



DAVY

Biodiversity and Nature

Risks & Opportunities
for Business

Davy Horizons. **Helping you define sustainable solutions.**

Contents

Key takeaways	3
What does biodiversity and nature risk mean for business?	4
Business case drivers for action	6
Key nature initiatives and what they mean for business	7
Policy and law impacting business	10
Accounting and reporting on natural capital	12

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Key takeaways



Healthy ecosystems support all life on Earth providing a “natural capital” that underpins the successful functioning of our economy, businesses, and societal wellbeing.



The value of this natural capital to the global economy per annum is estimated at USD \$50 trillion¹.



The global cost of environmental damage to nature from business activities including deforestation, climate change, soil erosion and drought are estimated at \$US3 trillion per annum². If Mother Nature sent an invoice, the profits of many sectors would be wiped out.



15% of global carbon emissions result from deforestation and forest degradation³. With cattle, mining, palm oil, rubber, soy and timber being the primary global drivers of deforestation, many companies remain critically exposed to forest-related risks.



Recent analysis from CDP suggests that deforestation will become the ‘new coal’ in financial institutions’ portfolios and that exposure to companies driving deforestation will leave them vulnerable to significant financial, regulatory and reputational risks.



Natural capital costs are increasingly being internalised in regulation and markets for many sectors. A range of drivers underpinning the international Global Biodiversity Framework at EU level including the Nature Restoration law and Deforestation Regulation are gamechangers for business ahead.



Looking at the natural capital benefits, every euro invested in nature restoration planned to 2030 under the EU’s Nature Restoration law is expected to yield least €8-38 in benefits⁴.



As the connection between climate crises and biodiversity loss becomes more apparent, companies are expected to manage their nature related risks and opportunities in alignment with a growing playbook of best practice benchmarks.

In the EU

81%

of habitats are in poor status

Every €1

invested into nature restoration adds €8 to €38 in benefits

1 in 3

bee and butterfly species are in decline

Source: European Commission, Nature Restoration Law

1 [Accounting for ecosystems and their services in the European Union \(INCA\) — 2021 edition Products Statistical reports - Eurostat \(europa.eu\)](#)

2 United Nations, COP15, [Secretary-General's remarks at the UN Biodiversity Conference — COP15 | United Nations Secretary-General](#)

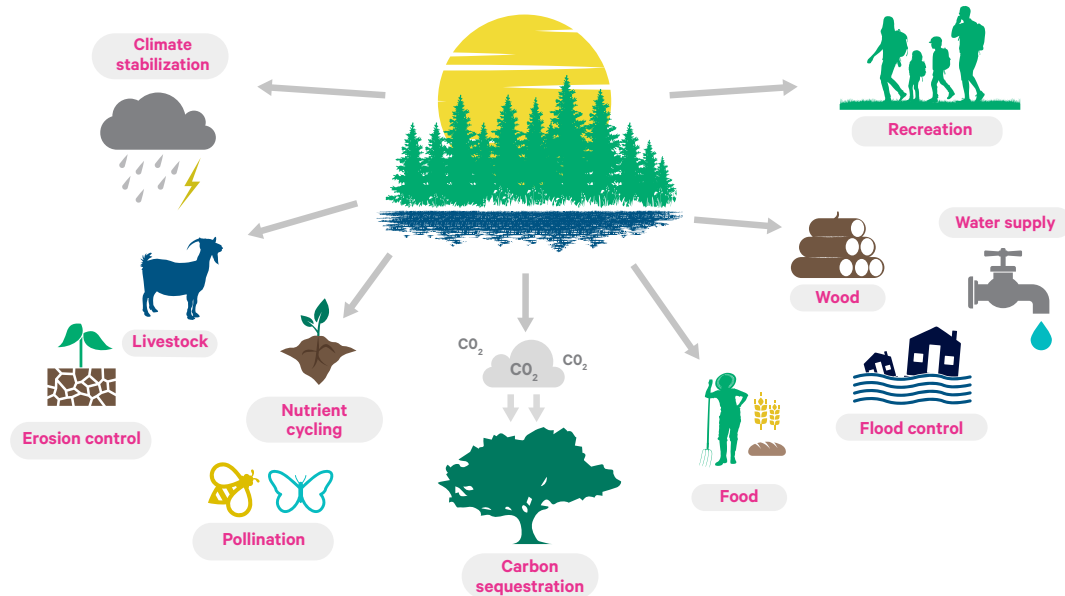
3 <https://www.cdp.net/en/forests>

4 [Factsheet on Nature Restoration Law.pdf](#)

What does biodiversity and nature risk mean for business?

Biodiversity is the biological diversity of all life on earth across species and ecosystems. Biodiversity provides “ecosystem services”, as illustrated below, including food, timber, fresh water, fertile soil, pollination, flood control, a stable climate and amenities for recreation.

Natural capital - biodiversity and ecosystem services



Source: Accounting for ecosystems and their services in the European Union (INCA)

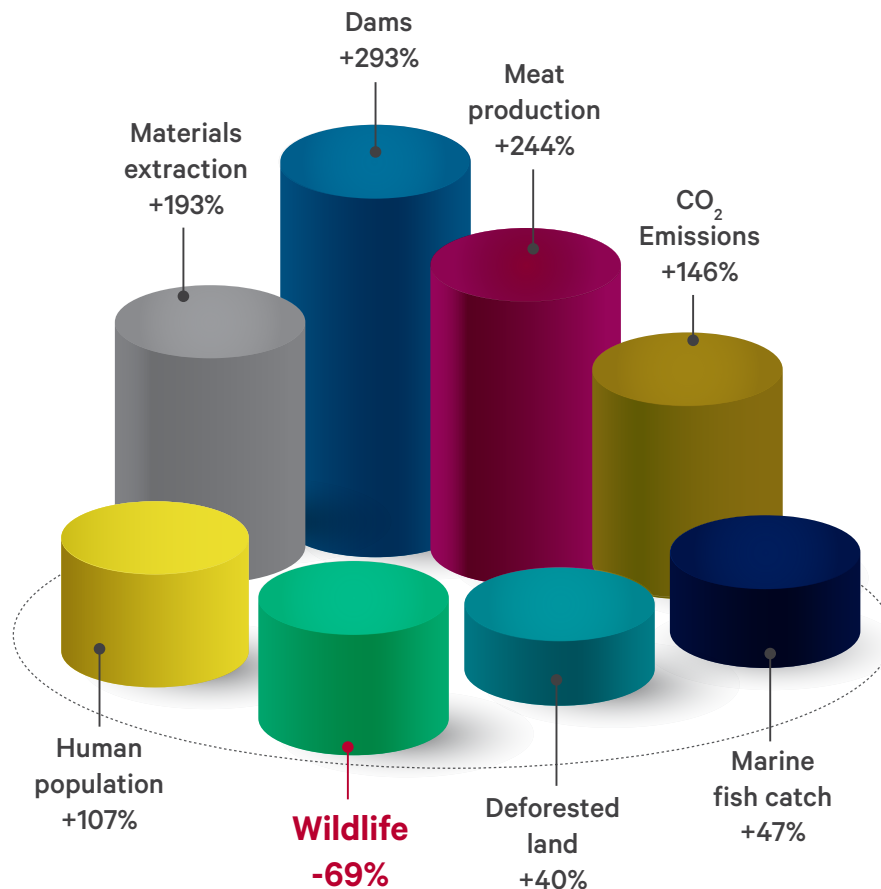
Ecosystems support all life on Earth, providing a natural capital that underpins the successful functioning of our economy, businesses, and societal wellbeing. The healthier our ecosystems, the healthier the planet and its people. The global economy heavily relies on nature to provide the ecosystem services that enable success. The value of this natural capital to the global economy per annum is estimated at USD \$50 trillion and for the EU €234 billion⁵.

Over the last 50 years, how we use our land, rivers and seas for food, energy and transport has changed significantly. As illustrated, the impacts on our natural resources, climate change and biodiversity are dramatic.

⁵ [Accounting for ecosystems and their services in the European Union \(INCA\) — 2021 edition - Products Statistical reports - Eurostat \(europa.eu\)](#)



How has our world changed in the last 50 years?



Source: WWF Living Planet Report, 2022

Global wildlife populations alone have plummeted by 69% on average since 1970⁶. In Ireland, the status of EU protected habitats and species shows that 91% of over 55 habitats assessed have unfavourable conservation status⁷. Ireland's forest cover is one of the lowest on the continent at just 11% vs the EU average of 35%⁸. According to Business for Biodiversity Ireland, our severely degraded natural habitats represent a significant risk to Irish businesses and our local communities. Globally, the World Economic Forum's Nature Risk Rising report estimates USD \$44 trillion of economic value is at moderate or severe risk due to nature loss⁹.

Forests are some of the richest biological areas on Earth. Efforts to address biodiversity loss cannot be accomplished without major reduction in global deforestation. The key driver of deforestation is agriculture, specifically for a relatively small number of commodities including cattle, soy, palm oil and timber. Tropical forest deforestation would need to be cut by at least 75% in the next two years and ceased completely in the next seven years, in order to meet the targets of the Paris Agreement¹⁰. Additionally, around 300 million hectares of tropical forests need to be restored. According to CDP, companies and financial institutions stand to lose billions in revenue if they don't begin managing risks associated with deforestation¹¹. Companies that produce, trade or process commodities are under the spotlight to eradicate deforestation from their supply chain. Biodiversity losses and deforestation are equally critical and interlinked challenges alongside climate change. Restoring ecosystems is crucial to combat climate change and biodiversity loss, while also reducing risks to food security.

6 WWF Living Planet Report 2022, [Living Planet Report 2022 | WWF \(panda.org\)](#)

7 [Ireland's fourth National Biodiversity Action Plan \(NBAP\)](#)

8 Department of Agriculture, Food and Marine, [gov.ie - Forestry facts and news \(www.gov.ie\)](#)

9 Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy, [WEF New Nature Economy Report 2020.pdf \(weforum.org\)](#)

10 CDP Global Forest Report 2023 (https://cdn.cdp.net/cdp-production/cms/reports/documents/000/007/182/original/CDP_Global_Forest_Report_2023.pdf?1688396252)

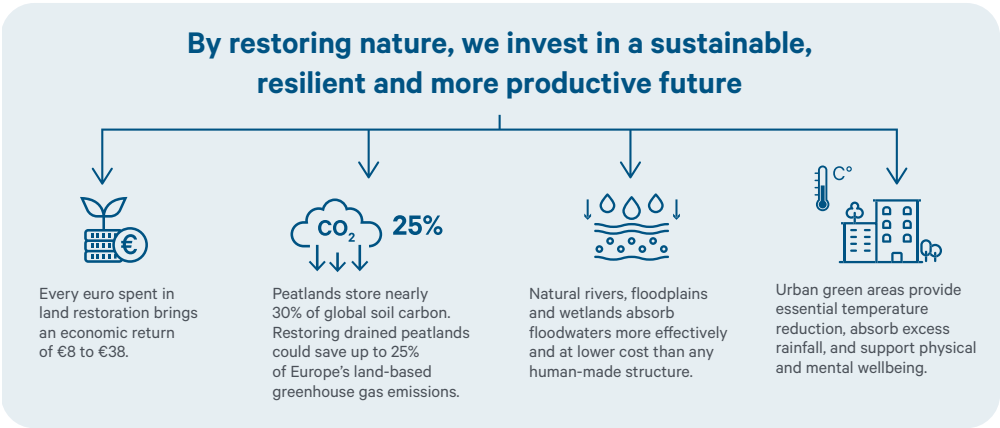
11 [CDP Scoping Out: Tracking Nature Across the Supply Chain Global Supply Chain Report 2022](#)

Business case drivers for action

The business case for action from countries and corporations across many sectors is overwhelming. According to the European Commission:

- Over half of global GDP depends on nature and the services it provides. Construction, agriculture, food and health sectors all depend on it.¹²
- More than 75% of global food crops depend on pollinators.¹³
- Our global food systems are responsible for 80% of deforestation, 70% of freshwater use and are the single greatest cause of terrestrial biodiversity loss.¹⁴
- Up to 40% of the world's land is degraded.¹⁴ Costs associated with soil degradation in the EU already exceed EUR 50 billion a year.¹⁵

The premise for the recently passed EU Nature Restoration Law is that by supporting the recovery of nature, we invest in a more productive future that aligns with achieving the EU's climate and biodiversity objectives. As illustrated, the returns from every €1 invested brings a return of at least €8 in benefits.



Source: European Commission, Factsheet on Nature Restoration Law, June 2023

12 WEF New Nature Economy Report 2020 - [WEF New Nature Economy Report 2020.pdf \(weforum.org\)](https://www.weforum.org/reports/new-nature-economy-report-2020)

13 United Nations 2023 <https://www.un.org/en/observances/bee-day>

14 UNCCD 2022 Global Land Outlook [Global Land Outlook 2 | UNCCD](https://www.unccd.int/global-land-outlook-2)

15 European Environment Agency <https://www.eea.europa.eu/en/topics/in-depth/soil#:~:text=Unsustainable%20farming%20practices%2C%20fertilisers%20and,also%20linked%20to%20climate%20change>



Key nature initiatives & what they mean for business

As the spotlight on biodiversity and nature risk grows for corporations, the key initiatives and what they mean for business are summarised below.

Kunming-Montreal Global Biodiversity Framework (GBF)¹⁶



2020 UN BIODIVERSITY CONFERENCE
COP 15 / CP-MOP 10 / NP-MOP 4
Ecological Civilization-Building a Shared Future for All Life on Earth
KUNMING – MONTREAL

Often viewed as nature's equivalent to the Paris Agreement, the Kunming-Montreal Global Biodiversity Framework (GBF) aims to halt and reverse nature loss while safeguarding biodiversity globally. The framework outlines four overarching key goals to be achieved by 2050, with the intention of addressing the critical challenges facing biodiversity and ecosystems on a global scale. In short, the framework seeks to halt human induced species extinction, promote sustainable use of biodiversity and protect and enhance global ecosystems while ensuring equitable sharing of genetic resources. To achieve the four core goals by 2050, 23 shorter term targets have been set for 2030.

Adopted following the 15th meeting of the Conference of Parties (COP 15 – December 2022) and with over 1,000 corporates present; the significance of the framework is not to be underestimated. For businesses the implications are mandatory nature-related disclosures expected in the near future, along with biodiversity becoming an integral part of corporate governance. The EU Restoration Law passed by the EU Parliament in summer 2023, supports meeting the EU's international commitments under GBF.

Science Based Targets initiative - Forest, Land and Agriculture (SBTi FLAG)¹⁷



**SCIENCE
BASED
TARGETS**

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Launched in September 2022, SBTi's FLAG guidance is aimed at land-intensive sectors aiming to set science-based targets based on emissions reductions and removals. Land-intensive sectors may be sectors that produce or source materials from forestry or agriculture, or sectors that have an impact on land-use change through their activities. Sample land intensive sectors are Forest & Paper Products, Food Production, Food and Beverage Processing, Food and Staples Retailing, and Tobacco.

FLAG target timeframes are consistent with the SBTi's regular validation route; near-term targets cover a period of 5-10 years, while the longer-term net-zero target year should be 2050 or earlier. However, companies with land-based emissions setting FLAG science-based targets will also have to set standard science-based targets. Zero deforestation targets must be set for no later than 2025.

¹⁶ UN Environment Programme: [recommendation adopted by the working group on the post-2020 global biodiversity framework \(cbd.int\)](https://www.cbd.int/decision/decision-16)

¹⁷ [Science Based Targets - Forests, Land and Agriculture](https://sciencebasedtargets.com/)

Science Based Targets Network (SBTN)¹⁸



Part of the Global Commons Alliance, the SBTN is a network of 45+ organisations, consisting of leading global non-profits and organisations working together, aiming to promote the importance of not only emission reduction but the conservation of biodiversity and ecosystems. Building on the success and adoption of climate science-based targets, the SBTN hopes to encourage the adoption of nature-based targets, which complement current climate science-based targets. The primary goal being to incentivise corporate action beyond only emissions reductions and to bring biodiversity plus nature into the conversation. The SBTN is opening the guidance to 17 pilot companies initially, with the intention of a broader release in 2024.

TNFD (Task Force on Nature-related Financial Disclosures)¹⁹

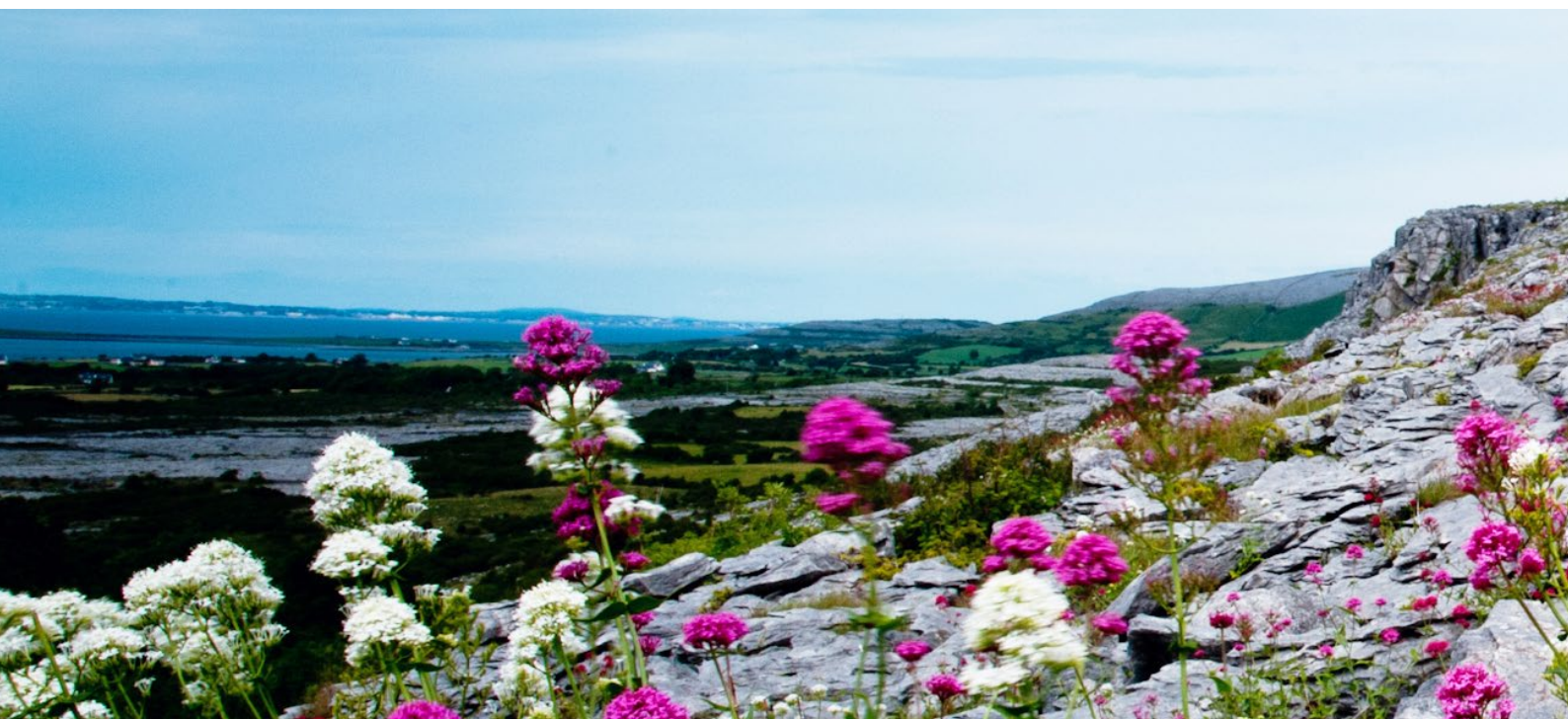


Since its creation in 2015, TCFD (Task Force on Climate-related Financial Disclosures) has been adopted globally with over 4,000 supporters worldwide, underpinning mandatory disclosure rules which currently exist in a number of countries. TNFD aims to rival TCFD's success, encouraging companies to produce integrated climate-nature disclosures, as opposed to separate nature disclosures.

In 2023, the TNFD launched its fourth "beta framework", providing guidance for nature-related risk management and disclosure. It's risk and opportunity assessment approach, known as LEAP, follows a process of "Locate, Evaluate, Access, Prepare". Similar to the recommendations of the TCFD, the TNFD framework recommendations are organised across four pillars – Governance, Strategy, Risk Management and Metrics & Targets. However, TNFD extends to topics outside the reach of TCFD, covering non-climate-related areas such as land fertility, ocean food chains and air quality metrics. Furthermore, the TNFD framework incorporates alignment with the Global Reporting Initiative (GRI) and the International Financial Reporting Standards (IFRS) international sustainability reporting standards.

18 [Science Based Targets Network - Biodiversity](#)

19 [TNFD – Taskforce on Nature-related Financial Disclosures](#)



Partnership for Biodiversity Accounting Financials (PBAF)²⁰



Initiated in 2019, PBAF aims to improve biodiversity accounting in the financial sector by developing a common standard. The standard will assist financial institutions to assess the impact of their financial assets on biodiversity, with 7 assets classes given, featuring bonds, equities, loans, and investments. It is the sister initiative to PCAF (Partnership for Carbon Accounting Financials), which has achieved global recognition with over 200 members forming the basis for SBTi guidance for financial services.

From the ten targets set by the UN Global Biodiversity Framework, four of them relate to financing. The PBAF standard is based on four steps: Scoping, Impact Assessment, Dependency Assessment, and Mitigation and Management. PBAF fits within TNFD's LEAP Framework evaluation step, covering the areas of biodiversity impact and dependency assessment.

CDP - Climate Change, Forests and Water Security²¹

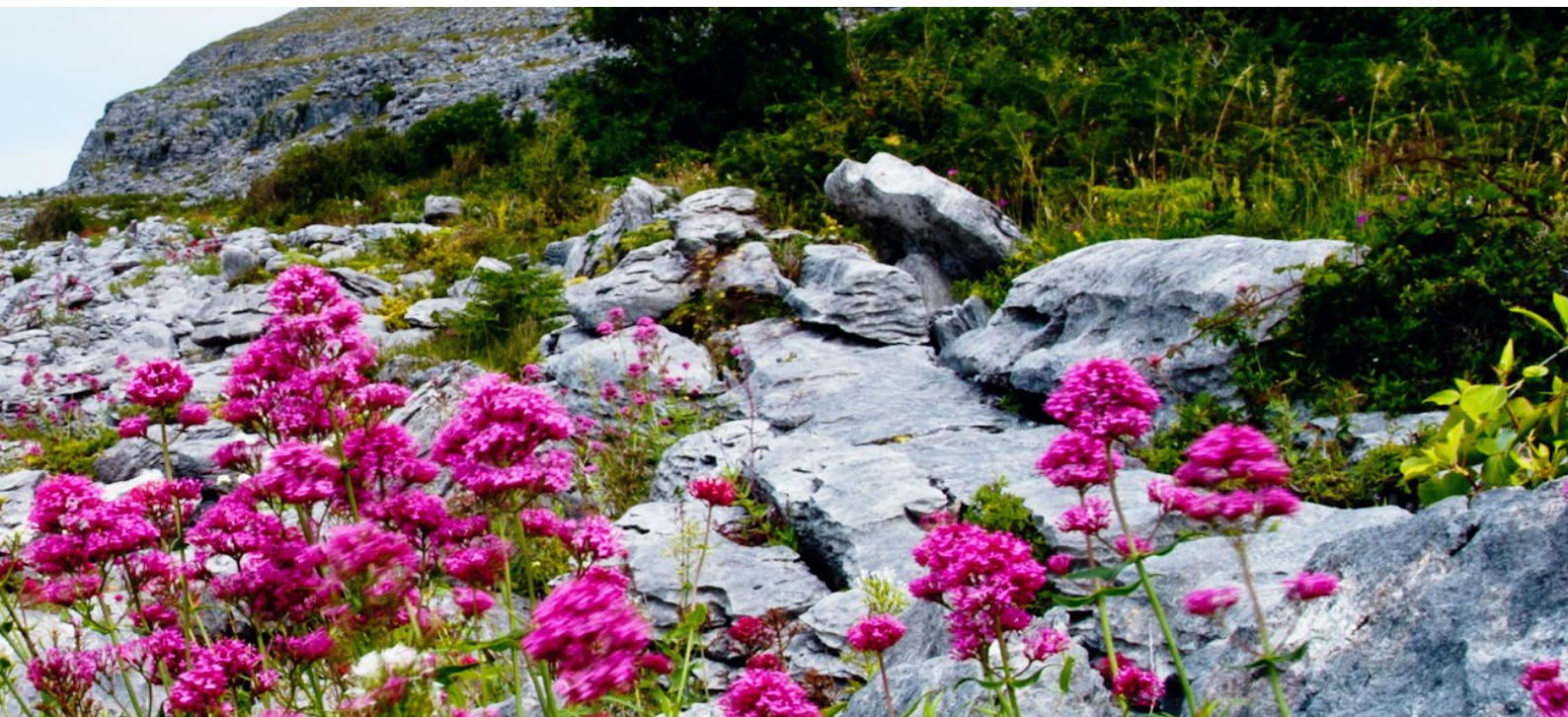


CDP is a global disclosure and benchmarking system covering climate change, forests, water security and supply chain. With 2022 disclosures from over 746 investors that represent over US\$136 trillion in assets, 18,700 companies, as well as cities, regions, states and governments, CDP has established itself as a focal point in sustainability disclosures. Whilst climate is currently the area most reported on, disclosures on CDP Forests and Water Security continue to grow. CDP Forests provides a framework for companies to transparently report on progress on forest-related risks and opportunities. In 2022, over 1,000 companies disclosed their progress on eradicating deforestation from supply chains through CDP²³. While this is growing, CDP's 2023 Global Forests Report shows governance and full supply chain traceability needing improvement.

²⁰ [PBAF - Partnership for Biodiversity Accounting Financials \(pbafglobal.com\)](https://pbafglobal.com)

²¹ [Home - CDP](#)

²² [Global Forests Report 2023 - CDP](#)



Policy and law impacting business

Because of growing recognition of nature risk and to support climate action – an increasing volume of policy, regulation and market drivers are defining the best practice benchmarks for EU and UK business. Some examples are outlined below.

The **EU Nature Restoration Law**²³, passed by the EU Parliament in 2023, supports meeting the EU's international Global Biodiversity Framework (GBF) commitments. This incoming legislation will put restoration measures in place by 2030 covering at least 20% of all land and sea areas in the EU. This aims to restore long-term recovery of damaged nature across the EU's land and sea areas and to achieve EU climate and biodiversity objectives. It impacts forest, agriculture, marine, waterways and urban spaces with binding legal targets as illustrated.

New binding targets suggested by the law:

- 🎯 restore habitats and species protected by the EU nature legislation
- 🎯 reverse the decline of pollinators by 2030
- 🎯 no net loss of green urban spaces by 2030 and a minimum of 10% tree canopy cover in European cities
- 🎯 improved biodiversity on farmland e.g. for grassland, butterflies, farmland birds, high-diversity landscape features
- 🎯 restore drained peatlands
- 🎯 healthier forests with improved biodiversity
- 🎯 at least 25,000km free-flowing rivers by 2030
- 🎯 restore seagrasses and sea bottoms

Source: European Commission, EU Nature Restoration Law Binding Targets

The Sustainable Finance Disclosure Regulations (**SFDR**) driving shareholder ESG demands, **EU Taxonomy** driving sustainable markets growth and Corporate Sustainability Reporting Directive (**CSRD**) driving corporate sustainability reporting, all include biodiversity benchmarks to be met on a phased basis. For CSRD, the underpinning European Sustainability Reporting Standards includes ESRS E4 focused on biodiversity and ecosystems. These are designed to help companies understand their impacts and align their business operations with biodiversity protection. The incoming Corporate Sustainability Due Diligence Directive (**CSDDD**) mandating due diligence and traceability on environmental protection and human rights in value chains also incorporates biodiversity requirements for corporations.

For commodities businesses, the EU introduced the new **Deforestation Regulation** in May 2023²⁴ to ensure that the EU's consumption and trade of commodities and products do not contribute to global deforestation. The regulation sets mandatory due diligence rules for all operators and traders who place, make available or export palm oil, cattle, wood, coffee, cocoa, rubber and soy from the EU market. The rules also apply to several derived products such as chocolate, furniture, printed paper and selected palm oil based derivatives (used for example as components in personal care products). Operators are required to trace the commodities they are selling back to the plot of land where they were produced.

23 [EU Commission - Nature Restoration Law](#)

24 [EU Commission - Deforestation Press Release](#)





Accounting and reporting on natural capital

A key difficulty for businesses and countries alike lies in accounting and valuation of natural capital. However, methods and tools at country and corporation level exist to support this.

At a country level, a growing volume of countries including the EU and the UK are looking beyond Gross Domestic Product (GDP) as an indicator by tasking their national statistics offices with incorporating biodiversity in natural capital accounts into their national accounts. For example, Ireland aligns with the **UN System of Environmental Economic Accounting (SEEA)** integrating this into the System of National Accounts (SNA) and GDP contributions²⁵. To support business the **EU Business and Biodiversity Platform** has published recommendations on how to assess impacts and dependencies on biodiversity in a business context²⁶. The aim is to support wider reporting, disclosure and target setting initiatives and standards within Europe and beyond. The **Finance for Biodiversity**²⁷ guidance provides impact measurement approaches that can be used in corporations and investors across portfolios. In Ireland the **Business for Biodiversity**²⁸ online platform and **Natural Capital Ireland**²⁹ are valuable resources for business new to this topic.

For corporates, best practice on demonstrating and reporting credible action on preventing biodiversity loss and deforestation is becoming clearer. Concepts like **Biodiversity Net Gain** and **Nature Positive** define clear metrics. For example, Biodiversity Net Gain is a strategy to develop land and contribute to the recovery of nature. It is a way of making sure the habitat for wildlife is in a better state than it was before development.

25 [UN System of Environmental-Economic Accounting \(SEEA\)](#)

26 [European Commission - Business and Biodiversity \(europa.eu\)](#)

27 [Finance-for-Biodiversity Guide-on-biodiversity-measurement-approaches 2nd-edition.pdf \(financeforbiodiversity.org\)](#)

28 [Business for Biodiversity Ireland - National business and biodiversity platform](#)

29 [Home | Natural Capital Ireland](#)



In the UK, it is now mandatory for new housing and development to achieve at least a 10% Biodiversity Net Gain with clear metrics defined for reporting progress³⁰.

In commodities sectors, best practice on reporting is to use quantitative metrics that account for the volumes of commodity production that are free from natural ecosystem conversion, including deforestation. Companies are advised to assess and report the proportion of volumes in operations and supply chains that can be considered as **Deforestation and Conversion Free (DCF)**. The DCF designation signifies that materials did not originate from production units where conversion from forests or other natural ecosystems occurred after a specified cut-off date.

Achieving and transparently reporting on DCF volumes will be fundamental to global reporting initiatives in commodities sectors. Elements of the **Science Based Targets initiative Forests Land and Agriculture (SBTi FLAG)** method, as well the expected **Science Based Targets Network (SBTN)** Land Hub, both require deforestation and conversion targets to be set and achieved to meet GHG emissions reduction and natural land management targets.

30 **Biodiversity net gain - GOV.UK (www.gov.uk)**

How Davy Horizons can help?

The logo for Davy, consisting of the word "DAVY" in white, uppercase letters on a dark green square background.

Davy Horizons offers a range of services to support corporations understand their biodiversity and nature related risks and opportunities. We support businesses understand their upcoming regulatory and shareholder requirements on nature, climate change and wider sustainability topics.



Are you ready to take the next step?

Talk to us today.

Email sustainability@davy.ie or visit davy.ie/horizons

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