The Climate-Nature Nexus: A Primer on the Way to Cali

- Nature loss and climate change are linked, requiring integrated solutions.
- Market-based solutions and other financial products have been developed to address climate issues through nature, and private finance for nature has surpassed USD 102 billion, up from USD 9 billion four years ago.
- Key challenges remain — clear metrics and language for nature and biodiversity are vital, while lessons from climate action can enhance clarity and progress.

COP16 in Cali, Colombia, is around the corner and nature conversations are more pressing than ever. Nature and climate are in trouble as declines in oxygen levels across water bodies threaten life and livelihoods,[1] and six out of nine planetary boundaries are breached.[2] We now understand that these issues are an economic challenge: half of global GDP is directly dependent on nature.[3] Nature works for free, but its services are endangered.

There is a feedback loop between climate and nature — degraded ecosystems cannot provide climate mitigation and, in turn, climate change is one of the direct drivers of nature loss.[4] Interest is growing to consider both challenges jointly to allow the greatest chance of combatting either challenge effectively.

But despite tangible connections, the conversation is fraught with notable misperceptions around concepts, terminology and the availability of finance tools that support positive outcomes on both fronts. This blog post highlights key concepts to watch, tackles misconceptions and showcases market-based solutions to allow a better understanding of the unfolding debate.

Nature-based solutions and natural climate solutions

Two key phrases often used in conversations about the climate-nature nexus are nature-based solutions (NbS) and natural climate solutions (NCS). They are related and partially overlapping terms describing activities that protect, conserve, restore and/or sustainably use and manage ecosystems.

NbS are actions that address societal, economic and environmental challenges,[5] while also providing human well-being, ecosystem services, resilience and benefits for

[1] Kevin C. Rose et al., "Aquatic deoxygenation as a planetary boundary and key regulator of Earth system stability," *Nature Ecology & Evolution* 8, 1400-1406 (2024).

[2] Katherine Richardson et al., "Earth beyond six of nine planetary boundaries," *Science Advances* 9, no. 37, Sept. 13, 2023.

[3] "Nature risk rising: Why the crisis engulfing nature matters for business and the economy," World Economic Forum, January 2020.

[4] "The global assessment report on biodiversity and ecosystem services," IPBES, 2019.

[5] IUCN Global Standard for Nature-based Solutions.

biodiversity itself. NCS are a subset of NbS, which specifically focus on addressing climate-change mitigation or adaptation.

Both NbS and NCS activities and effects take place in the same location — for example, protection of a patch of forest which leads to increased storage of carbon in the trees and boosts local biodiversity. Actions that unfold their effects elsewhere are not typically considered to fall under either term. But even these will be needed to combat both nature loss and climate change; think, for example, of the production of plant-based products aimed at shifting consumption away from more environmentally harmful cattle farming.

Nature positive and the nature transition

New terminology is emerging to describe the nature transition. Most notable is the emergence of the phrase "nature positive," which follows the blueprint of the term "net-zero" to describe the societal end goal of the climate transition effort. The term is based on the vision and mission of the Global Biodiversity Framework (GBF)[6] and has been defined by the Nature Positive Initiative as the global societal goal to "halt and reverse nature loss by 2030 on a 2020 baseline, and achieve full recovery by 2050."[7]

Translating this global goal to the level of specific organizations is, however, challenging since there is no universal measuring unit for nature. This makes determination of a "fair share" of contribution or compensation for negative impacts more difficult than it is for net-zero. It is difficult, for example, to fully restore a degraded coral reef to its original state, and actions boosting European biodiversity cannot directly balance continued degradation of tropical rainforests in Latin America.

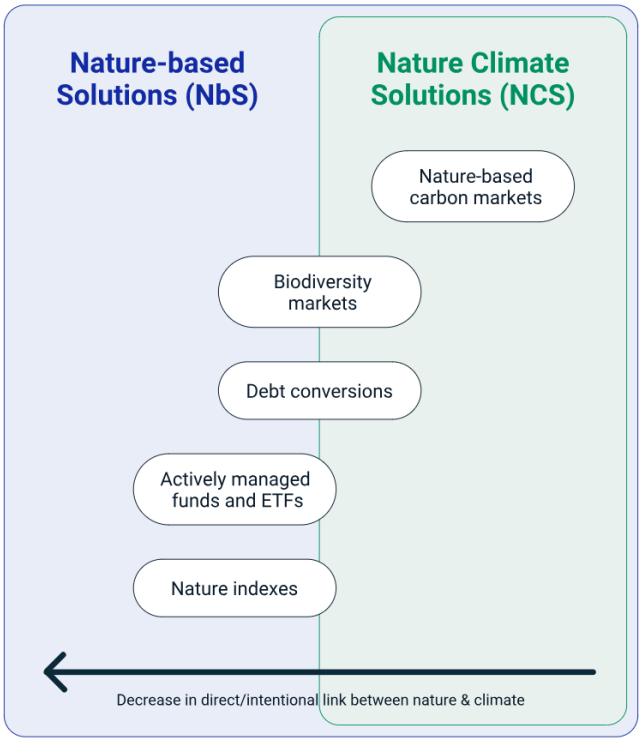
Market-based solutions: Nature-based carbon credits and biodiversity credits

Market-based solutions for climate change are being implemented in various ways, sitting on a spectrum between NbS and NCS, based on how directly they address climate issues.

[6] The Kunming-Montreal GBF was adopted during COP 15 to support the achievement of the UN Sustainable Development Goals and builds on the Convention's previous Strategic Plans, sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. Among the Framework's key elements are four goals for 2050 and 23 targets for 2030.

[7] "The definition of nature positive," Nature Positive Initiative, Nov. 27, 2023.

Existing finance mechanisms range along the spectrum of NCS and NbS



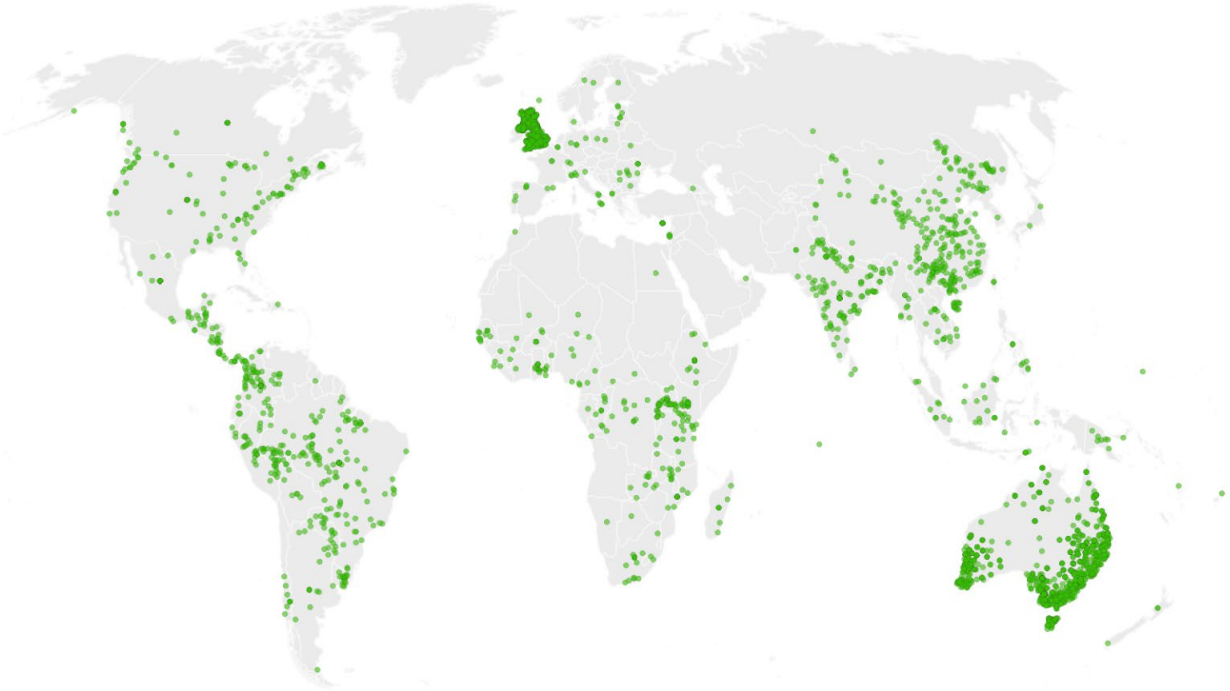
Source: MSCI Carbon Markets

One financial product with a clear link between nature and climate-change impacts is the carbon-credits market, particularly in the forestry and land-use sector. These credits represent either reduced CO2 emissions through interventions like preventing deforestation and improving land management, or CO2 removal by methods such as afforestation (planting forests on previously unforested land). As of September 2024, there were over 2,600 active nature-based projects in this voluntary carbon market (VCM), which have issued a total of 1.1 billion carbon credits since 2002 — accounting for over 40% of the market. These projects, when well-designed, can provide additional benefits for the environment and society. Over 2,000 companies have already used nature-based carbon credits to offset their climate impact, according to analysis from MSCI Carbon Markets.

The carbon market has faced challenges, particularly regarding the accuracy of emissions reduction estimates (see MSCI's "State of Integrity in the Global Carbon-Credit Market" report for an in-depth analysis of the challenges facing the carbon markets). Moreover, while carbon credits can bring co-benefits for nature and biodiversity, these links are not inherent. As the focus on nature as a distinct financing

recipient grows, the need for standardized recording of these impacts becomes increasingly important.

Nature-based carbon projects in the VCM span the globe



Data as of September 2024. There are over 2,600 active nature-based carbon projects globally in the VCM. Source: MSCI Carbon Markets

The biodiversity credit/unit market is a newer counterpart to the carbon market. Unlike carbon, with its universal unit of one tonne CO2e, this market has no standardized unit (yet) and tries to measure various aspects of biodiversity, such as protected areas and endangered species.

In both markets, the quality of projects is essential, which requires accurate measurement of their impacts. Finding the right data and metrics, however, as well as understanding how to interpret them, remains a significant challenge.

Other financial products

Private finance for nature now exceeds USD 102 billion, up from USD 9 billion four years ago.[8] Much of this growth can be attributed to innovative finance mechanisms. Notable examples include nature indexes, actively managed funds and ETFs, as well as debt conversions.

[8] "Private finance for nature surges to over $102 billion, paving the way to close global biodiversity financing gap by 2030," UN Environment Programme, June 10, 2024.

Both nature indexes and actively managed funds and ETFs incorporate environmental metrics to track the performance of companies, sectors and countries. For example, as per analysis by MSCI ESG Research, as of September 2024, USD 1.6 billion was spread across 24 funds specifically labeled “biodiversity.”

Debt conversions, on the other hand, exchange creditor debt relief for national commitments to biodiversity or nature action, which makes them particularly interesting in the context of COP16. An estimated USD 100 billion in finance could be created for climate action through these mechanisms, which could fund a wide range of climate initiatives.[9]

The key challenge across all these financial products is establishing solid metrics to verify their impact. Accurate measurement is essential to ensure that investments truly benefit nature and climate, rather than just carrying the label.

Conclusion

The nature-climate universe is rapidly expanding, introducing numerous market-based mechanisms and financial products. However, misconceptions, a lack of agreed terminology and limitations in metrics and data are posing challenges for addressing the dual nature-climate crisis.

Clarity and shared understanding are essential to leverage the links between nature and climate. MSCI Carbon Markets recently launched their carbon project ratings, detailing the metrics needed to identify high-quality nature-based carbon projects. Similarly, GFANZ is releasing a consultation on its voluntary, supplemental guidance for explicitly including nature considerations in net-zero transition planning at COP16.

Nature and climate are closely linked, making lessons learned from climate applicable to problems faced in nature. Consistent terminology, strategic frameworks, innovative finance models and leadership on standards — an investor wish list for COP16.

[9] “Debt swaps could release $100 billion for climate action,” International Institute for Environment and Development, April 2024.

About GFANZ

The Glasgow Financial Alliance for Net Zero (GFANZ) is a global coalition of financial sector net-zero alliances working together to support the world's transition to net-zero emissions by 2050. Through the net-zero alliances, GFANZ has united over 700 institutions across the financial sector, including banks, asset owners, asset managers, financial service providers and investment consultants, spanning 50 jurisdictions and representing 40% of global private financial assets. To help unlock transition investment in developing economies, GFANZ regional networks work to support capital mobilization, expand participation, and reflect the diverse needs of financial institutions around the world. To learn more, visit www.gfanzero.com

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