative), risks and opportunities. These insights provide the means to focus dialogue and engagement on the topics that are relevant to the companies in which we invest. While all companies face some degree of environmental risk, the severity of those risks and likelihood of their occurrence will vary based on factors such as the region, industry, and specific circumstances of the company's operations and supply chain.

NN's Responsible Investment team conducted an assessment based on environmental incidents and controversies related to companies' activities. This assessment is based on data points retrieved from our external ESG data provider Morningstar Sustainalytics, who base their research on public information. The analysis has not been limited to NN Group's investment universe. Instead, we assessed the entire investment universe that was made available to us, noting that not all sectors and issues are fully covered. This approach was taken to ensure a comprehensive perspective on environmental risks and impacts. The data points provided relate to the involvement (both through direct operations and their supply chains) of companies in incidents and controversies across the following environmental topics:

- Land use and biodiversity
- Energy use and greenhouse gas emissions
- Water use
- Emissions to air
- Degradation and contamination (land)
- Discharges and releases (water)
- Environmental impact of products
- Carbon impact of products

Our assessment involved an analysis of the severity of the impact of incidents on society and the environment, as well as the level of financial risk posed to the company. Additionally, we evaluated the probability of a company within a specific industry getting involved in a severe incident. For each topic, the company's own operations and its supply chain, and its adverse impacts and risk exposure were considered in the assessment. We took the most conservative approach where a medium score on financial risks and a high score on adverse impacts round up to a high-risk score.

The sectors deemed to have the highest exposure to serious environmental risks and impacts are Consumer Discretionary, Consumer Staples, Energy, Financials, Materials and Utilities. Healthcare, Industrials, and Information Technology have medium exposure.

Table 2: Environmental Sector Matrix

GICS SECTOR	OWN OPERATIONS	SUPPLY CHAIN
Consumer Discretionary	Medium	High
Consumer Staples	High	High
Energy	High	High
Financials	High	Low
Healthcare	Low	Medium
Industrials	Medium	Medium
Information Technology	Low	Medium
Materials	High	High
Real Estate	Low	Low
Telecommunication Services	Low	Low
Utilities	High	Medium

Note: This sector breakdown is based on the Global Industry Classification Standard (GICS).

Environmental risks and negative impacts can manifest in a company's own operations and/or in their supply chains. Conducting a thorough analysis of these risks and impacts during the due diligence process is important when considering investment in high-risk sectors.

It should be kept in mind that these assessments are based on public incidents and controversies data, and based on historical data at a specific point in time (February 2024), so it is important to update the analysis regularly as new incidents emerge and are resolved.

Table 3 on the next pages contains examples of environmental risks, opportunities and impacts for several industry groups. However, it is essential to keep in mind that the environmental performance profile will vary from company to company. An analysis of a company's environmental performance should therefore always be carried out at the individual company level.

Table 3: Examples of key environmental risks, opportunities, and impacts

Industries (GICS)	**Main environmental risks and adverse impacts**
Oil & Gas producers (Energy)	• Oil spills constitute a major risk for oil extraction operations, leading to lost production and environmental fines. Particularly if access is limited, for example with deep-water or Arctic operations, a leak or a blow-out can lead to significant damage to animal life, human health and economic conditions in coastal areas. • The production and use of oil, gas and oil-based products are carbon intensive, contributing to climate change. • While natural gas is less carbon intensive when burned than oil, the transportation in pipelines results in leakage of methane, a very potent greenhouse gas. • Oil and gas extraction is associated with risks of significant air pollution, water contamination and soil degradation. *Positive impacts*: • Oil and gas producers and refineries can improve the safety of their operations and carbon efficiency. • Oil and gas producers can collaborate with downstream stakeholders to develop more carbon-efficient applications for oil and gas. • Oil and gas producers may leverage their expertise and equipment to design and install large-scale offshore wind turbine parks, geothermal energy, or to develop commercially viable sustainable biofuels or bioplastics.
Diversified metals (Materials)	• Mining waste can seriously affect the quality of the surrounding surface water and groundwater. For example, the irresponsible disposal of tailings poses a major risk for many mining operations. • Mining operations, such as the large-scale open pit mining of minerals such as bauxite, are carbon intensive, contributing to climate change. • Mining results in land-use change and deforestation, representing a major component of global emissions. Toxic spills can further lead to loss of biodiversity and risk to human health. *Positive impacts:* • Energy efficient processing of minerals through use of renewable energy can reduce carbon intensity. Aluminium can, for example, be produced with renewable energy such as geothermal or hydroelectric power. This will have a much lower carbon intensity than coal powered facilities. • When renewable energy is also combined with recycling of metallic waste, the emissions (such as CO_2, and SO_2) can be reduced even more. • Supply of critical minerals and metals are key inputs for the low-carbon transition, for example electrification and renewable energy infrastructure.
Food products (Consumer staples)	• Food products require agriculture. Agriculture tends to be carbon intensive and the use of arable land and ground, or surface water bears the risk of over-exploitation of natural resources. Furthermore, monoculture, chemicals and genetic modification can lead to loss of biodiversity and hence, loss of ecosystem resiliency. • Many food products contain palm oil or soy. Palm oil and soy plantations continue to be associated with irresponsible and even illegal deforestation practices. • Packaging maintains the safety and quality of food, but packaging waste can negatively impact the environment if materials are not prudently selected (overuse of plastic) and can create extra waste if too much packaging is used. *Positive impacts:* • Efficiency and process improvements can reduce carbon intensity, water intensity and soil depletion. For example, palm oil can sometimes be (partly) replaced by other oils and responsible plantation management can also make a large difference. • Regenerative or organic farming can benefit soil quality, biodiversity, and animal and plant health. • Besides risks, smart cross-pollination and/or genetic modification introduce opportunities such as improved resilience to drought for a plant or higher quality meat for an animal.

Industries (GICS)	**Main environmental risks**
Utilities	• Many traditional power utilities struggle to secure their future. The utilities industry is under heavy societal and increasing regulatory pressure to transition from a fossil fuel-based energy mix to a lower carbon power generation mix. • While nuclear power is significantly less carbon intensive (no emissions from power generation; just from constructing the plant) than fossil fuel-based power, safe storage of nuclear waste is a major challenge. Furthermore, the 2011 disaster at the Fukushima plant has demonstrated that the local environmental (and social) risks of nuclear power cannot be underestimated. • Power generation is water intensive; growing water insecurity and potential conflicts with competing users may affect operations. • Thermoelectric power plants use large amounts of water (45% US industrial usage according to US Geological Survey). Most water is used for cooling nuclear and coal power plants and is returned to surface water supplies and becomes available for other users. Large hydro does not consume water as such but has significant environmental (and often social) impacts that include forest clearing, biodiversity loss and changes to water systems. *Positive impacts:* • Unlike the transport, aviation, steel and cement industries, utilities have clear opportunities to reduce their dependency on fossil fuels. • By incorporating more renewable energy sources like solar, wind, or green hydrogen, utilities can contribute to making products cleaner. For example, through the increased use of electric vehicles. • Utilities are increasingly incentivising their customers to make more efficient use of energy and water through conservation measures and the use of smart metering.

Biodiversity Assessment Update (2025)

In 2025, NN Group updated its assessment of biodiversity dependencies and impacts for proprietary corporate investments using the ENCORE tool (Exploring Natural Capital Opportunities, Risks and Exposure). This free, online tool helps organisations explore exposure to nature-related risks and understand dependencies and impacts on nature.

We evaluated 126 sub-sectors linked to 13 drivers of biodiversity loss and 25 ecosystem types, attributing multi-sector exposure per company. The analysis highlighted that water-related dependencies remain the most significant, particularly in the utilities, food & beverages, and chemicals sectors. Compared to a previous assessment:

- Water dependency scores increased
- Impacts from disturbances and non-GHG emissions rose
- Water use impact scores declined.

We broadened the assessment to include value chain materiality using the Finance for Biodiversity (FfB) multi-tool study. We found that:

- Around 30–40% of holdings are exposed to high nature impacts, mainly driven by land use, pollution, climate, and water
- High-impact sectors identified include food & beverages, chemicals, consumer staples, oil & gas, and pharmaceuticals
- Most impacts originate from supply chains, except for downstream pollution in chemicals and pharmaceuticals
- Water dependencies were found to be especially material in the food & beverages, materials, and utilities sectors throughout the value chain

The findings emphasise the broader relevance of biodiversity risks across sectors and value chains. They highlight the need for proactive engagement with high-impact industries and integration of nature considerations into investment decisions.

4. Important environmental themes and emerging trends

In this chapter, we discuss several environmental issues which we believe are important in relation to the environment, as well as emerging trends that play a crucial role in tackling global environmental challenges, such as climate change and biodiversity loss. These issues are also linked with the conventions, frameworks, and treaties mentioned in Section 2, and further described based on environmental standards, and sector guidelines.

There is some overlap between the scope of this paper on environmental investing and the topics of animal welfare, governance, human rights and labour rights, which are also discussed in more detail in their own individual guidance papers.

Environmental management

Environmental management is the process of identifying, evaluating, controlling, and mitigating the impact of human activities on the environment. Its aim is to reduce environmental harm and promote sustainable use of natural resources through the implementation of responsible practices and strategies. These practices can include pollution prevention, waste reduction, and resource conservation.

Despite corporate efforts to implement effective environmental management, incidents can still occur and have a negative impact on the surrounding air, soil and/or water quality. Damage can be caused by accidental incidents or negligence on behalf of the company. In some cases, an accidental incident may occur, however, the damage is then increased when the company fails to respond adequately.

Companies which do not have a proper risk management system in place are exposed to financially material risks. This is because, alongside the negative environmental impact, environmental incidents can damage companies' reputation and brand image and may cause them to lose their licence to operate. A clear example of the financial materiality of these risks is the 2019 ExxonMobil Baytown Olefins Plant explosion. This incident occurred at ExxonMobil's Baytown Olefins Plant in Texas and resulted in a fire and explosion that injured 37 people and caused significant property damage. This event also resulted in a loss of USD 310 million for the company's chemical division, as well as additional costs for repairs, legal fees, and potential fines. The explosion also led to nearby road closures, evacuations, and lawsuits from impacted individuals and businesses, resulting in a substantial financial impact on the community.

NN Group expects the companies we invest in to follow recognised international environmental standards and implement an environmental and social risk management system, based, for example, on International Organisation for Standardisation (ISO) standards, to ensure the effective management of environmental risks and minimisation of potential adverse impacts. We also emphasise the importance of the use of the most effective and advanced methods and technologies that are currently available (or best available technologies (BAT)) for companies to reduce their potential negative environmental impact. The case box in Chapter 2 on international conventions related to environmental management is also relevant in this context.

Strategies for companies to adapt and built resilience

Adapting and building resilience to climate change is crucial for businesses to remain competitive and mitigate the risks of climate-related impacts. To adapt and build resilience, companies can take several strategies and actions, including:

- Conducting a thorough climate risk assessment to understand how climate change might impact the company's operations, supply chains, and assets
- Investing in energy-efficient technologies and renewable energy
- Designing products for reuse, recycling, and remanufacturing
- Assessing water risks and developing strategies to ensure water availability during droughts or floods
- Collaborating with stakeholders, NGOs, and governments to develop climate adaptation plans
- Joining industry associations and initiatives focused on climate adaptation
- Advocating for supportive policies and regulations at local and global level
- Disclosing climate- and biodiversity-related risks and impacts and adaptation efforts in annual reports

Climate change mitigation

As the world faces the urgent challenge of combatting climate change and keeping global average temperatures within safe limits, we expect companies to publicly commit to being net zero by 2050 and take immediate, concrete steps to reduce their GHG emissions in line with the Paris Agreement's goal of limiting global warming to 1.5°C.

Failure to manage and reduce emissions can have severe consequences for the environment and society, including structural changes in the planet's climate system and large-scale negative impacts. In response, jurisdictions worldwide are enforcing stricter regulations and incentivising companies to prepare for a low-carbon future.

We believe that the costs of transitioning to a low-carbon business model are far outweighed by the risks of inaction. Companies that reduce emissions and align their strategies with the Paris Agreement will not only mitigate regulatory and market risks but also position themselves to capture new growth opportunities in the low-carbon economy.

To align with the Paris Agreement, we encourage companies to:

1. Measure and publicly disclose their Scope 1, 2 and 3 GHG emissions on at least an annual basis
2. Set short-, medium-, and long-term targets to reduce their GHG emissions
3. Work toward developing a climate transition plan that outlines how they aim to decarbonise their operations and value chain. If possible, the plan should indicate how progress will be enabled through investments in operations and workforce development

Only once companies have implemented all feasible measures to decarbonise their operations and value chain should they consider ways to neutralise residual emissions, such as through high-integrity carbon offsets or carbon capture, utilisation and storage (CCUS). As scientific research indicates that there are limits to the amount of emissions that can be addressed through high-permanence removals like CCUS, we believe their use should focus on hard-to-abate sectors where technical options for decarbonisation are limited. We support efforts for beyond-value-chain mitigation and encourage companies to consider direct (or indirect) investments in nature-based solutions, ecosystem restoration, and renewable energy projects in emerging markets.

In addition to reducing their GHG emissions, companies should take steps to build resilience and adapt to the negative effects of climate change. Refer to the case box on the previous page.

For investors, it is important to measure how a company is advancing towards net zero and to evaluate its risks and opportunities related to climate change. The box below shows how we evaluate a company's net-zero strategy and progress for NN Group’s proprietary assets. To do this, we need consistent and trustworthy GHG emission data as well as their plans to transition to a low-carbon economy. At NN Group, we encourage companies to report on their carbon emissions and targets through direct and indirect engagement with the CDP and Science-based Targets Initiative (SBTi). Furthermore, we support the mission of the CDP and Climate Action 100+ to transform businesses into advocates and stewards in preventing climate change and protecting the world's natural resources.

Aligning investments with a net-zero future: NN Group's criteria and engagement policy for proprietary assets

To evaluate companies net-zero commitments and progress, NN has developed a methodology for its own corporate investment portfolio, based on the six alignment criteria of the IIGCC Net-zero Investment Framework. These criteria are:

1. Ambition: A long-term goal consistent with achieving global net zero by 2050 or sooner
2. Targets: Short- and medium-term emissions reduction target (Scope 1, 2 and material Scope 3)
3. Emissions performance: Current emissions intensity performance
4. Disclosure: Reports on Scope 1, 2 and material Scope 3 emissions
5. Decarbonisation strategy: A quantified plan setting out the measures that will be deployed to deliver GHG emissions targets, proportions of revenues that are green and where relevant increases in green revenues
6. Capital allocation alignment: A clear demonstration that the capital expenditures of the company are consistent with achieving net-zero emissions by 2050.

NN Group uses these alignment criteria to evaluate companies' net-zero commitments and progress and to allocate new assets. We also engage in active dialogue with investee companies to encourage them to shift towards renewable and low-carbon strategies, measure, disclose, and reduce emissions, and contribute to the transition to a low-carbon economy. Companies that are not making sufficient progress are divested and put on an exclusion list in accordance with our engagement policy for proprietary assets. For more details refer to NN Group’s Climate Action Plan 2025.

Climate lobbying and legal actions

Climate-related lobbying and corporate legal actions can significantly influence policy outcomes and either accelerate or hinder progress toward global climate goals. For investors, it is important to understand companies' lobbying practices and legal actions because these activities can shape the regulatory environment and signal whether a company's actions align with its stated climate commitments. Initiatives such as the Global Standard on Responsible Corporate Climate Lobbying and Climate Action 100+ promote transparency and accountability in this area.

We expect companies in their lobbying efforts – whether conducted directly or through trade associations – to support, rather than undermine, national and international climate policies and regulations. Lobbying should be aligned with the goals of the Paris Agreement and should actively support the transition to a low-carbon economy.

Transparency regarding both lobbying and legal actions enables investors to assess whether a company's behaviour aligns with its climate ambitions and reflects responsible engagement with public policy. As investors committed to achieving a net-zero economy, we expect companies to demonstrate comprehensive transparency in their climate-related lobbying, including activities undertaken via industry associations.

Investor-State Dispute Settlement (ISDS) [4]

ISDS is a mechanism in international investment agreements that allows foreign investors to challenge governments over issues such as expropriation, discrimination, or abrupt policy changes. While ISDS is not limited to climate policy, it has become increasingly relevant as governments implement measures to accelerate the energy transition. Some disputes involve fossil fuel companies contesting climate regulations, which can hinder climate progress. However, ISDS can also provide legal certainty for renewable energy investments by protecting against arbitrary policy reversals – an important factor for long-term transition financing.

We recognise criticism of some companies' use of ISDS by different stakeholders in the market and therefore encourage companies to disclose any ISDS claims they initiate or are involved in, along with the rationale and context. This allows investors to make an informed judgement on whether such actions align with climate commitments and engage effectively when concerns arise.

Addressing fossil fuels

The burning of fossil fuels, including thermal coal, oil, and gas, is the main contributor to global GHG emissions, according to the IPCC. Urgent action is required to reduce greenhouse gas emissions and transition to a low-carbon economy, which includes a rapid shift to renewables by 2035 and the adoption of just transition plans and new business models.

At NN Group, we are committed to promoting a sustainable future and recognise the urgent need to transition away from fossil fuels. As part of our Paris-alignment strategy for proprietary assets, we have set an objective to increase our investments in climate solutions, such as renewable energy, and support the development of new technologies that reduce the negative impact of fossil fuels on the environment. Additionally, we no longer see thermal coal as an acceptable form of energy, and this is reflected in our thermal coal phase-out policy.

NN Group's approach to fossil fuel investments

Coal phase-out strategy

NN Group is committed to promoting a sustainable future and recognizes the urgent need to transition away from fossil fuels. To mitigate environmental risks, NN has had a coal phase-out policy in place since 2019, further strengthened in 2022. This policy aims to reduce involvement in thermal coal mining and coal-fired power generation to 0–5% ('close to zero') by 2030. NN monitors portfolio companies' progress and selectively divests those failing to meet phase-out commitments.

Oil & gas policy

In 2023, NN launched an oil and gas policy for its proprietary asset portfolio, covering conventional and unconventional supply chains. The policy directs investments toward best-in-class companies (less than 30% revenues, with conditions; not more than 5% for Arctic and oil sands) willing to lower their emissions to net-zero by 2050. NN applies strict guidelines for new investments aligned with its Paris-alignment framework and engages existing holdings through direct and collaborative initiatives, considering divestment if progress is insufficient.

For more information on these policies, refer to NN's Paris Alignment Standard for Proprietary Assets.

[4] UN Conference Trade and Development's Investment Dispute Settlement Navigator tool provides details of publicly-know treaty-based ISDS claims.

In developing our oil and gas policy, we have taken a comprehensive view of the entire oil and gas supply chain in our policy development process. We believe that all actors along the value chain, including producers and users, must take responsibility for transitioning to a low-carbon economy. Dialogue is essential to encourage this shift, and we are committed to working with stakeholders to achieve this goal.

Just Transition

The concept of a just transition refers to the shift toward a low-carbon, climate-resilient economy in a way that is socially fair, inclusive, and leaves no one behind. This concept is internationally recognised. For example, the Paris Agreement explicitly calls for safeguarding workers and communities in climate action, and the EU Green Deal embeds social fairness into its climate neutrality objectives supporting this commitment through dedicated funding. In 2023, the OECD Guidelines were updated to strengthen expectations on climate change and recognize the importance of a just transition. Companies are now expected to align with international climate goals, conduct risk-based due diligence on climate and social impacts, and engage stakeholders in good faith, paying attention to vulnerable groups and workers' rights throughout the transition.

For investors, this means considering the social impacts of decarbonisation plans, from workforce reskilling to community resilience, as part of their responsible investment practices. NN Group is committed to strengthening its focus on the social dimensions of climate engagement, encouraging companies to include social measures to limit impact on employees and communities in their transition plans. In 2025, we explored how private market asset managers are integrating just transition considerations into climate-related investments, collecting information via surveys and interviews. Refer to the case study in the box below for further insights.

More details on specific human rights risks, including those related to the climate transition, can be found in our Investment guidance paper on human rights. Going forward, NN Group will continue to explore how just transition criteria can be integrated into our climate-related frameworks.

Climate change adaptation (including water use)

To ensure long-term sustainability and resilience, companies need to take action to adapt to the impacts of climate change. Companies with business operations that are vulnerable to the impacts of climate change should take precautionary measures to mitigate against these negative impacts and consider nature-based solutions to enhance resilience. For example, companies should be aware of their vulnerability to extreme weather events, such as floods and hurricanes, based on their location

Just Transition – Asset manager dialogue

NN Group has observed a growing awareness among private markets' asset managers of the importance of just transition. Several managers now assess labour standards in infrastructure project contracts (e.g. requiring safe conditions and living standards), screen for social controversies during investment pre-screening, and conduct due diligence on human rights risks in tier-1 suppliers in sectors which are reliant on critical minerals or complex construction supply chains. In some cases, internal tools such as pre-investment ESG questionnaires help flag just transition issues early and facilitate follow-up. However, most managers are still in early stages of developing their approach. Initial efforts signal that asset managers are beginning to systematically adopt the theme and explore how to embed just transition more consistently in their climate strategies. To advance this work, we encourage asset managers to:

- **Integrate social factors into climate-related frameworks**: As part of climate-related investment due diligence, assess job impacts, community effects and labour standards in both direct operations and supply chains. Guidelines such as the ILO Just Transition Finance Tool and the OECD Guidelines can help structure these assessments.
- **Engage stakeholders in transition planning**: Engage companies on how they develop transition plans that involve meaningful dialogue with affected stakeholders such as workers and local communities. Refer also to our guidance on engaging with stakeholders in the extractive sector in the NN Group Investment paper for Human Rights.

Monitor progress and support industry standards: Track key social indicators aligned with just transition priorities (e.g. number of jobs transitioned or created in green projects, percentage of workers retrained or redeployed, or instances of community benefit-sharing). Share insights with peers and contribute to industry initiatives that develop practical tools and standards for managing just transition issues. Frameworks such as the Climate Action 100+ Net Zero Company Benchmark (which includes a just transition indicator), and the IIGCC Net Zero Standard for Diversified Mining can inform company-level expectations.

and type of operations. In 2025, the World Economic Forum identified extreme weather events as the second greatest risk in the next two years and the greatest risk in the next ten years[5].

In addition, companies with water-intensive operations in water-scarce regions should develop contingency planning to avoid business discontinuity or conflict with competing water requirements. Companies should also disclose their impacts and risk exposure to water risks and mitigate and minimize impacts across the value chain.

The projected increase in the world population growth rate and climate change impact will increase water scarcity unless water use and water management practices markedly change in future years. Therefore, we expect companies to recognise water scarcity as a strategic issue and develop policies and management systems to maintain water resources, including an impact assessment of water scarcity when considering new operations in water scarce regions. We see the importance of a contextual and/or basin approach for water stewardship such as target setting, localised monitoring, forward-looking scenario analysis and planning, stakeholder engagement and collaboration in line with industry best practices such as the Alliance for Water Stewardship standards and Science Based Targets for Nature. Credible water stewardship relies on appropriate management oversight and policy engagement aligned with sustainable water resource management outcomes.

The Corporate Expectations for Valuing Water, set out by the Ceres Valuing Water Finance Initiative, provide a framework for companies to manage water resources sustainably. These expectations require companies to address water quantity, quality, ecosystem protection, access to water and sanitation, board oversight, and public policy engagement. By aligning with these expectations, companies can ensure that they are contributing to the social, economic, and ecological resilience of communities while maintaining their ability to produce products and services.

Protection of biodiversity

Biodiversity, the variety of life on Earth, is declining rapidly, posing severe risks for society and the economy. Nature's ecosystems provide essential services such as food, materials, medicines and vital regulating services – on which more than half of global GDP depends. Biodiversity loss is complex, with social and environmental implications, including the threats it poses to human rights and the impact it has on accelerating climate change. Addressing it is critical for achieving the UN's Sustainable Development Goals (SDGs) and safeguarding planetary health, as emphasized by the IPCC and IPBES.

Companies have a responsibility to protect biodiversity and minimize ecosystem impacts, also on endangered species – not only in sensitive areas but also in regular habitats. For instance, businesses in agriculture, forestry, landscaping, and construction can help by preventing invasive species and reducing their impact on ecosystems.

To guide efforts, companies should follow internationally recognised frameworks such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES),

Six corporate water expectations

NN Group is a participant in the Ceres Valuing Water Finance Initiative established to address the growing water-related challenges faced by companies worldwide. The initiative has developed a set of six clear expectations called the Corporate Expectations for Valuing Water, which are aligned with the UNGC CEO Water Mandate's six commitment areas and SDG 6 (Clean Water and Sanitation).

The Corporate Expectations for Valuing Water are intended to serve as a 2030 ambition for large companies and as the foundation for informing and measuring the progress of investor engagements with companies as part of the Valuing Water Finance Initiative. These expectations require companies to take the following six steps:

1. Water Quantity: Companies must not negatively impact water availability in water-scarce areas across their value chain.
2. Water Quality: Companies must not negatively impact water quality across their value chain.
3. Ecosystem Protection: Companies must not contribute to the conversion of natural ecosystems critical to freshwater supplies and aquatic biodiversity and actively work to restore degraded habitats that their businesses depend upon.
4. Access to Water and Sanitation: Companies must contribute to the social, economic, and ecological resilience of communities they interact with by contributing to achieving universal and equitable access to WASH (Water, Sanitation, and Hygiene) across their value chain.
5. Board Oversight: Corporate boards and senior management must oversee water management efforts.
6. Public Policy Engagement: Companies must ensure that all public policy engagement and lobbying activities are aligned with sustainable water resource management outcomes

[5] These are the biggest global risks we face in 2025 and beyond | World Economic Forum (weforum.org)

International Union for Conservation of Nature (IUCN) categories I-IV, the IUCN Red List of Threatened Species, natural sites on UNESCO's World Heritage List, key biodiversity areas, and the Ramsar Convention on Wetlands. Location-specific tools like IBAT help identify and monitor ecosystem impacts, including High Conservation Value areas (HCV). For forestry, the Forest Stewardship Council's designation of HCV forests provides guidance on protecting both regular forests and highly endangered ones. Additionally, the Cartagena Protocol on Biosafety sets requirements for the safe handling, transport, and use of living modified organisms. Production of, or trade in, living genetically modified organisms can only occur with the permission of the importing country and full compliance with the Cartagena Protocol.

NN Group acknowledges the critical role of protecting biodiversity and expects companies to integrate biodiversity considerations into their management systems, monitor the impact of operations on ecosystems such as forests, peatlands, and other sensitive areas. Companies are encouraged to take a proactive approach to preserving and protecting sensitive biodiverse areas, including designating and safeguarding protected nature sites. This approach also involves prohibiting the conversion of protected areas, such as peatlands, wetlands, and other high-carbon stock regions, as defined by international, regional, or local laws – for agricultural or other purposes. Conversion of peatland and high-carbon stock areas for agricultural development is unacceptable.

Our ambition is to contribute to the protection and preservation of endangered species and sensitive sites, endorsing sustainable value chains where biodiversity can thrive in balance with economic activities.

Before beginning a new project or expanding into new markets, companies should conduct an environmental impact assessment that considers the total consequences of the project on biodiversity, using frameworks such as GRI's Biodiversity Standard and other relevant standards like the IFC's Performance Standards.

In addition to these measures, companies are expected to integrate criteria for addressing climate change, protecting biodiversity and nature, and other ESG aspects – such as compliance with health requirements – into their procurement and operational policies. These criteria should also be reflected in contracts with suppliers and subcontractors where appropriate. This approach promotes sustainable practices and helps reduce the negative impact of business operations on biodiversity. Alignment with recognised standards, such as the Roundtable on Sustainable Biomaterials (RSB) Principles and Criteria, further supports credible implementation.

Deforestation

Deforestation is a pressing issue that has significant impacts on climate and biodiversity. While forests absorb carbon dioxide and produce oxygen, deforestation contributes to global warming by releasing carbon into the atmosphere, leading to habitat loss and a devastating impact on biodiversity. To address deforestation, still to be implemented EU deforestation-free regulation requires companies selling in Europe or exporting commodities such as cattle, cocoa, coffee, palm oil, rubber, soy, or wood – along with products made from these commodities – to prove that their products do not originate from areas that were deforested. This means they can only work with suppliers who provide a statement confirming that the product does not come from deforested land.

Implementing supply chain visibility requirements can be challenging for companies, as many industries have a significant environmental impact through their supply chains rather than their direct operations. For example, the automotive sector is known to have a high number of suppliers. However, companies that prioritise sustainability and implement robust systems to trace their supply chains are better positioned to meet regulatory requirements, mitigate operational and reputational risks, and can remain competitive in the marketplace. By implementing a system to enhance traceability of their supply chain, companies can enable better decision making in supply chains to avoid primary forest loss. By doing so, companies can also safeguard their reputation and avoid financial penalties associated with deforestation. Regulatory requirements such as the European CSRD and voluntary disclosure frameworks such as CDP Forestry can help improve data availability and increase transparency.

Given these challenges, we encourage companies to develop robust traceability systems across their supply chains for relevant commodities, helping to reduce deforestation and forest degradation, including primary forests. These systems should make it possible to identify and monitor the origins of raw materials, verify compliance with zero-deforestation commitments, and publicly disclose progress. Where feasible, companies can strengthen credibility through third-party verification or certification of their traceability and deforestation-free status.

We also believe companies should adopt a comprehensive deforestation- and conversion-free policy, aligned with best practices such as those outlined in the Accountability Framework, and covering all relevant commodities and supply chain segments. While having such a policy is an important first step, it is most effective when accompanied by clear, transparent evidence of implementation. Certification and biodiversity credits play a role in stopping deforestation, but they should not be relied on as the main way to achieve deforestation-free supply chains and operations.

Respect for human rights is equally critical. Companies should apply Free, Prior and Informed Consent (FPIC) in forest-related activities, to minimize risks of exploitation of local and indigenous communities.

Finally, we see value in integrating deforestation risks and mitigation efforts into a company's net-zero strategy, as this supports alignment with broader climate goals. This is an area we are exploring ourselves. In 2025, NN Group set nature ambitions for its propriety investment portfolio, focused on increasing the number of companies and banks with strong deforestation and conversion-free (DCF) commitments for high-risk commodities, using data from ForestIQ.

Responsible mining practices

Mining plays a critical role in the global economy and the transition to a low-carbon future. Minerals such as copper, nickel, and lithium are essential for renewable energy, electric vehicles, and grid infrastructure. Without responsible mining, climate and sustainability goals cannot be met. Yet, mining can cause serious environmental and social impacts – deforestation, pollution, biodiversity loss, and community health risks. Addressing these challenges is key to safeguarding long-term value and maintaining a social license to operate.

Certain mining practices remain highly problematic due to severe, often irreversible impacts on ecosystems and communities. These include:

- Riverine Tailings Disposal (RTD): Discharges mine waste into rivers, causing ecosystem destruction and water contamination. Largely phased out under international standards but still occurs in regions with weak governance.
- Submarine Tailings Disposal (DSTP): Dumps tailings into oceans, threatening marine biodiversity. Rare but still used in some jurisdictions.
- Asbestos mining: Banned in the EU and most developed markets, but continues in a few countries. Exposure causes fatal diseases such as mesothelioma and lung cancer.
- Mountaintop Removal (MTR): Blasts mountain tops to access coal seams, causing deforestation and water pollution. Declining globally but still practiced in some areas.

Emerging issues like deep-sea mining (DSM) pose additional environmental and governance risks and are covered in a dedicated section on the next page. Our Investment Guidance Paper on Human Rights also addresses challenges linked to artisanal and small-scale mining (ASM).

We expect mining companies to minimise environmental and social harm and follow international best practices, for example, by:

- Mitigating environmental accident risks by making use of the best available techniques and maintaining robust contingency plans for crisis management.
- Reducing extractive waste and managing tailings responsibly by tracking, reviewing, and improving tailings risk management, and by adopting a zero-failure objective to tailings storage facilities.
- Not engaging in RTD or DTSP, which cause significant and irreversible environmental harm.
- Restoring ecosystems after project completion and integrating restoration into planning and budgets
- Not engaging in asbestos mining due to severe health impacts and environmental contamination risks.
- Not engaging in mountaintop removal given its irreversible environmental impact.

Not all issues apply to every mining company, and this list is not exhaustive. We recommend using these expectations as a starting point for evaluating whether mining companies are acting in an environmentally responsible way, and for determining which topics to prioritise in engagement. Recent investor initiatives, such as the Global Investor Commission on Mining 2030, also highlight the importance of setting out clear expectations for mining companies and collaboration with mining companies and stakeholders.

In high-risk sectors like mining, independent certification promotes responsible practices. Certifications give investors confidence that companies manage material risks and provide businesses guidance and external validation to implement best practices. NN encourages companies to seek certification through recognised initiatives such as the IRMA (Initiative for Responsible Mining Assurance) or Copper Mark (responsible copper production). Tools like the Better Mining Programme also support responsible sourcing.

Deep Sea Mining (DSM)

The ocean is critical for environmental stability, biodiversity, and climate regulation, absorbing around 25% of global carbon dioxide emissions. Although minerals from the deep seabed are often said to be necessary for the energy transition, scientists and stakeholders increasingly question the necessity of DSM.

DSM poses significant risks. Scientific research highlights potential direct harm to marine life, long-term ecosystem disruption, impacts on fisheries and food security, and possible damage to the ocean's carbon sink function. These risks raise profound environmental and social concerns that cannot be ignored.

Beyond environmental risks, DSM faces practical and governance challenges. The technology required for DSM is at a very low Technological Readiness Level (TRL 1–3), meaning it is largely unproven and commercially immature. Furthermore, the International Seabed Authority has not yet finalized rules for commercial exploitation, and no company currently has received legal authorization to engage in DSM.

NN Group's ambition is to champion a circular economy that reduces demand for virgin minerals. We support innovation in battery technologies and other solutions that minimize reliance on rare earth minerals, making DSM unnecessary, and avoiding its potential environmental harm.

In 2026, NN Group endorsed the Global Financial Institutions Statement to Governments on Deep-Seabed Mining. This statement urges governments to refrain from allowing deep-seabed mining activities until robust scientific research demonstrates that such operations can be carried out without causing harm to marine ecosystems. In alignment with this precautionary stance, NN Group has established a procedure to identify and monitor 'pure-play' companies involved in DSM, as part of the NN Group Controversy & Engagement Council's activities. Where engagement is not feasible, we may choose to exclude certain issuers from our investment portfolio.

Circular economy

The circular economy aims to reduce waste and pollution by keeping resources in use for as long as possible, protecting the environment and reducing the impact on biodiversity. In contrast to the traditional linear economy model of 'take-make-dispose', the circular economy creates a closed-loop system where materials and products are continuously reused, recycled, and repurposed. This promotes the concept of 'waste as a resource', minimising waste generation and reducing the depletion of natural resources.

The three principles of a circular economy are:

- Design out waste and pollution: Focus on preventing waste and pollution from being created in the first place.
- Keep products and materials in use: Maximise the lifespan of products and materials through strategies like reuse, repair, refurbishment, and recycling.
- Regenerate natural systems: Work towards enhancing natural systems and resources rather than depleting or destroying them.

To reduce the negative impact of human activities on the environment, companies should adopt circular economy principles wherever possible. This involves redesigning products and services to be more durable, reusable, repairable, and recyclable, as well as exploring new business models that create value from products and materials already in circulation, such as leasing, remanufacturing, and refurbishing. Transitioning from a linear to a circular model requires companies to consider value creation, access to resources, and process optimisation. Establishing partnerships and taking a system view that encompasses all participants in the supply chain are crucial steps in this journey.

Chemicals and plastic

Hazardous chemicals and plastics present serious environmental and health risks due to their persistence, toxicity, and wide-spread use. These substances often end up in landfills or oceans, where they can contaminate ecosystems, our food system and harm human health. Through innovation in materials and cleaner production cycles, a circular economy can reduce dependency on harmful chemicals and ensure plastics are safely managed throughout their lifecycle.

We support a circular economy that minimises hazardous chemicals and plastic waste, also across the value chain. Greater transparency is needed on the risks and impacts of chemical products such as metrics on plastics, exposure to hazardous products, baseline hazards and impact assessment in line with industry guidelines and best practices.

Companies exposed to pollution risks are expected to develop clear plans to transition product portfolio towards safer and more sustainable solutions. Under frameworks such as the CSRD in Europe, companies in relevant industries (oil and gas, chemicals, containers and packaging, food and beverage, personal and household products, fast-moving consumer goods) are expected to disclose and reduce their total plastic footprint, broken down into virgin and non-virgin materials. A global legally binding international strategy is pivotal for providing a standardized framework for transparency and accountability to combat plastic pollution.

We advocate for tackling plastic problems across the value chain, including circular product design, reducing single-use plastics, and effective waste management solutions. Companies are encouraged to adopt circular economy practices that promote responsible use of natural resources and minimise waste. This, in turn, contributes to a more sustainable future and protects biodiversity. The circular economy offers a viable path towards achieving this goal and can create value for businesses and society as a whole.

Frameworks to standardise climate and nature disclosures

We recognise the importance of climate-related and biodiversity risks and incorporate them into our investment decision-making. However, the lack of consistent and standardised data from investee companies remains a challenge. To address this, global and EU-driven frameworks are working to harmonise sustainability disclosures:

- International Sustainability Standards Board (ISSB) International Financial Reporting Standards (IFRS) S1 and S2 standards build upon and incorporate the former Task Force on Climate-related Financial Disclosures (TCFD) recommendations, providing internationally recognised guidance for sustainability and climate-related reporting.
- TNFD offers voluntary guidance for companies to disclose nature-related risks and impacts.
- CSRD requires European companies to report on sustainability topics, including climate and biodiversity, under the ESRS standards.

These frameworks improve transparency and comparability, helping companies manage environmental risks and contribute to a more sustainable future.

Managing trade-offs at the climate-biodiversity nexus: The role of certification schemes

The climate–biodiversity nexus represents the intersection of climate change mitigation and biodiversity conservation. While this nexus offers opportunities for synergies, it also requires careful management of potential trade-offs. A holistic approach that prioritises ecosystem integrity and resilience is essential to achieve both objectives.

One example of such a trade-off is biofuel production. Biofuels can reduce greenhouse gas emissions, supporting climate goals, but monoculture plantations for bioenergy can destroy habitats and harm biodiversity. To address this, companies involved in biofuels are encouraged to certify their production using sustainability standards such as the 12 principles of the Roundtable on Sustainable Biomaterials (RSB).

RSB covers a broad range of sustainability issues, including GHG emissions, biodiversity, water use, labour rights, and community engagement. Its principle on soil health promotes crop diversification, reducing habitat loss and supporting sustainable land use.

Other EU-recognised voluntary schemes – such as ISCC, 2BSvs, KZR INiG, and REDcert – can also be used to promote sustainable practices in biofuel production. By adopting these standards, companies can demonstrate their commitment to sustainability and meet the growing demand for environmentally and socially responsible biofuels.

5. Concluding remarks

NN's Responsible Investment Framework Policy highlights the measures we will take to systematically integrate sustainability factors in investment decision-making and active ownership practices. We have developed norms-based RI criteria, including environmental criteria, which are a reflection of relevant laws, the organisation's values, and internationally recognised standards such as the UNGC and the OECD Guidelines. If there are strong indications that an issuer may not be aligned with these criteria, a decision will be made as to whether NN considers this a non-alignment. If this is the case, we will decide whether engagement or, as a last resort, restriction is appropriate and feasible to address the negative impact.

We encourage our asset managers to use this paper as guidance to identify and address adverse impacts on people and to engage in a dialogue with companies to address environmental risks, which could in our view affect the value of investments. Where needed, we will support these processes with additional tools or guidance materials. This may include more detailed thematic or sector policies for areas that are deemed to be at high risk.

By also publishing this paper externally, we aim to clarify our position and use it to leverage change in the sphere of our investment activities.

Annex 1: Standards and guidelines

List of international standards, principles, guidance, and other tools consulted.

International standards and principles
Business and Biodiversity Offsets Programme
Cartagena Protocol on Biosafety
CDP Supply Chain Initiative
CEO Water Mandate
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
Electronic Industry Citizenship Coalition (EICC) Extractive Industries Transparency Initiative (EITI)
OECD Guidelines for Multinational Enterprises (OECD Guidelines)
Environment and the OECD Guidelines for Multinational Enterprises, Corporate Tools and Approaches
Sustainable Development Goals (SDGs)
Rio Declaration on Environment and Development
Sustainable Packaging Coalition (SPC)
UN Global Compact Principles (UNGC)

The ISO 14000 family of standards provides practical tools for companies looking to manage their environmental responsibilities. It includes most notably the ISO 14001: 2015 standard, which focus on environmental management systems (EMS) to achieve this.

International conventions on nature and pollution
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
International Convention for the Prevention of Pollution from Ships (MARPOL)
Kunming-Montreal Global Biodiversity Framework
Minamata Convention on Mercury Control and Management Systems
Montreal Protocol on Substances that Deplete the Ozone Layer
Ramsar Convention on Wetlands
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade
Stockholm Convention on Persistent Organic Pollutants
Vienna Convention for the Protection of the Ozone Layer

Frameworks and conventions focused on Natural Resource extraction
Global Industry Standard on Tailings Management
International Council of Mining and Metals (ICMM)
OECD Due Diligence Guidance for Responsible Mineral Supply Chains

Reporting frameworks
Corporate Sustainability Reporting Directive (CSRD)
IFRS S1 and S2
GRI Standards (formerly G4)
Taskforce on Nature-related Financial Disclosures (TNFD)

The CDP provides a framework for disclosing environmental impacts related to climate change. Other sustainability reporting frameworks include GRESB for real estate and infrastructure assets.

Examples of sector specific standards
IFC's Environmental and Social Performance Standards and Equator Principles are helpful tools for financial institutions to evaluate the environmental and social risk exposure, management and impacts of companies (and specific projects in the case of the Equator Principles).

Examples of environmental certification schemes and assurance tools

Agriculture & Commodities

Roundtable on Sustainable Palm Oil (RSPO)
Roundtable on Responsible Soy Association (RTRS)
Roundtable on Sustainable Biomaterials (RSB)

Climate & Carbon

The Gold Standard

Forestry

Forest Stewardship Council (FSC)

Marine & Aquaculture:

Marine Stewardship Council (MSC)
Aquaculture Stewardship Council (ASC)

Mining

Copper Mark
Fairmined Standard
Fairtrade Gold and Precious Metals
Initiative for Responsible Mining Assurance (IRMA)
Better Mining Program

International science-based assessment reports on climate change

Intergovernmental Panel on Climate Change (IPCC)

International science-based assessment reports on biodiversity and ecosystem services

Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)