Norges Bank Investment Management

Biodiversity and ecosystems Expectations of companies

Norges Bank Investment Management manages the assets of the Norwegian Government Pension Fund Global. We work to safeguard and build financial wealth for future generations. As a long-term and global financial investor, we are dependent on sustainable development, well-functioning markets and good corporate governance.

Our expectation documents set out how we expect companies to manage various environmental and social matters. Our expectations are based on internationally recognised principles such as the UN Global Compact, the UN Guiding Principles on Business and Human Rights, the G20/OECD Principles of Corporate Governance, the OECD Guidelines for Multinational Enterprises and other topic-specific standards. This document serves as a starting point for our interaction with companies on biodiversity and ecosystems. We expect companies to address these topics in a manner meaningful to their business model and wish to support them in their efforts.

Our expectations are primarily directed at company boards. Boards should understand the broader environmental and social consequences of company operations, taking into account the interests of relevant stakeholders. They must set their own priorities and account for the associated outcomes. Companies should pursue relevant opportunities and address significant risks. They should report financially material information to investors, and broader impacts as appropriate. Boards should effectively guide and review company management in these efforts.

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Biodiversity and ecosystems

Changes to natural ecosystems and the biodiversity that underpins them, may affect the long-term value of companies in our portfolio through physical and transition risks. Evolving trends may also present business opportunities. Companies depending on or impacting biodiversity and ecosystems should integrate relevant nature-related considerations into their corporate strategy, risk management and reporting.

Biodiversity – the variability among living organisms – has declined to a level where its ability to support healthy ecosystems is increasingly uncertain across nearly 60 percent of the world's land surface[1]. The number of species threatened by extinction is accelerating and is mainly driven by human activities. Exploitation of organisms, land use change, invasive alien species and environmental pollution[2] are placing severe stress on ecosystems and disrupting habitats. The effects of climate change can cause further stress to the health and productivity of many ecosystems.

The degradation of ecosystems accelerates with ongoing species loss. Some ecosystems collapse even with the loss of just one keystone species[3]. The more intact the planet's biodiversity, the more stable and resilient the ecosystems that provide benefits to society. These benefits – known as ecosystem services – include biological raw materials, a range of regulating functions, and human experiences.

As a long-term financial investor, we may be exposed to portfolio risks and lost investment opportunities as biodiversity and ecosystems become degraded. For companies whose production processes or revenues depend on ecosystem services, degradation can lead to

[1] T. Newbold et al. (2016), "Has Land Use Pushed Terrestrial Biodiversity beyond the Planetary Boundary? A Global Assessment", Science.
[2] Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2019), The Global Assessment for Biodiversity and Ecosystem Services.
[3] Paine, R. T. Food web complexity and species diversity. American Naturalist 100, 65–75 (1966).

physical risks, including scarcity of raw materials and reduced stability of processes such as rainfall and maintenance of fertile soil. The loss of biodiversity can also weaken an ecosystem's ability to deal with natural disasters such as floods, and human-caused stresses, such as pollution and climate change. This can lead to further disruption of business activities and value chains. Sectors that are directly exposed include agriculture and forestry, consumer goods and tourism. Over time, second-order effects could potentially lead to further risks and imbalances in the wider economy, although these are difficult to quantify and predict.

Shifts in regulation, technology or consumer sentiment, or other efforts to address environmental harm, may create transition risks for companies that have a large impact on biodiversity and ecosystems, such as in the agriculture, food products, energy, extractive, construction and infrastructure sectors. Regulation could, for instance, make it increasingly difficult to obtain access to land for operations or impose increased due diligence costs and non-compliance penalties for companies sourcing from environmentally sensitive areas. Changing consumer sentiment toward products associated with deforestation or other environmental harm could impact companies' revenues, and in some cases also their social license to operate.

Moreover, how many ecosystems work is still not fully understood. Some benefits to society remain unknown, and many ecosystem services are not valued in financial terms or fully incorporated into decision-making by businesses. Some companies may find business opportunities in more sustainable uses of ecosystems and genetic material, for example by developing substitutes to products with significant environmental footprints or discovering new sources of genetic material for the development of biopharmaceutical products.

Our expectations are aimed at all companies in our portfolio whose activities or value chains are materially dependent on, or affect, biodiversity and ecosystems. We wish to support companies as they develop their strategy towards more sustainable business operations. We recognise that companies relate to biodiversity and ecosystems in different ways. Although many impacts and dependencies may occur at a

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local level, we see a need for companies to address these issues through commitments at the organisational level.

As a starting point, companies should respect international agreements such as the UN Convention on Biological Diversity. UN Sustainable Development Goal 15 “Life on Land”, the International Finance Corporation’s Performance Standard 6, and the environmental principles of the UN Global Compact provide further guidance for companies. Business standards and principles in this area are still evolving, and we support further developments which contribute to improved market practices, enhanced corporate disclosure and a level playing field for companies.

As an investor, we expect companies to be transparent on how they depend on and impact biodiversity and ecosystems. For selected companies, we use such information to identify how related risks and opportunities may affect their performance and prospects, and to assess whether boards and management are taking steps to manage relevant issues. This document focuses mainly on terrestrial biodiversity. We refer to our expectations on ocean sustainability, for further detail on how companies should manage risks and opportunities related to marine ecosystems.

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A. Integrate material dependencies and impacts on biodiversity and ecosystems into strategy

- Companies should assess their direct and indirect dependencies and impacts on biodiversity and ecosystems and incorporate such assessments into their policies.
- Companies should understand the state of ecosystems they depend on for natural resources and services and assess the potential business implications of overexploitation or degradation. Companies should have a strategy to address these implications, including the business opportunities arising from more sustainable uses of natural resources.
- Companies should have a policy concerning the management of critical habitats[4] when involved in activities that may significantly impact ecosystems, with the ambition of no net loss of biodiversity.
- Companies involved in agricultural value chains should have a policy for sustainable farming, and a plan for implementation, considering elements such as integrated pest management, erosion control or other relevant agroecological practices.
- Companies should assess their direct and indirect impacts on biodiversity and ecosystems and have a strategy for managing these based on the mitigation hierarchy. They should take action to eliminate deforestation and peatland loss from their business activities and value chains by 2025 at the latest, and the conversion of other remaining natural ecosystems by 2030[5], including by adopting “no deforestation, no exploitation, no peat” policies where relevant.

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[4] We refer to critical habitats as defined in the International Finance Corporation's Performance Standard 6 and associated guidelines.
[5] Companies can consider resources such as guidance from the Accountability Framework initiative (AFi) when developing their commitments on no deforestation and no conversion, including cut-off dates.

B. Integrate material biodiversity and ecosystem risks into risk management

- Companies should identify any material physical and transition risks related to biodiversity and ecosystems and incorporate these into their risk framework, taking into account the targets of the Kunming-Montreal Global Biodiversity Framework.
- Companies should manage their dependency on natural resources and seek to ensure that the ecosystems upon which they rely can sustain their business operations. They should engage with their value chain and seek circular economy solutions.
- Companies should include biodiversity and ecosystems in their environmental impact assessments and apply the mitigation hierarchy as a framework to limit their impacts. They should adopt a precautionary approach where there is a risk of significant biodiversity and ecosystem impacts, including from pesticides, invasive species or products of genetic modification.
- Companies should disclose their processes to identify, assess and manage material risks related to deforestation and other land use changes in their own operations or supply chains. They should adopt industry standards and best practices for avoiding deforestation and land degradation, including protection of high carbon-stock landscapes and high conservation value areas.
- Companies involved in agricultural value chains should work with contract farmers and other suppliers to implement sustainable farming techniques and adhere to recognised independent certification systems that focus on improving sustainability performance for agricultural products.
- Companies should monitor whether suppliers that deliver forest-linked products[6] implement best practices for environmental management and adhere to international standards and certification systems for sustainable agricultural production and land management.

[6] Including, but not limited to, palm oil, cattle products, soybeans, timber and wood products, coffee, natural rubber, and derivatives of these commodities.

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C. Disclose material nature-related dependencies, and report associated metrics and targets

- Companies should disclose whether and how biodiversity and ecosystems form part of their strategies, policies and commitments. Where applicable, this should include goals, targets, performance against these, and action plans. Companies should align their disclosures with applicable reporting standards, and can consider the emerging recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) to guide their risk management and reporting efforts.
- Companies should disclose any ecosystems they materially depend on. They should determine the associated business risks of overexploitation or degradation.
- Companies should disclose material impacts of activities, products and services on biodiversity and ecosystems, where possible using recognised reporting methods and metrics. Companies should where practicable disclose the co-ordinates and footprint of their main operations, concessions, agricultural land banks, and oil, gas or mineral reserves, and their proximity to critical habitats and protected areas.
- Companies involved in agricultural value chains should regularly disclose information about their environmental footprint including relevant targets and progress against these. Metrics could include soil carbon content per hectare, pesticide and fertilizer use per hectare, and greenhouse gas accounting, including emissions related to land use change. Companies should also disclose if and how they adopt best practices for sustainable farming, and the effects of implementing these.
- Companies should be transparent about their supply chains, including the geographic origin of their commodities, level of traceability, volumes certified as sustainably sourced and any related targets. They should disclose information at the appropriate level of detail on sourcing from environmentally sensitive areas and be open about their processes to engage and monitor suppliers.

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D. Engage responsibly with policymakers and other stakeholders

- Companies should have policies or guidelines for engaging responsibly with policy makers and regulators on the protection of biodiversity and ecosystems and be transparent about their position on evolving regulation relevant to their business.
- Companies should disclose and regularly review memberships of trade associations, interest groups or other initiatives which perform advocacy on their behalf.
- Companies should support the development of best practice to reduce adverse impacts on biodiversity and ecosystems. They should approach nature-related regulations and policy initiatives constructively, within their financial objective.
- Companies should collaborate with stakeholders on the ground including NGOs, local communities, smallholder farmers, national and international institutions to reduce the direct or indirect effects of their operations on biodiversity and ecosystems and to realise related opportunities. Companies should respect the rights of indigenous people and local communities, including the right to free, prior and informed consent.
- Companies should respect initiatives to preserve biodiversity and ecosystems, and exercise due care in protected areas and critical habitats. They should avoid disruptive operations in internationally recognised areas such as natural UNESCO World Heritage Sites, and have adequate oversight in place to secure the impact of operations in the vicinity of such areas. Companies should avoid contributing to reductions of any Critically Endangered or Endangered Species on the IUCN Red List of Threatened Species.

Companies should support the development of best practice to reduce adverse impacts on biodiversity and ecosystems.

See our website www.nbim.no for a full and updated list of our expectations on sustainability topics. We also regularly publish our perspectives on issues such as sustainability reporting and the UN Sustainable Development Goals.

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