

Targeting the risks to nature

Andy Davis discusses why nature risk needs to be integrated into the financial system and looks at some ways the sector can protect biodiversity

After years of being overshadowed by climate change, it looks like biodiversity's moment in the sun has finally arrived. The issue's prominence gained an important boost with the launch on September 18 of the final recommendations from the [Taskforce for Nature-Related Financial Disclosures](#) (TNFD), a business network in the mould of the Taskforce for Climate-Related Financial Disclosures (TCFD), which brings together "preparers and users of financial disclosures" and whose reporting framework is now being adopted globally.

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Together with the first set of nature-focused targets from the [Science Based Targets Initiative](#), published in May, the TNFD is likely to form a central pillar of a new system to enable companies and investors to identify, measure and disclose their nature-related risks and to start to set targets to reduce them. Although the new standards are voluntary, there is a widespread belief that the TNFD will morph into a mandatory reporting standard, as is now happening with the TCFD.

As with climate, the financial sector needs to play an outsized role in the transition to a system that prices in what has, until now, been a market 'externality': the value of the natural world. The aim of the TNFD is, ultimately, to "support a shift in global financial flows away from nature-negative outcomes and toward nature-positive outcomes".

Not surprisingly, the numbers involved are large. PwC this year suggested that 55% of global output (\$58tn) is moderately or highly dependent on nature, up \$14tn since its previous estimate in 2020. Simon Zadek, executive director of NatureFinance, a Swiss non-profit that was closely involved in developing the TNFD framework, demurs. "We're 100% dependent on nature. We're not 100% dependent on biodiversity, but biodiversity is a subset of nature. Look around you, there's nothing that isn't nature."

The figure usually touted for the annual spending needed to address the world's accelerating biodiversity loss is

\$700bn, based on the [2020 Financing Nature report](#). "The investment gap is huge in theory," says Cain Blythe, Chief Executive of the UK biodiversity credit platform CreditNature. "What is that as a percentage of global GDP? It's less than 1%. So actually, I don't feel sorry for these organisations. With a coalition of the willing, I think there is a way."

How will the financial system start to shift capital flows in ways that protect biodiversity?

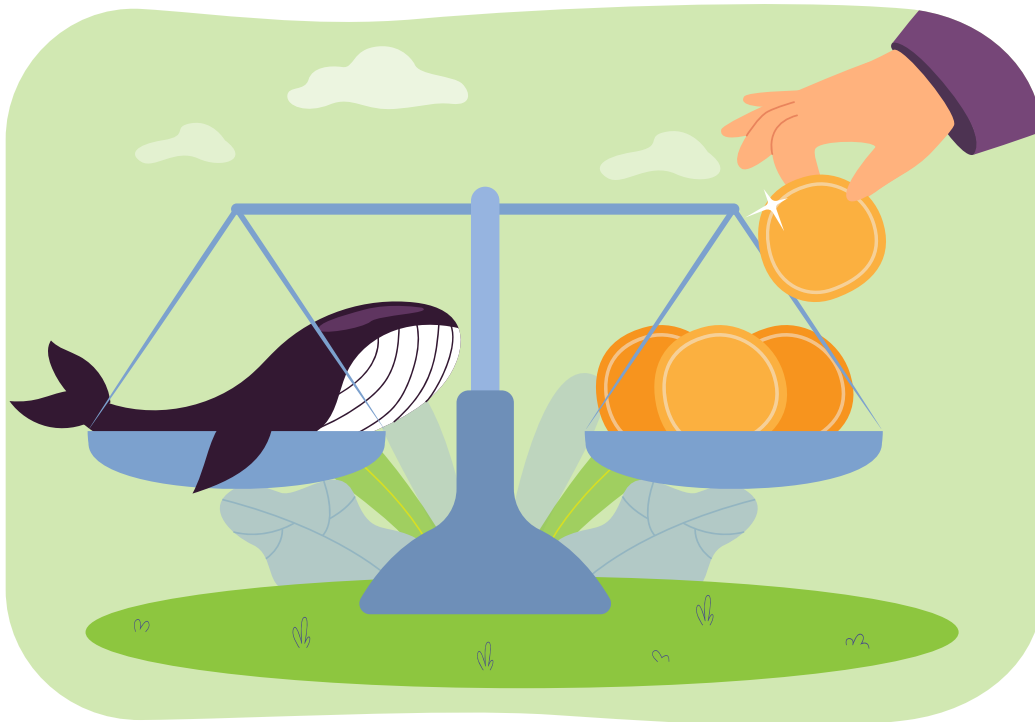
The first step in the process, argues Zadek, is the stress testing under the TNFD framework that will allow companies and investors to assess their exposure to nature risks. This will inevitably involve sourcing high-quality biodata, which he argues is becoming easier. "The market needs to develop, and will develop, but there is already enough out there to be able to do basic stress tests all the way down, sometimes to the asset level."

Helen Crowley, Managing Director in the UK team at Pollination, a climate and biodiversity consultancy and investment firm, agrees that technology advances are gradually transforming the quantity and quality of biodata. "Whether it's environmental DNA or bioacoustics or geospatial imagery or drone imagery, we can track things over time and understand what's happening and probably why it's happening."

Having measured their exposure to nature risk, companies and investors can use frameworks such as the Science-Based Targets Initiative to set targets to reduce both greenhouse gas emissions and negative biodiversity impacts. Indeed, there is a growing recognition that many of the most effective climate solutions are nature-based, making the two objectives mutually supportive.

At this point, the question of how nature-based risks and benefits are intermediated in financial terms becomes central. Zadek argues that in sovereign bond markets, which influence the pricing of most other assets, "nature will be priced in increasingly as a rated risk, but we also see nature being integrated into segments of innovative financial instruments within that market, like nature-linked sovereign debt."

Several 'debt-for-nature' swaps, where countries replace existing debt with cheaper borrowing linked to conservation, have already happened, notably [Ecuador's 'Galapagos bond'](#)



in May 2023, valued at \$656m and the largest of its kind so far.

Similarly, members of the Network for Greening the Financial System, comprising central banks and regulators, will start incorporating nature in their financial stability analyses. “That will eventually cascade across into capital requirements [for banks and insurers],” argues Zadek.

So far, this process mirrors that already under way for climate risks. But it’s also possible that once nature risk is integrated deeper into the financial system, unexpected consequences may emerge.

Compliance challenges

“If you take Brazil,” says Zadek, “Ninety per cent of deforestation in the Brazilian Amazon is illegal and the bulk of it is associated with legal food production that is being invested in by the international financial markets.”

This highlights the links between biodiversity losses and criminal activity. “That clearly locks in not only financial crimes legislation but anti-money laundering activities,” adds Zadek.

Anti-money laundering (AML) is normally regarded as important for payments providers and banks. But Zadek argues that institutions that invest in agriculture and food companies, whose ultimate suppliers are operating on illegally deforested land, could find they also have AML problems in their value chain.

The global soft commodity and food industries have some of the largest exposures to nature-related risk, and global food companies are among the first movers in attempting to address nature-related risks in their supply chains alongside reducing greenhouse gas emissions.

“*Reducing nature risk in supply chains will become a key part of stemming biodiversity loss*”

In July, for example, the Swiss company Nestlé said it would move away from using carbon offsets and concentrate instead on reducing emissions in its supply chain. It will promote regenerative farming practices that improve soil health and biodiversity, and increase the capacity of farmland to sequester carbon. The company has pledged to source half its key ingredients using regenerative farming methods by 2030.

Insetting

As nature-based financial reporting and target setting spreads, partly thanks to pressure from large financial institutions, this emphasis on reducing nature risk in supply chains – or ‘insetting’ – will become a key channel for reducing biodiversity loss and shifting to more conservation-based approaches. But financial instruments that channel



capital to projects that produce biodiversity gains will also be needed.

The carbon credits market divides into a compliance market, worth hundreds of billions of dollars a year, and a voluntary market estimated at more than \$2bn in 2022. By comparison, the market for so-called biodiversity credits is in its infancy. However, well-publicised problems with some voluntary carbon credit schemes, which were found to exaggerate their benefits and have a negative impact on local communities, mean pressure is being put on companies that create and sell biodiversity credits to demonstrate the integrity of their data gathering and project evaluation.

“ **The big question facing voluntary biocredit markets is whether they can succeed without external regulation** ”

At Earthly, a UK company that allows companies to buy credits linked to projects around the world that support climate transition, biodiversity gains and social impact, “the heart of what we do is our quality assessment,” says co-founder Oliver Bolton. “We look at 106 quality indicators, a third in carbon, a third in biodiversity and a third in people and the social impact of the projects.”

Blythe also stresses the integrity of the data gathering and analysis that underpins CreditNature’s two digital tokens – project tokens that act as proof of investment and claims tokens that provide verified evidence of biodiversity gains. CreditNature is working with the Scottish government to create a biocredits market that will enable companies to invest in enhancing Scotland’s nature.

The big question facing voluntary biocredit markets such as these is whether they can succeed long term without independent, external regulation, relying instead on private certification to underpin their claims.

The experience of voluntary carbon credit markets suggests some, at least, will struggle and that fully regulated compliance schemes are likely to form a much larger component of the overall market.

Biodiversity credits initiatives

[Colombia offers a much-cited example of what the future could look like](#), with a mandatory scheme that requires biodiversity offsetting when commercial activity impacts on nature. Its market operates on a ‘no net loss’ principle (though [the exact meaning of ‘no net loss’ can be hard to](#)

[pin down](#)) and it requires ‘ecological equivalence’. That is, the gains created by offsetting in one ecosystem should cancel out the losses that come with, say, development in a different ecosystem. Again, ‘ecological equivalence’ is neither easy to define nor measure according to Climate Trade.

The UK is about to go one step further than ecological equivalence later this year with a mandatory scheme that will require developments under the planning system, as well as large infrastructure projects in England, to achieve a 10% [biodiversity net gain](#), assessed using the ‘biodiversity units’ system developed by Natural England, the government’s adviser for the natural environment.

Developers will be required to concentrate on minimising impacts on-site and to achieve as much of the required net gain as possible through on-site enhancements. Only then can they resort to off-site schemes or buy statutory biodiversity credits from the government to cover their shortfall.

Government estimates suggest the scheme could create a market in biodiversity units intended to fund off-site biodiversity gains worth between £135m and £274m a year.

The UK’s Biodiversity Net Gain (BNG) scheme is “the most ambitious regulatory requirement for new development globally”, said NatureFinance in a report from April this year on the role of law, regulation and policy in biodiversity credit markets.

But Sophus zu Ermgassen, a researcher with Oxford University’s Leverhulme Centre for Nature Recovery, has pointed out that governance and enforcement will be critical. In an academic paper examining mandatory biodiversity net gain, he wrote: “Our net gain database shows that the vast majority of the benefits of net gain, as it stands, are being delivered through promises of small, high-quality habitats many years in the future within the development footprint.”

If promised biodiversity enhancements do not materialise, it will cast a shadow over the whole well-intentioned scheme and ensure a rerun of a scenario all too familiar from recent financial history: private profits and socialised losses. ■



Andy Davis writes about business, finance and investment, and is a former editor of FT Weekend. He has a special interest in fintech and the financing of small businesses and is a previous winner of the Personal Finance Journalist of the Year category at the Harold Wincott Awards