



Perspectives on climate change and nature

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RBC BlueBay
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Nature and why it matters to investors

Nature-derived services are important for the global economy. Research from the World Economic Forum (WEF) found that over half of the world’s Gross Domestic Product (GDP) is either moderately or highly dependent on nature and its services¹. For example, fresh water is critical to many businesses, including agriculture, mining, and food retailing; genetic diversity in nature is critical to the pharmaceutical industry; and intact wetlands and forests protect buildings and infrastructure from flooding, storms, and natural disasters.

Nature refers to the natural world. It is generally considered to consist of four realms: land, ocean, freshwater and atmosphere. Each of these differs in terms of their organization and function, and provides an important starting point for understanding how organizations and people depend, and have impacts, on nature².

The potential systemic impacts of nature-related factors are also increasingly being recognized. While not a legally binding agreement, the adoption of the Kunming-Montreal Global Biodiversity Framework (GBF) by 188 countries in December 2022 was an important development as it set out goals, targets, and expectations regarding national commitments that aim to halt and reverse nature loss³.

Despite the global economy’s dependence on nature, efforts to quantify related risks and opportunities have been constrained by a lack of consistent and reliable data and methodologies. Recent progress has been made with the release of the Taskforce on Nature-related Financial Disclosures’ (TNFD) final recommendations in September 2023⁴. The TNFD provides a voluntary framework and sector-specific guidance for the disclosure of nature-related dependencies, impacts, risks, and opportunities⁵.

¹ [New Nature Economy Report II: The Future of Nature and Business](#), World Economic Forum, July 2020.

² [Recommendations of the Taskforce on Nature-related Financial Disclosures \(TNFD\)](#), TNFD, September 2023.

³ [COP15: Nations adopt four goals, 23 targets for 2030 in landmark UN Biodiversity Agreement](#), Convention on Biological Diversity, December 2022.

⁴ [Taskforce on Nature-related Financial Disclosures \(TNFD\) Recommendations](#), September 2023.

⁵ [Additional Guidance for financial institutions](#), TNFD, September 19, 2023.

Description of nature-related impacts and dependencies

The TNFD defines nature-related risks as potential threats posed to an organization, which are linked to its (and wider society's) dependencies and impacts on nature. These can derive from physical, transition, and systemic risks, which may create a disruption in an issuer's activities or value chains, volatility in raw materials prices, adaptation costs, stranded assets, or capital destruction, among others. There are also nature-related opportunities, which create positive outcomes for organizations and nature by creating positive impacts on nature or mitigating negative impacts on nature. These include activities that avoid, reduce, mitigate, or manage nature-related risks, or that actively work to reverse the loss of nature, including through restoration or regeneration of nature, and implementation of nature-based solutions.

“Biodiversity loss presents risks to companies as it can affect value chains, increase the cost of inputs and raw materials, disrupt operations.”

Interconnections between nature and climate change

Historically, nature-related risks, including those stemming from biodiversity loss, have tended to be discussed separately from climate change. There has been growing recognition however of the interconnections between nature and climate change. Climate change contributes to water shortages, land degradation, biodiversity loss and other nature-related risks. Healthy and effectively functioning natural ecosystems absorb and store carbon emissions, and help mitigate temperature and precipitation changes, while also enabling climate adaptation. These interconnections are the basis for a growing emphasis on considering nature-related factors alongside climate change.

Biodiversity is a characteristic of nature and natural capital. It can be defined as the variety of all living species on Earth, including flora and fauna, as well as bacteria, fungi and natural ecosystems. Biodiversity loss presents risks to companies as it can affect value chains, increase the cost of inputs and raw materials, disrupt operations, result in legal fines or liabilities, and ultimately affect operations and profitability. The scale of biodiversity loss currently occurring is believed to pose a systemic risk that could affect multiple asset classes and sectors. As a result, there is increasing regulation and policy action by governments to address biodiversity loss, such as the 2023 EU regulation on deforestation-free products, which may pose additional legal or litigation risks for companies.



Nature-related impacts consider the interplay between an organization's operations and nature, and how that relationship may result in direct and indirect risks in the form of regulatory, legal, reputational, and market risks. Entities that greatly impact nature – for example, through emissions or waste – may face liability risks due to potential litigation.



Nature-related dependencies consider the extent to which a decline in an ecosystem service may present a financial risk to a business. For instance, organizations whose operations and/or revenues are highly dependent on water availability may face transition and physical risks, which can cause increased costs and/or decline in operations.



Climate change is a direct driver of biodiversity and nature loss. As temperatures rise, an increasing portion of species are put at risk of extinction. The Intergovernmental Panel on Climate Change (IPCC) estimates that up to 14% of species in terrestrial ecosystems will likely face very high risk of extinction, even if current efforts to mitigate climate change are successful. This figure increases to 29% if average global temperatures rise by 3°C from pre-industrial levels by 2100, and up to 39% if they rise by 4°C by 2100.⁶



Nature and biodiversity loss exacerbate the negative effects of climate change. This is because healthy and biodiverse ecosystems play an important role in absorbing emissions and heat, thereby helping to mitigate climate change, as well as in improving the Earth's ability to adapt to, and be resilient to natural disasters.

⁶ IPCC Report 2022: Climate Change 2022: Impacts Adaptation and Vulnerability. Intergovernmental Panel on Climate Change (IPCC), Feb 2022.

RBC GAM approach to nature

RBC GAM is encouraged by the final recommendations of the TNFD. We seek to be transparent about our views and activities and share these through insight articles and reports. We first published our perspective on climate change and nature-related risks in our [Climate Report 2022](#), and enhanced our disclosures in the [Climate Report 2023](#) to include our exposure to nature-related factors.

We may face exposure to nature-related factors through our investments in corporate issuers who are themselves exposed to these factors. For example, issuers in the following industries may face significant impacts and/or dependencies from nature: agriculture, forestry and fisheries, energy, mining, transportation, food and beverages, apparel, utilities, chemicals, manufacturing, and construction⁷. We may also face indirect exposure via our investments in sovereign issuers. For example, economies that are highly reliant on industries such as agriculture, forestry or eco-tourism may face higher risks due to economic dependence on nature-derived products and/or ecosystem services.

RBC GAM's investment teams consider material ESG factors that they determine may impact the value or price of investments, for applicable investments⁸. This may include nature-related factors such as biodiversity and land use, natural resource use, water stress, sustainable forest management and other factors, when financially material to a sector or issuer. Investment teams have their own processes for integrating material ESG factors and for determining materiality, drawing from tools like the Sustainability Accounting Standards Board (SASB)⁹ materiality matrix, internal research and resources, speaking with industry experts, and sell-side and external research. They are also equipped with data and insights to manage the risk exposure of their portfolios, with data available on a wide range of factors, including financial and nature-related factors. Investment teams integrate material ESG factors into their portfolio management decisions in a manner that complements their distinct investment approaches and mandates.

Active stewardship is also an important part of [Our Approach to Responsible Investment](#), and includes engagement with issuers and regulators, proxy voting, and collaboration with like-minded investors and associations¹⁰.



Since 2020, we have participated in the Investor Policy Dialogue on Deforestation (IPDD), which is a collaborative initiative that focuses on engaging with sovereign issuers on the issue of deforestation. Our investment teams may meet with the issuers in which we invest on an ongoing basis. The specific ESG factors we engage on differs based on several items. For corporate issuers this can include the issuers' operations, industry, size, geographical footprint, and the nature of the investment vehicle for which it is being purchased. For sovereign issuers, material ESG factors can depend on the country's status of economic, social and political development, availability of and dependence on natural resources, and potential regional issues, among other factors. Teams may also prioritize their engagement efforts based on the size of the investment and/or the level of ESG risk within the portfolio.

Voting responsibly is part of our fiduciary duty. It is our policy to exercise the voting rights of the accounts we manage in the best interests of our clients. Our proxy voting activities are governed by our [Proxy Voting Guidelines](#)¹¹ (guidelines) and applicable regional proxy voting policies, which set out procedures for administering our votes, escalating any voting issues, and identifying and managing conflicts of interest. In March 2024, we updated our guidelines to include guidance on how we evaluate nature-related shareholder proposals, and that we will generally support proposals requesting that a company disclose the organization's governance around nature-related risks and opportunities. The guidelines state that as issuers continue to advance their understanding of the materiality of nature-related factors to their businesses, they should consider related disclosures that take into consideration the TNFD recommendations and guidance.

⁷ [The Climate-Nature Nexus. An investor guide to expanding from climate- to nature- data, United Nations Environment Programme World Conservation Monitoring Centre \(UNEP-WCMC\), Finance for Biodiversity Initiative, April 2022.](#)

⁸ Certain investment strategies or asset classes do not integrate ESG factors, including but not limited to money market, buy-and-maintain, passive and certain third-party sub-advised strategies.

⁹ As of 2022, the [International Sustainability Standards Board \(ISSB\) of the IFRS Foundation assumed responsibility for the SASB Standards.](#)

¹⁰ In certain instances involving quantitative investment, passive and certain third-party sub-advised strategies, there is no direct engagement with issuers by RBC GAM.

¹¹ For applicable regions. Our custom Proxy Voting Guidelines are applied in Canada, the U.S., the UK, Ireland, Australia, and New Zealand. In all other markets, RBC GAM applies Institutional Shareholder Services (ISS) local proxy benchmark voting policies.

Overview of RBC GAM's commitments and actions related to nature and biodiversity



Build knowledge and understanding of potential material risks that nature-related factors, and biodiversity loss specifically, may pose.

- **We share our views through ESG insight articles.** To date, we have published articles on the [interconnections between climate change and biodiversity](#), [investor perspectives on biodiversity and COP15](#), and a [new year for nature](#).
- **Updated Our Approach to Climate Change** in 2022 to include a commitment to continue assessing the role of land use dynamics in climate change mitigation and adaptation.
- **Participated in the United Nations PRI delegation at COP15**, the United Nations Convention on Biological Diversity's global conference.



Identify and assess the materiality of nature-related risks to Investments, from the perspective of both impacts and dependencies, guided by the recommendations of the TNFD.

- **Continue to evaluate data and tools** for assessing exposure to nature-related risks, opportunities, impacts and dependencies.
- **Assessed and disclosed** exposure to TNFD priority sectors, and the associated nature-related impacts and dependencies in our [Climate Report 2023](#).
- **Used location-based data** to identify corporate issuers operating in biodiversity sensitive locations, and assessed whether they have been involved in biodiversity-related controversies. We shared this analysis in our [Climate Report 2023](#).



Continue to work collaboratively with other investors on nature-related issues through industry initiatives, and to use engagement and thoughtful proxy voting on topics, where relevant¹².

- **Participate in collaborative initiatives focused on nature.** This includes our continued support of the IPDD, the Farm Animal Investment Risk & Return (FAIRR) and the workstream of the Emerging Markets Investors Alliance (EMIA), which is focused on deforestation by food producers.
- **Our proxy voting activities** are governed by our [Proxy Voting Guidelines](#), which include voting guidelines on nature-related factors such as an issuer's impact on the environment (e.g., toxic emissions, water risks, environmental liabilities). We vote our shares independently and review these on a case-by-case basis and in line with our guidelines. The guidelines were updated in March 2024 to provide greater clarity on how we vote on issues related to nature-related risks.
- **Conduct individual engagements with issuers on nature-related topics, as appropriate.** For example, the RBC emerging markets equity team has conducted a biodiversity-related review of issuers in which they are invested, and conducted engagements on this topic with issuers.



Provide transparent reporting and continue to enhance disclosures.

- **First published our perspective on climate change and nature-related risks** in our Climate Report 2022, and enhanced our disclosures in the [Climate Report 2023](#) to include our exposure to nature-related factors.
- **RBC GAM is encouraged by the final recommendations of the TNFD.** In our Climate Report 2023 we disclosed the two core metrics recommended for asset managers by the TNFD¹³.

¹² In certain instances involving quantitative investment, passive and certain third-party sub-advised strategies, there is no direct engagement with issuers by RBC GAM.

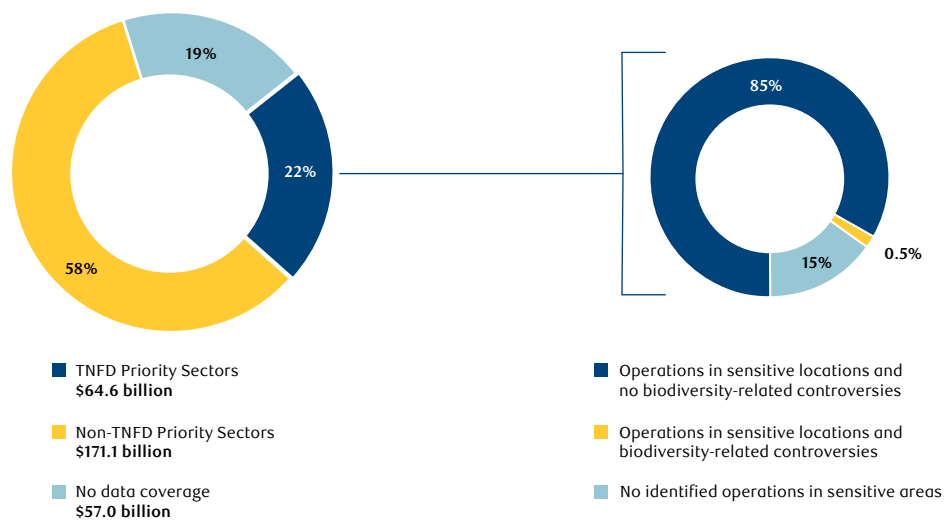
¹³ [Additional Guidance for financial institutions, TNFD](#), September 19, 2023.



RBC GAM's assessment of exposure to nature-related factors

RBC GAM continues to take steps to build our knowledge and understanding of material risks that nature-related factors may pose to investments. In 2023, we assessed the exposure of our equity and corporate fixed income investments to nature-related dependencies and impacts for priority sectors, which is a core metric for asset managers recommended by the TNFD¹⁴. This analysis showed that 22% (\$US64.6 billion) of RBC GAM's equity and corporate bond holdings are in TNFD priority sectors¹⁵. However, exposure to a TNFD priority sector is not necessarily indicative of the potential risk that issuers in that sector may face. As such, we also assessed whether issuers in these sectors have operations in sensitive locations, or biodiversity-related controversies¹⁶. For assets invested in TNFD priority sectors, 85% may have operations in sensitive locations. However, only 0.5% have also been involved in biodiversity-related controversies¹⁷.

RBC GAM equities and corporate bond investments in TNFD priority sectors, and operations in sensitive locations and/or with biodiversity-related controversies¹⁸



Source: RBC Global Asset Management as at December 31, 2023

¹⁴ [Additional Guidance for financial institutions, TNFD, September 19, 2023.](#)

¹⁵ We categorized our corporate holdings into sixteen TNFD priority sectors, based on the corporate entity's Nomenclature of Economic Activities (NACE) Class Code for the highest revenue earning activity. See [RBC GAM Climate Report 2023](#) for scope of analysis.

¹⁶ [Identification of sensitive locations is based on MSCI Biodiversity-Sensitive Areas and Deforestation Screening Metrics, which identify companies with operations in ecologically sensitive areas or with exposure to potential direct and indirect involvement in deforestation, using location-based data.](#) Operations in sensitive areas are defined as companies with three or more known physical assets in Biodiversity Sensitive Areas denoted as either being healthy forests, intact biodiversity areas, prime areas for conservation or deforestation fronts. Operations in sensitive locations and biodiversity-related controversies are defined as companies that report having operations located in or near to biodiversity sensitive areas and have been implicated in controversies with a severe or very severe adverse impact on the environment. All data as at December 31, 2023, RBC GAM analysis based on MSCI ESG Research, MSCI®.

¹⁷ [TNFD priority sectors based on Additional Guidance for financial institutions, TNFD, September 19, 2023.](#) All data as at December 31, 2023, RBC GAM analysis based on MSCI ESG Research, MSCI®.

¹⁸ See [RBC GAM Climate Report 2023 for scope of analysis, RBC GAM analysis, based on MSCI ESG Research, MSCI®.](#)

To better understand the materiality of nature-related dependencies and impacts for investments in priority sectors we used the Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) tool. Based on this analysis, the most significant nature-related impact of these investments across all sectors is related to pollution, and the most significant dependency is on water quality and availability. It is worth noting that the materiality of any risks related to this exposure is influenced by the actions taken by issuers to mitigate the risk and if, or how, this affects the valuation or price of securities.

RBC GAM equities and corporate bond investments in TNFD priority sectors, and nature-related impacts and dependencies¹⁸

TNFD priority sectors	AUM of equities and corporate bonds	Nature-related impacts					Nature-related dependencies					
		Climate Change	Change in land and sea use	Natural resource use	Pollution	Legend	Climate and air quality	Raw materials	Pollution and erosion control	Water quality and availability	Habitat and Biodiversity	Legend
Automobiles						Higher Impact ↑ ↓ Lower Impact						Higher Dependency ↑ ↓ Lower Dependency
Beverages and food products*												
Chemicals												
Construction materials												
Construction services**												
Containers and packaging												
Metals and mining												
Oil, gas, and consumable fuels												
Paper and forest products												
Personal care products												
Pharmaceuticals												
Semiconductors and semiconductor equipment												
Sewerage, waste collection, treatment & disposal												
Textiles, apparel and luxury goods												
Transport and associated services***												
Utilities****												

*includes agriculture

**includes manufacture of metal products

***includes passenger airlines

****including electric utilities, gas utilities, independent power and renewable electricity producers, and water utilities

Source: RBC Global Asset Management as at December 31, 2023

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¹⁹ The ENCORE tool is maintained and updated by Global Canopy, UNEP FI and UNEP-WCMC. Accessed February 7, 2024.

²⁰ See RBC GAM Climate Report 2023 for scope of analysis. Link: [RBC GAM analysis, based on ENCORE data](#). Nature-related impacts and dependencies are defined as per ENCORE but grouped based on RBC GAM analysis. RBC GAM groupings (with ENCORE categories in parenthesis) are as follows. For nature-related impacts: Climate Change (GHG Emissions), Land and water use (Freshwater ecosystem use, marine ecosystem use, terrestrial ecosystem use), Natural resource use (Water use, other resource use), Pollution (Disturbances, non-GHG air pollutants, Solid pollutants, Solid Waste, Water pollutants). For nature-related dependencies: Climate and air quality (Climate regulation, Filtration, Ventilation), Raw materials (animal-based energy, Fibers and other materials), Pollution and erosion control (Buffering and attenuation of mass flows, Bio-remediation, Dilution of atmosphere and ecosystems, Mediation of sensory impacts, Flood and storm protection, Mass stabilization and erosion control), Water quality and availability (Ground water, Surface water, Water flow maintenance, Water quality), Habitat and Biodiversity (Genetic materials, Pollination, Disease control, Pest control, Maintain nursery habitats, and soil quality).

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