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Biodiversity and finance: The future of green capital in four trends

By Yann Verstraeten, Jerome Kisielewicz, ICF

Introduction: Nature is capital

Biodiversity is the abundance, heterogeneity, diversity of life on earth, as well as the complex relationships that exist between living species. It includes vital, often invisible services critical to life on our planet, such as pollinating, decomposing, and filtering. Biodiversity is key to the processes governing ecosystems that represent our capital goods—processes upon which our very humanity depends.

Failing to include biodiversity in businesses' decision-making eventually will be detrimental to the financial sector's bottom line. The total global value of ecosystem services amounts to between $125 trillion and $140 trillion per year, equivalent to 1.5 times the volume of global GDP[1]. It is, therefore, crucial to better understand and measure our impact and dependencies on biodiversity so we can start taking impactful measures to reduce negative impacts and generate biodiversity-positive economic activities.

What would be the impact on the financial sector should a system like this collapse?

Financial systems are linked indirectly to biodiversity through investment activities in two ways, often referred to as double materiality[2].

- **Nature provides "ecosystem services" to society and the economy, such as fresh water and crop pollination. Any decline in biodiversity would pose a "physical risk" to the business sectors and the financial institutions.**
- **Firms have an (often negative) impact on biodiversity, which is detrimental to society and the economy. These impacts can also be material for businesses and the institutions financing them.**

As awareness around biodiversity becomes more widespread, and measures to protect it more enforced, any company with a negative impact on biodiversity that has not taken appropriate measures can suffer "transition risks" (such as a policy change in response to nature loss). France, for example, will require portfolio management companies to disclose information on climate change risks and biodiversity risks as of 2022[3].

"As humanity increases its pressure on Earth, we are now crossing irreversible tipping points," warn Sir David Attenborough and Johan Rockström, in their recently launched Netflix documentary "Breaking Boundaries: The Science of Our Planet." To stop the domino effect of planetary changes, time is scarce—barely a decade, according to experts. All social actors must unite to raise the ambition level and speed up our societal transition.

As worldwide momentum gathers around biodiversity, and as investors wake up and put increased attention and interest to this new topic, we see four trends emerging. Both public and private actors, with support from science, can help each other become nature positive by 2030[4]. But these four trends will need to be adopted at scale for the sector to become resilient and for biodiversity loss to be reversed.

Here is what we can do if we act now:

Trend 1: Setting targets and commitments

In the wake of a global pandemic, the need to create a global biodiversity framework is more critical than ever. The Convention on Biological Diversity—the multilateral agreement signed in 1992 and later ratified by 195 countries (except, notably, the United States)—is designed to protect, sustainably use, and equitably share the diversity of plant and animal species. The goals of the 15th Conference of the Parties (COP15) is to develop a global, outcome-oriented framework for the development of national goals and shorter-term targets for 2030.

The "planetary boundaries" framework has become an important topic recently and has guided the global policy discourse. The framework is based on the scientific observation that human activities are the main drivers of global environmental changes. It identifies 10 planetary boundaries that have to be respected to maintain our safe operating space. Some scientists, activists, policymakers, and pioneering businesses have argued that one of the main reasons for failing to achieve our global environmental targets has been the lack of a measurement framework capable of ensuring our actions are ambitious enough to remain within the planetary limits of our Earth systems[5].

[1] https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/article-costanza-et-al.pdf

[2] https://www.lse.ac.uk/granthaminstitute/news/double-materiality-what-is-it-and-why-does-it-matter/

[3] https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000039355955/

[4] https://www.icf.com/insights/environment/biodiversity-for-corporate-sustainability

[5] https://qrius.com/we-lack-a-global-framework-for-saving-our-environment-heres-how-we-change-that/

While it might seem more difficult to translate the global understanding of nature into concrete actions than the global understanding of climate, there exist various methods for a transition that address constraints for societal actors (i.e., companies or governments).

These methods include:

- **The footprint approach,** which reduces the biodiversity impact of intensively producing farms or increases the share of regenerative agriculture
- **The place-based approach**, such as promoting "no absolute loss" of the African savannah or increasing the share of protected areas in a given region
- **The safe operating space approach**, which defines safe operating spaces in rangelands, wetlands, the Atlantic forest, and other environments

What you can do

The main message businesses should leave: Don't wait for the perfect answer to translate global biodiversity targets to your level. Instead, start establishing targets and make commitments based on the latest scientific evidence. Doing so will provide the framework necessary to take meaningful actions. There are plenty of existing tools and frameworks to help you plan your transition today. These include tools to identify your material biodiversity issues (value chain mapping), as well as your local biodiversity ambition levels and boundaries.[6]

Collaborate with other stakeholders within your landscape and seek partnerships and support from experts to get ahead of any potential challenges. Leading financial institutions, like those signing the Finance for Biodiversity Pledge,[7] are already doing this.

Trend 2: Measuring impacts

The landscape of biodiversity measurement approaches is rapidly evolving, with the development and piloting of a multitude of tools. For example, the Biodiversity Measurement Navigation Wheel is a decision framework to help businesses see the advantages and disadvantages of established and piloted tools.[8] It is a fast-track approach that relies on easy-to-use tables and highlights the possibility of combining different approaches and metrics.

The trend for measurement is clear: We are to move towards more scientifically robust approaches aligned with global biodiversity indicators. There is no single indicator to measure biodiversity impact and dependencies from a business perspective. Every financial organization will use a variety of tools according to the nature of their business, their application, and other factors. You need a smart combination of tools that lean toward a dashboard approach that allows you to see the bigger picture—one adapted specifically (in this case) for the financial sector. Measurement objectives also drive data collection.

The need for business to account requires putting in place appropriate methods and techniques to measure and value their impacts and dependencies on biodiversity, and to then integrate that measurement into their own accounts.

What you can do

Use the existing guide and overview of tools outlined by the European Commission's business and biodiversity platform.[9] Review existing case studies to understand the practicalities of the different approaches and identify your organizational focus areas. This will help you identify where you need to start so you can pilot these tools within your organization. Also, reach out to your peers, who can help you gain insight and can offer support in your endeavors to enact real change through accurate measurement.

[6] https://www.am.pictet/en/uk/global-articles/2020/expertise/thematic-equities/planetary-boundaries-and-environmental-footprint-of-businesses

[7] https://www.financeforbiodiversity.org

[8] https://ec.europa.eu/environment/biodiversity/business/news/news-277_en.htm

[9] https://ec.europa.eu/environment/biodiversity/business/news/news-283_en.htm

Trend 3: Measuring dependencies, reporting, and disclosing risks

Natural risks lead to financial risks. Biodiversity loss negatively affects institutions through the (in)direct dependency of the activities they finance. Physical risks, such as climate change or the introduction of an invasive species, can disrupt the value chain or result in raw material price volatility. Transition risks will hit a company's bottom line before physical risks. For example, an increase in new protected areas may lead to more stringent business rules.

Investors have a responsibility to measure the performance (both positive or negative) of their investments on biodiversity, along with other screening criteria. Ultimately, this will help business accountability through tracking and disclosing their impacts and dependencies. Other advantages from standardizing include clarifying which data you need to support different approaches, linking different sectors, and allowing comparisons between companies.

Central banks now recognize that biodiversity loss has implications for financial stability. This in itself is a sign of progress in the mindsets of financial regulators. Such recognition led to the International Network for Sustainable Financial Policy Insights, Research, and Exchange's (INSPIRE) joint research project with the Network for Greening the Financial System (NGFS), which seeks to better understand the impact of finance on the provision of key ecosystem services as well as the consequences of biodiversity loss for financial stability.[10]

The European Commission has also created a framework to define what to label "green" and what not to. By identifying economic activities that can be considered sustainable the EU Taxonomy for Sustainable Activities promotes the transparency of green activities so investors can make informed decisions and avoid greenwashing. While the EU Taxonomy already covers activities positively contributing to climate mitigation and adaptation, the European Commission is currently working on the biodiversity objectives with the Platform on Sustainable Finance. This approach promotes a very important element to risk reporting: businesses taking responsibility. It is becoming increasingly apparent that the financial sector needs to get ahead of the climate and biodiversity crisis and take responsibility so green investments can go to the right places. Understanding the importance of integrating biodiversity into decision-making has come at a critical time.[11]

The European Commission also adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD). This represents a significant milestone in implementing the European Union's biodiversity strategy, and for integrating biodiversity and natural capital with business. The proposal means companies covered will be obliged to report on biodiversity and natural capital in their sustainability reporting.

What you can do

Use the existing framework to screen your investments and identify which ones already support sustainable activities, and which ones support actors and companies that still need to transition to development pathways aligned with our planetary boundaries. Afterward, you can start engaging with them to support that transition and ensure they deploy the right science-based approaches and strategies, thereby limiting your own risk exposure.

Trend 4: Making pro-biodiversity investments

Investing in nature can yield higher returns. As outlined, biodiversity in decline means an unstable economical future, with physical and transition risks affecting a company's bottom line. That said, the other side of the coin remains. Investing in green means investing for the future, with a move away from depletable resources being the obvious first step.

[10] https://www.ngfs.net/sites/default/files/medias/documents/ngfs_and_inspire_launch_a_joint_research_project_on_biodiversity_and_financial_stability.pdf

[11] https://www.icf.com/insights/environment/green-finance-embedding-climate-considerations

According to the International Monetary Fund, "spending on clean energy, like solar and wind, and nature conservation has an impact on GDP that is about 2 to 7 times stronger—depending on the technology and the horizon under consideration—than spending on non-eco-friendly energy sources like oil, gas, and coal and unsustainable land use like industrial agriculture."[12]

Pro-biodiversity investments are also a critical step towards a climate solution. There is a huge market potential here, with only 5% of climate financing currently directed toward nature-based solutions. Being a climate action leader provides a good base to act on biodiversity risks and opportunities, and vice versa. Restoring only 15% of converted lands in priority areas could avoid 60% of expected extinctions while sequestering 299 GT of CO2 equals 30% of the total CO2 increase in the atmosphere since the Industrial Revolution.

What you can do

Investing in biodiversity should be thought of as the new frontier for responsible investors. While identifying appropriate investments remains a challenge, the asset class is growing.

For example:

1. The Natural Capital Financial Facility hopes to generate more than €400 million in new nature conservation blended investments by 2021.[13]
2. Mirova's €300 million Land Degradation Neutrality (LDN) Fund is a first-of-its-kind investment vehicle leveraging public and philanthropic money to raise private capital for land rehabilitation and sustainable land projects.[14]
3. HSBC's Pollination Climate Asset Management is set to become the world's largest natural capital manager and first large-scale venture to mainstream natural capital as an asset class since its launch in 2021 (subject to regulatory approval). The fund will look to raise $1 billion and invest in a diverse range of projects that will preserve, protect, and enhance nature over the long term.[15]
4. Edmond de Rothschild's Moringa Fund is an €84 million investment fund for large-scale agroforestry projects with high environmental and social impacts in Latin America and sub-Saharan Africa.[16]

As an investor, you should make sure your ESG policy properly captures biodiversity-related objectives. You then have a key role to play in creating a scalable and steadily increasing demand for pro-biodiversity investment opportunities by engaging with these new funds and vehicles and your existing investors. This will contribute to the further development of the natural capital asset class.

[12] https://www.imf.org/en/Publications/WP/Issues/2021/03/19/Building-Back-Better-How-Big-Are-Green-Spending-Multipliers-50264

[13] https://www.eib.org/en/products/mandates-partnerships/ncff/index.htm

[14] https://www.unccd.int/actions/impact-investment-fund-land-degradation-neutrality

[15] https://www.assetmanagement.hsbc.co.uk/en/institutional-investor/news-and-insights/climateassetmanagement-uk

[16] https://www.moringapartnership.com/moringa/

Biodiversity and the new era of green thinking

There are various factors why biodiversity is picking up momentum among companies, including in the financial sector.

First, biodiversity is being altered to an unparalleled degree. The figures speak for themselves:

75% of the land surface and 66% of oceans are significantly altered

85% of wetland areas have been lost

25% of species are threatened with extinction in the next decade[17]

It's a stark image, and it doesn't only affect our future on this planet. The recently launched Dasgupta Review tells us that ecosystems, like produced capital, depreciate if they're misused. **But they differ from produced capital in three ways:**

1. **Depreciation is in many cases irreversible (or, at best, the systems take a long while to recover)**
2. **It is not possible to replicate a depleted or degraded ecosystem**
3. **Ecosystems can collapse abruptly, without much prior warning.[18]**

Another key factor in the uptake of green thinking has been the almost overwhelming tide of public opinion.

British natural historian and nature documentary filmmaker Sir David Attenborough released his "witness statement" film, "David Attenborough: A Life on Our Planet." In it, he details his concerns over personally witnessing the decimation of natural species and biodiversity in his own lifetime of broadcasting. He released the film as a rousing call to action. On humanity, he states: "The fact is that no species has ever had such wholesale control over anything on Earth, living or dead, as we now have. That lays upon us, whether we like it or not, an awesome responsibility."[19]

Johan Rockström, director of the Potsdam Institute for Climate Impact Research, explains "the most important scientific discovery of our time" in his documentary, "Breaking Boundaries: The Science of Our Planet." The Netflix documentary, which also stars Sir David Attenborough, details the nine natural processes upon which all life on Earth depends, and the limits within each that we cannot exceed without endangering humanity. As of the time of this writing, the video—and its message—is a viral sensation.

The COVID-19 pandemic also served to highlight the fragility of our relationship with nature and emphasized the need for national and corporate COVID-19 recovery plans. With the United Nations expected to agree on global biodiversity goals at its Convention on Biodiversity in 2021 (COP15), it's critical these plans make provisions for biodiversity protection and restoration around the world.

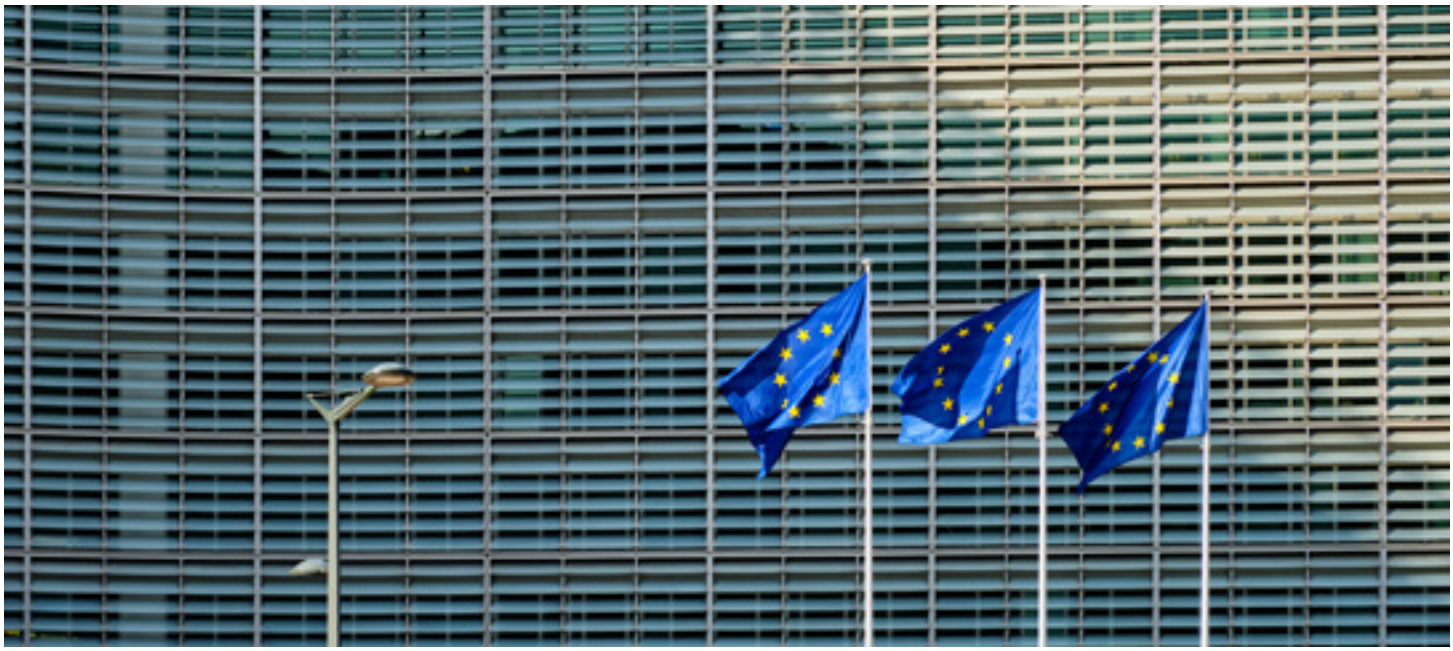
From this, it's clear that a global "eco-awakening" is here. Social media, an accessible platform for many, is alight with biodiversity and climate issues; Twitter has seen a 65% increase in the number of posts related to nature loss and biodiversity since 2016.[20] The trend seems to be that more and more people want to stay informed, and to hold businesses and governments more and more accountable.

[17] https://www.ipbes.net/node/37466

[18] https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review

[19] https://www.independent.co.uk/climate-change/sustainable-living/david-attenborough-sustainability-environment-quotes-b1843859.html

[20] https://explore.panda.org/eco-wakening



Changing investor perceptions

We're entering a new era of awareness in the financial sector that includes a stronger understanding of "greenwashing" and of what sources to use for sustainable investment opportunities. It feels as though a sense of urgency in protecting biodiversity is beginning to trickle down. Biodiversity loss is ranked by the World Economic Forum as one of the top three critical economic risks we're currently facing. We also know that failure to conserve nature hampers our achievement of the United Nations' Sustainable Development Goals (SDGs), a notion that should further inspire action.

In 2020, Danone became the first listed French company to adopt the model of an enterprise à mission, or purpose-driven company, when 99% of shareholders agreed to embed sustainability into the firm's governance structure. Their social and environmental objectives aligned with the SDGs. Emmanuel Faber, former chairman and CEO, said, "We are on the threshold of a time when what we mean by 'in the ordinary course of business' will change forever."[21]

Faber's recent eviction as CEO and chairman of Danone demonstrates, however, that the functioning of markets based on short-term profits still hampers the full deployment of value-creating business models. The development of new regulatory requirements and indicators to measure, report, and disclose non-financial performance will help support business governance transformations.

New political ambitions

At the UN Summit on Biodiversity in September 2020, 76 countries and the European Union committed to reversing biodiversity loss by 2030. At the One Planet Summit in January 2021, 52 states behind the High Ambition Coalition for Nature and People committed to working for the protection of 30% of terrestrial and marine spaces by 2030.

We expect the upcoming COP15 to achieve broad targets to improve nature protection, along with financial commitments to help poorer countries achieve them. Under the impulse of the Business for Nature coalition, [22] companies throughout the world are calling to make the COP15 as ambitious for our biodiversity as the Paris Agreement was for our climate.

[21] https://www.danone.com/about-danone/sustainable-value-creation/danone-entreprise-a-mission.html

[22] https://www.businessfornature.org/news/business-for-nature-cbd-position

Act today

You can start right now on your mission to protect biodiversity and join the future of green capital. Here's how.

- **Sign the Finance for Biodiversity Pledge**. The Finance for Biodiversity Pledge commits to work for the restoration of nature by pushing the companies they invest in to consider their impact on the natural world. Their financial institutions recognize "that healthy societies, resilient economies, and thriving businesses rely on nature. We will make every effort to take our share of responsibility and contribute to the protection and restoration of biodiversity and ecosystems through our financing activities and investments."[23]
- **Join Business for Nature**. Business for Nature is a global business coalition calling on governments to work together to help combat biodiversity loss. As they starkly put it: "There is no business on a dead planet."[24]
- **Follow the latest updates from the European Commission**. From policy standards to legislation updates, the European Commission is working hard to curtail the effects of climate change and meet its climate goals. The EU Taxonomy, for example, is an iterative journey, so follow the updates with them.[25]
- **Join the EU Business and Biodiversity Platform and its finance community.** The Finance@ Biodiversity Community provides a forum for 24 financial institutions to share experiences, raise awareness, and promote best practices at the EU level on how to integrate biodiversity and natural capital into mainstream financial activities and foster investments in natural capital.[26]
- **Join the Align Project**. The Align Project aims to build a standardized approach for corporate biodiversity measurements. Agreeing on a series of indicators, criteria, and principles to measure biodiversity will ultimately help reduce complexity from a business perspective, not least thanks to the sector-specific guidance for site-based, value chain, and finance sector companies the project seeks to develop.[27]

Conclusion

Biodiversity loss, along with the risk of business inaction, jeopardizes a business's bottom line. Unfortunately, some of the risks associated with biodiversity loss have already materialized today, such as water shortages, ecosystem collapse, and pollination shortages.

To avoid the collapse of our fragile ecosystems, the science is clear. We need a rapid and radical transformation of our economic models that have put our natural world in jeopardy.

[23] https://www.financeforbiodiversity.org/

[24] https://www.businessfornature.org/recommendations

[25] https://ec.europa.eu/info/files/sustainable-finance-taxonomy-factsheet_en

[26] https://ec.europa.eu/environment/biodiversity/business/index_en.htm

[27] https://ec.europa.eu/environment/biodiversity/business/align/index_en.htm

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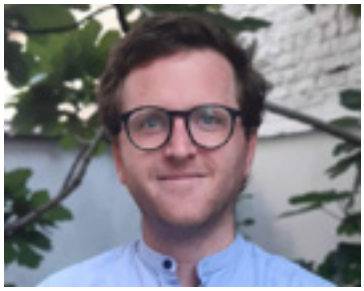
Yann advances our work with business and public institutions to better include biodiversity in economic and financial decision-making. With a background in economics and environmental science and management, his expertise lies at the crossroads between these two worlds.

Yann currently acts as project manager of the EU Business and Biodiversity of the European Commission, driving the preparation of international events such as the European Business and Nature Summit. He also leads the research and education streams under the Align project that seek to develop a standardized approach for biodiversity measurement.

He also conducts economic and financial research and analysis of public policies, plans, and programs with European and national institutions to foster resilience across our economies and reveal the multiple benefits of nature-based solutions.

Prior to joining ICF, Yann worked in the banking industry. When not working, he enjoys baking bread or guiding people through nature.



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Combining expertise in climate, renewable energy, and biodiversity finance, Jerome co-leads our work in the field of European sustainable and positive impact finance. Jerome ensures we adopt a comprehensive and integrated approach to sustainable finance. He designs, implements, and evaluates new policies and innovative financial instruments that leverage private finance for low carbon activities and nature-based solutions. Jerome is for example currently supporting different European governments with the issuance of green and sustainable and the design of sustainable finance strategies.

Since 2015, Jerome is the project director of the EU Business & Biodiversity Platform on behalf of the European Commission. Under Jerome's leadership, this program evolved from a small-scale pilot project to a high-profile stakeholder forum engaged in all the leading initiatives linked to integrating nature considerations in business decision-making. The European Business & Nature Summit is a key example of the platform's achievements over the years.

Jerome is also the first point of contact for our European climate policy work, managing our climate policy framework contract with the European Commission (DG Climate Action).

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