

Nature-related risk in the public–private continuum

*Where does a disaster- or climate-related risk end, and a nature-related risk start? Do they exist in a continuum, or should they be considered as distinct but interrelated? These questions are important for concerted action to combat the risks emanating from the natural world. **Manleen Dugal, Martha McPherson, and Ria Sen** write that international collaboration on a global reporting framework is underway. Without it, companies can't justify prioritising nature-related risk, and policymakers will find it difficult to allocate budget to this unproven new area.*

“Nature-related risk” is a phrase of the times we live in, given the pervasive economic and financial ramifications of biodiversity loss and ecosystem degradation. From the [2021 Dasgupta Review on the Economics of Biodiversity](#), to the [Kunming-hosted 2021-22 COP15 on biodiversity](#), and the newly convened [Task Force on Nature-related Financial Disclosures](#) or TNFD (a follow-up to the Task Force on Climate-related Financial Disclosures), nature is in sharp focus. The next imperatives for risk management, for deriving mitigation and adaptation strategies, and for risk quantification and incorporation in financial/business decision-making will be nature-linked.

We often approach the concept of nature-related risk, which has come into recent focus, from the perspective of its sister, climate-related risk. This means looking at nature-related impacts like soil erosion, eutrophication, and pollinator loss from within the cascading “climate crisis” kaleidoscope. The interrelatedness of nature and climate is a useful underpinning for “systems-led” approaches designed by scientists and economists. But nuance is lost in the frequent conflation of nature and climate, not least around measurement and metrics. The topic of climate has beaten nature to be present first within the global sustainable development agenda. This is partly because it is relatively easier (though still complex!) to measure with a clear starting point of emissions metrics and an extensive science and policy landscape producing detailed warming scenarios for the planet.

Biodiversity loss, on the other hand, can be a more elusive concept. It is not easily captured in a simple or single indicator. Composed of many elements beyond the headline-grabbing topic of species extinction, biodiversity loss has several direct and indirect drivers and impacts. ‘Ecosystem services’, including services provided by the natural world such as the organic decomposition of waste, and the cleaning of toxins from the air, are dynamically complex. Such critical services elude monitoring, and avoid an easy fit into comparable metrics, especially to assess dependencies for businesses. Biodiversity data, and the development of methodologies that can effectively capture shifts in biodiversity, are increasingly recognised as crucial for the life-cycle assessment of the products and services of companies, and the policies and activities of governments. Therefore, the concepts and frameworks for nature-related risk need to be demystified and identified in their own right, for quantification and incorporation into financial decision-making.

So where does a disaster- or climate-related risk end, and a nature-related risk start? Do they exist in a continuum, or should they be considered as distinct but interrelated? This matters, because these taxonomy and process-led questions, together with the often limited availability, or lack of prioritisation of finance, can confound and hinder concerted action – to combat the risks emanating from the natural world. And it also matters because the science tells us that biodiversity loss and climate change are intrinsically linked – in that biodiversity loss intensifies climate change and the latter is a key driver of biodiversity loss, justifying calls for the harmonisation of resources to address the two concurrently.

Such big, existential questions can scare off politicians and businesses alike from getting too involved. Without definitions and guiding limits, reporting standards can't easily be set and without standards, companies can't justify prioritising nature-related risk. Without a deeper understanding of how to monitor impact, policymakers will find it difficult to allocate budget to this unproven new area.

Starting to measure nature and risk: big numbers on a global scale

In recent decades, the international sector – including multilateral environmental processes and instruments – have undertaken the complex task of creating frameworks for risk-related terminologies, together with quantifying and qualifying policy action, greener trade prospects, and finance mechanisms. The common denominator of the growing international frameworks and guidance acknowledges that nature-related risks are complex and multi-layered. They also underline that nature-related risks are themselves major risks to global prosperity – giving rise to the conundrum of cascading risk scenarios.

The main effort has been to quantify nature-related risks in dollar terms, based on current and future climate impacts. There have been some broad-brush approaches to measuring the impact of nature on human activity. A much-quoted figure from [World Economic Forum \(WEF\) research](#) informs us that more than half of the world's gross domestic product, US\$44 trillion worth of assets, are dependent on nature. The [value of pollination](#) by bees and other insects has been estimated at US\$217 billion per year. These numbers are overwhelming. However, without nature-related risks being quantified at national, company, or industrial sector levels, the costs associated with such risks fall, in practical terms, into the economic box labelled “externalities.” No one actor or series of actors takes responsibility for causing, contributing to, or reacting to, nature-related risks. The impacts of these risks – from ocean acidification to the disruption of waste decomposition – often take place out of sight of major economic actors, whether they are CEOs or ministers.

Mainstreaming nature: the global biodiversity framework

The numbers above paint a concerning picture – and one that is also large and unmanageable by most actors. How should nature-related risk be managed at national-level, and business-level, with the urgency that is required? Momentum for nature-related risk research and action is emanating from international initiatives and certain regional initiatives such as the EU's Biodiversity strategy for 2030. The post [2020-Global Biodiversity Framework](#) which will be an output from the COP15 summit finishing in spring 2022, is expected to acquire the stature of the Paris Agreement on Climate Change, in terms of its expected ramifications. The Framework has been heralded as the most extensive global conservation mechanism to address nature loss to-date, calling for wide-ranging action from state and non-state actors. It will be a 10-year strategy setting out 21 urgent action-oriented targets, with particularly high aspirations for businesses, big or small. Specifically, the first draft of the framework calls for businesses to evaluate and report dependencies and impacts on biodiversity, to progress towards mitigation of negative impacts, and to aim for full sustainability of production and extraction practises, and of sourcing and supply chains.

Similar to the Paris Agreement, the Global Biodiversity Framework intends to leverage private finance, with its own ambitious target of US\$200 billion per year to meet the goals of the Framework. Interestingly, the International Union for the Conservation of Nature [reports](#) that two-thirds of the Paris Agreement signatories had nature-based solutions as part of their national climate-action strategies. The success of the Global Biodiversity Framework could thus well be the true measure of the public-private continuum for mainstreaming nature-related risk.

International collaboration on a global reporting framework is underway. The [TNFD](#), with its promise of a risk management and disclosure framework, is likely to be a big step forward. Given the complexities of nature-related risk action, it will place emphasis on transitioning from “nature-negative activities to nature-positive activities”.

The potential role of international trade

The World Trade Organisation (WTO), as a global trade organisation with the mandate to develop modalities for enhancing market access of environmental goods and services, could play a facilitative role in the transition towards nature-positive action. A recent WTO initiative, the [Trade and Environmental Sustainability Structured Discussions](#), is aimed to help ensure that international trade and its policies are more supportive of resource-efficient circular economies and sustainable supply chains. Through this initiative, there is an indispensable role that the WTO could play in the sharing of best practises, including information-sharing across the full value chain of products and materials. As an example, this could contribute towards enhancing traceability systems to make supply chains deforestation-free.

The EU's [Carbon Border Adjustment Mechanism \(CBAM\)](#), designed to level the playing field on economic competitiveness and prevent the risk of carbon leakage in certain sectors, can raise the bar for countries on climate-positive action. However, CBAM remains highly controversial, dubbed as protectionist rather than precautionary, given its potential to restrict exports and export-led development from developing and least-developed countries. Developing countries, who champion the principle of “common but differentiated responsibility” consider unilateral carbon adjustment programs to be unfair and potentially WTO-inconsistent, and such climate-related action to be the exclusive dominion of the UNFCCC. The EU, on the other hand, stands by the WTO compatibility of the CBAM in its design. It is anticipated that harmonising methods for assessing embodied carbon in traded products may prove to be a challenge.

If trade instruments could provide the incentive to account for carbon, could they also potentially incentivise wider nature-related risk incorporation and greener supply chains? Or is this just a pie in the sky idea? In one way, it is not hard to envision the reporting of wider “nature-related” impacts/risks as the next step for exported products as well – and potentially facing the same growing pains and controversies. Measurements are likely to be even more difficult, given the slow progress in the development of indicators to assess biodiversity and wider measurement frameworks. Even so, once global efforts to put a price on carbon bear fruit, the need for larger-scale efforts to put a price on the value of nature, only feels like the natural step forward (no pun-intended!).

The next steps

We are in a moment of calm before a storm of nature-related publications. The Global Biodiversity Framework is expected to be agreed to in 2022 and the TNFD's framework will not be released until 2022–23. Neither is legally binding, and so will take time to be incorporated by reporting companies and governments alike. The Task Force on Climate-related Financial Disclosures, the climate forerunner to the TNFD, comes into binding force in its first adopting countries, the United Kingdom and New Zealand, from 2022–23 and so it will be interesting to see the outcomes from those early reporting years. We will see whether TNFD might be made mandatory in the same way as the TCFD and may even share the TCFD's reporting structure.

There is a clear delay between recommendations and action, and much is upon political will and private initiative. TCFD recommendations were released in 2017, and we can expect for the TNFD and Global Biodiversity Framework to be adopted similarly slowly – although perhaps the TCFD's template will make these following initiatives quicker and easier.

In addition to time delays, global soft law initiatives frequently suffer from implementation and financing gaps. With public finance lacking and political will unpredictable, private sector initiative and investment has become the essential condition for effective implementation. This dependency can lead to slower action than the initiative leaders might desire but can also offer a window for sustainability-oriented companies to lead in creating new nature-positive and greener economic markets. The call to action by the Business for Nature Strategic Advisory Group and the work of the Global Partnership for Business and Biodiversity are significant initiatives in this regard.

Forward-looking companies realise the risks to their business models that come from nature, as well as the opportunities for profit and longevity in restoring, “rewilding” and conserving nature: Unilever, Marks & Spencer and Kering are just some of the companies leading the way with innovative biodiversity strategies genuinely embedded into their ways of doing business. Without formal guidance and international standards to create the links, nature-related risks are of course likely to become even more layered, which may compound potential cost estimates and disincentivise action. Nature-related risks affect multiple sectors in diverse ways and dependencies may be even more complex to quantify than impacts.

Looking ahead

Nature-related risk action has finally risen up in the agenda of governments and organisations around the world, much to the delight of scientists and risk experts who have long championed this important topic. In one sense, there may not be a more opportune moment to address this – the COVID-19 pandemic has demonstrated how an environmental problem can have debilitating and far-reaching effects on real economies, financial systems, and social fabrics. Aptly dubbing them as “green swans”, the [Bank of International Settlements](#) identifies climate and nature-related financial risks as exposed to “radically uncertain” ecological problems, due to their complex dynamics and domino-effects. As nature becomes enmeshed in internationally orchestrated diplomacy and initiatives, there will be more awareness, but also more complexity.

Progress would also entail developing harmonised frameworks for grasping the financial materiality of nature-based risks in the long-term and not just the short-term. Once out the other side, the implications on economic and financial activity, from business to government, will hopefully be clearer and easier to act on. But in the meantime, all organisations should be wholehearted in their approach to evaluating nature-related risks, to exploring mitigation opportunities, and to generating data and strategies to fill the current knowledge and action gap in this pivotal area.

Also by Martha McPherson and Ria Sen:

[New paradigms explore 'systems-oriented' ways of managing risk](#)



Notes:

- *This blog post draws from [Uncovering nature and biodiversity](#).*
- *The post represents the views of the author(s), not the position of their organisations of affiliation, LSE Business Review, or the London School of Economics and Political Science.*
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