

Increasing Focus on Biodiversity-Related Financial Risk Presents New Challenges and Opportunities in Energy and Infrastructure

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Climate change has held the spotlight as energy and infrastructure companies, investors and regulators have increased their focus on environmental, social and governance (“ESG”) topics.¹ However, the related topic of biodiversity loss has recently entered the stage and begun to rise on the agenda of policymakers and investors.

Here, we provide background on biodiversity loss and the risks it poses to the energy and infrastructure sector, as well as recent steps taken by policymakers, investors and lenders to push companies to assess and mitigate those risks. We also examine recent developments from the UN Biodiversity Conference (“COP-15”) that appear likely to feed this push. We conclude by identifying steps that energy and infrastructure companies can take to understand nature- and biodiversity-related risks and opportunities associated with their assets and operations.

Background on Biodiversity Loss and Risks to the Energy and Infrastructure Sector

The global stock of natural resources – such as water, minerals and the organisms that make up the world’s ecosystems – are collectively described as “natural capital.” Earth’s natural capital provides economic value in the form of “ecosystem services,” which are benefits provided to humans by healthy, functional natural systems, such as air purification, carbon sequestration, medicinal resources, pollination, detoxification, production of raw materials, flood control and many others.

“Biodiversity,” a metric used to describe the diversity of organisms or biotic

communities in a given place, is a foundational component of the world's natural capital. Ecosystems with high biodiversity are more functional, productive and resilient,² and thus more capable of providing the ecosystem services upon which the global economy relies. [Research](#) by the World Economic Forum shows that \$44 trillion of economic generation – over half the world's GDP – is directly dependent on natural capital and the ecosystem services it provides.

However, global economic activity is driving biodiversity loss – which is irreversible once a species goes extinct – at an unprecedented rate through activities such as overfishing, deforestation and unsustainable agricultural practices, putting this natural capital at risk. The World Wildlife Fund recently [found](#) that global populations of mammals, birds, amphibians, reptiles and fish declined 68% between 1970 and 2016, and that 75% of the Earth's ice-free land surface has been significantly altered by human activities, with energy and infrastructure among key drivers of this change.

The World Bank [projects](#) that biodiversity loss could cause a \$2.7 trillion loss of global GDP by 2030. Although this risk could manifest across all industries, the energy and infrastructure sector could be particularly vulnerable due to its large land-use footprints, reliance on natural resources, and subjectivity to regulatory and investor-driven pressures to align business practices with the mitigation of biodiversity loss. For example, the Finance for Biodiversity Initiative [estimates](#) that market valuations for global built infrastructure are “inflated by trillions of dollars” due to an exclusion of biodiversity-related factors from risk analyses. These and other studies are contributing to a push to require businesses to internalize costs related to biodiversity losses on their balance sheets.

For energy and infrastructure businesses, costs from biodiversity loss flow from two primary categories of risks: (i) physical risks arising from *dependencies* on biodiversity and (ii) transition risks arising from policy, legal, technological or market responses to a company's *impact* on biodiversity.

Examples of **physical** risks include:

- Supply chain disruptions and price volatility as resources such as timber and fresh water – which rely on healthy, diverse forest ecosystems to replenish – become scarcer; and
- Destruction or devaluation of real assets due to forces linked to biodiversity loss, such as increased erosion or wildfire.

Physical risks can be both event-driven (acute) or longer-term (chronic).

Examples of **transition** risks include:

- Increased maintenance and monitoring costs as a result of more stringent regulations;
- Denial of development permits due to land conservation initiatives; and
- Reputational harm from biodiversity-related community opposition, litigation or regulatory enforcement.

Below, we outline recent policy, regulatory, soft law and voluntary initiatives pushing energy and infrastructure companies to take stock of their dependencies and impacts on biodiversity.

Increasing Attention to Biodiversity Loss

Policy and Regulatory Initiatives

Halting biodiversity loss is a component of Sustainable Development Goal 15 (Life on Land), and policymakers are increasingly focused on nature-related issues. For example, in January 2021, President Biden issued an [executive order](#) establishing the goal of preserving 30% of U.S. lands, freshwater and oceans by 2030. This goal has broad international support; in September 2021, the [High Ambition Coalition for Nature and People](#), an intergovernmental group representing 72 countries, committed to a worldwide “30 by 30” target. This and other biodiversity policy goals are beginning to influence financial regulations, in addition to more traditional environmental laws, such as the National Environmental Policy Act and the Endangered Species Act, that require consideration and mitigation of biodiversity impacts associated with certain projects.

For instance, the EU’s Taxonomy regulation includes “protection and restoration of biodiversity and ecosystems” as one of its six objectives, meaning funds and other financial products seeking to brand themselves as “environmentally sustainable” within the meaning of the Taxonomy cannot significantly harm this objective. Making this determination typically involves conducting an environmental impact assessment based on existing EU regulation. The [Taxonomy Pack](#) recently published by the Platform on Sustainable Finance (“PSF”) notes that: (i) the technical screening criteria for those funds that seek to substantially contribute to protection of biodiversity may need to set ambition levels by ecosystem, by reference to a baseline (particularly for restoration) and (ii) terms such as “good ecological condition” will need to be defined.

The PSF articulates a stepwise approach to determine if an activity can make a substantial contribution to biodiversity, whether, for example, through directly maintaining or improving the condition of an ecosystem, or through enabling the sustainable use of or reduction of existing pressure on a managed ecosystem.³

Additionally, on October 8, 2021, the U.S. Federal Reserve and other central banks and financial supervisors composing the [Network for Greening the Financial System](#) released a [report](#) outlining potential financial risks posed by biodiversity loss and recommending that financial institutions take steps to assess and disclose those risks for the companies in their debt and equity portfolios. As the report outlines, recent movement in public and private markets indicates that these types of disclosures are gaining traction, and therefore it may be advantageous for energy and infrastructure firms and their stakeholders to begin to proactively assess their biodiversity-related risk profiles.

Several central banks and supervisors have begun to incorporate nature-focused financial risk into their assessments, including:

- The **European Central Bank** outlining [supervisory expectations](#) covering biodiversity-related risk management and disclosure;
- Inclusion or mention of biodiversity or nature conservation in the risk management directives from the central banks of **England, Malaysia, Morocco** and **Singapore**; and
- The **Swiss National Bank's** [refusal](#) to hold bonds from companies with high biodiversity-related impacts.

Soft Law and Voluntary Initiatives

There have also been significant developments among private lenders to address biodiversity-related financial risks throughout their portfolios. For example, to date, over 125 financial institutions from 37 countries have adopted the [Equator Principles](#), a risk assessment and disclosure framework for managing environmental and social risk in five financial products that are critical to the energy and infrastructure sector:

- Project finance;
- Project-related corporate loans;
- Bridge loans;
- Project-related refinance and acquisition finance; and
- Project finance advisory services.

Originally issued in 2003, the Equator Principles have long required lenders to assess biodiversity risks. The most recent update, effective as of October 2020, requires that project sponsors disclose project-specific biodiversity data, which is incorporated into the lender's categorization of the project's climate- and nature-related risk exposure.

Furthermore, as of October 2021, 75 financial institutions with nearly \$14 trillion in assets have signed the [Finance for Biodiversity Pledge](#), committing to reporting the biodiversity-related impacts of their lending and investment activity before 2025 and engaging with companies to set impact reduction targets. The signatories include major asset managers and energy and infrastructure financiers such as HSBC, AXA Group, STOA Infra & Energy, Allianz France, Amundi and Manulife.

Such initiatives may be helping to drive an increase in shareholder resolutions on topics related to biodiversity, such as plastic waste and deforestation,⁴ and at least one commentator has [predicted](#) that biodiversity disclosure could become a mainstay of shareholder proposals during annual meeting season.

Moves toward enhanced nature-related reporting for companies receiving loans and investment have driven demands for more unified biodiversity risk disclosure standards. Recently, the [Taskforce on Nature-Related Financial Disclosures](#) ("TNFD") began work to develop a framework for assessing entities' current economic dependencies on nature and the long-term business risks posed by changes to natural systems, analogous to the influential framework created by the Task Force on Climate-related Financial Disclosures.

The TNFD was formally launched in June 2021, and its members include executives from BlackRock, BNP Paribas, HSBC, UBS, Swiss Re and Bank of America. The Taskforce expects to deliver its recommendations in 2023, which it hopes will be integrated into evolving regulatory and voluntary sustainability reporting standards. The TNFD may draw on existing efforts to create biodiversity reporting standards at organizations such as [CDSB](#), the [Science Based Targets Network](#) and the [Align Project](#).

Company Responses

In response to these developments, many companies have started taking action to assess and disclose their impacts and dependencies on global biodiversity. A 2021 [study](#) of the 100 largest companies in the U.S. and Europe found that 32% are disclosing on biodiversity initiatives within their business operations. In 2020, almost 700 companies [reported to CDP](#) their impacts on deforestation, a key driver of biodiversity loss, with 93% of reporting firms taking industry-specific steps to address

deforestation. Furthermore, CDP recently announced it will be expanding its disclosure platform to specifically include more elements of natural capital, such as freshwater, agricultural systems and biodiversity.

Despite these recent initiatives, May 2021 [research](#) from ISS finds that about 90% of companies in construction, metals and mining, oil and gas, and real estate do not have robust procedures in place for managing biodiversity risk, and a December 2020 [report](#) from KPMG finds that less than a quarter of large companies at significant risk from biodiversity loss disclose on the topic.

COP-15: Recap and Expectations

From October 11 to 15, representatives from more than 100 countries met remotely for the first session of COP-15, which featured several biodiversity-related announcements and pledges that are likely to add fuel to the trends noted above.

Most prominently, all attendees unanimously adopted the [Kunming Declaration](#), which sets high-level goals related to reversing biodiversity loss and commits signatories to supporting a Post-2020 Global Biodiversity Framework. This framework, due to be adopted during the second session of COP-15 in May 2022, is expected to lay out the regulatory and financial measures necessary to meet the Kunming Declaration's stated goals, including a pledge to phase out subsidies for projects and activities that harm biodiversity as part of an overarching effort to align all financial flows with supporting biodiversity. Notably, a June 2021 [draft](#) of the Post-2020 Framework includes support for a global "30-by-30" conservation target and encouragement that "all businesses [regardless of size] assess and report on their dependencies and impacts on biodiversity."

COP-15 also featured monetary commitments from several governments toward the broad objective of protecting global biodiversity. China, Japan, the United Kingdom and the European Union collectively pledged more than \$1 billion toward the funding of nature-friendly projects, and the private-sector signatories of the Finance for Biodiversity Pledge reiterated their commitment to align their investments and lending with the protection and restoration of biodiversity.

Actions That Energy and Infrastructure Companies Can Take To Address Rising Expectations With Respect to Biodiversity

There are several steps that companies in the energy and infrastructure sector can take to assess and help navigate the risks posed by biodiversity loss and stay ahead of investor, lender and regulatory initiatives. These include:

- **Carefully assess physical and transition biodiversity risks for existing projects and operations.** Although there is not yet a single, authoritative framework for biodiversity risk assessment, organizations can work with existing tools to understand the risks posed to supply chains, operations, leasing, financing terms and other core business components exposed to such risks. These tools include the [Integrated Biodiversity Assessment Tool](#), developed by the UN and a consortium of nonprofits to help companies assess a project's impact on biodiversity and possible conflicts with regulatory protections.
- **Benchmark biodiversity disclosures within existing frameworks and monitor evolving requirements.** Understanding where an organization sits relative to its industry peers can be helpful for developing a strategy for assessing and disclosing biodiversity-related risks and opportunities. Companies can use existing disclosure frameworks to compare their performance against peers and refine their strategies, while also keeping track of regulatory and market changes such as the TNFD.
- **Prepare for biodiversity data gathering and disclosures.** Monitoring and disclosure of biodiversity-related data may increasingly become the market practice. To that end, companies should consider whether developing strong governance systems and processes for biodiversity data gathering, monitoring and reporting may pose a market advantage for them as an early mover or whether it is ultimately likely to become a regulatory or investor mandate as a result of that company's or project's unique features. In particular, if seeking project-level financing in connection with an energy or infrastructure project, companies can start collecting data on biodiversity impacts to satisfy any potential lender requirements vis-à-vis the Equator Principles.
- **Consider the opportunities presented by providing for biodiversity conservation in new projects.** Taking steps, such as sustainably sourcing raw materials, performing comprehensive environmental assessments of potential project areas and utilizing low-impact building practices, can reduce an organization's impact on biodiversity and also enable it to take advantage of existing and potential incentives in place for green infrastructure. In recent years, large amounts of public and private capital have been pledged toward initiatives to help slow or reverse biodiversity loss, and aligning projects with these goals could help to secure favorable financing and insurance terms, among other benefits.

We will continue to monitor developments in biodiversity risk disclosure frameworks and regulations, and we intend to provide an update on this topic after the second session of COP-15 in May 2022.

Tony Moller provided valuable research and drafting assistance in support of this post.

1. We discussed the rise of ESG in the energy and infrastructure sector in a [June 2020 blog post](#), and in a more recent [Alert](#), we discuss increasing focus by investors and policymakers on climate change and provide suggestions relevant to energy and infrastructure companies on how to respond to potential increased enforcement and disclosure obligations related to climate change by the U.S. Securities and Exchange Commission ("SEC").↩

2. Tilman, David, et al. "The influence of functional diversity and composition on ecosystem processes." *Science* 277.5330 (1997): 1300-1302.

Hooper, David U., and Peter M. Vitousek. "The effects of plant composition and diversity on ecosystem processes." *Science* 277.5330 (1997): 1302-1305.↩

3. The PSF refers to scope for offsetting or compensating for an impact incurred by a particular activity by implementing another activity that helps to mitigate that same impact, but cautions that offsetting must ensure no net loss of biodiversity, lead to ecological equivalence and be additional, permanent, verifiable and enforceable. The PSF also indicates that offsetting cannot wholly mitigate economic activities that cause significant harm to biodiversity.↩

4. According to a September 2020 [paper](#) by the Principles for Responsible Investment, proxy voting on biodiversity-specific issues is uncommon, but related topics such as plastic waste and deforestation increasingly feature within shareholder resolutions.↩

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Suggested Reading

- 17 July 2022 Energy Blog Commerce Department Issues Proposed Rule Suspending Solar Tariffs
- 22 June 2022 Energy Blog FERC Order Revokes Solar Facility's QF Status
- 11 May 2022 Energy Blog New Framework Announced for Assessing and Reporting Nature-Related Financial Risks

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