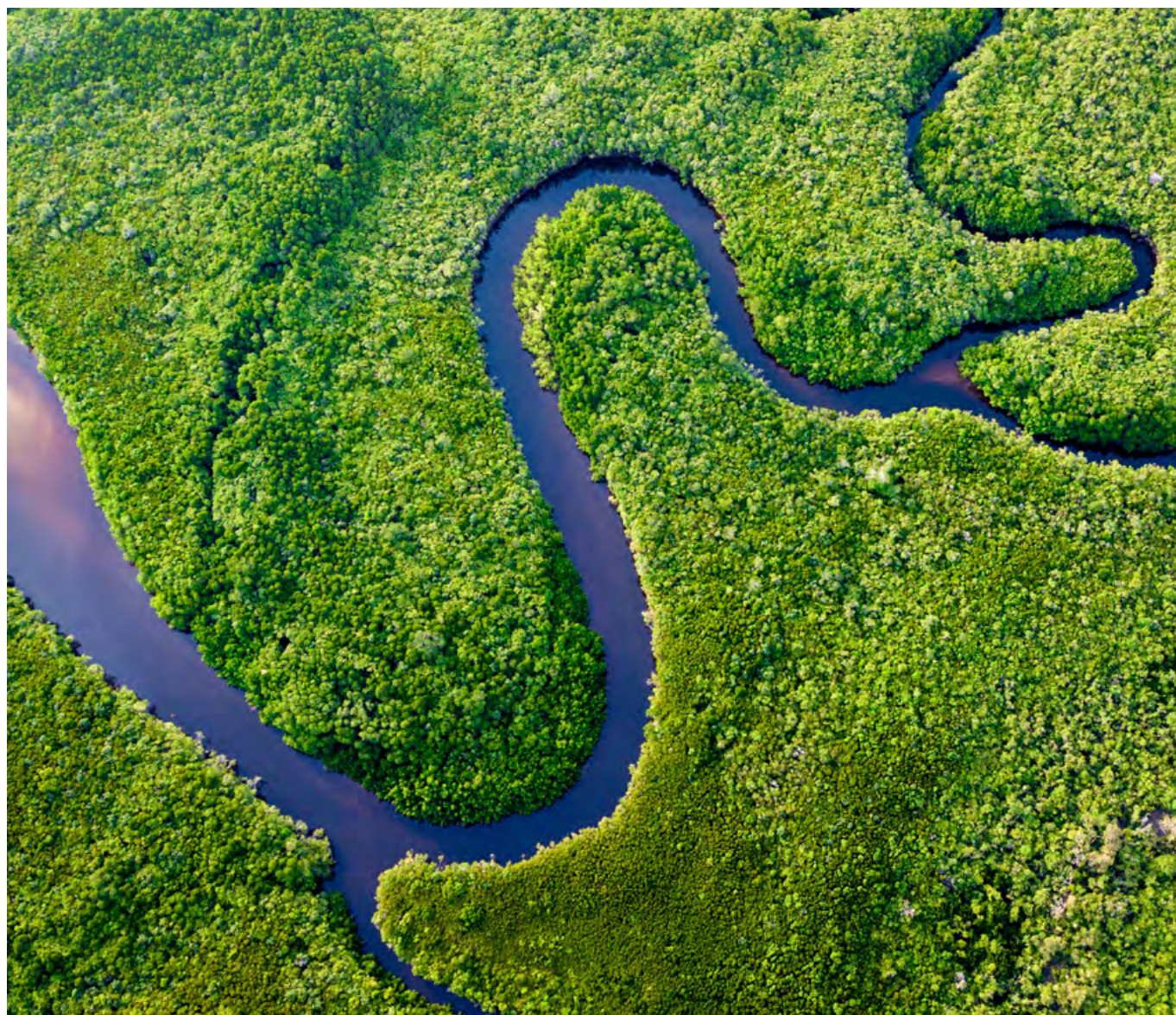


Into The Wild

Why nature may be the next
frontier for capital markets

November 2022



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November 2022

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Foreword

Over the last 50 years, global natural resource extraction has more than tripled, rising from 27 billion tons per year to 92 billion tons per year.¹ At the same time, the population sizes of mammals, birds, fish, amphibians and reptiles saw an average drop of 68%.² The decline of the natural world and its biodiversity – the variability and variety of life on Earth which underpins our planet’s resilience³ - has been identified as the third most severe risk on a global scale over the next decade.⁴

While the threat to nature has been a known problem for decades, the impact and reliance of our economic activities on nature can no longer be overlooked. Nature plays a vital role in global economies, as a provider of natural resources and through the delivery of life-sustaining ecosystem services,⁵ such as the maintenance of air quality, nutrient cycling and climate regulation. The protection and restoration of nature is essential for future economic growth and development and should be an absolute priority for governments and all economic actors including the financial services sector.

As the economic cost of nature loss is increasingly evidenced,⁶ financial markets are turning the spotlight to the allocation of funds for its protection, restoration and enhancement. This reorientation of capital – including the allocation of capital to developing countries, which hold the largest stocks of natural capital – is the next frontier in harnessing market forces towards delivering a sustainable future for all.

Around the world, regulators and policymakers are increasingly turning their attention towards addressing nature loss and we expect this focus to continue and build in the coming years. However, core challenges remain. We need common frameworks and policies to support the reallocation of capital from nature-negative outcomes to nature-positive outcomes at pace and scale. As for any market, the challenge for natural-capital markets to function effectively is to create reliable information flows (to reduce information asymmetries and price risks effectively), to design and make available well-defined and standardised asset classes and financial products and to provide fair market access to participants.

In this paper, we have applied a practical lens to natural capital finance in its various forms. We outline why financing nature makes commercial sense from both a risk management perspective and as an opportunity through the development of nature-related products.

The second part of the paper explores examples of the innovative financing opportunities being pursued by AFME members and outlines some of the challenges faced in developing natural capital financial products.

“We need common frameworks and policies to support the reallocation of capital from nature-negative outcomes to nature-positive outcomes at pace and scale”

1 UN Environment, Global Resources Outlook (2019) <https://wesr.unep.org/irp/index/1>

2 WWF, Living Planet Report 2020 <https://f.hubspotusercontent20.net/hubfs/4783129/LPR/PDFs/ENGLISH-FULL.pdf>

3 UNEP, What is Biodiversity? Come with us on a journey, https://www.unesco.pl/fileadmin/user_upload/pdf/BIODIVERSITY_FACTSHEET.pdf

4 World Economic Forum, The Global Risks Report 2022 https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf

5 Earth.Org, The Economic Benefit of Preserving 30% of Nature, 2020 <https://earth.org/economic-benefits-of-preserving-nature/>

6 The Economics of Biodiversity: The Dasgupta Review, 2020 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962785/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf



The paper concludes by examining the current regulatory landscape and advocates for five key policy developments that will help direct capital towards solutions that can conserve and restore nature:

1. Gathering and translation of nature-related data into decision-grade data for financial services
2. A strong global nature reporting framework
3. Agreement on how to define measurable, meaningful impact on biodiversity through metrics and key performance indicators (KPIs)
4. Standardisation of product classifications
5. Development of a currency for nature

With an estimated biodiversity financing gap of USD 598-824 billion per year,⁷ we know we have an important role in sharing insights and working with our members and the public sector to support activities that can be taken to realise the potential in this space and remove barriers to achieving sustainable growth.

Financial institutions can play a key role in bringing funding, innovation, and accountability and we hope that this paper provides a useful guide for those looking to explore this crucial new role for capital markets.



Adam Farkas
Chief Executive
Association for Financial
Markets in Europe



Gillian Lofts
Global Financial Services
Sustainable Finance Leader
EY

“Financial institutions can play a key role in bringing funding, innovation, and accountability”

⁷ Paulson Institute, Financing Nature: Closing the Global Biodiversity Financing Gap (2020) https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE_Full-Report_Final-with-endorsements_101420.pdf



Introduction

‘Understanding nature’ - A brief note on terminology

Within this report we apply the following definitions:

- “Biodiversity” to refer to the variability amongst living organisms (such as animals, plants and fungi) within the natural world. This includes diversity within species, between species and of ecosystems.
- “Nature” to refer to the natural world, including the living (i.e. biodiversity) and non-living components (e.g. water, air and soil).
- “Natural capital” to refer to the stock of natural resources which combines to yield flows of benefits to people.
- “Ecosystem services” to refer to the value obtained from ecosystems (i.e., the goods and services from natural capital), such as pollination, climate regulation and the provision of raw materials.

For a full list of terminology please refer to the Glossary in the Appendix.

It has long been clear that human activity is driving the destruction of much of the world’s terrestrial, marine and other aquatic ecosystems. Modern humans, *Homo Sapiens*, are thought to have existed on Earth for the past 300,000 years. However, the last century of human activity has altered the natural world at a rate and scale never-before-seen in history. In the past 50 years, while the human population has doubled, the global economy has grown nearly fourfold, and global trade has grown tenfold; we have simultaneously lost half of the world’s forests, half our coral reefs, 85% of wetlands and dammed two-thirds of the world’s main rivers.⁸ Economic growth has come at a significant cost to nature.

The decline of our natural world not only has significant ramifications for the stability of our financial markets and ultimately our economic prosperity, but also to humanity’s survival. It has been estimated that USD 44 trillion of global gross domestic product — around half — is highly or moderately dependent on natural capital and the ecosystem services it provides.⁹ This profound dependency can be readily observed: according to the OECD, between 1997 and 2011, the world lost an estimated USD 4-20 trillion per year in ecosystem services owing to land-cover change and USD 6-11 trillion per year from land degradation.¹⁰

“It has been estimated that USD 44 trillion of global gross domestic product — around half — is highly or moderately dependent on natural capital and the ecosystem services it provides”

8 IPBES Global Assessment Report, 2019

9 World Economic Forum, Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy (2020), https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf

10 OECD, Biodiversity: Finance and the Economic and Business Case for Action (2019), <https://www.oecd.org/environment/resources/biodiversity/Executive-Summary-and-Synthesis-Biodiversity-Finance-and-the-Economic-and-Business-Case-for-Action.pdf>





Figure 1: **The relationship between natural capital, biodiversity and ecosystem services (adapted from Capitals Coalition, Integrating Biodiversity into Natural Capital Assessments (2020)**¹¹ Natural assets (freshwater, forests, landscapes, oceans) and the biodiversity within them (insects, microbes, birds, fish) combine to enable the flow of ecosystem services (pest control, pollination services and soil quality) which in turn deliver value (e.g. through the increased quality and quantity of crop yields). The natural assets are underpinned by biodiversity; for example, biodiversity increases the resilience of species providing pollination services.

The loss of nature undermines the economy in several ways, for example by reducing our ability to discover solutions to future threats to human health and creating new opportunities for zoonotic diseases to spread between humans and animals, as seen with the recent COVID-19 pandemic.¹² At a business-level, organisations have impacts on nature, which may be positive or negative. Simultaneously, organisations are also reliant on nature for operations and business continuity through the provision of ecosystem services or natural assets.

The impacts and dependencies financial institutions have on nature predominantly materialise through their investing, lending and underwriting activities. This gives rise to a complex ecosystem of associated costs and benefits, which in turn create risks and opportunities for financial institutions and their clients.¹³

“The impacts and dependencies financial institutions have on nature predominantly materialise through their investing, lending and underwriting activities”

¹¹ Capitals Coalition, Integrating Biodiversity into Natural Capital Assessments (2020) https://capitalscoalition.org/wp-content/uploads/2020/10/Biodiversity-Guidance_COMBINED_single-page.pdf

¹² Convention on Biological Diversity, Global Biodiversity Outlook 5 (2020) <https://www.cbd.int/gbo/gbo5/publication/gbo-5-en.pdf>

¹³ Capitals Coalition, Integrating Biodiversity into Natural Capital Assessments (2020) https://capitalscoalition.org/wp-content/uploads/2020/10/Biodiversity-Guidance_COMBINED_single-page.pdf



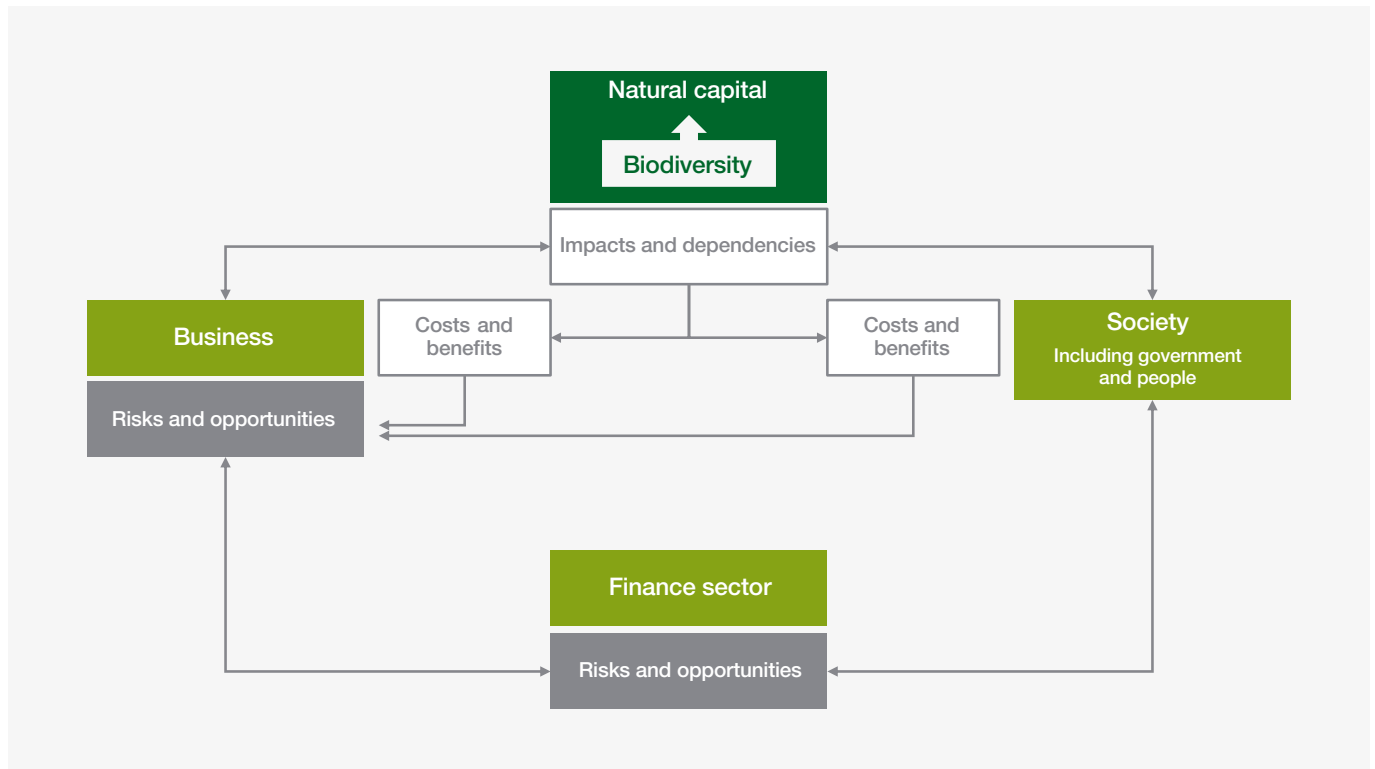


Figure 2: **Nature-related impacts and dependencies (adapted from Capitals Coalition, Integrating Biodiversity into Natural Capital Assessments (2020)¹⁴** Organisations have impacts on natural assets and ecosystem services, which may be positive or negative. This has consequences for the quality and resilience of ecosystems and can create potential risks and opportunities. A dependency of a business on nature for operations and business continuity may be direct or through its supply chain.

There is an increasing realisation amongst investors and in the financial sector more widely that biodiverse ecosystems support long term resilience, productivity and can provide economic benefits. Demand is growing for financiers to create new and innovative natural capital financing products to mobilise capital towards halting and reversing nature loss.

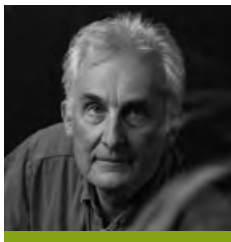
The decline of nature is a threat first and foremost to humanity, but it is also a threat to financial stability and our global economies. This report is focused on how the financial sector can help address the challenge and harness the associated opportunities.

“Biodiverse ecosystems support long term resilience, productivity and can provide economic benefits”

14 Capitals Coalition, Integrating Biodiversity into Natural Capital Assessments (2020) https://capitalscoalition.org/wp-content/uploads/2020/10/Biodiversity-Guidance_COMBINED_single-page.pdf



“Biodiversity loss needs to be tackled together with climate change, to ensure that we leave a just and sustainable society to future generations. Innovative financing opportunities, such as natural capital finance products, are being developed in the biodiversity space and these are key to mobilising the necessary investment for a nature-positive economy. Nature is currently considered a \$Trillion free lunch – billions of people profit from it - yet the cost of its overexploitation does not appear in most transactions. As a consequence of this, nature is collapsing at a rapid rate which will have a devastating impact on all our economies. The time to act is now.”



Andrew Mitchell
Vice Chair TNFD Stewardship Council
Founder & Senior Advisor Global Canopy

“The case studies within this report highlight some of the important innovation taking place within banks and investors to drive forward the financing of nature. It is encouraging to see that we are moving in the right direction to halt biodiversity loss.

However, whilst this is all very positive progress, change is still not happening fast enough to close the current biodiversity finance gap. I urge financial institutions to learn from these examples and to continue to innovate in this space. We must not only halt biodiversity loss but reverse it, and ensure that those who feel the extent of its impacts the most are not left behind.”



Jessica Smith
Nature Lead
United Nations Environment Programme Finance Initiative



Part 1: Financing nature makes commercial sense

1.1 Nature loss gives rise to significant business risks

The loss of nature and the biodiversity that underpins it is a material financial risk.¹⁵ According to the World Economic Forum (WEF), biodiversity loss is considered the third highest risk in order of severity, ranking only behind climate action failure and extreme weather.¹⁶ Continuing ecosystem degradation has increased the likelihood of severe loss events, heightening the need for financial institutions to integrate nature into risk management.

Nature-related risks can be categorised into three primary risk types: physical risk, transition risk and systemic risk. The extent and severity of nature-related risks are more difficult to assess than for climate-related risks: for example, nature loss is driven by several complex, interconnected factors and can be highly localised while climate change is largely driven by the emissions of greenhouse gases (GHG) into the atmosphere. Moreover, while there is a globally accepted measurement of climate change, which is degrees above pre-industrial levels; the equivalent does not currently exist for nature. The complexity of ecosystems and the processes involved means that understanding nature risk is more complicated. However, these challenges should not obscure the compelling scientific evidence that nature loss presents a material financial and economic risk.

For financial institutions, this necessitates assessing their impacts and dependencies on nature across their financial portfolios. Only by understanding how nature loss translates into financial risk can financial institutions protect value, reorientate capital and support their clients to transition away from activities that destroy the natural world.

The drivers of nature loss

In its landmark 2019 report, “The Global Assessment Report on Biodiversity and Ecosystem Services”, IPBES identified five *direct* drivers of biodiversity loss:

1. Changing use of sea and land	2. Direct exploitation of organisms;	3. Climate change	4. Pollution	5. Invasive non-native species
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The Report additionally highlighted a number of *indirect* drivers which are underpinned by societal values and behaviours. Indirect drivers operate diffusely by altering and influencing direct drivers as well as other indirect drivers. These include:

Production and consumption habits	Human population dynamics	Trade	Technological innovation	Local and global governance
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15 TNFD, The TNFD Nature-Related Risk and Opportunity Management and Disclosure Framework Beta v0.2 2022 <https://framework.tnfd.global/wp-content/uploads/2022/06/TNFD-Framework-Document-Beta-v0-2.pdf>

16 World Economic Forum, The Global Risks Report 2022 https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf



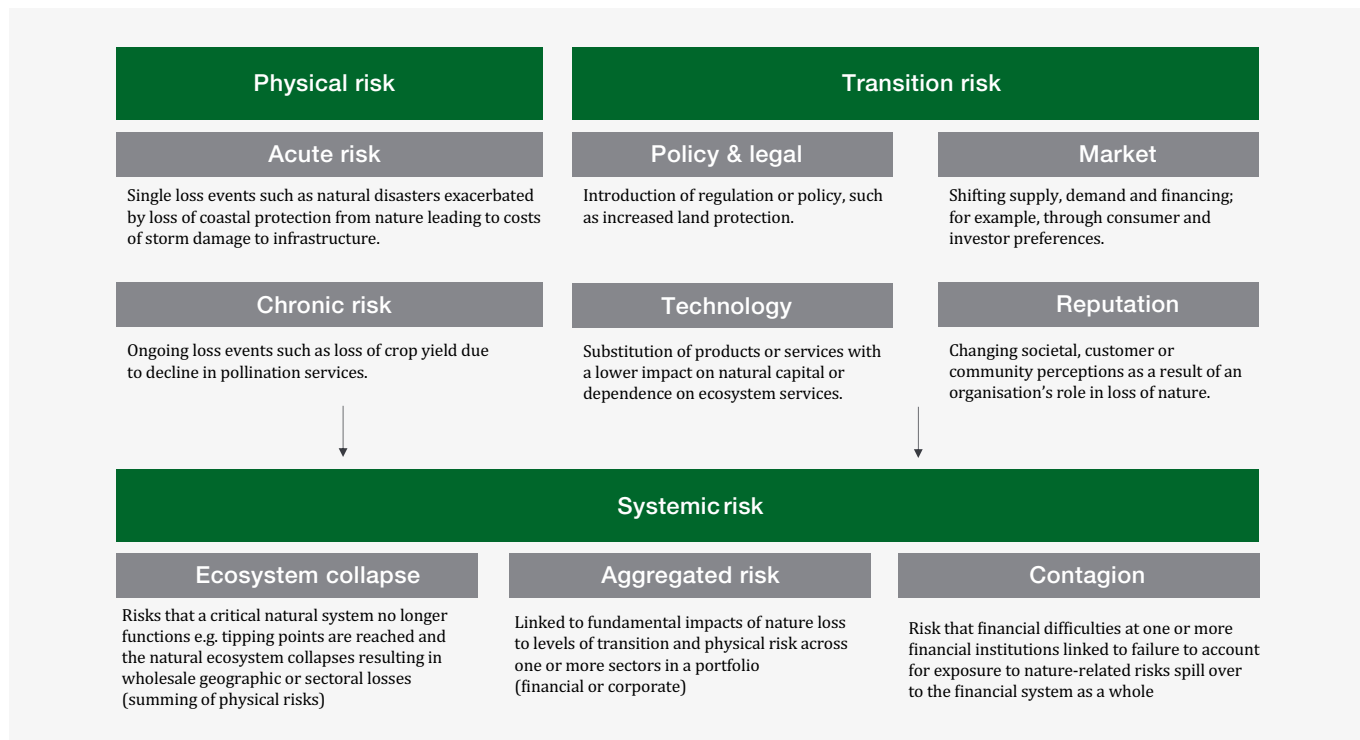


Figure 3: Types of nature-related risk (adapted from TNFD)¹⁷

1.2 The financing gap for protecting and enhancing biodiversity is significant

Protecting and enhancing biodiversity presents a very real need. The global **biodiversity financing gap** – “the difference between the current total annual capital flows towards global biodiversity conservation and the total amount of funds needed to sustainably manage biodiversity and maintain ecosystems integrity”¹⁸ – has recently been estimated to be between USD 598 – 824 billion per year.¹⁹ Further information on the current biodiversity finance gap can be found in the United Nations Environment Programme (UNEP) State of Finance for Nature report²⁰ and hub.²¹

The opportunities to finance biodiversity remain largely untapped by the private sector

Public finance continues to be the largest funding source for biodiversity: 87% of current finance comes from domestic and international public finance, including governments, philanthropy and public development institutions.²² However, public funding and philanthropy are insufficient to pay for the scale of nature restoration required. By better understanding their exposure to nature-related risk across their financial portfolios, investors and financial institutions will be able to undertake mitigating actions to avoid eroding value from their book. As discussed further below, a greater understanding and ability to accurately measure the impact and dependency of a company or activity on nature will enable private finance to play a greater role in closing the biodiversity funding gap.

17 TNFD, The TNFD Nature-Related Risk and Opportunity Management and Disclosure Framework Beta v0.2 2022 <https://framework.tnfd.global/wp-content/uploads/2022/06/TNFD-Framework-Document-Beta-v0-2.pdf>

18 Paulson Institute, Financing Nature: Closing the Global Biodiversity Financing Gap (2020) https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE_Full-Report_Final-with-endorsements_101420.pdf

19 Paulson Institute, Financing Nature: Closing the Global Biodiversity Financing Gap (2020) https://www.paulsoninstitute.org/wp-content/uploads/2020/10/FINANCING-NATURE_Full-Report_Final-with-endorsements_101420.pdf

20 The State of Finance for Nature Annual Report, <https://www.unep.org/resources/state-finance-nature>

21 <https://financefornature.unep.org/en>

22 Global Canopy, The Little Book of Investing in Nature 2021 https://globalcanopy.org/wp-content/uploads/2021/07/LBIN_2020_RGB_ENG.pdf

Part 1: Financing nature makes commercial sense

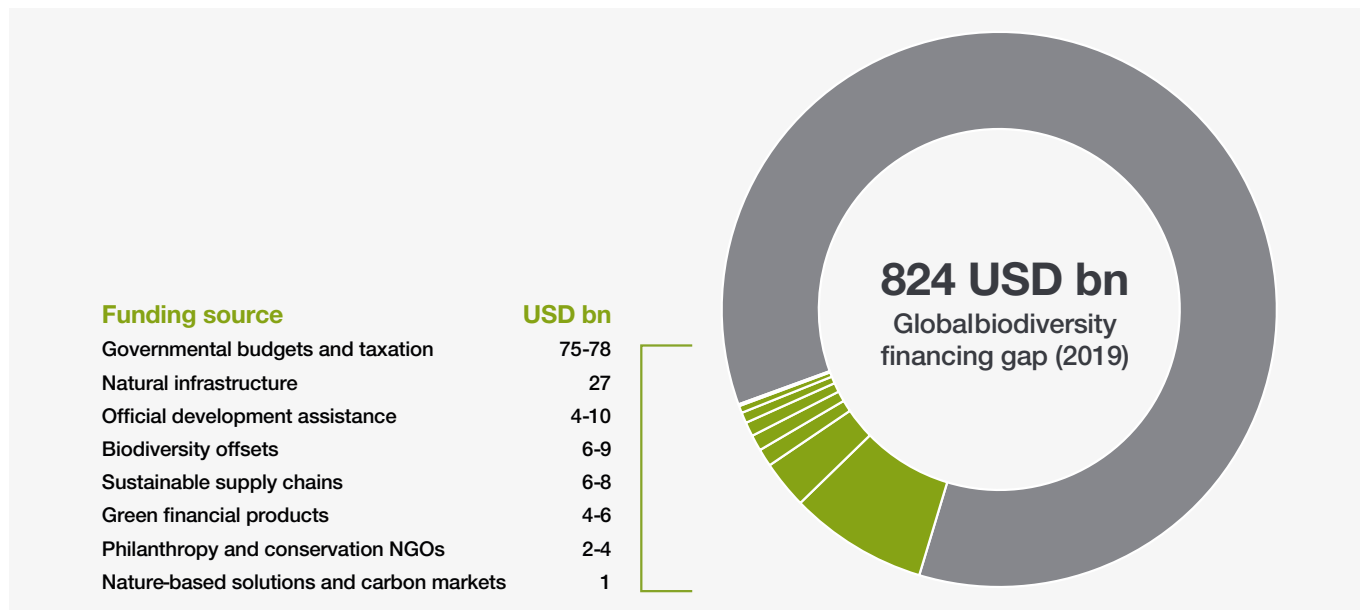


Figure 4: **Global biodiversity financing gap (adapted from Global Canopy, The Little Book of Investing in Nature 2021)**

More than half of the biodiversity finance gap can be closed with no new funding through halting adverse subsidies and shifting existing capital flows away from harmful activities²³

Public funding for agriculture has reached new highs, with 54 countries providing over USD 817 billion each year in some form of support to their agricultural sectors.²⁴ Many of these subsidies support harmful farming practices and distort trade. Crucially, even if the estimated annual USD 124 – 143 billion of financing currently provided by governments to support biodiversity was doubled, it would not come close to overcoming the impact of subsidies that directly harm nature that are 5-7 times in scale.²⁵

Further repurposing of capital towards activities that positively benefit nature will also play an important role, such as underwriting loans for regenerative agriculture activities that may also provide co-benefits to nature and produce an investable return. To close the remaining biodiversity financing gap, there is an urgent need to reduce harmful economic activity (e.g. harmful subsidies) and create new financing opportunities (e.g. expansion of green finance).

1.3 Nature has a crucial role in tackling climate change

Natural climate solutions (NCS) – conservation, restoration, and land management actions that increase carbon storage and avoid greenhouse gas emissions²⁶ – offer win-win strategies for mitigating climate change and protecting nature. It is estimated that NCS alone could reduce greenhouse gas emissions by 11.3 billion tonnes per year by 2030, offering over a third of the emissions reductions required to keep global warming below 2 degrees Celsius by 2030.²⁷

23 The Nature Conservancy, Closing the Nature Funding Gap: A Finance Plan for the Planet 2020 <https://www.nature.org/en-us/what-we-do/our-insights/perspectives/closing-nature-funding-gap-global-biodiversity-finance/>

24 OECD (2022), Agricultural Policy Monitoring and Evaluation 2022: Reforming Agricultural Policies for Climate Change Mitigation, OECD Publishing, Paris, <https://doi.org/10.1787/7f4542bf-en>.

25 Global Canopy, The Little Book of Investing in Nature 2021 https://globalcanopy.org/wp-content/uploads/2021/07/LBIN_2020_RGB_ENG.pdf

26 The Nature Conservancy, Natural Climate Solutions, <https://www.nature.org/en-us/what-we-do/our-insights/perspectives/natural-climate-solutions/>

27 Griscorn, B. W. et al. Natural climate solutions. Proc. Natl Acad. Sci. USA 114, 11645–11650 (2017)



Nature based solutions (NbS) may offer a necessary complementary tool to help financial institutions and other businesses meet their climate targets, building on fundamental decarbonisation approaches such as the reduction of greenhouse gas emissions, while also providing benefits to nature. In November 2022, the COP27 Presidency and the International Union for Conservation of Nature (IUCN) announced the Enhancing Nature-Based Solutions for an Accelerated Climate Transformation (ENACT), “a hub for Party and non-state actors working on NbS to foster collaboration and bring global coherence to activities”²⁸

Despite their massive potential, most estimates suggest that NCS only attracts 2-3% of public climate finance globally.²⁹ Increasing public flows and mobilising private finance will be important in mainstreaming NCS.

One such financing opportunity for the private sector lies in the area of regenerative agriculture, which is centred on the production of high-quality food while improving the surrounding natural ecosystem. Switching the way we farm could cost-effectively deliver carbon sequestration while simultaneously improving the health of our soils, increasing biodiversity and improving water quality. The National Academy of Sciences estimates that regenerative agriculture can sequester 250 million tons of carbon dioxide in the U.S. annually, or around 4 percent of the country’s emissions.³⁰

Another emerging area in natural climate solutions are ocean-based solutions. While often overshadowed in discussions on climate change, which tend to focus on the carbon capture potential of terrestrial forests, ocean ecosystems are the largest carbon sink in the world. Coastal ecosystems like mangroves, salt marshes, seagrass meadows and kelp forests hold more carbon, hectare for hectare, than rainforests.³¹ A 2019 study found that ocean-based solutions could close the emissions gap by up to 21 percent on a 1.5°C pathway, and by about 25 percent on a 2.0°C pathway, by 2050.³²

To mobilise capital for a sustainable ocean, the UNEP Finance Initiative (UNEP FI) have set up the Sustainable Blue Economy Finance Initiative, a global community focused on the intersection between private finance and ocean health.³³ UNEP FI, the International Capital Markets Association (ICMA), the International Finance Corporation (IFC), the Asian Development Bank (ADB) and United Nations Global Compact (UNGC) are partnering to develop blue bond guidance for global practitioners to finance the sustainable blue economy.³⁴

At COP27, Conservation International, along with Salesforce and a global coalition of ocean leaders, released the High-Quality Blue Carbon Principles and Guidance to drive sustainability and equity in the blue carbon market.³⁵ Whilst this market is still nascent, blue carbon finance has the potential to increase overall investment in coastal and ocean NbS.

While not a single silver bullet, ocean-based solutions could have a powerful role to play in climate adaptation and mitigation.

1.4 Regulation is increasingly driving growth in natural capital finance with support from market-led initiatives

While the drivers for the growth in natural capital finance have started with a predominantly voluntary approach to addressing nature loss and the need for businesses to act responsibly, greater mandatory regulation is coming into effect and we expect will continue to do so in the near future.

28 <https://cop27.eg/#/presidency/initiative/enact>

29 WBCSD, Natural climate solutions: the business perspective, (2019), https://docs.wbcsd.org/2019/09/WBCSD-Natural_climate_solutions-the_business_perspective.pdf

30 Negative Emissions Technologies and Reliable Sequestration, The National Academies of Sciences (2019)

31 <https://www.eea.europa.eu/publications/carbon-stocks-and-sequestration-rates/carbon-stocks-and-sequestration-in>

32 “The Ocean as a Solution to Climate Change: Five Opportunities for Action” (2019), Hoegh-Guldberg et al.

33 <https://www.unepfi.org/blue-finance/>

34 UNEP FI (2022) <https://www.unepfi.org/themes/ecosystems/unep-fi-joins-international-coalition-to-develop-guidance-on-blue-bonds/>

35 https://merid.org/wp-content/uploads/2022/11/HQBC-PG_FINAL_11.8.2022.pdf



Part 1: Financing nature makes commercial sense

As we have seen for climate change with the landmark 2015 Paris Agreement, the presence of a legally binding international agreement with overarching targets will be crucial to shaping the future regulatory environment on nature and biodiversity at a national level.³⁶ The United Nations Convention on Biological Diversity (CBD) is aiming to stimulate worldwide action through the agreement of a Global Biodiversity Framework (GBF) at COP15 in Montreal in December 2022. The draft version of the GBF is currently comprised of four goals and 21 targets aimed at the valuation, conservation, restoration and wise use of nature.

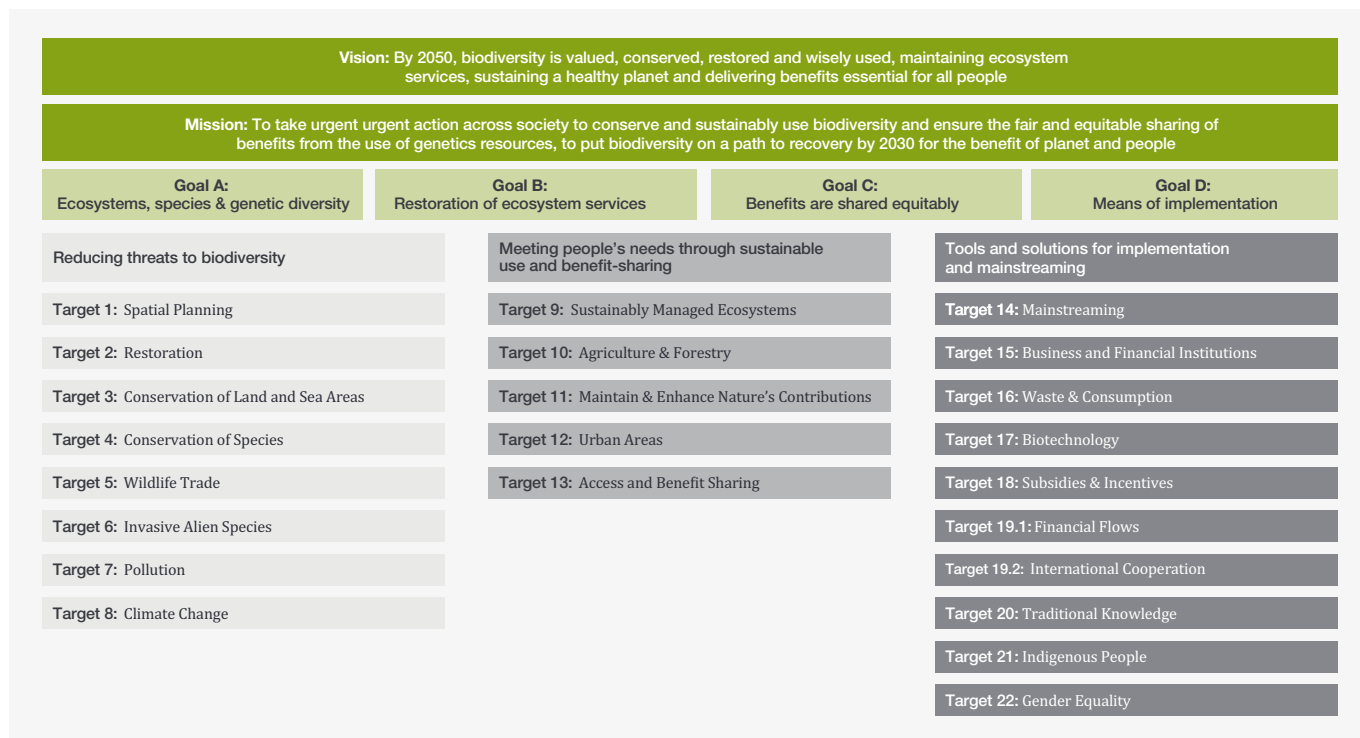


Figure 5: Overview of the fourth draft of the CBD Global Biodiversity Framework³⁷

By convening world governments to agree a new set of ambitious goals for biodiversity, COP15 should drive a wave of target setting at the international and national level that will, among other aims, look to mobilise capital to halt and reverse biodiversity loss, creating demand for natural capital products.

While COP15 can create momentum, policy setting must ultimately be carried out at the national level by governments and markets. Activity is already underway around the globe. In 2021, the Group of Seven (G7) Environment and Climate ministers made a landmark commitment to protect 30% of land and oceans by 2030 in order to bend the curve of nature loss, and secured measures to tackle global deforestation.³⁸ An outline of the current regulatory landscape is discussed further in Part 3.

Market-led initiatives will complement and inform regulatory and policy developments. One example of this is the Taskforce on Nature-related Financial Disclosures (TNFD). Launched in June 2021, the TNFD aims to develop and deliver a risk management and voluntary disclosure framework for organisations to report and act on evolving nature-related risks.³⁹ The Taskforce looks to build on the success of its climate equivalent, the Taskforce on Climate-Related Financial Disclosures (TCFD) which has transitioned from a voluntary initiative to a mandatory reporting requirement in a number of countries.

36 United Nations, Paris Agreement, (2015), https://unfccc.int/sites/default/files/english_paris_agreement.pdf

37 United Nations Convention on Biological Diversity, Report of the Open-ended Working Group on the Post-2020 Global Diversity Framework on its fourth meeting, (2022) <https://www.cbd.int/doc/c/3303/d892/4fd11c27963bd3f826a961e1/wg2020-04-04-en.pdf>

38 <https://www.gov.uk/government/news/uk-secures-historic-g7-commitments-to-tackle-climate-change-and-halt-biodiversity-loss-by-2030>

39 TNFD, The TNFD Nature-Related Risk and Opportunity Management and Disclosure Framework Beta v0.2 2022 <https://framework.tnfd.global/wp-content/uploads/2022/06/TNFD-Framework-Document-Beta-v0-2.pdf>

Other initiatives, such as the Coalition for Private Investment in Conservation (CPIC) and the Natural Climate Solutions Alliance (NCSA), will also support the financial architecture by providing enabling models and resources for market participants to implement high quality projects. Launched in September 2016 by Cornell University, Credit Suisse, the International Union for Conservation of Nature and The Nature Conservancy, CPIC is a global multi-stakeholder initiative focused on enabling conditions that support a material increase in private, return-seeking investment in conservation. CPIC aims to facilitate the scaling of conservation investment by creating models (“blueprints”) for the successful delivery of investable priority conservation projects, connect pipeline providers of such projects with deal structuring support, and convene conservation project delivery parties with investors to execute investable deals.⁴⁰

1.5 Addressing deforestation is a key focus area for EU and UK regulators

In November 2021 at COP26, over 140 world leaders endorsed the Glasgow Leaders’ Declaration on Forests and Land Use, pledging to halt and reverse forest loss and land degradation by 2030. While the Declaration is not legally binding, the EU has recently put forward a proposal for legislation that tackles deforestation.

Through the Environment Act 2021, the UK’s new framework of environmental protection, deforestation legislation has been introduced that bans the import of goods associated with deforestation to tackle illegal deforestation in UK supply chains. Larger companies operating in the UK will have to show that their products and supply chains are free from illegal deforestation.

Similarly, as part of the EU’s Green Deal,⁴¹ the European Commission proposed a new law to halt deforestation and minimise the EU’s impact on forests worldwide. The proposed law would require companies to ensure that their products have not contributed to deforestation (not just illegal) or forest degradation before they can be placed on the European market. This proposed law would promote the consumption of ‘deforestation-free’ products in the hopes of reducing the EU’s impact on global deforestation and forest degradation, as well as bringing down greenhouse gas emissions and biodiversity loss.

1.6 Growing investor demand creates new opportunities to develop nature-related products for wholesale and retail markets

On the investor side, increased demand from institutional and retail clients is driving the market for natural capital finance products: a survey found 68% of savers in the United Kingdom want investments to consider both people and planet.⁴² There is a significant commercial opportunity for financial institutions to harness this growing buy-side demand.

At COP26, an investor-led initiative, the Natural Capital Investment Alliance (NCIA) pledged to mobilise at least USD 10 Billion in investment into Natural Capital assets in 2022,⁴³ with an ambition to scale up that investment in the coming years. To achieve these ambitions, financial institutions will need to develop innovative natural capital products that shift capital from nature-negative to nature-positive outcomes.

Biodiversity-related issues such as deforestation and plastic pollution are increasingly featuring in shareholder resolutions and this trend is only expected to continue. In 2022, a nature-focused collaborative engagement programme, Nature Action 100, is expected to be launched. Through the programme, investors will engage with companies and policymakers deemed to be systemically important to the goal of reversing nature loss by 2030, creating more nature by 2030 than we have at present.⁴⁴ The initiative looks to replicate the impact Climate Action 100+ had on collaborative climate engagement with companies and is being supported by the Finance for Biodiversity Foundation.

40 The Coalition for Private Investment in Conservation, <http://cpicfinance.com/>

41 European Green Deal, https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

42 HM Government, Investing in a Better World: Understanding the UK public’s demand for opportunities to invest in the Sustainable Development Goals, 2019 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/834207/Investing-in-a-better-world-full-report.pdf

43 The Natural Capital Investment Alliance, <https://www.sustainable-markets.org/ncia/>

44 Sustainable Development Solutions Network We need an ambitious global plan to reverse nature loss | SDG Action (sdg-action.org)



Part 2: How capital markets can provide financing for nature

There has been a rapid rise in private finance directed towards sustainability outcomes more widely, with over \$705 billion of European ESG-labelled bonds and sustainability-linked loans issued in 2021.⁴⁵ Natural capital finance, while still an emerging sub-section within sustainable finance, is receiving increased attention from capital markets.

This section of the paper outlines the key natural capital finance products currently in the market (including emerging green products), the key challenges faced by financial services in advancing these products and examples of case studies of innovative practice from AFME members.

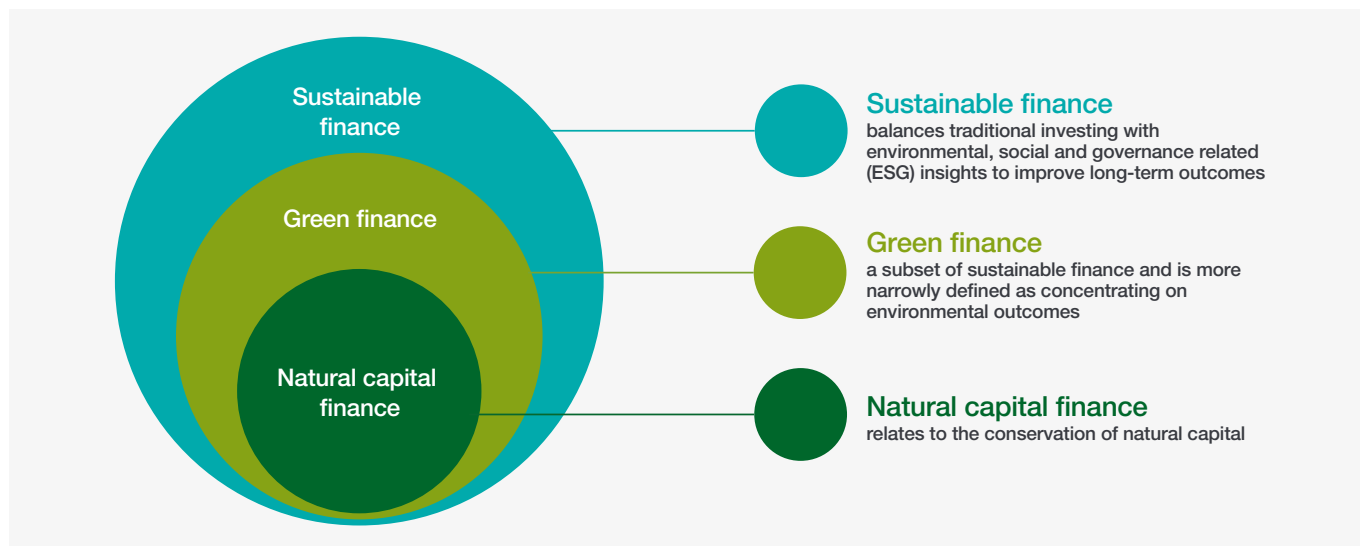


Figure 6: **Categories of private finance (adapted from The Economics of Biodiversity: The Dasgupta Review, 2020⁴⁶)^{47 48}**

“Natural capital finance, while still an emerging sub-section within sustainable finance, is receiving increased attention from capital markets”

45 AFME, ESG Finance Report Q2 2022: <https://www.afme.eu/Publications/Data-Research/Details/ESG-Finance-Report-Q2-2022---European-Sustainable-Finance>

46 The Economics of Biodiversity: The Dasgupta Review, 2020 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962785/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf

47 CFA Institute, <https://www.cfainstitute.org/en/research/esg-investing/sustainable-investing>

48 Cooper, G., and S. Trémolet (2019), Investing in Nature: Private Finance for Nature-based Resilience.



Part 2: How capital markets can provide financing for nature

There are many types of natural capital finance products currently on the market. We have grouped these instruments into three categories: performance-linked instruments, use of proceeds-based instruments and others (see figure 7). Within these categories, debt products are the most common form of natural capital finance, capable of delivering nature-related outcomes while also generating revenue through fees and interest. Natural capital debt products share similar characteristics to other green and vanilla debt products and can be geared towards a variety of risk-return options. They are generally linked to nature in one of two ways:

- 1. Through a designated use of proceeds:** The proceeds raised by the issuance of the instrument are designated towards nature-related outcomes (i.e., activities that would repair, restore and regenerate nature by working on the direct drivers of biodiversity loss).
- 2. Through borrower/issuer performance on pre-selected metrics:** Covenants or incentives are attached to the instrument, which include metrics related to the borrower's or issuer's interface with nature.

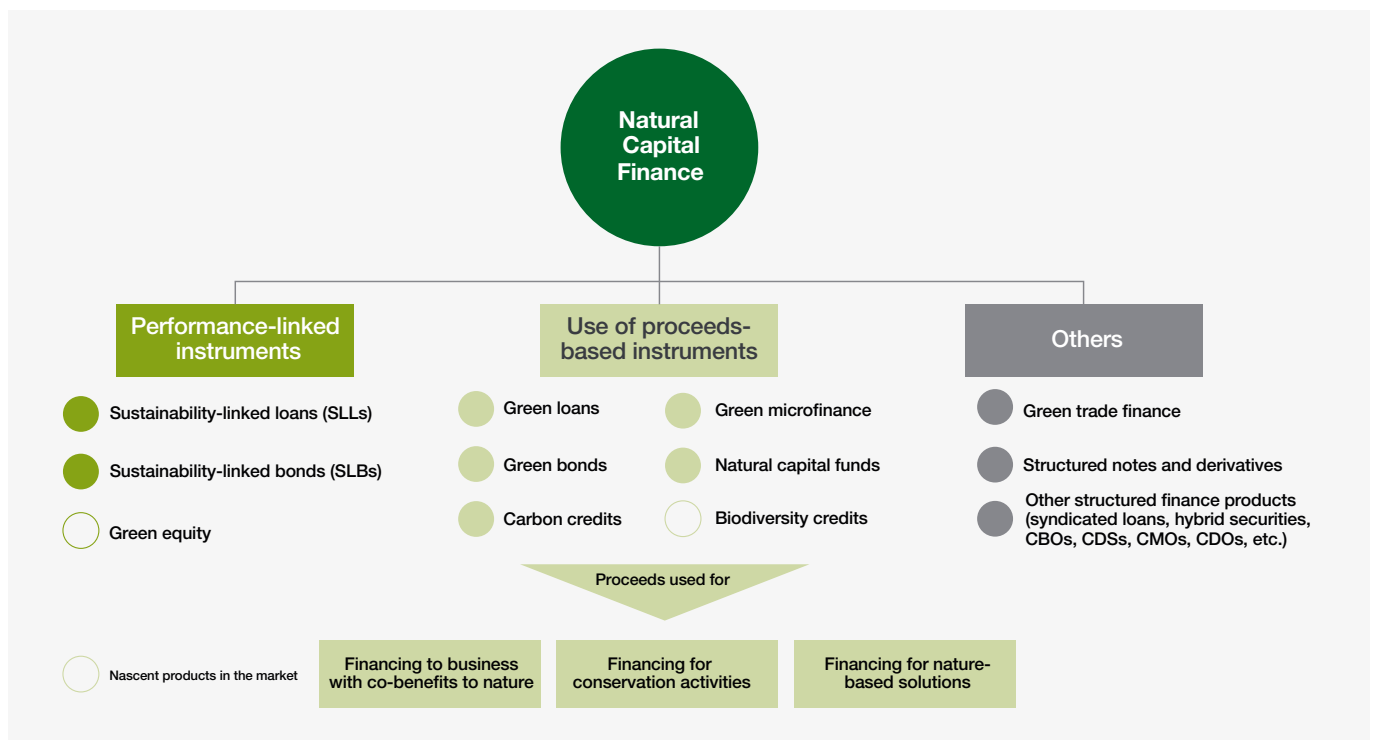


Figure 7: The universe of natural capital finance instruments



2.1 Use of proceeds-based instruments

The International Capital Markets Association’s (ICMA) Green Bond Principles (GBP) and the Loan Market Association’s (LMA) Green Loan Principles (GLP) identify biodiversity and nature as an eligible use of proceeds. The International Finance Corporation (IFC) have expanded on this in detail, specifying that biodiversity is represented by any activities that address one or more of the primary drivers of biodiversity loss,⁴⁹ as defined by IPBES:⁵⁰

1. Land and sea use change	2. Over-exploitation and unsustainable use of nature	3. Pollution	4. Climate change	5. Invasive species
----------------------------	--	--------------	-------------------	---------------------

“Financing can be applied towards conservation with the intention to deliver a net positive biodiversity impact, while also generating returns”

49 International Finance Corporation, Biodiversity Finance Reference Guide: Building on the Green Bond Principles (2022) <https://www.ifc.org/wps/wcm/connect/74307fa1-4e33-42f1-b7e4-5f0b2f240f97/202206-Draft-Biodiversity-Finance-Reference-Guide.pdf?MOD=AJPERES&CVID=o5Emd75>

50 Global Assessment Report on Biodiversity and Ecosystem Services, IPBES (2019)



Proceeds can be directed towards the drivers of biodiversity loss in three distinct ways:



Figure 8: **Three ways in which proceeds can be applied towards nature**



Green loans

Use of proceeds-based instruments

Green loans are defined as any type of loan instrument where proceeds are used to finance or refinance green projects, including eligible projects that address the loss of biodiversity.⁵¹

How to apply to nature

While using loan finance to fund green projects is not new, the Loan Market Association (LMA) have prepared guidance around labelling for “Green Loans”. The Green Loan Principles (GLP) establish four core components:

1. Use of Proceeds
2. Process of Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

Allowable uses of proceeds include addressing key natural capital issues of natural resources depletion, loss of biodiversity, and air, water and soil pollution, among others.

Example

- In June 2022, NADBank Board approved \$156 million for three green projects in wastewater management, mobility and renewable energy.
- The local water utility in Chihuahua, JMAS, is replacing four large sewer mains which have deteriorated and are prone to leaks and failure. The project will prevent the potential discharge of up to 22.8 million gallons per day of untreated wastewater that could impact the Rio Grande River, a bi-national water source.⁵²
- The bank is providing \$15.4 million in green loans to help finance this project.

Benefits

- Opportunity for large-scale lending to provide the much-needed finance to support nature objectives, enabling greater investment.
- By providing financing through green loans, financial institutions can signal heightened priority for green or environmental initiatives.
- Focus on green finance leads to greater levels of transparency and accelerates a regular flow of investments into environmental activities.
- Increases pressure on borrowers to incorporate sustainability objectives into their goals.

Challenges

- The time horizons for loans do not always match the long-term nature of green investments, particularly for some nature-related products.
- Additional complexity when compared to vanilla loans, requiring coordination between the financial and environmental objectives.

Technical guidance
[Green Loan Principles - LMA](#)

51 Green Loans Principles (n.d.). LMA https://www.lma.eu.com/application/files/9716/1304/3740/Green_Loan_Principles_Feb2021_V04.pdf

52 NADBank Board approved \$300-million green loan program



Use of proceeds-based instruments

Green bonds

Green Bonds are any type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new or existing eligible green projects and which are aligned with the four core components of the Green Bond Principles (GBP).⁵³

How to apply to nature

- Proceeds from green bonds are used to finance eligible green projects, which includes projects addressing key natural capital issues of natural resources depletion, loss of biodiversity, and air, water and soil pollution.
- The GBP has identified natural resource conservation and biodiversity conservation as **two of their five high level environmental objectives**.
- The four components of the GBP preclude some environmental bonds that support sustainable activities from being labelled as Green Bonds.



Example

JP Morgan have adapted the ICMA GBP for the allocation of green bond funds:⁵⁴

- 1. Use of Proceeds:** Green buildings or renewable energy.
- 2. Process for Project Evaluation and Selection:** Projects will be evaluated and selected in accordance with the eligibility criteria by internal sustainability groups and global ESG risk management teams.
- 3. Management of Proceeds:** An amount equal to the net proceeds of any issuance of green bonds will be allocated to applicable Eligible Green Projects.
- 4. Reporting:** After any issuing of Green Bonds, JPM will prepare annual public reports describing allocation of net proceeds until fully allocated.

Benefits

- High demand in the market; by some estimates, \$200bn green bonds were issued in just one year.²
- GBP have set out a clear framework enabling all market participants to easily understand the characteristics of a green bond.
- Green bonds are useful to banks for signalling purposes and portfolio diversification
- Green bonds may command a 'greenium', or a price premium over vanilla bonds, due to a recent excess of demand in the market and the perceived link between green bonds and the avoidance of existential risk.

Challenges

- Investors cannot see the entire expenditure plan for their investment; hard for borrowers to identify impact.
- Perceived low returns and a significant risk level could make Green Bonds with biodiversity objectives less attractive to traditional investors, in the absence of risk sharing and guarantee mechanisms.
- Different standards currently govern the Green Bond market. The EU Green Bond Standards will soon enter the EU market to provide more detailed and clear definitions and will be directly aligned to the EU Taxonomy.

Technical guidance
Green Bond Principles – ICMA

53 Green Bonds Principles (n.d.). ICMA. <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>

54 ² <https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/documents/green-bond-annual-report-2021.pdf>



Part 2: How capital markets can provide financing for nature

Case study: Debt for nature swaps

Belize Debt Conversion for Marine Conservation⁵⁶

In November 2021, Credit Suisse, The Nature Conservancy (TNC) and the Government of Belize announced the completion of a USD 364 million debt conversion for marine conservation that reduced Belize's debt by 12 percent of GDP, created long-term sustainable financing for conservation and locked in commitment to protect 30% of Belize's ocean, in addition to a range of other conservation measures. The transaction is the world's largest debt refinancing for ocean conservation to date.

Key Transaction Components

- Belize repurchased 100% of its "Superbond" at a 45% discount
- A TNC subsidiary provided the blue loan to finance the repurchase
- Credit Suisse, as sole structurer and arranger, underwrote and placed the bond and lent the proceeds (\$364 million) to the subsidiary of The Nature Conservancy
- The US International Development Corporation (DFC) provided Political Risk Insurance wrap on blue loan
- Blue bonds Moody's rating: Aa2
- Belize committed to achieving marine conservation targets and using a portion of the financing savings to fund conservation over 20 years
- 'Catastrophe wrapper' to provide insurance protection to cover repayments by Belize should it be affected by a hurricane

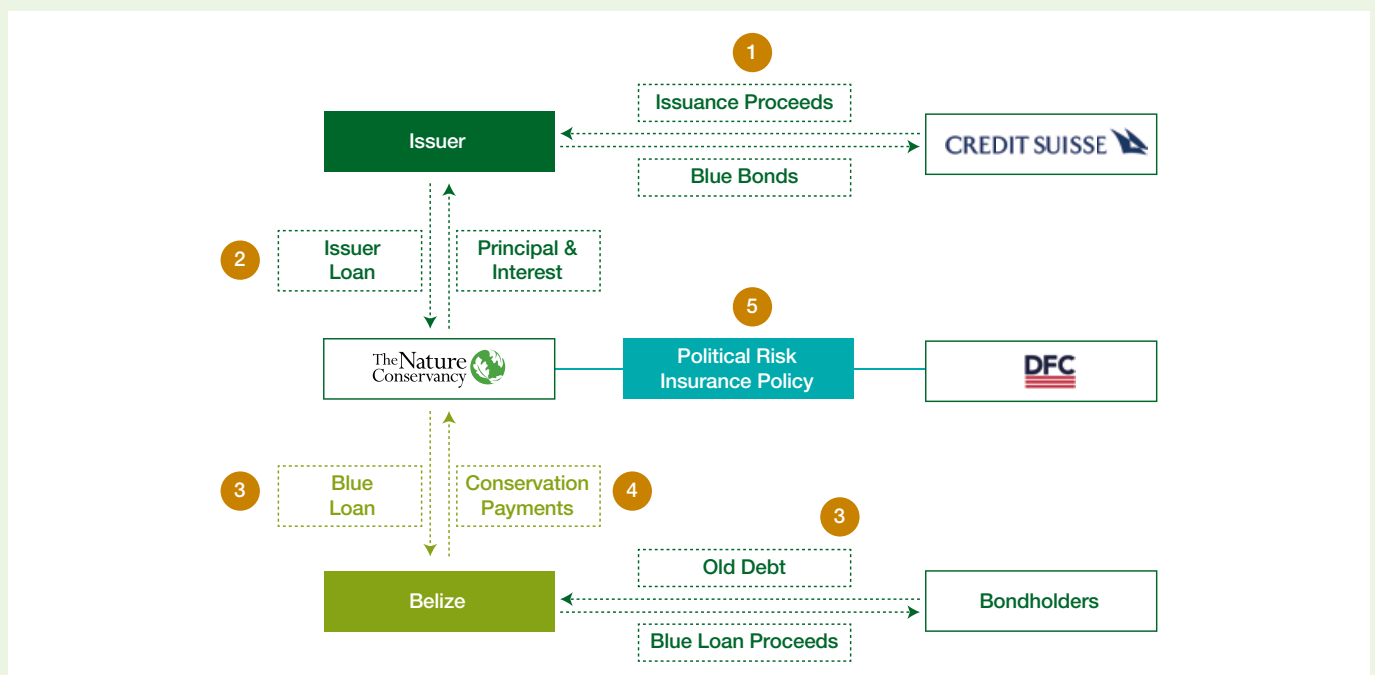


Figure 9: **Mechanism of financing** - (1) Credit Suisse funded the transaction by purchasing the blue bonds from a special purpose entity ("Issuer"), rated Aa2 by Moody's; (2) The Issuer made a loan (the "Issuer Loan") to TNC, acting through a wholly-owned subsidiary (3) TNC made a loan to Belize (the "blue loan"), which was used to repurchase the Eurobonds and fund an endowment; (4) In exchange for the blue loan, Belize committed periodic payments into a conservation fund (the "Conservation Payments"); (5) Concurrently with the restructure, TNC obtained a political risk insurance policy from DFC covering the blue loan.



Conservation Impacts

- 30% of ocean area under protection by 2026, half in high biodiversity protection zones
- Science-based, participatory Marine Spatial Planning to design protected areas and ocean management plans
- Creation of a Conservation Fund with approximately USD 4 million annually, paid in Belize dollars, over the next 20 years which will flow to it for onward disbursement to marine and coastal conservation projects

Scalability/Replicability

The Credit Suisse debt conversion structure is highly scalable and replicable. Transaction sizes and overall market are limited by three criteria:

1. Countries committed to achieving the conservation outcomes

As the threat of climate change and awareness of the role that natural resources and biodiversity play in economic growth rapidly increase, most developing countries will require additional financing for conservation.

2. Availability and affordability of credit enhancement

DFC can replicate the insurance structure in other countries and other bilateral and multilateral development finance institutions can consider providing similar risk mitigation products (e.g., credit guarantees) to do more deals in more markets.

3. Availability of debt to refinance

While debt conversions work well with sovereign debt trading at a discount in the capital markets, they are not exclusively for countries threatened by high debt distress. Many countries have high-coupon bonds. Even if these trade at little to no discount, they can still be refinanced with lower coupons and longer tenors to create significant funding for conservation. Many also have commercial bank loans (or other liabilities) that, while not often traded in the market, have high interest rates and/or short tenors that may be candidates for refinancing into a lower interest rate and/or longer tenor loans.



Carbon credits

Use of proceeds-based instruments

A carbon credit is a certificate or permit allowing the holder to 'offset' one ton of carbon dioxide or other greenhouse gases (GHG) emitted. They are intended to reduce GHG emissions and can be traded over-the-counter or through the voluntary carbon markets.

How to apply to nature

- Carbon credits have been activated to support biodiversity through natural climate solutions, as many activities that protect and restore nature and biodiversity provide carbon sequestration benefits and can thus generate carbon credits alongside other benefits.

Example

- A bank has financed a wetland restoration project meeting multiple objectives, including sequestering carbon and preventing storm damage to property by absorbing excess rainwater.
- The carbon credits generated by the project can be traded for profit on a voluntary carbon market (VCM), or used to offset the bank's emissions.

Benefits

- An increase in corporate climate commitments supports the demand for credible, high quality carbon credits as a mechanism to offset residual GHG emissions.
- Carbon credits can provide biodiversity and social co-benefits if harnessed correctly.
- Carbon credits offers opportunities for emerging markets as carbon credit exporters.

Challenges

- Challenges may exist around the lack of guarantees on future pricing of credits.
- Ensuring the quality and verifiability of the activities that provide carbon sequestration benefits is challenging.
- The carbon market is not currently standardised or centralised.
- The heterogeneity of carbon credits can impair liquidity.
- Some residual or perceived legal uncertainties remain in certain jurisdictions with regards to the legal nature and treatment of voluntary carbon credits.
- In order to scale carbon markets in the near-term, there must be further enhancement of carbon pricing mechanisms such as Emissions Trading Systems (ETs), and greater interoperability driven by the public sector.⁵⁷

Technical guidance

Natural climate solutions:

IUCN Global Standard for Nature-based Solutions

Voluntary carbon markets:

ICVCM

The Gold Standard

Verra

57 <https://www.gfma.org/correspondence/unlocking-the-potential-of-carbon-markets-to-achieve-global-net-zero/>

Use of proceeds-based instruments

Biodiversity credits

Biodiversity credits are a financial incentive attached to a unit of biodiversity that is protected or restored. Key characteristics include where the action has taken place, who has developed it, methodologies employed and whether it has been certified according to a certain system.

How to apply to nature

- In the future, businesses may have to pay for regulatory mitigation of biodiversity impacts, creating a use and market for biodiversity credits.
- Biodiversity credits describe a positive biodiversity impact resulting from a targeted action towards that purpose; for example, additionality in the management of land, including ecological restoration.



Example

- A bank with an ambition to generate positive impacts to nature has identified a suitable partner to deliver a rewilding project.
- The project will generate biodiversity credits based on the enhancements to the natural environment.

Benefits

- Biodiversity credits could bypass many of the issues prevalent in natural climate solutions by directly incentivising holistic nature-related outcomes.
- The use of credits as an aggregation method is attractive to scale up and achieve thresholds that have the potential to create and sustain positive and inclusive biodiversity conservation impacts in the long term.
- Biodiversity credits are 'tangible' meaning that they are easier for ordinary investors to relate to at a personal level.

Challenges

- As an emerging market proposition, biodiversity credits are not currently standardised, centralised or organised.
- Lack of standardised metrics (e.g. for positive biodiversity impact) poses an increased risk of greenwashing.
- The heterogeneity of biodiversity credits impairs liquidity (e.g. activities are highly localised and/or species-differentiated).
- At COP26, agreement was reached at the international level for global carbon market mechanisms. The equivalent mechanism or architecture does not yet exist for biodiversity credits.
- Potential social risks of land grabs to benefit from biodiversity credits that can then be sold on.

Technical guidance

[Verra Climate, Community & Biodiversity \(CCB\) Standards](#)



2.2 Performance-linked instruments

Natural capital objectives are increasingly being linked to instruments such as sustainability-linked loans (SLLs) and sustainability-linked bonds (SLBs). As borrowers or issuers are free to use proceeds for general purposes, performance-linked instruments are seen as being more versatile than instruments where the use of proceeds are explicitly designated.

Sustainability-linked loans (SLLs)	Use of proceeds-based instruments
<p>Sustainability-linked loans (SLLs) are any types of loan instruments and/or contingent facilities (such as bonding lines, guarantee lines or letters of credit) that incentivise the borrower’s achievement of ambitious, predetermined sustainability performance objectives,⁵⁸ measured through Key Performance Indicators (KPIs) and assessed against Sustainability Performance Targets (SPTs).</p> <p>How to apply to nature</p> <ul style="list-style-type: none">• Biodiversity-related KPIs have been identified by the Sustainability Linked Loan Principles (SLLP), such as improvements in conservation, sustainable farming and food, water consumption and others.• SLLs are often applied more generally to influence general corporate strategy rather than to fund specific projects.	<p>Example</p> <ul style="list-style-type: none">• A clean power producer is investing in biodiversity by retaining, restoring and enhancing natural habitats at their sites and in communities where biodiversity is under threat.• In support of this goal, the power producer has aligned their financing with their commitment to protect biodiversity through annual tree and shrub planting, in line with ecological requirements in the area, by linking the interest rate on their credit facilities to the number of trees and shrubs planted each year.⁵⁹
<p>Benefits</p> <ul style="list-style-type: none">• Potential improvement in the overall sustainability assessment, including ESG rating.• Opportunity to receive a loan margin discount subject to meeting the established KPIs.• As SLLs do not need to be tied to a specific project, they are more flexible than use of proceeds-based instruments such as green bonds.	<p>Challenges</p> <ul style="list-style-type: none">• SLLs are more complex than traditional loans, requiring clear definitions and measurability for KPIs.• The timeframes of SLLs may be too short to support biodiversity outcomes (most have maturities of five years whereas biodiversity outcome may take 10+ years to materialise).• SLLs may arise from bilateral or private arrangements and therefore there may be limited data available in the public markets as a whole.• There are still ongoing discussions on the treatment of SLLs in the P&L.
<p>Technical guidance LMA Sustainability-Linked Loans Principles</p>	

58 Sustainability Linked Loan Principles (SLLP). (n.d.). LMA. https://www.lma.eu.com/application/files/9216/4873/5603/Sustainability-Linked_Loan_Principles_31_March_2022.pdf

59 Nature and Biodiversity - The Next Frontier of Sustainability. (n.d.). Wwww.rbccm.com. Retrieved August 22, 2022, from https://www.rbccm.com/en/insights/story.page?dcr=templatedata/article/insights/data/2022/07/sustainability_matters_nature_and_biodiversity



While not new, SLLs and SLBs are increasingly being activated in the context of biodiversity. They can be used to finance company transitions away from nature-damaging business models and represent a vast market: WEF estimates that nature-positive transitions could generate up to US\$10.1 trillion in annual business value, defined by cash flows and value of assets, and create 395 million jobs by 2030.⁶⁴

Use of proceeds-based instruments

Sustainability-linked bonds (SLBs)

Sustainability-linked bonds (SLBs) are any type of bond instrument for which the financial and/or structural characteristics can vary depending on whether the issuer achieves predefined sustainability objectives, measured through Key Performance Indicators (KPIs) and assessed against Sustainability Performance Targets (SPTs).

How to apply to nature

- SLBs may be used to incentivise issuers to hit biodiversity-related KPIs, or face paying investors a larger coupon.
- SLBs are often applied more generally to influence general corporate strategy rather than to fund specific projects.
- ICMA has recently updated its guidance to include several illustrative biodiversity targets in its KPIs.

Example

- A large agricultural producer has prioritised biodiversity as part of its core sustainability strategy.
- The producer issues a bond that includes highly specific KPIs related to the state and pressures on biodiversity.
- The bond includes an intermediate assessment date for a coupon payment step-up if the issuer misses its target and a step-down if it meets them (a two-way coupon ratchet). The step-up appropriately reflects the market and size of the investment-grade issuer.

Benefits

- SLBs are highly supported by issuers and many investors. Associations such as ICMA are continuing to provide updated guidance to support the growth of SLBs.
- As SLBs do not need to be tied to a specific project, they are more flexible than use of proceeds instruments such as green bonds.
- SLBs may command a 'greenium', or a premium over vanilla bonds, due to a recent excess of demand in the market and the perceived link between SLBs and avoidance of existential risk.

Challenges

- Similar to SLLs, the timeframes of SLBs may be too short to support biodiversity outcomes.
- By design, metrics and guidance from ICMA on KPIs are focused on reducing biodiversity loss rather than making biodiversity improvements, as they were made be tailored to a company's specific material factors and geography.
- There are still ongoing discussions on the treatment of SLBs in the P&L.

Technical guidance

ICMA Sustainability-Linked Bond Principles (SLBP)⁶⁵
Forthcoming EU Green Bond Standard

64 World Economic Forum, The Future of Nature and Business (2020) https://www3.weforum.org/docs/WEF_The_Future_Of_Nature_And_Business_2020.pdf

65 1 Sustainability-Linked Bond Principles. (2020). <http://dev.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Sustainability-Linked-Bond-Principles-June-2020-171120.pdf>

Case study: Cairn Homes Biodiversity Linked SLL

Overview of company

Cairn Homes plc⁶⁶ (Cairn) is an Irish homebuilder listed on Euronext Dublin and the London Stock Exchange with a market capitalisation of €560m as of 18 October 2022. Cairn has sold nearly 6,500 new homes since 2016. Cairn's purpose is to build homes and create places where people love to live, and sustainability is woven into every aspect of this.⁶⁷

The product

Cairn completed a refinancing of its €277.5 million syndicate facility into a sustainability linked term loan (SLL) and revolving credit facility (RCF) with a syndicate of banks, including Barclays Bank Ireland, in July 2022. Following the refinance, Cairn is maintaining its total debt facilities at €350 million. This is the largest sustainability linked loan facility of its type arranged in the Irish homebuilding sector. The term loan and revolving credit facility interest rates are linked to Cairn meeting certain sustainability performance targets aligned to its sustainability strategy. The sustainability performance targets are in respect of Cairn's decarbonisation, biodiversity, and its people strategy.

Performance is measurable under a well-established metric

The financing includes annual targets to increase biodiversity net gain (BNG) across Cairn's new development commencements as measured as a percentage of overall new homes commenced. BNG delivers measurable improvements for ecology by protecting, enhancing and creating habitats in association with development. Cairn's approach favours on-site habitat protection, enhancement or creation wherever possible.

- BNG is defined as development leaving biodiversity at a site in a measurably better condition than before completion of the project.
- This is the metric set out by DEFRA (Department for Environment, Food and Rural Affairs) in the UK, which has also supplied an associated assessment tool.

Challenge for Cairn

- To date, Cairn's consideration of biodiversity has been focused on specific actions based on environmental impact assessments which in most cases did not include a requirement for Cairn to commission a BNG survey that would quantify the habitat creation and destruction associated with its activities.
- Cairn has now shifted focus onto defining more impactful targets for its operations. Cairn is working with ecologists, who are subject matter experts in BNG, to assist them with defining the baseline habitat conditions, at sites considered for development to be able to better quantify local risks and impacts on biodiversity. This is with the input and assistance of a consultant Landscape Architect as part of the planning process, (where applicable). The process can be revisited and amended in the detailed design phase of the project, as needed.

Broader Context

- At present, there is no legislative requirement for BNG KPIs to be provided or measured by homebuilders in Ireland.
- The Environment Act of 2021 introduced a mandatory requirement for BNG assessments for developers and this is expected to come into force by the end of 2023. Additionally, BNG assessments are already required by some local authorities in the UK.⁶⁸ However no such legal regime is in place in Ireland.

66 <https://www.cairnhomes.com/>

67 The case study is based on information from Cairn Homes publicly available data and has been approved by the Company.

68 The speed of biodiversity net gain adoption in Local Plans, Local Gov, June 2022. (<https://www.localgov.co.uk/The-speed-of-biodiversity-net-gain-adoption-in-Local-Plans/54398>)



Part 2: How capital markets can provide financing for nature

- Many of Cairn's UK peers are aiming to implement BNG targets on sites being planned from 2023. Cairn is looking to achieve this standard of setting BNG on an increasing share of sites, commencing from 2022.
- Cairn has committed to using offsets only as a last resort - two new sites have been planned to BNG standard this year and both will achieve BNG without offsets.

Barclays' role – Sustainable Product Group ESG Structuring

Barclays Corporate Banking Sustainable Product Group (SPG) provided ESG structuring services to Cairn Homes, supporting with the selection of meaningful targets and indicators. The SPG was created to broaden Barclays Corporate Banking Sustainability product suite, supporting Corporate Banking clients achieve their long-term sustainability goals. SPG's expert assistance on £3.5bn of green finance to date on more than 150 transactions has directly contributed to Barclays 2030 green financing target and ambition to be a Net Zero bank by 2050.⁶⁹

69 <https://home.barclays/sustainability/addressing-climate-change/>



2.3 Other financing instruments

Below we set out examples of other financing instruments that can be utilised by financial services to achieve nature-related objectives.

Natural Capital Funds	Other products
<p>A natural capital fund is an investment pool that can hold debt or equity instruments, with proceeds used exclusively to finance or re-finance Green Projects, including those with positive biodiversity or nature-related outcomes.</p> <p>How to apply to nature</p> <ul style="list-style-type: none">• Through a natural capital fund, banks can pool their capital alongside other investors and engage with companies that are driving fundamental changes to support the transition to a nature positive economy.• Natural capital funds target companies that are actively managing their impact on nature and those that do not meet environmental criteria are excluded.	<p>Example</p> <ul style="list-style-type: none">• A wealth manager/private bank or asset manager launches a fund investing in companies that provide solutions to nature loss or are transitioning their business models to manage their impact on nature.• A global bank invests in the fund's mezzanine tranche to help crowd in additional capital to the mezzanine and senior tranches.• By investing in the fund, the bank has direct, sizable and environmental impact through the fund's investments.
<p>Benefits</p> <ul style="list-style-type: none">• Investment mandates can be geared towards nature and biodiversity to complement sustainable land use and other initiatives.• The concept of natural capital funds are relatively easy for investors to understand, because many are already familiar with collective investment schemes.	<p>Drawbacks</p> <ul style="list-style-type: none">• Cited challenges for asset managers are generating an acceptable expected financial return to attract institutional investors due to natural capital funds being perceived as high risk so often attract less investment.• Excluding companies from the fund limits engagement, and prevents asset managers from having a dialogue with companies who may be interested in becoming nature-positive but need the extra funding to achieve it .
<p style="text-align: center;">Technical guidance <u>Natural Capital Coalition's Connecting Finance and Nature Capital Protocol</u></p>	



Case Study: Bank of America's investment in responsAbility Climate Smart Agriculture & Food Systems Fund^{70 71}

responsAbility's science-based strategy for Climate Smart Agriculture and Food Systems is an impact investing solution targeting global food systems transformation by financing sustainable growth in food value chains in Asia Pacific, Latin America, and Africa.

Founded in 2003, responsAbility Investments is a private Swiss enterprise headquartered in Zurich. The firm invests in the finance, agriculture and food, and renewable energy sectors. It currently manages \$3.6Bn+ of assets across 73 countries and has invested \$12Bn+ since inception in 2003. In May 2022, responsAbility was acquired by asset manager M&G plc which manages £349Bn in assets recorded as of August 2022 .

Objective

The investment focus is to provide long-term expansion debt and technical assistance to innovative agribusinesses operating in in Asia Pacific, Latin America and Africa, with a goal of mitigating climate change, reducing food loss and promoting climate change resilience of smallholder farmers.

- responsAbility seeks to finance agribusinesses which experience growth opportunities to meet the increasing demand for healthier, more equitable and more sustainable food, but lack access to adequate long-term financing and strategic advisory to account for climate change in their growth plans.
- The funds provided will finance working capital and fixed assets, mainly in the form of senior, secured debt.
- Geographical allocation is expected to be Asia Pacific (30-50%), Latin America (30-50%), and sub-Saharan Africa. (10-20%)
- Estimated impact of these funds could potentially transform 300,000 hectares to climate-smart practices and reduce about 8MM tons of GHG emissions, which is the equivalent to reducing the annual emissions of about 1.7MM cars.

BofA Blended Finance Catalyst Involvement

- Bank of America is an investor in the fund's mezzanine share tranche which will help crowd in additional capital into the mezzanine share tranche and senior notes. The target fund size is \$200MM with 25% of credit loss protection and up to 30% of notes. KfW, amongst others, is an anchor investor and critical provider of junior share capital.

70 <https://www.responsability.com/en/press-releases/responsability-launches-climate-smart-food-systems-investment-solution-with-kfw-as-anchor-investor-and-in-partnership-with-the-cgiar>

71 <https://www.mandgplc.com/news-and-media/press-releases/mandg-plc/2022/11-08-2022>

Green Trade Finance

Other products

Green trade finance aims to incentivise importers and exporters to engage in transactions yielding benefits to the environment, including nature and biodiversity, by requiring trade finance instruments such as trade guarantees and letters of credit to support an underlying green project or objective.

How to apply to nature

While there is currently no set of standards for green trade finance, the International Chamber of Commerce (ICC) is aiming to propose a new set of rules that would apply to a third of global trade,⁷² with clear applicability to nature and biodiversity.

The ICC have identified five components of a trade transaction in which its sustainability* will be assessed:

1. The **good/service being** traded (e.g., timber, soy)
2. The **seller/origin** where the goods come from (e.g., areas of high biodiversity impact)
3. The **buyer/destination** where the goods go to
4. The **transition/transportation** from buyer to supplier
5. The **purpose** of the trade (e.g., to recognise transition finance, or activities mitigating climate change)

Example

- The University of Cambridge and International Finance Corporation (IFC) partnered with the Banking Environment Initiative (BEI) to launch the Sustainable Shipment Letter of Credit as far back as 2014.⁷³ This allows banks to differentiate between 'Sustainable Shipments' and conventional ones, opening up the opportunity to incentivise growth in sustainably produced commodities.
- Société Générale has implemented strict guidelines for green trade finance, requiring underlying projects to fall within selected sectors.⁷⁴

Benefits

- Much of world trade relies on trade finance; the World Trade Organisation (WTO) estimates this proportion to be 80-90%.⁷⁵ Given the sheer demand, sustainable trade is vital to the transition to a green economy.
- Consumer demand, regulatory pressures and advancements in technology (e.g., blockchain) are likely to drive the growth of the green trade finance market and create significant opportunity.
- Trade can often be clearly linked to risks of economic loss. Trade in honey bees, for example, has led to the introduction of more productive and docile queen bees globally but has reduced genetic diversity; sustainable trade finance rules would limit this type of activity.

Challenges

- Few large banks have a live offering in place, slowing down the standardisation process, necessitating unilateral action.
- A framework for trade finance is considered more complex as more parties are involved and entire supply chains need to be monitored.
- Trade instruments are different from the loan and bond markets as trade tends to be more granular, e.g., individual receivables or single shipments of goods.⁷⁶

Technical guidance

[ICC Standards for Sustainable Trade and Sustainable Trade Finance - ICC - International Chamber of Commerce \(iccwbo.org\)](#)

72 EXCLUSIVE ICC proposes first global rules on sustainable trade finance | Reuters Trade and biodiversity (europa.eu)

73 Sustainable Shipment Letter of Credit: A financing solution to incentivise sustainable commodity trade | Cambridge Institute for Sustainability Leadership

74 What is green trade finance? - Societe Generale

75 WTO | Trade finance

76 Trade Finance and ESG | Barclays Corporate



Other products

Structured notes and Derivatives

Derivatives and structured notes with underlying assets that are linked to sustainability through key performance indicators, sometimes referred to as Sustainability-linked Derivatives (SLDs), are highly customisable transactions that can be applied in a variety of contexts including nature and biodiversity.

How to apply to nature

SLDs can be used to create a nature-linked cashflow that is related to a conventional derivative instrument by using KPIs to monitor compliance with targets.⁷⁷ An ISDA paper observed that there are two broad types of ESG-related KPIs:

1. Reducing behaviour that negatively impacts the environment: decreasing greenhouse gas emissions, lowering the quantity of waste sent to landfills, cutting water consumption or reducing other forms of pollution.
2. Encouraging behaviour that is beneficial for the environment: improving energy efficiency, boosting renewable energy use, production or generation, increasing recycling versus other forms of waste disposal, or contributing to biodiversity.

Example

- In August 2019, the first SLD was traded;
- SBM Offshore and ING hedged the interest rate risk of BM's \$1 billion five-year floating rate revolving credit facility.
- In September 2021, Barclays launched its first Green Structured Notes Programme.
- The UK government might buy a ten-year biodiversity derivative for a species of concern wherein a predefined amount of funds would be released by the seller if a species' population falls below a threshold.⁷⁸

Benefits

- Derivatives have a role to play in financial market participants' and corporates' sustainable finance strategy, and they will be needed to achieve the transition by providing market access, risk management, hedging and pricing.
- Derivatives and structured notes allows banks to diversify their funding sources and offer investors a differentiated green investment opportunity.
- Given the scope for customisation and the ability for parties to add a sustainability component or overlay to an otherwise vanilla standardised derivative, there is an opportunity for such transactions to enhance the flow of private capital to achieve sustainability objectives.⁷⁹

Challenges

- There is ongoing consideration of whether SLDs actually create a sustainability-linked cashflow since they are primarily designed to monitor compliance with environmental or social targets that are not currently consistent with the Taxonomy technical criteria.
- SLD trading volumes are currently much smaller than those of more traditional ESG-related derivatives, (for example, derivatives that typically involve an environmental-linked commodity such as carbon credits or allowances).
- The derivatives industry is in the process of developing classification methodologies for derivatives that are able to consider sustainability aspects in collaboration with the EU's Platform on Sustainable Finance

Technical guidance

- [Sustainability-linked-Derivatives-KPI-Guidelines-Sept-2021.pdf \(isda.org\)](https://www.isda.org/a/xvTgE/Sustainability-linked-Derivatives-KPI-Guidelines-Sept-2021.pdf)
- [Sustainability-linked-Derivatives-Where-to-Begin.pdf \(isda.org\)](#)

77 <https://www.isda.org/a/xvTgE/Sustainability-linked-Derivatives-KPI-Guidelines-Sept-2021.pdf>

78 A derivative approach to endangered species conservation - Mandel – 2010

79 ESG Derivatives: a new way to promote sustainability – BDO



Part 2: How capital markets can provide financing for nature

Additionally, there are other, less developed natural capital finance products on the market that have applications to nature. These include green microfinance, green equity, perpetual bonds and other structured finance products.

Green equity has been theorised as a way to expand green financing beyond debt and link the equity of an entity to the environmental performance of its underlying revenue streams and investments. Biodiversity equity could give ownership to monetary flows that can be realised on natural assets thanks to the monetisation and exchange of carbon and/or biodiversity credits.

Collateralised debt obligations, such as nature backed securities, consist of hundreds, if not thousands, of small restoration, rehabilitation and regeneration projects across different countries, landscapes and sectors. Nature backed securities could solve the problem of investment scale by aggregating many natural assets and projects that might otherwise be considered too small to institutional investors.

2.4 Product challenges

The incorporation of nature within traditional financial instruments has created product design challenges, expressed through nuances in several features such as product labelling, which performance metrics to be used and risk-return profiles.

Common challenges across products include the need for clear definitions, metrics against which biodiversity performance can be assessed, widely agreed targets and pathways for real economy sectors and the availability of data which is vital to underpin effective markets and avoid the risk of greenwashing.

It is important that nature-positive opportunities also consider the broader social and environmental risks or potential unintended consequences of nature-related financing. This due diligence is important for ensuring the integrity and reputation of a nature-related finance market and in minimising reputational risk to individual firms.

While work is underway to improve each of these areas, it is essential that progress is made to facilitate the scaling of natural capital financing. Many of these challenges can be overcome by increasing market maturity and through standardisation and policymaking and we consider these in the following section.

Products: key challenges

Lack of standard definitions

Complexity in defining metrics & KPIs: With climate change, a legally binding international treaty was adopted in the form of the Paris Agreement, resulting in an unambiguous goal to limit the global increase in temperature to well below 2, preferably to 1.5 degrees Celsius by reducing greenhouse gas emissions. Biodiversity has proven to be far more complex and is unlikely to be accurately measured with a single metric. This makes it more difficult for markets to assure investors that the products being sold are stopping biodiversity loss or positively impacting nature.

Lack of clarity around product labels: There remains heavy caution around labelling products sustainable or green due to risk of being perceived as 'greenwashing'. Addressing this issue requires clear direction and frameworks around which products can be labelled as nature-positive.

Response & next steps

- A clearer set of definitions through the efforts of various initiatives is emerging on product labels – the bond market has been a good example of this to date with clarity provided by the Green Bond Principles.
- AFME strongly supports further work in this area, encouraging members to support and feed into the work of collaborative bodies such as TNFD who are planning to propose metrics.



Data

Data Sourcing: Access to verifiable data that provides quantifiable metrics/KPIs to baseline and measure impact will underpin the success of natural capital finance products. Not only is there less maturity around definitions, but sourcing is far more complex and diverse.

Response & next steps

- The TNFD is seeking to drive clarity around data providers, for example through the work of the TNFD's Nature-related Data Catalyst, as are a number of industry bodies and associations such as the Finance for Biodiversity Foundation.

Assurance & oversight

Lack of assurance: Sufficient oversight by accredited parties and public watchdogs through verification and external assurance may provide the market confidence needed to drive the growth of natural capital finance products.

Response & next steps

- As the market coalesces around a set of standards and expectations it will become more feasible to engage audit expertise with the support of relevant technical expertise.

Investor expectations

Risk-return appetite: One fundamental barrier to investing in nature is that as a relatively uncharted area, natural capital products have less of a track record around performance than traditional financial instruments. There may be expectations for higher risk-adjusted returns.

Fee-taking: As conservation activities have a deep history of being funded by donors or public sources, charging fees for financing products has in some cases presented an optical challenge. Changing these expectations and normalising fee-taking in natural capital financing, as well as thoughtful consideration around margins will be needed to overcome this barrier and attract private capital at scale into the space.

Response & next steps

- A deeper understanding of nature-related risks coupled with de-risking of the product development process will be vital for enabling growth in this area.
- Blended public-private finance models could provide a way for governmental bodies and private business to share risks and costs associated with protecting and conserving nature.
- A coherent policy and regulatory framework for investing in nature-based projects (e.g. policy interventions that incentivise private investment by reducing risk and increasing returns).

Structural issues

Investment scale: Financing conservation projects and small to medium-sized enterprises (SMEs) generating co-benefits to nature may provide insufficient private returns to be investable for mainstream financial institutions within the private sector. Incorporation within larger opportunities may be necessary to bring smaller products to market.

Investment timeframes: Another challenge to financing nature-related projects is that outcomes in the natural world are achieved over much longer time periods. For example, a reforestation project may take several decades to begin yielding intended results, whereas a bond may reach maturity within three to eight years. Market expectations do not currently favour such long term results.

Response & next steps

- Incentive structures for investors can be better aligned with the efficient and sustainable allocation of capital.
- The development of efficient market mechanisms to expand and aggregate projects to investment scale.
- Oversight of nature markets is needed to enhance trust in the market and address the risk of greenwashing.



2.5 Beyond private finance: the emergence of blended finance to mobilise private capital for nature

Blended finance entails the use of capital from public or philanthropic sources to de-risk investments to attract the participation of the private sector for sustainable development. One of the main cited barriers of investing in nature at scale is that the risks outweigh the returns. Blended finance can be used in transactions where the private sector would be willing to invest if the risk, real or perceived, were lower and could therefore be an attractive mechanism for increasing private capital flows for nature.

The main public finance and philanthropic actors that have provided blended finance for nature-based transactions can be grouped into the following three categories:

- Philanthropic Foundations.
- Donors and Multi-donor Funds.
- Development Finance Institutions (DFIs).

Despite recent improvements and some exciting model transactions, blended finance has not yet had sufficient traction to contribute to halting and reversing nature loss at the pace or scale required. A recent study identified 31 active investment vehicles (funds, facilities and bond instruments) which use blended finance as an approach to drive the protection or restoration of nature's ecosystem services.⁸⁰ However, this represents just 5% of the total blended finance vehicles at play across investment sectors.

Additionally, there is variability in coverage across sustainability themes. According to analysis conducted by Convergence, the Sustainable Development Goals (SDGs) 14 (Life Below Water) and 15 (Life on Land) were found to be amongst the SDGs that received the least funding from blended finance. Around half of all transactions were found to target SDGs incorporating a climate change component.⁸¹

“Blended finance has not yet had sufficient traction to contribute to halting and reversing nature loss at the pace or scale required”

80 The Blended Finance Playbook for Nature-Based Solutions – Earth Security (2021)

81 Convergence, The State of Blended Finance 2021 (2021), <https://www.convergence.finance/api/file/8dbe65b7c7f866e1d0ae23185e4e52fb:84944c8ab1474f422bc00dc2470ddc3c1b435d2f6547ac8d0fcff579340a5e198b9736aed7898fcbca0f0fd9548800111a26175a7359b9624a0bcbcf03fd8fa8d94de1d85f221a021dc659df12fd3f42b57f14ae140097a3fed0525f05ac5fdea45b4d597fa2659becf03c7d7cfa6d46e22dead3b5e33cad02734b1f67de3ae79502e0587be88347933f5f18189b6f1dbfa692036b1cf1a424665a7e16b4b7af>



Part 3: A roadmap for regulatory policymaking

As the natural capital finance landscape is evolving, so is regulation. Regulation and policy will be vital to unlocking long-term market growth for natural capital finance in the private sector and establish market stability and legitimacy. Part 3 of this report outlines the current regulatory landscape for natural capital products. Finally, we make five policy recommendations to unlock the potential for scaling private natural capital finance.

Scope

In this report, we only address developments which are explicitly concerned with nature and biodiversity. For wider ESG specific developments, please refer to AFME's November 2021 Report "Sustainable Finance in Europe: Regulatory State of Play".⁸²

3.1 How are policymakers and regulators responding

Nature is rapidly rising up the agenda for policymakers and regulators in the European Union, UK and at a global level. We have identified four key themes which summarise the current regulatory landscape for natural capital finance.

1. Increasing policy pressure on tackling biodiversity. The approach and speed of implementation, however, differs at a country-level

Governments and regulators are increasing their recognition of the need to protect nature and reverse biodiversity loss. The EU has signalled a step change in its approach to biodiversity loss, recently setting out a long-term plan to protect nature and reverse the degradation of ecosystems in its biodiversity strategy for 2030.⁸³ The UK's Greening Finance agenda also looks to incorporate biodiversity loss⁸⁴ and this is expected to be an area of focus in its forthcoming Updated Green Finance Strategy.

Central banks and regulators are also increasing their focus on the risks arising from biodiversity loss. A number of European central banks, including Banque de France and De Nederlandsche Bank have undertaken studies to assess the exposure of the financial services sector and wider economy to biodiversity risk. In 2021, a joint study group on "Biodiversity and Financial Stability" was set up by the Network for Greening the Financial System (NGFS) and the International Network for Sustainable Financial Policy Insights, Research, and Exchange (INSPIRE) to develop a research-based approach to how central banks and supervisory authorities can fulfil their mandates in the context of biodiversity loss. The final report makes five recommendations for central banks and financial supervisors to help them fulfil their mandates in the face of biodiversity loss:

- (i) recognise biodiversity loss as a potential source of economic and financial risk and commit to developing a response strategy to maintain financial and price stability;
- (ii) build the skills and capacity among central bank and supervisory staff as well as market participants to analyse and address biodiversity-related financial risks.
- (iii) assess the degree to which financial systems are exposed to biodiversity loss, by, for example, conducting assessments of impact and dependency, developing biodiversity-related scenario analysis and stress-tests.
- (iv) explore options for supervisory expectations for financial institutions' governance, risk management, strategy, disclosure and financial conduct in relation to biodiversity-related financial risks and opportunities; and
- (v) help build the necessary financial architecture for mobilising investment for a biodiversity-positive economy, including by considering how central banks' monetary policy operations and non-monetary policy portfolio management should be conducted in the context of biodiversity loss.

The European Central Bank (ECB) has also established supervisory expectations with respect to biodiversity risks through its Guide on Climate and Environmental Risks.⁸⁵

⁸² https://www.afme.eu/Portals/0/AFME_SustainableFinance2021_06.pdf?ver=2021-11-22-080352-217

⁸³ Biodiversity strategy for 2030 (europa.eu)

⁸⁴ HM Government, Greening Finance: A Roadmap to Sustainable Investing, 2021 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1031805/CCS0821102722-006_Green_Finance_Paper_2021_v6_Web_Accessible.pdf

⁸⁵ <https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.202011finalguideonclimate-relatedandenvironmentalrisks~58213f6564.en.pdf>

Part 3: A roadmap for regulatory policymaking

2. Improving information flows, market transparency and combatting greenwashing continues to be a priority for regulators

Currently, corporate-level disclosure on nature loss remains minimal. However, this is set to change over the coming months as disclosure and reporting mechanisms such as the EU's Corporate Sustainability Reporting Directive (CSRD), Sustainable Finance Disclosure Regulation (SFDR) and disclosures under Article 8 of the EU Taxonomy Regulation expand their focus beyond climate change to cover biodiversity and other nature-related topics. It is hoped that these mechanisms will enhance the quality and availability of biodiversity data, upon which investment and risk management decisions can be made.

French lawmakers have set the pace on biodiversity reporting through the implementation of Article 29 of The Energy Transition and Green Growth Law which requires regulated financial firms to report on both climate-related and biodiversity-related risks and impacts. While the lack of biodiversity data has been cited as a compliance challenge by some financial institutions, France's Article 29 has also offered opportunities for France-based firms to get ahead of the pack with many French financial institutions already leading the market in their approach to biodiversity.

While the CSRD has been agreed, European Financial Reporting Advisory Group (EFRAG) is developing the detailed disclosure standards, including for biodiversity and ecosystems. The UK has commenced work on a UK Sustainability Disclosure Requirement (SDR) and Green Taxonomy based on a similar structure to the EU Taxonomy which could potentially include technical screening criteria (TSCs) for biodiversity in the future.

At the same time, national governments are keenly monitoring the development of the TNFD's reporting framework on nature-related risks and opportunities. In Europe, the Taskforce is currently supported by the French, Netherlands, Swiss and UK Governments. There is a push in the market for the TNFD to become mandatory: at New York Climate week in 2022, 103 financial institutions representing over EUR14 trillion in assets submitted a letter to the Finance Ministers Coalition for Climate Action asking finance ministers to consider "setting Disclosure Regulations, requiring that all financial institutions assess their impacts and dependencies on nature," using the forthcoming TNFD framework and the International Sustainability Standards Board (ISSB) Sustainability Standards.⁸⁶ At the same time, Business for Nature, the global business coalition, has launched a campaign in the build up to COP15 which includes the advocacy of mandatory reporting requirements for all large businesses and financial institutions to assess and disclose their impacts and dependencies on nature.

Taskforce on Nature-Related Financial Disclosures (TNFD)

The TNFD was launched in 2021 with the mission to develop and deliver a risk management and disclosure framework for organisations to report and act on evolving nature-related risks. It aims to support a shift in global financial flows away from nature-negative outcomes and towards nature-positive outcomes. The framework will also produce guidance on data, metrics and targets and scenarios.

The TNFD is encouraging market participants to support the development of the framework and pilot the different iterations of the beta frameworks to accelerate its development.

In March 2022, the TNFD released the first version (v.01) of its beta framework. Two further versions (v.02 released in June 2022 and v.03 released in November 2022) further develop the framework. A further iteration of the beta framework is planned in February 2023 (v.04) prior to the final release in Q3 2023. AFME is pleased to be a member of the TNFD Forum, supporting its work.

AFME welcomed the establishment of the ISSB, which has been tasked with creating a comprehensive global baseline of sustainability-related disclosure standards for the capital markets. While the current focus is on climate change, the ISSB may in future build upon the work of the TNFD to introduce standards for biodiversity.

⁸⁶ Finance for Biodiversity Foundation, Financial institution letter to the Finance Ministers Coalition for Climate Action, (2022), https://www.financeforbiodiversity.org/wp-content/uploads/FfB-letter-finance-ministers-Coalition-of-Climate-Action_20September2022.pdf



Beyond corporate reporting, in the EU, asset managers will also have to incorporate, where relevant, biodiversity reporting requirements within their product-level disclosures under SFDR. Biodiversity is one of the 18 mandatory Principal Adverse Indicators (PAIs) under SFDR which in scope entities are expected to report from 2023, requiring collection of data from this year. In the UK, the Financial Conduct Authority (FCA) is consulting on SDR and sustainable investment labels, with the final rules expected to be published by the end of the first half of 2023.

Once the Technical Screening Criteria for biodiversity under the EU Taxonomy Regulation are adopted and in force, companies will also have to report on the alignment of their activities with the Biodiversity Taxonomy standards. Under the Capital Requirements Regulation Pillar 3 disclosures, banks will also be required to disclose their exposures to environmental risks, including biodiversity loss.

3. Taxonomies may help drive financial flows into nature-friendly activities

The EU Taxonomy Regulation aims to provide a system of classifying activities considered to be environmentally sustainable. The EU Taxonomy includes six nature-related objectives, including ‘the protection and restoration of biodiversity and ecosystems’.⁸⁷ This is the sixth environmental objective identified in the EU Taxonomy (article 15(1)(d)), where an economic activity is required to make a substantial contribution to either biodiversity conservation, sustainable land use, agricultural practices or sustainable forest management to classify as meeting the objective. To be taxonomy aligned, the activity would also need to “do no significant harm” to the other environmental objectives and be conducted in line with minimum social safeguards. The five other environmental objectives include climate change mitigation, climate change adaptation, water and marine, pollution prevention and circular economy.

The EU Taxonomy Regulation and its Article 15 have led policy institutes such as the Institute for European Environmental Policy (IEEP) to develop points of reference to provide further clarity to Financial Services.⁸⁸ This could help drive billions into nature-positive activities and will combat current concerns from financial institutions around greenwashing. However, it is also necessary to ensure that the data is available to support the usability of the taxonomy and it is likely that the proportion of activities that can be accurately assessed as being aligned with the EU Biodiversity Taxonomy is low, at least in the short term.

4. Establishment of gold standard product labels

The EU legislative proposal for an EU Green Bond Standard is intended to create a credible standard for bonds for which the use of proceeds is to be allocated to activities aligned with the EU Taxonomy Regulation. As the EU Taxonomy Regulation is expanded to include Technical Screening Criteria for biodiversity, this will create a recognised standard for bonds which are used to finance activities aligned with the Biodiversity Taxonomy standards. It should, therefore, together with the efforts to enhance the availability of data, help stimulate the market for investment in such activities. The FCA’s proposed labels for sustainable investment products could also help stimulate investment and reduce greenwashing concerns.

5. A growing focus on driving change within the real economy

As with climate change, there is a need for complementary legislative measures that address nature loss within the real economy. The EU’s Farm to Fork Strategy aims to accelerate the transition to a sustainable food system that should have a neutral or positive environmental impact, help to mitigate climate change and adapt to its impacts and reverse the loss of biodiversity. In the UK, the new Environment Act 2021 introduces a mandatory requirement for new developments to provide a minimum 10% biodiversity net gain.

While the financial sector is a crucial actor in driving change, it is clear that it cannot act alone. It is estimated that governments currently spend at least \$1.8 trillion a year, equivalent to 2% of global GDP, on subsidies that are driving the destruction of ecosystems and species extinction.⁸⁹ These include industries such as agriculture, construction (including housing), forestry, fossil fuels, marine capture fisheries, transport, and water.

The redirection of environmentally harmful subsidies towards investment in natural capital and sustainable practices could unlock a wealth of opportunities for both governments and business. However, strong collaboration will be needed across the private sector, government and civil society to address this complex challenge.

⁸⁷ EU taxonomy for sustainable activities (europa.eu)

⁸⁸ https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en Biodiversity and Ecosystem Services (ieep.eu)

⁸⁹ Protecting Nature by Reforming Environmentally Harmful Subsidies: The Role of Business – Koplou & Steenblik (2022)



Part 3: A roadmap for regulatory policymaking

3.3 Five AFME recommendations to drive change in the market

AFME strongly supports the work underway to address nature loss and promote finance in support of biodiversity and nature preservation objectives. Below we outline our key recommendations to facilitate the scaling of finance in support of these objectives and the channelling of capital towards solutions that will help build the foundations of a sustainable future real economy. These recommendations seek to address the core challenges identified in section 2 above. While work is underway in each of these areas, it is crucial that progress is made quickly.

1. Gathering and translation of nature-related data into decision-grade data for financial services

Data and analytics will play a crucial role in enabling financial institutions to identify, assess and manage nature-related risks and opportunities. The market is moving quickly but there remain core gaps in coverage across the data landscape.

One of the challenges for financial institutions is the variable data coverage across nature realms, biomes and ecosystem types. A recent TNFD analysis of the nature-related data and analytics landscape found that there is more data for terrestrial biomes than for marine or freshwater.⁹⁰ The paper also revealed that there is variable coverage of data geographically, for example, with more data on birds in Europe and North America than other areas of the world.

Data on the spatial locations of company assets, operating areas and suppliers is fundamental to an accurate assessment of nature-related risk and opportunity to the company, investment portfolio or loan book. The collection of geospatial data across the value chain of companies is both challenging and time consuming, however, work is already underway by data and analytics providers to grow asset location databases. This presents a significant innovation and market opportunity.

2. A strong global nature reporting framework

Corporate reporting on nature remains limited and in the near term, end-users will have to rely on data and information from sources other than corporate disclosure. Better market transparency would be achieved if a greater proportion of companies were to undertake nature-related reporting. In turn, this would enable financial institutions to improve their understanding of the dependencies, impacts, risks and opportunities, of their financial portfolios on nature and make more informed decisions.

AFME supports the development of standards for nature-related disclosures and reporting, such as TNFD, ISSB Sustainability Standards and the EU standards under the CSRD to improve information flows, transparency and accountability. As nature-related reporting standards continue to develop, we would encourage policymakers to learn from the experience of how approaches to mandatory climate-related reporting differ globally and consider the challenges this poses for both preparers and users. Greater efforts should be directed to developing a universal standard that streamlines reporting requirements across jurisdictions to overcome challenges such as those faced by users who operate in multiple geographies. At the same time, we recognise and support the important role financial institutions, such as asset managers, can have in encouraging corporate disclosure through their stewardship activities.

3. Agreement on how to define measurable, meaningful impact on biodiversity through metrics and key performance indicators (KPIs)

Unlike carbon, there is no single universal metric for nature. Currently, there is a lack of clarity and consensus in the market around the nature metrics and KPIs that should be used by businesses and financial institutions, both from an internal process and external reporting perspective. A recent TNFD paper identified over 3000 possible metrics on nature.⁹¹ There is a need for standardisation and guidance on what constitutes “best practice”. Without this, it is difficult for financial institutions to set, measure and report on progress against operational targets for nature, amidst fears of greenwashing.

For climate, the Paris Agreement goal of holding average temperature rise to well below 2 degrees Celsius was translated by the science into an operational target of Net Zero carbon emissions across all economic activities by 2050. The adoption of a common target has streamlined efforts to limit climate change, however, an equivalent “North star” does not yet exist for biodiversity. It is hoped that the UN’s Global Biodiversity Framework, which is set to be finalised in December 2022, will have a similar impact to the Paris Agreement and will provide the basis for equivalent targets for biodiversity.

90 TNFD (2022) ‘A landscape assessment of nature-related data and analytics availability – discussion paper’

91 TNFD Welcome to the TNFD Nature-Related Risk & Opportunity Management and Disclosure Framework » TNFD



However, alignment on measurement approaches, KPIs and operational targets for nature are in progress and will be critical to enabling the natural capital financing agenda. AFME strongly encourages the continued focus on this work and supports the work underway at TNFD.

4. Standardisation of product classifications

To assist with the product development necessary for the scaling of natural capital finance, globally recognised product standards regarding the identification and definition of products are important to provide clarity for investors and address concerns regarding greenwashing. As discussed in Part 2 of the Report, there are examples in the market already. However, there is further to go to develop recognised standards and KPIs for biodiversity, building upon the work under way to develop metrics and indicators for biodiversity (see below).

Having standard definitions could help investors to better navigate the products landscape as it could provide assurance that the claims made by the firms selling nature-based products are robust and ratings could be attributed to these products based on the impact and additionality of the sustainable investment being made. While standard definitions are difficult to develop, they are key to progressing the natural capital finance landscape to attract investment in releasing nature-based products.

As further progress is made in the availability of data and agreement on metrics, this will provide the basis for financial institutions to further develop products. Further work discussed above such as the development of voluntary carbon markets, nature-based solutions and biodiversity credits is also needed to build these markets.

5. Development of a currency for nature

While a reference unit – a tonne of carbon dioxide – exists and is readily tradable on carbon markets, the equivalent does not yet exist for nature markets.

The development of a currency for nature – such as a unit that could be attributed to biodiversity credits - could create additional sources of funding for nature conservation efforts. However, this is not without its challenges. In this emerging space, even the definition of a biodiversity credit – the current frontrunner in this space - is hotly contested and, as such, the market remains nascent and untapped. There are also legitimate concerns around greenwashing and the potential adverse impacts on the ecosystems and communities that these biodiversity credits are intended to protect, conserve and restore.

In the UK, under the adopted Environment Act 2021, all planning permissions granted in England (with few exceptions) will be required to deliver a minimum 10% biodiversity net gain from November 2023. The Environment Act makes provision for the Secretary of State to set up a system of statutory credits that will be invested in habitat creation.

There is an opportunity to build from the lessons learnt from biodiversity offsets, high-integrity carbon credits and payments for ecosystem services (PES), to develop biodiversity credit schemes that are beneficial for people, planet and business.

“There is an opportunity to build from the lessons learnt to develop biodiversity credit schemes that are beneficial for people, planet and business”



Conclusion

Conclusion

Financial services have a key role to play in helping companies finance investments that restore nature. Our economies and indeed our very existence as a species is reliant on nature and the ecosystem services it provides. The private sector is uniquely positioned in its financing, investing and underwriting role to help close the current biodiversity finance gap. However, a system change is needed to drive financial flows away from activities that drive nature decline, towards activities that accelerate nature conservation and restoration.

The biggest challenge we now face is how to finance nature at pace and scale. To achieve this, financial services will need to work alongside the public sector and wider civil society. Many institutions have started developing solutions to this problem, through the development of innovative natural capital products, as we have seen in the AFME member case studies highlighted within Part 2 of the Report.

While considerable work is under way and progress is being made, a number of barriers will need to be overcome with support from policy makers and regulators in order to scale financial flows to the level needed to meet international biodiversity targets. Challenges such as a lack of product standards and harmonized metrics and limited corporate reporting on nature hold the market back from its full potential. These challenges are not insurmountable and have underpinned AFME's five policy recommendations to drive meaningful change in the market.

It is clear that financial institutions have a key role to play in the building of a sustainable and resilient future. The time to act is now.

“It is clear that financial institutions have a key role to play in the building of a sustainable and resilient future. The time to act is now.”



Appendix - Glossary

Biodiversity	The variability among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems, and the ecological complexes of which they are a part. This includes variation in genetic, phenotypic, phylogenetic, and functional attributes, as well as changes in abundance and distribution over time and space within and among species, biological communities and ecosystems. ⁹²
Biomes	A major portion of the living environment of a particular region (such as a fir forest or grassland), characterised by its distinctive vegetation and maintained largely by local climatic conditions. ⁹³
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit. ⁹⁴
Ecosystem services	The benefits obtained from ecosystems i.e., the goods and services (usually provided at zero cost) from natural capital, such as pollination by insects to support agriculture. ⁹⁵
Natural assets	Assets of the natural environment. These consist of biological assets (produced or wild), land and water areas with their ecosystems, subsoil assets and air. ⁹⁶
Nature	The natural world, with an emphasis on the diversity of living organisms (including people) and their interactions among themselves and with their environment. ⁹⁷
Natural capital	The world's stocks of natural assets, which include geology, soil, air, water and all living things. ⁹⁸
Nature positive	<p>Reversing the current declines in biodiversity so that species and ecosystems begin to recover. A nature-positive economy is one in which businesses, governments and others take action at scale to minimise and remove the drivers and pressures fuelling the degradation of nature, to actively improve the state of nature itself and to boost nature's contribution to society.</p> <p>Under the UN Convention on Biodiversity governments from around the world are negotiating a new Global Goal for Nature which is set to include the target that the world should be nature-positive by 2030 in order that nature may fully recover by 2050.</p>

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EY would like to acknowledge Micah Judish, Louisa Richards, Ines Tossou, Winnie Leung and Dr Anthony Kirby for their support and contribution in the production of this report.



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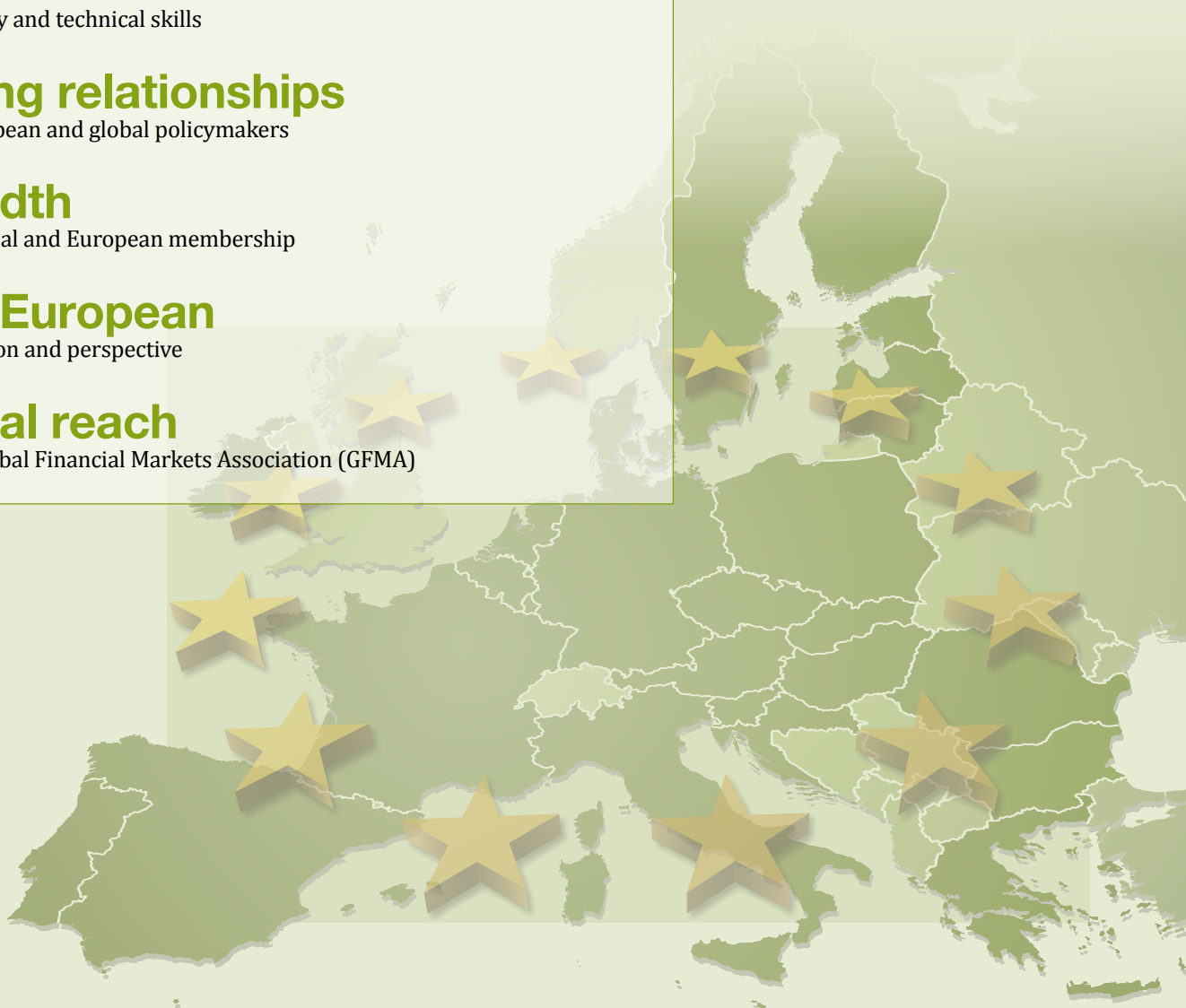
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