A-Track

Embedding nature into business

A primer for finance teams

October 2025

Contents

Executive summary

This primer invites you, as a member of the finance team, to take action. Whether your focus is financial planning, reporting, risk management or strategy, it offers actionable insights to help you unlock long-term business value while shaping a future that works with nature, not against it. By linking nature-related information to your activities, processes and tools, you can make nature-related risks and opportunities visible, manageable and integrated into every decision your organisation makes.

This document has been developed by ICAEW (Institute of Chartered Accountants in England and Wales) as an output of A-Track, a four-year, €11 million project that aims to accelerate transformative action for nature by business, financial institutions and government. The focus is on equipping finance teams with practical tools and insights to integrate nature considerations into their core activities and processes. Future work by ICAEW in the A-Track project will build on this foundation, developing additional targeted resources, case studies and training opportunities to support finance and accounting professionals in their daily work.

> **“Nature is no longer a corporate social responsibility issue but a core and strategic risk management issue alongside climate change. It needs to be brought into the strategy, risk management and capital allocation decisions of business and finance, with fully integrated climate and nature considerations.”**
>
> *(Taskforce on Nature-related Financial Disclosures, 2023)*

The primer's key messages provide practical guidance on recognising risks, seizing opportunities and taking actionable steps to embed environmental considerations across all aspects of finance.

- **Recognise nature-related risks as financial risks:** Nature related risks – such as water scarcity, biodiversity loss, evolving regulation, and changing consumer preferences – can affect financial performance and business viability. When organisations overlook these risks, they expose operations, supply chains and investments to potentially material financial vulnerabilities.
- **Unlock new opportunities through nature-positive strategies:** By proactively identifying and managing nature-related risks – and seizing emerging market opportunities – organisations can protect long-term value, create new revenue streams, build resilience, enhance competitiveness and contribute to nature's recovery.
- **Champion finance's capacity to drive sustainability:** Finance professionals hold the levers of change, By bringing nature into finance processes alongside other business-critical issues such as cyber risk, climate change and ethics, finance teams can steer their organisations towards sustainable growth. Championing this role ensures that financial decisions contribute to business success in harmony with the natural world.
- **Integrate nature into all finance activities:** Embedding nature into every aspect of finance transforms how decisions are made. By encouraging a mindset that values environmental considerations, this primer helps connect practical guidance to budgeting, forecasting, risk management and performance measurement. Integrating nature into financial thinking creates a culture that values economic, social and ecological outcomes.
- **Collaborate for impactful outcomes:** Meaningful change depends on collaboration. When finance and sustainability teams work together, they can design solutions that deliver measurable financial returns while improving environmental performance. Cross-functional partnerships ensure that nature is embedded across the organisation's decision-making landscape.
- **Use natural capital assessment and accounting tools:** Applying natural capital tools can help connect nature-related and financial information, complementing existing systems and processes (e.g. carbon accounting and enterprise risk management). These tools enable finance teams to identify, quantify and value nature-related dependencies, impacts, risks and opportunities ensuring that business decision-making and reporting reflects both the value nature contributes to the business and the business' impacts on nature and wider society.
- **Advance towards a nature-positive future:** Every step counts towards transforming business as usual. Start by trialling innovative approaches, strengthening data quality and controls, and enhancing nature-related disclosures. Each action builds organisational resilience and moves you closer to a future in which nature-based considerations are standard in every financial decision.

1 Introduction

The changing relationship between business, society and the natural world is increasingly shaping the context in which companies operate. For finance teams, it is essential to recognise that nature loss – and growing pressure on businesses to shift to more sustainable practices – presents both risks and opportunities that may affect future business success. By actively integrating these considerations into finance processes, you can help protect business value and enhance organisational resilience, while positioning your company to contribute to nature's recovery.

This primer provides an accessible starting point for you as a member of the finance team by:

- Introducing key concepts such as natural capital and nature-related dependencies and impacts
- Explaining how these translate into financial risks and opportunities and connect to core finance activities
- Offering practical actions you can take to integrate nature into your work and support business decision making
- Signposting other resources (including guidance, tools and frameworks) to support further learning

Embedding nature into finance requires a shift in mindset, practices and collaboration. Finance teams are increasingly experienced with climate and net zero issues and must now apply this knowledge to the broader suite of nature-related business challenges, such as water scarcity, habitat loss and biodiversity decline.

This primer aims to support you in working with colleagues in other teams (including those in strategy and sustainability roles) and external experts, to enable you to respond effectively and meaningfully to this rapidly evolving business landscape. The goal is to help you take the first steps towards reshaping how you work in a world in which nature considerations increasingly influence corporate priorities.

1.1 Who this primer is for

This primer is primarily designed for finance professionals working in-house in the following roles:

1. ***chief financial officer (CFO)***
2. ***finance director***
3. ***financial controller***
4. ***financial analyst***
5. ***management accountant***
6. ***report preparer***

It will also be useful for board members as well as sustainability teams or other cross-functional groups (such as internal audit, operations, product development, procurement, communication, strategy) that need to work effectively with finance. The material is globally relevant.

1.2 How to use this primer

We recommend starting with the sections most relevant to your role and exploring other parts of the primer as needed.

- ***Section 2*** explores why nature matters to business, introducing the core concepts of nature-related risks and opportunities, and their financial effects.

- ***Section 3*** outlines how nature connects to finance roles, processes and tools, and how natural capital assessment and accounting tools can support the integration of nature-related issues.

- ***Section 4*** offers practical guidance on first steps for action and collaboration, for each finance role.

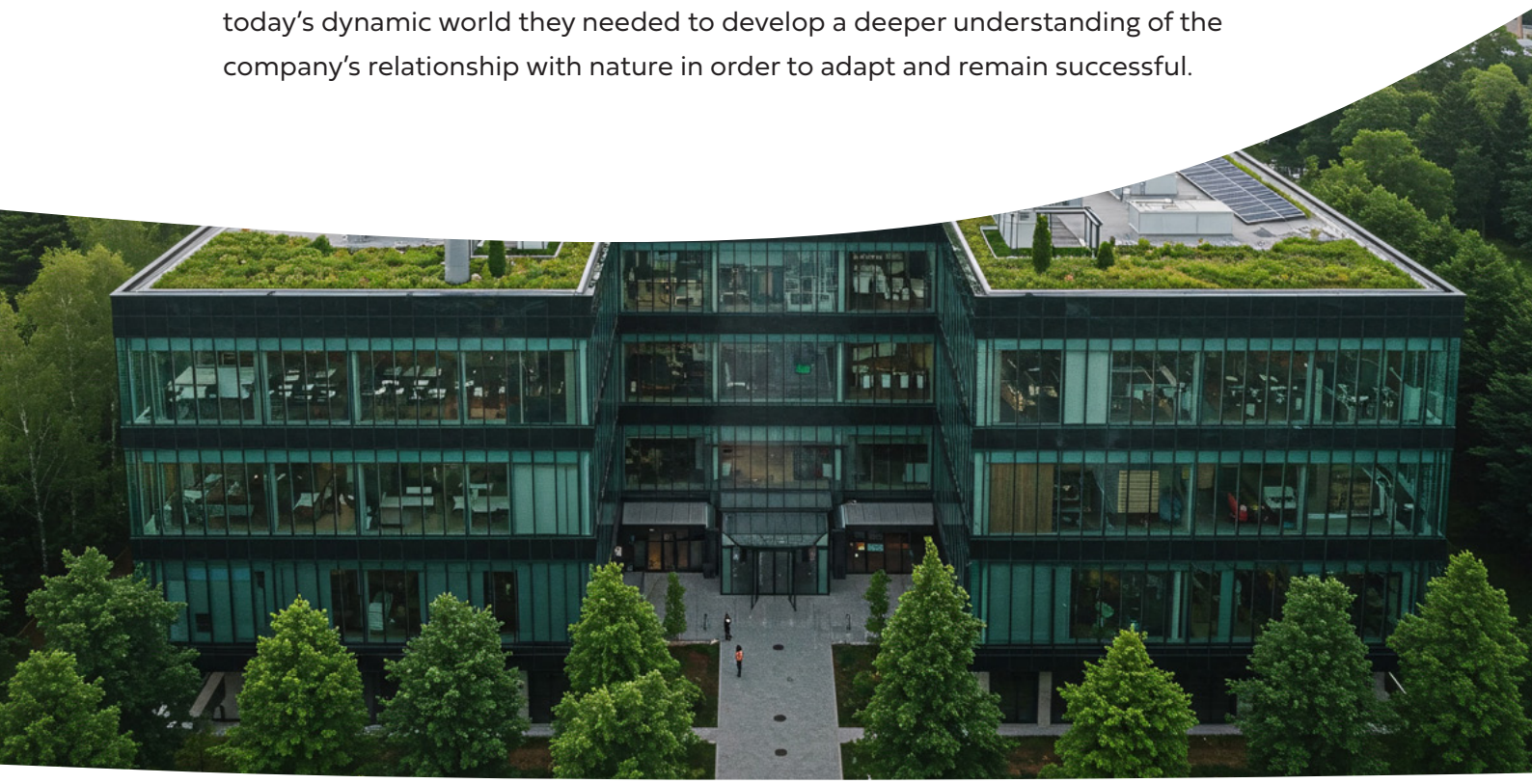
NOTE: This primer brings its concepts to life through the story of Verda Immo, a hypothetical business case that reflects the real-world challenges companies face globally. Each section references this fictional scenario to show why nature is a strategic management and financial issue, and how finance teams can be part of the solution by integrating nature into business decisions.

2 Why nature matters to businesses

Nature is a strategic management issue and financial concern. Managing nature-related risks and opportunities is vital for business resilience, competitiveness and value creation. If these risks and opportunities are not understood or addressed, they could undermine a company's ability to operate in the future and threaten its long-term viability as a going concern. Drawing on the extensive resources already available on this topic, this section outlines the key nature-related concepts that finance teams need to know.

> **"Nature is no longer a corporate social responsibility issue but a strategic risk management issue. Corporate and investor stewardship of nature is essential to good corporate governance."**
>
> *(Taskforce on Nature-related Financial Disclosures, 2025)*

We turn to Verda Immo (our fictional company) that found out the hard way why nature matters to its business ***(see Box 1).*** As the finance team learned, in today's dynamic world they needed to develop a deeper understanding of the company's relationship with nature in order to adapt and remain successful.



Box 1: Verda Immo's nature story (part 1): nature risk hiding on the balance sheet

Verda Immo is a mid-sized property development and investment group headquartered in the Netherlands. It manages a diversified portfolio spanning Belgium, Germany, France, Spain and the United Kingdom, including mixed-use complexes, logistics centres and residential neighbourhoods. It is a privately held company majority-owned by private equity investors.

In 2025, the company began construction on a flagship residential project near Seville, Spain, an area increasingly affected by climate-change-driven drought and water restrictions.

The project's construction relied heavily on water for dust suppression, concreting, landscaping and workforce facilities.

Midway through construction, an acute regional water shortage led local authorities to enforce strict rationing and bans on non-essential commercial water use. Verda Immo's project was classified as non-essential, leading to a temporary halt in all water-intensive activities and triggering construction delays.

Financial impacts quickly materialised with implications for the financial accounts:

- Direct costs rose by €1.5 million due to emergency water supply, mobile recycling and contractor rescheduling, increasing operating expenses and reducing annual net profit.
- Four months of construction delays deferred rental and sales income, lowering recognised revenue and current cash flow.
- The asset's carrying value was impaired on the balance sheet due to lower projected occupancy and negative publicity, which reduced net income and total assets.
- Borrowing costs increased due to higher risk premiums, raising finance costs and reducing profit before tax and earnings per share.
- Insurance premiums rose as drought risks were reassessed, increasing operating costs with implications for future budgets.
- Equity value fell after investors repriced Verda Immo's exposure to water-related risks, as reflected in lower share capital and reserves.

Verda Immo also experienced reputational challenges as local authorities and investors called for improved project due diligence and contingency planning. In response, the company's management outlined commitments in its annual report to address these issues as part of a wider strategic review.

2.1 Rising business risks

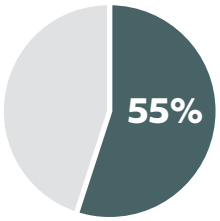
All businesses depend on **nature** (*see Appendices 1 and 5* for definitions of "nature" and other terms). The degradation of **ecosystems** and loss of **biodiversity** poses growing **physical risks** for businesses, capital providers, the financial system and economies ***(see Table 1).*** These risks are already affecting businesses financially (sometimes materially) by disrupting operations and supply chains, which in turn impacts cash flows, access to finance and asset values. **Nature loss,** climate change and social inequality are deeply interconnected, multiplying risks.

Table 1: Nature-related risks

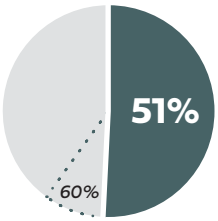
Risk type	Illustrative examples	How risks affect businesses
Physical risks: arising from the degradation of nature and loss of **ecosystem services.** Can be acute (e.g. floods) or chronic (e.g. pollinator decline).	• Water scarcity impacting water-intensive industries. • Commodity shortages disrupting supply chains. • Land conversion increasing severity of flooding. • Soil erosion affecting agricultural production. • Pollution affecting operations in sectors requiring clean water (e.g. food and beverages). • Pollinator decline reducing crop yields. • Invasive species damaging agricultural assets.	• Operational disruption • Supply chain interruptions • Reduced productivity • Increased operational and capital costs • Fall in revenues • Asset stranding
Transition risks: due to misalignment with the shift to a nature-positive economy. Include policy, legal, market, reputational and technological risks.	• Enforcement of existing or new regulations (e.g. the Corporate Sustainability Reporting Directive, EU Deforestation Regulation, Global Biodiversity Framework). • Legal action (e.g. for environmental damages, breach of directors' duties or greenwashing). • Consumer shift to sustainable products. • Investor divestment (e.g. due to poor sustainability performance).	• Increased compliance costs • Legal liabilities and fines • Loss of market share • Increased cost of capital • Brand damage • Credit risk
Systemic risks: associated with the breakdown of ecosystems and/or financial systems.	• Ecosystem stability risk (e.g. Amazon rainforests drying out, Cerrado savanna disappearance, coral reef die-off). • Financial stability risk (e.g. large-scale disasters such as flooding or drought disrupting markets and triggering inflationary shocks).	• Supply chain collapse • Commodity price shocks • Insurance unavailability • Loss of investor confidence • Financial contagion • Macroeconomic instability • Political instability and conflict

Source: adapted from Why nature matters to accountants (Global Accounting Alliance, 2025); The business case for nature: Tool 2 potential financial impacts associated with nature-related risks and opportunities (Accounting for Sustainability, 2025); and Evidence review on the financial effects of nature-related risks (TNFD, 2025).

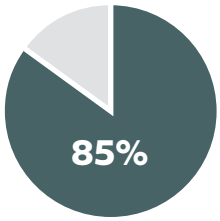
Sectors relying heavily on the direct extraction of natural resources (i.e. with high **nature-related dependencies**) are particularly exposed to physical risks (e.g. agriculture, food and beverages, construction, apparel and utilities). Others are at risk due to dependencies in their supply chains (e.g. manufacturing, transport, real estate, mining and consumer retail). The finance sector is also exposed through its lending, investment and underwriting activities:



55% of global GDP is moderately or highly dependent on nature (~USD $58 trillion).[1]



Over half (51%) the market value of listed companies on 19 major stock exchanges is exposed to material nature risk *(the Euronext is above average at 60%, equivalent to USD $2.4 trillion).*[2]



85% of the world's largest companies in the S&P Global 1200 index have a significant dependency on nature in their direct operations.[3]

Continued nature loss could knock almost **USD $10 trillion** off global GDP by 2050.[4]

At the same time, businesses face growing pressure from stakeholders *(see Figure 1)* to address their **impacts on nature** and report transparently to the market. This is creating new **transition risks** for businesses through evolving regulation, investor demands, changing consumer preferences, technology, markets and litigation *(see Table 1). Box 2* provides further information on policy, regulatory and market-led initiatives of relevance to finance teams.

1 Managing nature risks: from understanding to action (PwC, 2023)

2 Managing nature risks: from understanding to action (PwC, 2023)

3 How the world's largest companies depend on nature and biodiversity (S&P Global, 2023)

4 Global futures: modelling the global economic impacts of environmental change to support policymaking (WWF, 2020)

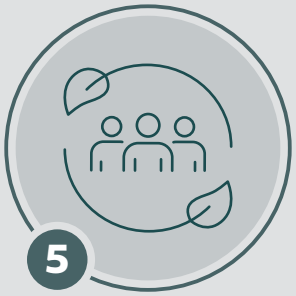
Figure 1: Trend towards regulation, transparency and corporate responsibility on nature-related issues

Policy makers and regulators are shaping the regulatory landscape on nature-related risks and opportunities by introducing legislation and regulations that aim to reverse biodiversity loss, promote nature positive economic activity, and ensure transparency in corporate nature-related disclosures.

Investors are demanding more information about a business's nature-related risks and opportunities, with an increasing focus on how they are being managed. Investors are also increasingly channelling funds into nature-based solutions and new commercial opportunities for sustainable products and services.

Standard setters are responding to growing interest in nature-related information across markets, increasing their focus on the development of national and regional disclosure standards that integrate nature.

Consumers are increasingly conscious of the environmental and social impacts of their purchases, with markets for sustainable goods and services continuing to grow.



Employees are increasingly motivated by sustainability (including nature-related) issues, placing higher emphasis on the sustainability performance of their employer when making decisions concerning careers and jobs.

The **legal profession** is seeing important shifts in interpretation of directors' duties, with opinion suggesting directors may face liability for ignoring foreseeable environmental risks that could impact business performance. 'True and Fair' obligations are also in focus, prompting increasing expectation of more robust nature disclosures.

Sectors with high **nature-related impacts** are particularly exposed to transition risks. A relatively small number of companies (just 250) in the MSCI ACWI index account for a large proportion (67%) of negative impacts on nature globally, notably in the food production, mining and energy sectors, due to activities like land conversion, deforestation and water overuse.[5] Because these impacts are often location-specific, the attribution of responsibility is clearer than for carbon emissions, increasing risks for businesses. Environmental impacts can also have significant social consequences. Indigenous peoples and local communities are particularly vulnerable to the impacts of nature loss (often due to the loss of livelihoods, and food and water insecurity).

5 Assessment of the biodiversity impacts and dependencies of globally listed companies: a collaborative multi-tool footprinting approach (Finance for Biodiversity Foundation, 2024)

Box 2: Overview of nature-related policy, regulatory and market developments

Global commitments

- **Kunming-Montreal Global Biodiversity Framework (GBF):** In December 2022, almost 200 governments committed to ambitious goals and targets under the GBF to halt and reverse nature loss by 2030. GBF Target 15 represents a commitment to implement measures that will require businesses to report on their risks, dependencies, and impacts relating to biodiversity.

Reporting standards and regulations

- **International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards:** Issued by the International Sustainability Standards Board (ISSB) in 2023, the IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information requires disclosure of **material information for investors** on sustainability (including nature-related) matters. The ISSB is currently considering further standard-setting related to biodiversity, ecosystems and ecosystem services.

- **EU Corporate Sustainability Reporting Directive (CSRD):** In force since 2024, this directive requires companies within its scope to disclose information about their nature-related dependencies, impacts and risks, as well as how these are managed, in line with European Sustainability Reporting Standards. It adopts a **"double materiality"** approach, requiring companies to report on sustainability matters that are material from an impact or financial perspective, or both.*

- **EU Regulation on Deforestation-free Products (EUDR):** In force since 2024, this regulation requires large companies dealing with commodities such as beef, cocoa and palm oil to demonstrate that their products sold in Europe are deforestation-free by December 2025.

Voluntary standards, frameworks and market initiatives

- **Taskforce on Nature-related Financial Disclosures (TNFD):** In 2023, the TNFD released recommended nature disclosure guidelines for companies and finance institutions. Although voluntary, 620 organisations have committed to reporting aligned to the TNFD recommendations. The recommendations are also shaping global regulations and reporting standards (including the IFRS Sustainability Disclosure Standards and the European Sustainability Reporting Standards).

- **Global Reporting Initiative (GRI):** Used by 71% of companies worldwide, the GRI standards are one of the most widely adopted voluntary sustainability reporting frameworks. They guide organisations in disclosing their **environmental, social and governance (ESG)** impacts, including nature-related issues.

- **Corporate nature targets:** Companies can set voluntary targets for their impacts on freshwater, land and oceans using guidance from the Science Based Targets Network (SBTN). For land-intensive sectors, the Science Based Targets initiative (SBTi) provides guidance on land-based emission reductions and removals.

- **Transition planning:** Reporting standards are increasingly emphasising the disclosure of transition plans. Guidance from the Transition Plan Taskforce (TPT), now under the responsibility of the IFRS, recommends the incorporation of nature.

*Note the European Commission has proposed revisions to sustainability regulations within the EU which may affect these areas.

Policy-makers, central banks and financial supervisors are increasingly concerned about nature-related **systemic risks** ***(see Table 1).*** These risks are characterised by the breakdown of ecosystems or financial systems, or a combination of both (e.g. flooding affecting entire countries and disrupting markets, leading to inflationary shocks and wider macroeconomic instability). Systemic risks can cause widespread disruption to society and the economy and can significantly affect individual businesses. The Network for Greening the Financial System (NGFS) has encouraged all central banks and supervisors to assess and act on economic and financial risks stemming from material dependencies and impacts on nature.

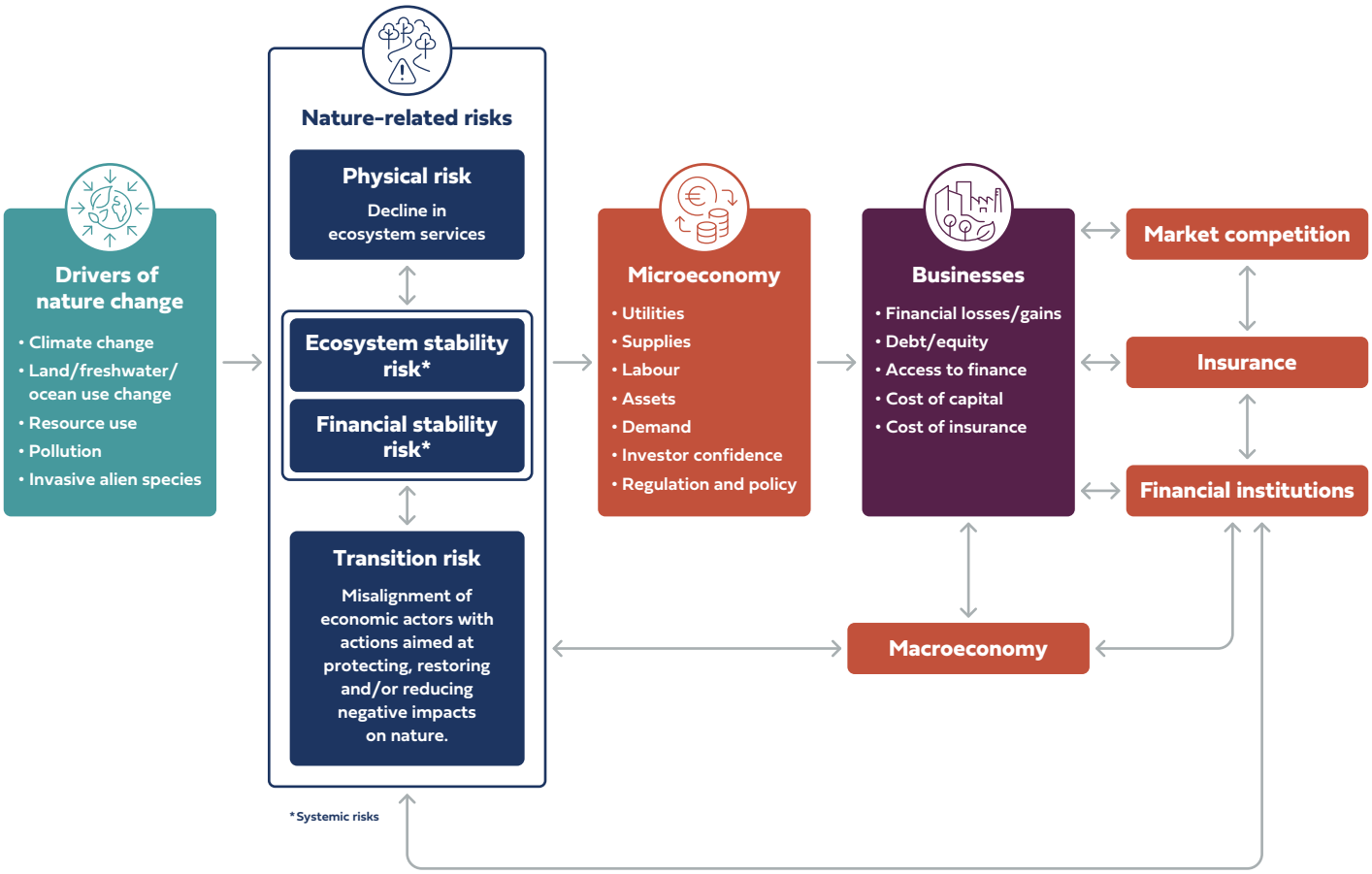
> **"Nature degradation could have significant macroeconomic implications, and failure to account for them could cause risks to financial stability – hence its relevance for central banks and supervisors."**
>
> *(Network for Greening the Financial System, 2022).*

2.2 Financial effects of nature-related risks

Nature-related risks can translate into a range of **financial effects** for businesses. As shown in *Figure 2,* these risks impact businesses through five main channels: direct microeconomic effects (e.g. utilities, supplies, labour, assets, demand, investor confidence, regulation and policy); indirectly via macroeconomic factors (e.g. prices, productivity, investment, socio-economic changes, fiscal balances, trade and capital flows, inflation and GDP); lenders (e.g. cost and access to capital); insurance companies (e.g. availability and pricing of insurance); and market competition.

Figure 2: Sources and transmission channels framework of nature-related risks to businesses

Source: Evidence review on the financial effects of nature-related risks (Taskforce on Nature-related Financial Disclosures, 2025)



Evidence shows that nature-related risks are not just future possibilities; they are already affecting businesses in all sectors ***(see Box 3).*** Financial effects can materialise as financial losses or gains, such as reduced production due to operational disruption, increased costs or changes in market demand. They can also appear in changes to debt or equity valuations, access to finance, cost of capital and insurance premiums. Additionally, companies may adjust their strategic decisions, including plans for capital expenditure, divestments or asset retirements.[6] Failure to manage these effects may undermine a company's ability to operate and threaten its long-term viability as a going concern.

6 Evidence review on the financial effects of nature-related risks (TNFD, 2025)

Box 3: Examples of the financial effects of nature-related risks

Physical risks

- **Water scarcity leading to business interruption:** This caused USD $1.4 billion in losses to India's thermal power sector between 2013 and 2016.
- **Water shortages causing stranded assets:** *Constellation Brands,* USA incurred a USD $650-680 million asset impairment on a partially constructed brewery in Mexico, following public backlash over water scarcity.
- **Pollution increasing operating costs:** *Anglo American* estimates annual water quality management costs of USD $100 million across three sites in the USA.
- **Soil degradation increasing input costs:** In sub-Saharan Africa, declining soil fertility has driven up fertiliser and remediation costs for companies such as *OCP Group* (Morocco), impacting margins in the agricultural sector.
- **Pollinator decline impacting agriculture:** In the USA, reduced pollination services due to land-use change and pesticides have reduced crop yields and revenues for agribusinesses like *Blue Diamond Growers* and *Driscoll's.*

Transition risks

- **Water rationing interrupting production:** Severe drought in Taiwan in 2021 led to record low water levels, prompting officials to impose water rationing that disrupted the semiconductor industry and required some manufacturers to cut production by up to 20%.[7]
- **Litigation over water pollution:** In the USA, *DuPont, Chemours,* and *Corteva* settled PFAS (persistent human-made pollutants used for water, grease, and stain resistance) contamination lawsuits for USD $1.185 billion, highlighting the financial risks of water pollution liabilities.[8]
- **Legal challenges over water use:** *Tesla's* gigafactory in Germany faced delays and a 3.1% share price drop due to groundwater-related legal challenges.[9]
- **Policy risk from land use regulation:** EU due diligence laws and forest moratoriums (for example in Indonesia and Brazil) are affecting asset values and investor exposure for companies sourcing commodities from these regions.

Systemic risks

- **Ecosystem collapse:** A shift in the Amazon rainforest to drier savannah could cost Latin America almost USD $257 billion by 2050, with global economic losses of USD $3.6 trillion (due to water cycle disruption and reduced agricultural output).
- **Food system shifts:** Climate change, land conversion, disease and other factors are threatening key commodities, such as coffee. With many species at risk of extinction, this could have significant implications for the USD $100 billion global coffee market as well as farmers, communities, traders and consumers worldwide.

Source: Evidence review on the financial effects of nature-related risks (Taskforce on Nature-related Financial Disclosures, 2025), unless otherwise stated.

7 Sustainability insights: TSMC and water (S&P Global Ratings, 2025)

8 When the bee stings: counting the cost of nature-related risks (BloombergNEF, 2023)

9 When the bee stings: counting the cost of nature-related risks (BloombergNEF, 2023)

As shown in ***Figure 3,*** financial effects depend on a business's response through risk management, strategy and capital allocation. These actions influence **financial reporting,** including asset impairments, increased liabilities for remediation or compliance, and changes to revenue and costs from supply chain or market shifts. Capital spending, insurance or legal settlements may affect cash flow. The next section explores this topic further.

Failure to properly consider nature-related issues in reports may result in omitting material information, which would mislead investors and other stakeholders about a company's financial (and sustainability) performance and future prospects. It could also expose the business to risk of misstatements, accusations of greenwashing, legal penalties, reputational harm and potential investor action.

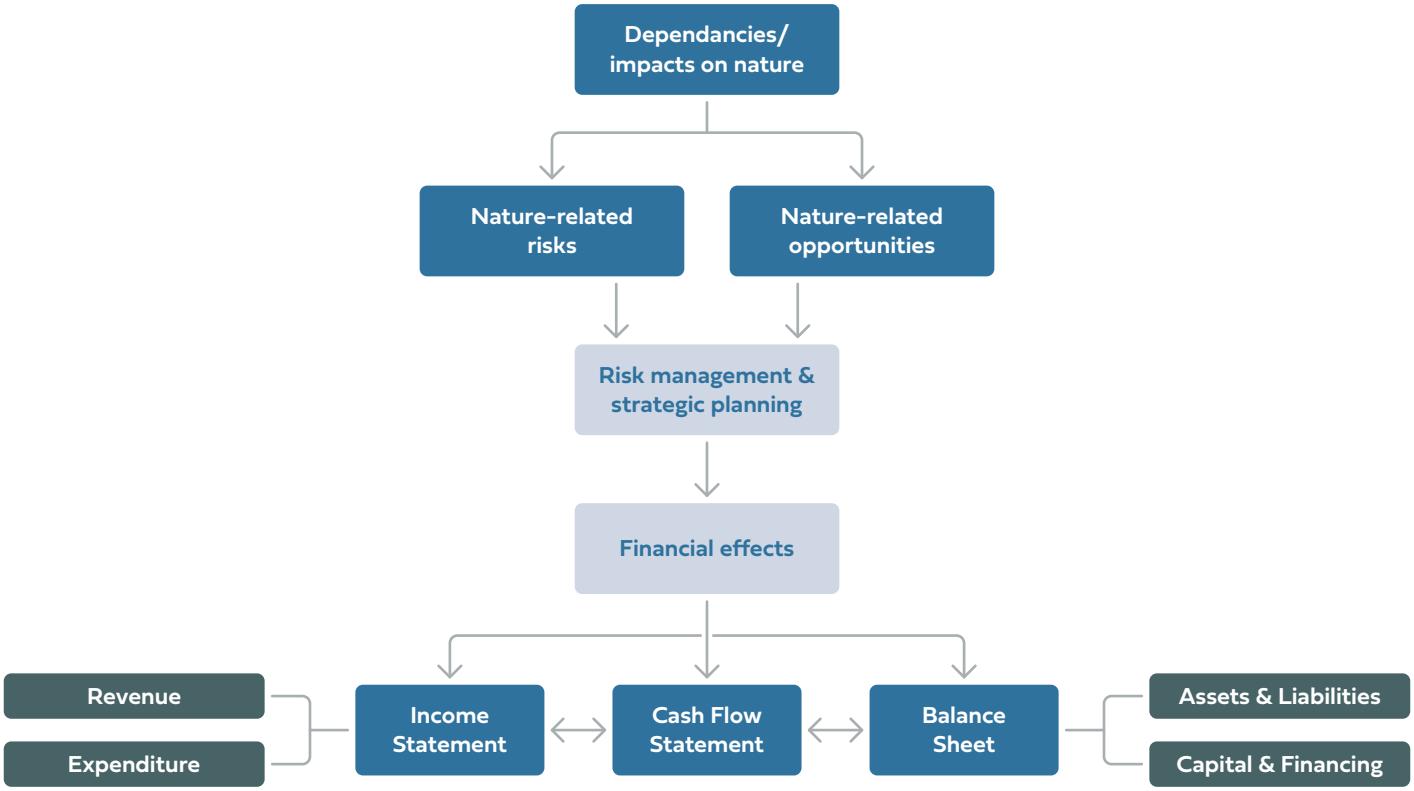
Despite increasing focus on nature in regulatory and reporting frameworks, many companies do not yet consider nature-related issues in reporting and **disclosures.** Nature-related risks are rarely identified as material in annual reports, even where this might be expected.[10] According to CDP Corporate Health Check, although water is a material issue for the vast majority of companies, only 64% disclose related data.[11] And even where nature-related issues are deemed material, their translation into concrete financial metrics often remains limited.

10 Evidence review on the financial effects of nature-related risks (TNFD, 2025)

11 Corporate Health Check 2025 (CDP, 2025)

Figure 3: How nature-related issues can translate into financial effects

Source: Why nature matters to accountants (Global Accounting Alliance, 2025)



2.3 Emerging business opportunities

In this dynamic global context, businesses are seizing new opportunities to improve financial performance and long-term resilience while supporting nature's recovery (i.e. contributing to the global nature-positive goal).[12] For example, by adopting resource-efficient, sustainable production processes, businesses can reduce their use of and reliance on scarce resources, thereby lowering operating costs and environmental impacts. Whether the initial motivation is financial performance or sustainability goals, opportunities increasingly exist to achieve both (see ***Table 2*** for examples).

12 Nature-positive refers to a global societal goal defined as "Halt and reverse nature loss by 2030 on a 2020 baseline, and achieve full recovery by 2050" (see The Definition of Nature Positive (Nature Positive Initiative, 2023))

Table 2: Nature-related opportunities

Opportunity type	Illustrative examples	How opportunities affect businesses
Financial performance: actions that improve business outcomes	• Adopting resource-efficient technologies to reduce water, energy and material use. • Investing in **nature-based solutions** to cost-effectively secure ecosystem services, such as using wetlands to purify and safeguard water supplies. • Developing new sustainable products or services that minimise environmental impacts or help restore nature. • Accessing finance linked to demonstrable nature-positive actions. • Building brand value through commitments to nature goals and transparent reporting.	• Cost savings through operational efficiencies and reduced waste. • Increased revenues from the sale of sustainable products or access to new niche markets. • Increased competitive advantage. • Improved access to capital or lower capital costs. • Greater stakeholder recognition and increased trust.
Sustainability performance: actions that reduce negative impacts or enhance positive impacts on nature	• Using natural resources sustainably, including sourcing from certified sustainable suppliers. • Investing in nature-based solutions that protect, restore or regenerate ecosystems (in areas both within and beyond the company's own direct control). • Investing in carbon credit or biodiversity offset markets.	• Cost savings through reduced reliance on unsustainable natural resources. • Increased resilience to resource scarcity or price fluctuations. • Cost savings and/or revenues from ecosystem services. • Avoided litigation and fines. • Improved reputation and brand value.

The A-track report, Better business: re-thinking business models for nature-positive outcomes, provides further insight into the transformational opportunities available. These often lie in the application of the "mitigation hierarchy", as explained in the A-Track report Scaling finance for nature: barrier breakdown (pp. 17–21), which requires businesses to prioritise actions to avoid, minimise and offset negative impacts on nature.

Governments are increasingly seeing the transition to a sustainable economy as an opportunity to realise their long-term growth ambitions. Evidence from the United Kingdom shows that "green" economic sectors have become a significant driver of growth and innovation, outpacing other industries in terms of productivity.[13] The World Economic Forum estimates that a **nature-positive** transition in key economic sectors could unlock USD $10.1 trillion in business opportunities and create 395 million jobs by 2030.[14]

13 The future is green (CBI, 2025)

14 The future of nature and business (WEF, 2020)

Further resources

- **Why nature matters:** TNFD's overview of the fundamentals of nature and its importance to the global economy.
- **Nature and the board: what directors must understand and act on:** an overview of the recent legal opinion on nature-related risks and the interpretation of directors' duties, from the Commonwealth Climate and Law Initiative.
- **Evidence review on the financial effects of nature-related risks:** TNFD's global analysis of evidence of how nature-related risks translate into financially material outcomes (with extensive examples).
- **The business case for nature:** a guide by Accounting for Sustainability (A4S) outlining how nature-related risks and opportunities translate into financial impacts, with case study examples and practical tools.
- **High and dry: how water issues are stranding assets:** Planet Tracker's review of how water risks are already creating stranded assets across key industrial sectors and exposing financial institutions to these risks.
- **When the bee stings: counting the cost of nature-related risks:** analysis by BloombergNEF of companies suffering material financial losses from mismanaged nature-related risks.
- **New nature economy report II: the future of nature and business:** a World Economic Forum blueprint for a nature-positive future economy, describing 15 transitions across three systems (food, land and ocean use; infrastructure and the built environment; and extractives and energy).
- **Sector actions towards a nature-positive future:** an overview of key actions on nature for priority industry sectors, by Business for Nature. See also: Inventory of nature impact reduction strategies, part of the SUSTAIN project, for a comprehensive list of business actions.
- **Biodiversity finance reference guide:** an overview of investment activities that contribute to protecting, maintaining or enhancing nature, by the International Finance Corporation.
- **Roadmaps to nature positive: foundations for all businesses:** an overview of core principles, recommended actions and practical tools for integrating nature into business strategy and value creation.
- **Nature and climate action: a resource navigator for companies and financial institutions**, an interactive (and downloadable) guidance tool created by the Global Commons Alliance's Accountability Accelerator, the Climate Champions Team and AccountAbility.

3 Role of the finance team

As the nerve centre of the business, your team is responsible for safeguarding its overall financial health and providing data and critical insights to support decision-making and reporting. Understanding and managing nature-related risks and opportunities falls within your remit. This section outlines how nature intersects with finance teams' activities and highlights the tools and collaboration needed.

> **"As the world reacts to the multiple crises of climate change, nature loss and social inequality, finance professionals can provide a significant positive turning point by considering social and ecological ecosystems within their trusted and established financial information and decision-making systems."**
>
> *(Rayne van den Berg, Chief Value Officer of Value Australia; former Chief Financial Officer of Forico)*

In our fictional scenario, let's find out how Verda Immo responded to the financial fallout of water scarcity at its Seville site ***(see Box 4).*** The board and investors were concerned: are there nature-related risks at other sites? How exposed is the company across its operations? Addressing this risk was an urgent priority and, as Verda Immo learned, bridging the gap between nature and finance was not just a sustainability issue, it required finding new ways to connect sustainability and finance teams, processes and tools.

Box 4: Verda Immo's nature story (part 2): new group-wide nature review

After gathering lessons from the regional water shortage at its Seville site, Verda Immo's board initiated a broader review of nature-related risks and opportunities across its continental and UK portfolio. The company's sustainability team in collaboration with finance, risk and other functions led the review.

The team conducted a high-level assessment of nature dependencies and impacts across each existing and planned future site.

While the company already had some data, further site-level analysis was needed to identify appropriate metrics and fill data gaps. Key risks and opportunities were prioritised for their effects on operations and financial performance, with exposures shown to be highly site-specific, reinforcing the value of local assessments. The A-Track report, What nature means for your business role: A primer on location-focused decision-making, explores the importance of considering location when assessing nature-related risks and opportunities.

The analysis revealed:

Physical risks

- Growing water scarcity in other operating regions (e.g. southern England and France) could affect costs and generate legal and reputational risks for other planned projects.
- Flood risk exposure in Germany and southern England (properties on floodplains with reduced green buffer zones) could increase insurance costs and threaten asset values.
- Higher fire risk at sites near forests or natural areas could endanger assets and tenants, disrupt operations and increase insurance premiums.
- Urban "heat island" effects at sites with low tree cover (e.g. commercial parks in Flanders and Kent) could raise operational expenses for tenants.

Transition risks

- Biodiversity Net Gain (BNG) requirements in England and Local Nature Recovery Strategies add complexity to local land-use planning for developments.
- France and the Netherlands' "no net land take" laws and regional green targets would be expected to apply to future developments.
- The EU Corporate Sustainability Reporting Directive and expected TNFD-aligned disclosures in certain countries will mandate nature-related reporting starting from financial year 2025.

Opportunities

- Rainwater harvesting and efficient irrigation reduces operating costs and supports long-term water security.
- Green roofs and increasing urban tree cover would lower operational costs and improve resilience.
- Adopting BNG requirements in new developments attracts responsible investors and aligns with future regulations.

Verda Immo concluded that nature-related risks are material and identified major opportunities for value creation. The board tasked the finance team, in collaboration with sustainability and development, to lead a new strategy. It also assigned the CFO responsibility for overseeing the process and providing progress updates.

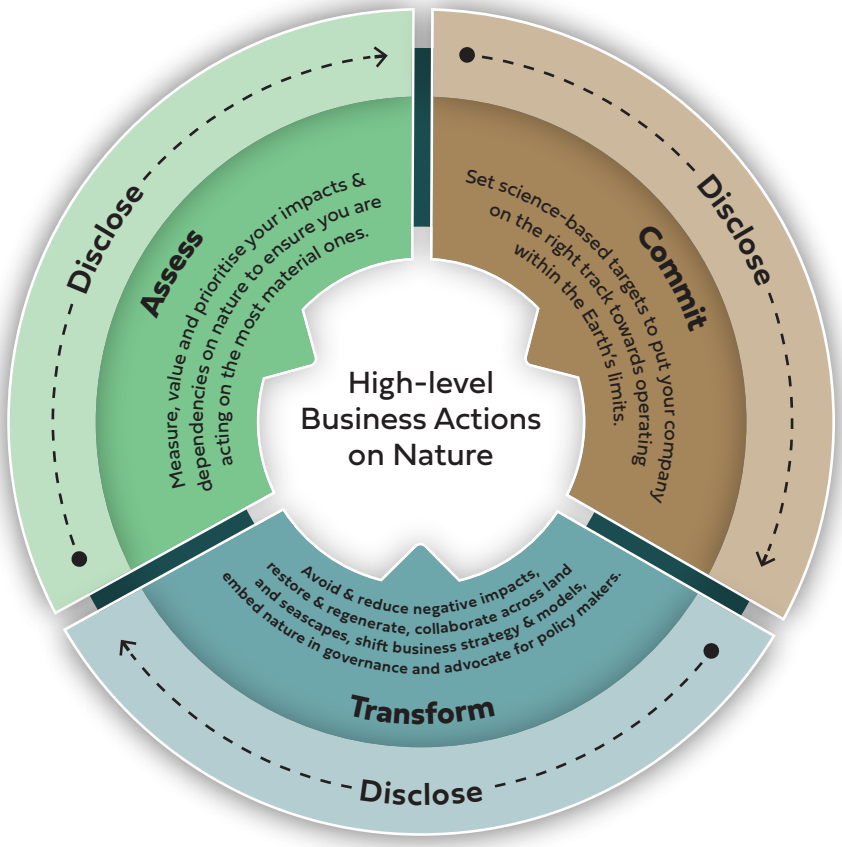
3.1 Nature: a core finance team responsibility

Businesses are increasingly recognising the case for taking action on nature. Resilient business planning means considering not only how nature-related risks affect the business, but also how the business affects the environment and wider society.

The internationally recognised ACT-D framework *(see Figure 4)* summarises the strategic transition required in four high-level actions: **assess** the business's relationship with nature; **commit** to ambitious nature targets; **transform** business practices and models; and **disclose** nature-related information to the market. Each action represents a progressive step towards building a resilient business strategy that protects and enhances value while contributing to global **nature-positive** outcomes.

Figure 4: The assess, commit, transform and disclose (ACT-D) framework

Source: ACT-D was developed in collaboration with leading organisations, including the Capitals Coalition, Business for Nature, World Business Council for Sustainable Development, Taskforce on Nature-related Financial Disclosures, Science Based Targets Network, World Economic Forum and World Wide Fund for Nature



Finance plays a key role in each step, as follows:

- **ASSESS:** Finance supports the evaluation of dependencies, impacts, risks and opportunities, identifying financially material issues.
- **COMMIT:** Finance plays a pivotal role in informing target setting, evaluating the financial implications and developing the business case.
- **TRANSFORM:** Finance requires disciplines such as financial planning and analysis and management accounting to embed nature considerations into strategic planning, budgeting and capital allocation.
- **DISCLOSE:** Finance ensures transparency and the accuracy of reports to stakeholders, supporting compliance and credibility.

The finance team is ideally positioned to drive this transformative agenda, with nature-related issues intersecting with all core finance activities ***(see Table 3).*** Incorporating nature into business transformation involves the collective participation of all team members, from the CFO to finance directors, controllers, analysts, management accountants and report preparers. ***Section 4*** outlines specific nature-related actions that individuals within the team can take to contribute.

Table 3: How nature connects to finance team activities

Core activity*	Example connections between activities and nature	Business benefits of integrating nature
Accounting and record-keeping: capturing, processing and analysing financial and non-financial data to support performance monitoring, internal reporting and decision-making	• **Cost allocation:** Recording nature-related expenditures (e.g. for environmental compliance or nature-based projects). • **Revenue streams:** Affecting revenues (e.g. reductions, due to consumer demand or supply chain disruptions; or increases, via new sustainable products and services). • **Performance monitoring:** Tracking non-financial quantitative and qualitative key performance indicators (e.g. water and resource use, carbon emissions, waste). • **Internal reporting:** Integrating nature-related data and statements into internal reports (e.g. board and performance management reports).	Integrating nature data into internal records and reports enables more complete and accurate performance tracking, improved budgeting and resource allocation.
Financial reporting: preparing statutory financial statements and disclosures for external stakeholders, in line with accounting and reporting standards	• **Material nature-related risks:** Disclosing nature-related risks if they affect financial performance or pose financial risk. • **Asset values:** Valuing biological or land-based assets and conducting impairment testing of assets (e.g. property, plant and equipment). • **Liabilities:** Recognising obligations linked to environmental restoration, biodiversity offsets or carbon emissions as provisions. • **Cash flows:** Considering nature-related factors (e.g. risks such as water scarcity and biodiversity loss, and new market opportunities) affecting operating costs, revenue streams and investment returns.	Robust and transparent reporting on nature-related issues supports compliance with regulation and standards, and builds trust with investors and other external stakeholders.
Financial planning and analysis: developing forecasts, financial models and budgets to guide internal decision-making and strategic planning	• **Scenario analysis:** Assessing the potential effect of nature-related drivers (e.g. drought, commodity prices, regulation, market opportunities) on future business performance and testing the resilience of strategies. • **Budgeting:** Allocating appropriate resources to effectively manage nature-related risks and deliver on strategic business priorities. • **Forecasting:** Identifying how nature-related factors affect costs and revenues and incorporating these into projections and stress tests.	Integrating nature-related assumptions into planning and analysis improves resilience and strategic agility.

Core activity*	Example connections between activities and nature	Business benefits of integrating nature
Strategy and risk: supporting strategic decision-making and managing financial risks	• **Business case:** Developing and communicating the business case for nature to the board, investors and other stakeholders. • **Risk management:** Integrating nature into Enterprise Risk Management systems to identify, manage and monitor risks (across direct operations and the wider value chain). • **Strategic planning:** Informing strategic planning by integrating nature-related issues into target setting, strategies and transition plans.	Considering nature-related issues helps start and shape strategies and transition plans that enhance business performance and resilience, while also contributing to nature-positive goals.
Capital allocation and investment appraisal: evaluating and prioritising investment opportunities based on expected returns and risks	• **Screening:** Integrating nature-related criteria into investment decisions (e.g. ESG scoring, biodiversity impact assessment). • **Cost-benefit analysis:** Valuing ecosystem services in cost-benefit analyses to inform investment decisions (e.g. wetland projects can capture carbon, reduce flooding, enhance biodiversity and support communities). • **Risk-adjusted returns:** Recognising that projects in ecologically sensitive or protected areas may face higher risks, costs and/or lower returns. • **Mergers and acquisitions due diligence:** Informing growth, diversification and business model transformation strategies through nature-related risks and opportunities.	Including nature-related costs and benefits in investment appraisals supports better capital allocation and maximises value creation for the business and society, as well as optimising future profits.
Funding: managing relationships with investors and lenders to secure financial resources	• **Investor expectations:** Taking into account investors' increasing demand for transparency on nature-related governance, strategy and risk management. • **Finance access:** Relying on nature-related key performance indicators for eligibility in green bonds, sustainability-linked loans or blended finance. • **Cost of capital:** Recognising that poor nature risk management and governance can increase perceived risk and raise borrowing costs.	Good governance, strategic planning and effective risk management on nature-related issues can improve both access to and the cost of capital.
Management and control: ensuring accuracy, integrity and security of financial processes and information to support decision-making and reporting	• **Compliance:** Considering nature-related issues as increasingly important for adherence to laws, regulations and standards. • **Procurement:** Taking into account the increasing importance of nature-related issues in supplier engagement and due diligence processes. • **Anti-greenwashing:** Preventing misleading claims about environmental performance through robust verification and governance.	Embedding nature-related metrics into control systems enhances decision-making and accountability, as a core element of good corporate governance.

* Finance activities may be categorised or described differently depending on the business context. Some may be led and/or carried out by other teams. For a detailed analysis, see The finance function: a framework for analysis (ICAEW, 2011).

Harnessing the diverse skills and perspectives across the entire team is crucial. Finance professionals responsible for (or supporting) **financial reporting** can play a key role in improving the visibility of nature within **financial accounting** processes and strengthening the connection with **non-financial reporting** (including sustainability disclosures). Both are increasingly important for providing stakeholders with a complete and accurate picture of the financial performance and position of the business, supporting compliance, guarding against greenwashing risks, enhancing credibility with investors, and improving access to finance (*Section 3.4* explores this opportunity further).

A more transformative opportunity lies in leveraging nature-related information to inform business decision-making. This is where other finance disciplines, such as **management accounting** and financial planning and analysis, are well equipped, bringing a forward-looking perspective. This approach is vital to integrating nature-related issues into strategic and operational planning, risk management, budgeting, forecasting and capital allocation (*Section 3.4* explores this opportunity further).

> **"Finance teams have a crucial role to play in ensuring that natural capital dependencies and impacts are measured, valued and integrated into decision-making, so that risks and opportunities are better understood and business value is protected and enhanced."**
>
> *(Accounting for Sustainability, 2025)*

Achieving this ambition requires coordinated action across the entire finance team. By embedding nature considerations into all finance processes and strengthening the business case for nature, the team establishes a solid foundation for delivering the priorities and actions outlined in this primer. Shared accountability and consistent collaboration are essential to driving and sustaining the operational and strategic changes needed.

3.2 Cross-functional collaboration: a critical enabler for embedding nature in finance

Finance teams cannot achieve the effective integration of nature into financial processes on their own. Collaboration across business functions, including sustainability, strategy, operations, procurement and internal audit, is critical to ensure that nature-related data, insights and actions are meaningful, timely and relevant for decision-making.

The A-Track report, Embedding nature in business decision-making: challenges and gaps, identifies a persistent gap in cross-functional collaboration as a key barrier to progress ***(see p. 21)***. Many organisations operate in silos, with sustainability teams leading on nature-related assessments and data collection, while finance teams are left to interpret and integrate outputs without sufficient context or support. This disconnect can limit the relevance and usability of nature-related information in financial processes and reduce its strategic impact.

Integrating sustainability and finance teams, processes and systems is essential ***(see Box 5).*** Sustainability teams already handle both past and future data and offer new insights into financial concepts, supporting the integration of nature-related issues into financial reporting. By combining their strengths, organisations can co-create efficient practices, build mutual understanding and credibly integrate nature into decision-making and reporting. ***Box 6*** provides examples of the critical role finance teams play in driving nature integration.

Box 5: How sustainability and finance teams work together

Sustainability teams often lead on:

- Undertaking natural capital assessments.
- Gathering environmental location-based data and stakeholder input (bringing in additional expertise where needed).
- Drafting nature-related disclosures.
- Identifying nature related business considerations

Finance teams bring:

- Skills to help value nature-related dependencies and impacts in monetary terms.
- Expertise in financial planning, risk management and reporting.
- Skills in data governance, including validation, controls and assurance.
- A deep understanding of how decisions affect financial performance.
- The ability to translate sustainability considerations into financial terms.

Together, these teams can:

- Conduct nature-related materiality assessments and scenario analysis.
- Align on material nature-related issues.
- Prepare natural capital accounts.
- Integrate nature into strategic planning, budgeting, forecasting and capital allocation.
- Ensure connectedness and consistency between sustainability and financial disclosures.
- Build robust internal processes, controls and governance for nature-related data.

Box 6: Case studies: the critical role of the finance team in driving nature integration

- **Olam Group** (Food and Agriculture, Global): In 2019, Olam formed its Finance for Sustainability (F4S) team, bringing together finance, accounting and other disciplines to address supply chain challenges. Working closely with sustainability and other functions, the team introduced multi-capital accounting, integrating human, social and natural capital into business decisions alongside financial metrics. Reporting on these capitals is a key part of Olam's annual report.
- **Forico** (Forestry, Tasmania): Forico's CFO catalysed a transformative shift by bringing the sustainability team under the finance remit, enabling finance and sustainability professionals to collaborate on developing one of the world's first natural capital accounts in the sector. Its annual natural capital reports have enhanced transparency and stakeholder trust and directly shaped how the business now operates.
- **Natura & Co** (Cosmetics, Brazil): In 2020, the company's finance and sustainability teams collaborated to develop its first integrated profit and loss statement, monetising nature-related impacts such as greenhouse gases, water use and land-use change. The results are directly comparable to financial results, informing strategic planning, risk management, and board and investor reporting.
- **City of Mississauga** (Municipality, Canada): In 2020, the city launched a pioneering strategic initiative to embrace sustainability, led by the finance team. It involved extensive collaboration and the integration of climate, nature and other sustainability considerations into planning, accounting and reporting processes. The results are publicly available via an online dashboard and are included in the city's financial and sustainability reports, setting a benchmark across Canada and beyond.

3.3 Connecting natural capital tools to finance processes

Integrating nature into finance requires interpreting a diverse array of sustainability metrics and linking them with financial processes, tools and data to generate meaningful insights. Finance teams need to be aware of two key tools: **natural capital assessment** and **natural capital accounting.**

Each of these tools serves a different but complementary purpose for helping organisations understand, manage and report on nature-related issues ***(see Table 4).*** For finance teams, these tools support across the full range of core finance activities. ***Appendix 2*** provides further details on key standards, frameworks and guidance for using these tools. Note that definitions and applications of these tools and approaches continue to develop over time.

Table 4: Natural capital assessment and accounting: key features and value for finance teams

	Natural capital assessment	Natural capital accounting
Description	Process for exploring, identifying and assessing an organisation's nature-related dependencies, impacts, risks and/or opportunities.[15] Flexible approach/scope (may use a combination of qualitative, quantitative and monetary methods). Materiality assessments and scenario analyses are usually integral elements.	Process for systematically identifying, measuring, recording, summarising and reporting the periodic and accumulated net changes over a period of time (e.g. financial year) to: (a) the biophysical state of natural capital and (b) the associated flows of value to the business and society. Uses standardised formats and principles that mirror financial accounts (e.g. classification of data, journal entries, structured accounting formats) aiding nature data classification and management. Focus on valuation in monetary terms (but also includes quantitative information).
Purpose	Providing a broad, holistic and forward-looking view of nature-related risks and opportunities (and identifying which are material) to inform decision-making and reporting.	Providing structured, consistent, comparable and auditable information on nature-related impacts and dependencies with regular (e.g. annual) reporting cycles, which can be used alongside other financial data to inform decision-making and reporting.
Standards, frameworks or guidance *(see Appendix 2)*	Business can use TNFD's LEAP approach (Locate, Evaluate, Assess, Prepare) and the Natural Capital Protocol to inform assessments.	Business can use emerging standards such as ISO 14054 Natural Capital Accounting for Organizations (under development) and other guidance for the process of preparing natural capital accounts.
Application and scope	Can be tailored to the organisation's context and priorities (e.g. can be applied at the company, business-unit, service-line or site level and its scope can be expanded over time).	Typically applied at the company level (but can also focus on individual business units or sites), with a scope that may include assets controlled directly by the organisation or others outside its control.
Comparability	May not be comparable across periods or organisations (as methods vary).	Is comparable across periods and organisations.
Outputs	• Information on dependencies and impacts, risks and opportunities across the business (maps, insights). • Materiality assessment, highlighting which nature-related dependencies and impacts are most material. • Scenario analysis, to explore how risks and opportunities may evolve in the future.	• Natural capital income statement showing increases and decreases in natural capital and associated benefits during the relevant accounting period (e.g. previous financial year). • Natural capital balance sheet presenting the value of the organisation's natural capital assets and liabilities. • Accompanying notes (e.g. on, valuation approaches, assumptions).

15 Also referred to as "DIROs" or, collectively, as "nature-related issues".

	Natural capital assessment	Natural capital accounting
How each supports finance activities	✓ Helps identify and prioritise financially material nature-related risks and opportunities. ✓ Improves relevance of disclosures, supporting compliance, investor engagement and access to capital. ✓ Provides input for forward-looking analysis (e.g. scenario planning, forecasting) by highlighting how nature-related risks and opportunities could affect business performance. ✓ Supports risk mitigation, strategic planning and target setting. ✓ Improves investment and capital allocation (e.g. by integrating nature-related issues into investment appraisal, cost-benefit analysis, due diligence).	✓ Provides consistent, comparable auditable information in structured formats that can be integrated into business information systems and processes. ✓ Supports financial reporting (e.g. provides monetary values on assets, liabilities and provisions). ✓ Supports financial planning, budgeting and forecasting (e.g. by quantifying environmental benefits/costs). ✓ Improves investment appraisal and capital allocation (e.g. by revealing the environmental impact of options). ✓ Enhances stakeholder engagement and access to capital (e.g. payments for ecosystem services, green loans, off-take agreements).

Evidence highlights that both natural capital assessment and accounting are increasingly used together and iteratively. Natural capital assessment helps to identify which nature-related issues may be significant to the business. It also provides a starting point for developing natural capital accounts by informing the scope (e.g. whether to focus on assets owned or controlled by the business, or to extend to others outside its control) and by guiding the selection of priority metrics (e.g. those linked to critical ecosystem services).

Natural capital accounting then builds on this foundation by quantifying, valuing and tracking these priority metrics over time and providing a consistent, structured framework for organising nature-related data (see *Appendix 3* for an example from Forico, Tasmania's largest private forestry management company, illustrating this sequential process).

In turn, natural capital accounts can feed back into the LEAP process, strengthening future assessments, for example by providing quantitative and monetary data that enhances the materiality assessment (see Leveraging natural capital accounting to support businesses with nature-related risk assessments and disclosures for further discussion).

Natural capital tools build on and complement processes you may already have in place to support management and reporting on climate-related issues. For example, whereas carbon accounting focuses specifically on greenhouse gas emissions (and removals), natural capital accounting expands on this by measuring and valuing a wider range of metrics beyond carbon, such as impacts on land, water, biodiversity and the benefits they provide to the business and society.

> **“Quantifying our externalities and dependencies allows us to embed these into our business decision-making and effectively manage long-term impacts and dependencies on natural, social and human capitals.”**
>
> *(Bikash Prasad, President and Group Chief Financial Officer of Olam Agri)*

Integrating nature into finance requires the collection of new data from within and outside the organisation. Robust data is important for accuracy, reliability and comparability. ***Box 7*** explores key data-related challenges faced by finance teams and highlights key considerations when setting up appropriate controls to enhance data quality and ensuring transparent reporting.

Box 7: Nature-related data considerations for finance teams

Nature-related data can be more challenging to manage than financial data as it is often quantitative or qualitative rather than monetary (e.g. tonnes of CO2 equivalent, cubic metres, megawatt-hours, biodiversity indices, species counts). The finance team can bring valuable skills to establish robust controls to ensure:

- Data sources are subject to rigorous controls to improve their completeness and accuracy.
- Metrics are reliable, replicable and comparable for other decisions and time periods.
- Information is collected efficiently, automating it within existing financial data collection processes, and considering and advising which metrics will dovetail with others.
- Transparent evidence is collated during this process for internal and external auditor review.

Data systems have often been designed primarily for financial accounting and reporting. Amending and adapting these systems can take time, so starting this work early is critical to ensure reliable and useful information is available in future periods.

Nature-related data often relates to issues beyond the organisation’s immediate operations (e.g. dependencies on natural capital it does not own or control). This can be challenging and requires a pragmatic, transparent approach to ensure relevant information is collected, interpreted and used appropriately.

Data does not have to be perfect to be useful. Transparency and interpretation are key. The quality of nature-related analysis, interpretation and communication is just as important as the quality of the underlying data.

For further information and insights on data-related issues and controls, see:

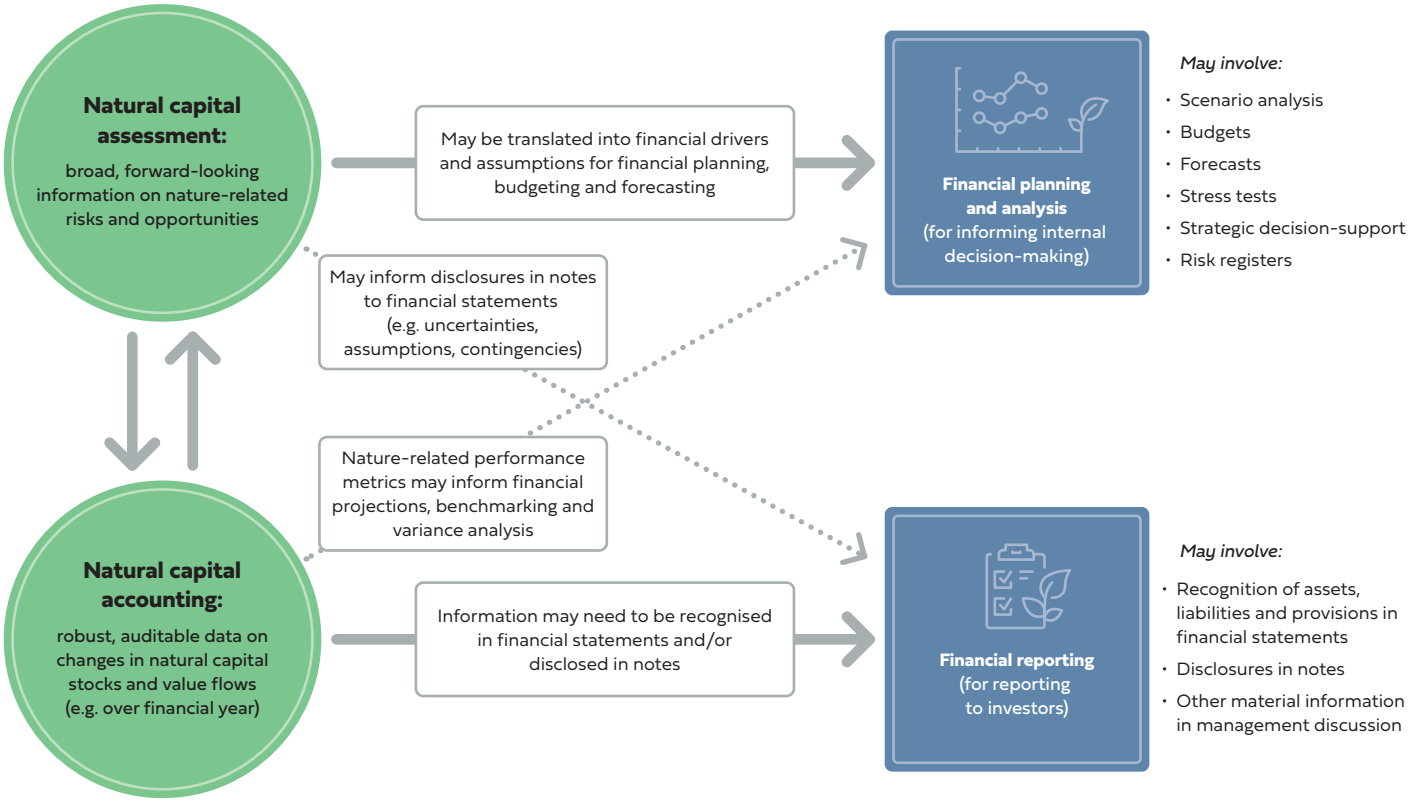
- Why nature matters to accountants (Global Accounting Alliance, 2025),
- Consolidating non-financial data: why standards matter (ICAEW, 2025),
- Achieving effective internal control over sustainability reporting (COSO, 2023).
- Governance for valuation (Capitals Coalition, 2025).

3.4 Use cases: how natural capital tools support finance activities

Many companies are adopting and integrating natural capital assessment and accounting tools, shaping emerging practices and methods. To highlight their potential utility for finance teams, this section explores how these tools can inform and enhance finance activities through two example use cases – financial planning and analysis (FP&A) and financial reporting.

Figure 5 illustrates how natural capital tools connect with these activities, underscoring the unique yet complementary functions they serve. Each use case is explored further below. Note that these are illustrative scenarios only as the business application of these tools is still nascent and rapidly evolving.

Figure 5: Illustration of how natural capital tools can inform finance activities



→ *Financial planning and analysis*

Financial planning and analysis (FP&A) is a forward-looking discipline that leverages both historical and future-looking data to inform business strategies. Integrating natural capital tools into FP&A enables finance teams to embed nature-related considerations into core processes such as budgeting, forecasting and decision-making.

As shown in ***Figure 5,*** natural capital assessments provide information on nature-related dependencies, impacts, risks and opportunities (and how these may evolve in the future) which finance teams can translate into financial drivers and assumptions within FP&A models and routines. Meanwhile, natural capital accounting tracks nature-related performance metrics, providing essential context and baselines for projections, benchmarking and variance analysis. ***Box 8*** further explores how information provided by natural capital tools can inform FP&A.

Box 8: How natural capital tools can inform financial planning and analysis

In practice, nature-related information may enrich FP&A activities in many ways, for example:

- **Performance metrics & KPIs:** Integrating key nature-based metrics (e.g. resource use, nature-related impacts, revenues, expenditures, liabilities) into business information systems (e.g. dashboards and scorecards). These can be mapped to business units, project or value streams alongside traditional financial indicators.
- **Budgeting and forecasting:** Incorporating nature-related factors into financial models and projections, such as projected changes in the availability of water and raw materials, future regulatory requirements or consumer demand. Data can be structured to align with standard FP&A dimensions and categories, such as cost centres and revenue streams.
- **Scenario modelling:** Using forward-looking nature scenarios to assess how nature-related factors and drivers might impact future business performance and outcomes. This supports alternative projections, stress testing and strategic planning.
- **Financial and strategic decision-support:** Providing leadership with data-driven insights on nature-related issues to guide operational, capital allocation and long-term strategic decisions.
- **Risk management:** Embedding material nature-related risks into enterprise risk management systems, linking them to mitigation strategies.

Integrating nature into financial planning and analysis (FP&A) is increasingly essential for organisations seeking resilient, sustainable strategies. Traditional FP&A models often overlook nature-related factors that may affect future financial performance, such as long-term impacts of water shortages or increased flood risk due to land-use change. Barriers to integration include lack of access to reliable nature data, uncertainty regarding future environmental trends and regulation, and lack of established methods for quantifying and valuing financial impacts, among other factors.

Natural capital tools can help finance teams address these challenges by offering reliable, standardised metrics that can be incorporated into financial models, budgeting routines, forecasting and scenario analyses. Effective integration will require finance teams to collaborate with sustainability experts, build capacity to link nature-based data to financial outcomes, and update their practices by adopting new methodologies.

→ *Financial reporting*

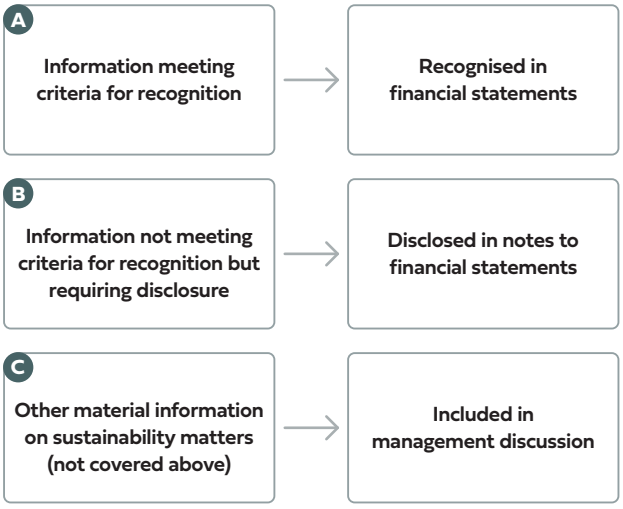
Financial reporting involves the systematic collection, analysis and presentation of information on an organisation's historical financial performance and position in adherence with established accounting and reporting standards (e.g. IFRS Accounting Standards). Incorporating nature-related considerations into regular financial reporting cycles is increasingly important for providing investors and stakeholders with complete, accurate and credible information.

As shown in ***Figure 5,*** natural capital accounting provides consistent, comparable, auditable data in a structured format that mirrors financial accounts, helping to facilitate the preparation of financial statements – for example through the recognition of assets (e.g. such as land and carbon credits) and liabilities (e.g. provisions for maintenance costs) and informing disclosures (e.g. contingencies). Meanwhile, natural capital assessment offers additional information that can inform asset impairment reviews, valuations and disclosures.

Box 9 describes how information provided by natural capital tools can inform financial reporting. Further information, including practical illustrations of how nature-related issues may affect individual elements in financial statements in accordance with accounting and reporting standards, can be found in ***Appendix 4.***

Box 9: How information from natural capital tools can inform financial reporting

Information produced by natural capital tools may need to be incorporated into, or have an impact on, financial statements and disclosures in a variety of ways. The treatment applied will depend on several factors, as illustrated in the image below:



The following explanations (below and next page) further describe the practical application of these principles in each case:

A **Information meeting criteria for recognition:** Under current accounting principles, elements that meet criteria for recognition must be recognised in the primary financial statements. Assets and liabilities are recognised on the balance sheet when a past event (e.g. a transaction or contract) make it probable that future economic benefits will flow to (assets) or from (liabilities) the entity that can be reliably measured. In the income statement, expenses and revenues are recognised when they are incurred or earned respectively. Natural capital tools can support this by, for example:

- Informing the **recognition of assets** such as land (a property, plant and equipment asset), timber and livestock (biological assets) and carbon credits (intangible asset) by providing robust monetary values (from natural capital accounts).
- Informing **liability provisions** through estimating the costs associated with obligations (e.g. site maintenance or restoration).
- Support the calculation of **revenues earned** (e.g. the sale of timber or carbon credits) and expenses incurred (e.g. restoration, remediation, fines, depreciation charges).
- Supporting the assessment of **asset useful lives, impairment reviews** and **residual value** calculations by identifying relevant nature-related factors (e.g. the impact of declining water resources or regulatory changes).
- Support the calculation of **revenues earned** (e.g. the sale of timber or carbon credits) and **expenses incurred** (e.g. restoration, remediation, fines, depreciation charges).

Box 9: How information from natural capital tools can inform financial reporting *(continued)*

B **Information not meeting criteria for recognition but requiring disclosure:** The disclosure of additional structured information is required in the notes to explain the numbers in the financial statements. These notes also include disclosures of contingencies related to reasonably possible but currently uncertain events. Natural capital tools can support this by, for example:

- Providing data to support the disclosure of **uncertainties, methods, assumptions** and **judgements** that underpin valuations, impairment testing and provisions.
- Informing the disclosure of **contingent liabilities** (e.g. future environmental maintenance, restoration or lawsuits) or **contingent assets** (e.g. potential future benefits of investments in resource efficiency or nature-related projects).
- Informing **going concern assessments** by providing insights into critical nature-related risks (e.g. access to water or regulatory changes), their implications for long-term business resilience and viability, and related mitigation strategies.

C **Other material information on sustainability matters (not covered above):** The disclosure of other information on sustainability matters that is material to investors is expected in the **management discussion and analysis (MD&A)** to provide important narrative context and strategic insights on how these matters affect the business' financial performance and future outlook. Natural capital tools can support this by, for example:

- Contributing to the **broader narrative** on nature-related factors and uncertainties affecting financial performance, value creation, resilience and viability, as well as the business's strategy and approach to managing them.
- Informing **scenario analyses and projections** to assess how nature-related risks and opportunities could evolve over time, how these may affect financial indicators, and to test the robustness of the company's strategy.
- Providing other relevant f**inancial information on sustainability matters** (e.g. internal carbon pricing) to show how sustainability considerations are embedded in business processes and financial planning.

Whilst many businesses already integrate certain nature-related aspects in financial reporting processes (such as assets and liabilities), much of the value nature contributes lacks visibility in the financial statements. Long-term and systemic risks (e.g. biodiversity loss affecting supply chain stability or drought impacting business model viability) are often overlooked. While these risks are increasingly discussed in the MD&A and sustainability disclosures, they may not be reflected in the financial statements, even when material.

Integrating the future benefits of sustainability investments (e.g. measures that reduce nature-related risks or create new opportunities) also remains challenging, as financial statements capture only costs incurred and benefits realised. This can weaken the business case for sustainability and affect access to finance, particularly as lenders and investors demand greater transparency on nature-related risks and opportunities.

Finance teams face the challenge of navigating complex measurement and valuation issues, uncertainty about future environmental trends and regulation, evolving disclosure frameworks and the limited scope of current accounting standards, which typically cover only quantified or immediately material sustainability issues. Addressing these issues is essential to ensure financial statements present a true and fair view, remain free from misstatements (e.g. asset overvaluation, understated costs and liabilities, or overstated revenues) and comply with relevant standards.

To overcome these challenges, finance teams need to work closely with sustainability, audit and technical experts. By making use of natural capital tools, they can also streamline processes through improved access to high-quality data and by leveraging evolving measurement and valuation methods to support recognition and disclosure, thereby increasing the completeness and relevance of financial information.

Box 10: Case studies: linking natural capital tools to finance processes

- **Iberdrola** (Renewable energy, Spain): The company uses the TNFD LEAP approach to help identify risks, integrating this information into its risk control system. According to its Non-Financial Information Statement, none of the company's material nature-related dependencies or impacts have resulted in financial risks, due to the mitigation measures implemented.

- **United Utilities** (Water utilities, UK): The utility company developed natural capital accounts to quantify ecosystem services across 56,000 hectares, estimating £4.5 billion in benefits to customers and other stakeholders. This informs investment planning and supports nature-based solutions (to meet net-zero and other targets), with data integrated into financial reporting via the TNFD and IFRS frameworks.

- **Forico** (Foresty, Tasmania): The private forestry management company has published audited natural capital reports since 2020, led by the finance team. It conducted a materiality assessment to identify six key metrics for inclusion in its accounts (biomass provisioning, carbon sequestration, carbon emissions, water flows, sediment control and biodiversity). Its natural capital accounts have enabled it to quantify the value generated by its land and forest assets, driving diversification of its business strategy and strengthening its reputation and public trust.

- **Reckitt** (Consumer goods, UK): The multinational uses the TNFD LEAP approach and nature analytics tools to assess biodiversity risks in its latex supply chain, informing risk mitigation strategies. For example, to manage biodiversity risks in Surat Thani, Thailand, it identified avoiding mono-sourcing, diversifying suppliers and using alternative raw materials to replace latex in its products as key options.

- **CDL** (Real estate, Singapore): The company identified nature loss as a financially material issue (due to its potential impact on property valuations and insurance costs) through a double materiality assessment. This informed updates to its risk management and financial planning processes (e.g. scenario analyses and forecasts) with the resulting information presented in its annual report and sustainability disclosures.

- **BHP** (Mining, Australia): The multinational corporation piloted the use of natural capital accounting to value ecosystem services at a closed mine site, directly informing decommissioning strategies (e.g. land restoration and water quality improvement projects), investment planning and reporting (including financial statements).

- **JSW Steel** (Extractives and mineral processing, India): The manufacturing company uses the TNFD LEAP approach to support risk assessment, integrating information into its Risk Control and Management System. It also applies a double materiality approach to reporting nature-related issues, aligned with the Global Reporting Initiative Universal Standards 2021, IFRS standards and standards issued by the Sustainability Accounting Standards Board.

Further resources

- **Why nature matters to accountants:** Global Accounting Alliance's guide on why nature matters to businesses and finance professionals, outlining practical steps board members, senior managers, analysts, report preparers and assurance practitioners can take to integrate nature into their work.
- **Connecting sustainability and finance:** insights and practical guidance from the ICAEW on connecting sustainability and financial information, disclosure and performance.
- **Roadmap for putting nature on the balance sheet:** initiative led by the Capitals Coalition working with land custodians (owners) to support measurement and quantification of natural capital and integration into financial accounts.
- **Sustainable Corporate Finance (Coursera):** an online course that equips learners with the skills to integrate sustainability into financial strategies and models, driving long-term value for businesses and stakeholders.
- **What is meant by capital? (Accounting Streams):** a guide explaining the concept of capital in accounting, including different types of capital and their relevance to financial decision-making.
- **How should we measure environmental and social costs? (Accounting Streams):** a guide exploring methods for identifying, quantifying and reporting environmental and social costs in financial statements.
- **What is carbon accounting? (Accounting Streams):** a guide introducing carbon accounting principles, including how emissions are measured, reported and integrated into financial and sustainability reporting.
- **Natural Capital Accounting Handbook:** a CSIRO resource providing technical guidance on natural capital accounting for environmental and business applications.

4 Role of the finance team

Beyond understanding why nature is a strategic and financial imperative and recognising the vital role finance teams play in responding, how do you get started? This section outlines practical steps you and your team can take to begin embedding nature into your daily activities. By doing so, you not only strengthen your company's financial performance and long-term resilience but also position it to actively contribute to nature's recovery.

> **"The role of CFOs and their finance team is inherently about protecting and creating value. Factors that can impact business value, such as the declining state of nature and evolving nature-related regulation, are clearly in their remit to consider and respond accordingly."**
>
> *(Rayne van den Berg, Chief Value Officer of Value Australia; former Chief Financial Officer of Forico)*

Let's revisit Verda Immo's journey to understand how the finance team responded to the board's request for a new nature strategy ***(see Box 9)***. The team brought together colleagues from across the business to collaborate and focus on the most important issues. Following Verda Immo's example, the key is to take that first step.

Box 9: Verda Immo's nature story (part 3): building resilience through nature

In Section 2, Verda Immo identified nature-related factors and changing regulatory requirements as material risks due to their potential to affect asset values, insurance costs and long-term business resilience. The CFO launched a portfolio-wide strategy, supported by a cross-functional team spanning sustainability, development, operations, risk, procurement and legal functions.

Collaboration was key: the sustainability team led on natural capital assessments and worked with finance to create natural capital accounts and establish robust data controls. Scenario workshops identified future risks and opportunities. Teams piloted financial models and stress tests for major projects, incorporating compliance costs, biodiversity offsets and investments in nature-based climate solutions. External stakeholders and local communities were involved to ensure broad support.

The finance team developed a proposed five-year strategy for board review covering:

Rollout of nature integration into risk, opportunity and capital planning

- Maintain natural capital accounts across all sites to improve financial planning, strategy and reporting.
- Include nature-related factors into routine investment appraisals and financial stress tests for all new projects to optimise capital allocation and contingency plans for at-risk assets.
- Perform group-level nature-related risk and scenario analysis to uncover long-term nature-related vulnerabilities.

Adaptation of the planning and permitting process

- Add nature-focused metrics to feasibility checks for UK and EU projects.
- Use standard design templates with green roofs, native plants and nature-based drainage to ease permitting and meet local planning requirements.

Development of new finance opportunities

- Explore green finance options (e.g. sustainability-linked bonds, blended finance and carbon credits to boost funding for nature-based projects).
- Launch a Green Asset Reserve Fund to support sustainability improvements at existing sites (e.g. wetlands, pollinator landscaping and water recycling).
- Collaborate with authorities in England and Belgium to pilot urban biodiversity corridors near assets, improving both tenant satisfaction and sustainability.

After board and executive committee approval, Verda Immo rolled out the company-wide plan, resulting in improved stakeholder relations, better risk management, increased cost efficiency, higher asset value and new financing, including a €35 million green loan. The company also advanced biodiversity, climate adaptation and community well-being, earning recognition as a sustainable real estate leader.

4.1 Five key questions finance teams can ask

To spark conversations, build understanding and uncover opportunities for collaboration and action, finance professionals can ask:

1. **What nature-related dependencies, impacts, risks and opportunities does our business face?** A lot of existing data and information may already be held by sustainability teams and operational units (e.g. through supplier engagement, environmental controls and risk/materiality assessments). Engaging others in the business helps determine the extent of current understanding (and any knowledge gaps) and start to build knowledge in the finance team on risk exposure and potential opportunities.

2. **Where across our business are these risks and opportunities likely to be financially material?** This helps to pinpoint the hotspots (e.g. specific market segments, service lines, sites or suppliers) where these risks or opportunities could directly or indirectly translate into future losses (such as supply chain disruptions, regulatory changes or reputational damage) or create new avenues for growth (like new products, markets or business models).

3. **When would the financial effects of these nature-related risks or opportunities arise, and over what time frames should finance plan?** This helps to determine whether these factors pose immediate, medium-term or long-term financial implications and if current planning periods (e.g. 3–5 years) are adequate. Anticipating when risks and opportunities might emerge allows for better alignment of financial planning with sustainability strategies, ensuring resilience to both near-term shocks and long-term shifts.

4. **How prepared are we to respond?** Assessing the organisation's current readiness, including skills, information systems and policies, enables finance teams to identify strengths and gaps in their ability to act on nature-related risks and opportunities. This supports proactive improvements and ensures the business is well positioned to adapt swiftly.

5. **Who in our business is responsible for and affected by nature-related issues?** This helps to identify relevant individuals, teams, business units and governance mechanisms. Understanding who to engage and existing oversight arrangements for managing nature-related issues is crucial to building cross-functional dialogue and collaboration.

Team meetings, risk reviews or one-on-one conversations with colleagues in sustainability, risk, operations or strategy provide opportunities to raise these questions.

> **“Within their finance function, the CFO oversees the organisation’s people who are the most data driven and can bring dispassionate rigour to the data they collect. I think this creates the opportunity to embed that level of rigour right into sustainability.”**
>
> *(Jeff Davies, Chief Financial Officer of Legal & General PLC)*[16]

4.2 Key actions finance team members can take to get started

Each team member can take five key actions to start to embed nature in their day-to-day work. They can tackle all five together or begin by focusing on one or two priority areas.

→ *Chief financial officer*

As CFO, you oversee strategic financial planning and operational performance to ensure your business’s profitability and long-term health. Your core duties include managing risk, operational finance management, developing financial strategy and leading investor relations. With these responsibilities, you are integral to integrating nature into financial processes and decision-making. This involves identifying how nature-related risks and opportunities affect financial performance, establishing and clearly communicating the business case for nature across the organisation and articulating the strategic importance of nature in boardrooms and investor briefings. The CFO role is also evolving to encompass value creation beyond financial performance, including environmental and social outcomes. If you serve on the board, considering nature-related risks may also be part of your directors’ duties. ***Box 10*** presents examples of CFO actions to integrate nature into company operations and decisions.

16 A4S Finance Leaders’ Sustainability Barometer 2024 (A4S, 2023)

> **“Today, sustainability is at the heart of the role of a CFO from a governance, commercial and regulatory standpoint. Regulators expect it. Investors are seeking it... CFOs can bring the same rigour they apply to accounting and financial numbers to sustainability numbers.”**
>
> *(Rishi Kalra, Executive Director and Group Chief Financial Officer of ofi)*

Five actions *to get started:*

1. **Build your knowledge of why nature matters to the business.** Familiarise yourself with essential nature-related concepts, frameworks, regulatory requirements and market practices using the resources signposted in this primer. Review existing nature- and sustainability-related materiality assessments, reports or disclosuresfor your business to help you understand its key risks and opportunities.

2. **Champion nature at the leadership level.** Highlight nature as a strategic management issue by referencing it in board discussions, executive meetings and strategic planning sessions. Advocate for senior leadership commitment to integrating nature into the business's long-term strategy and goals.

3. **Work with internal stakeholders to shape an informed strategic agenda.** Collaborate with relevant colleagues across the organisation on building the business case for strategic action on nature, empowering finance directors to drive the integration of nature considerations into financial strategy. Strengthen links between financial processes and nature-related issues and goals by establishing processes to support cross-functional dialogue and collaboration. Ensure sufficient resources, such as staff and budgets, to enable strategic planning and execution.

4. **Empower your team to engage with nature.** Embed nature-related objectives in your finance team's strategy. Create a focused capacity-building plan using training, external forums, staff exchanges and joint projects. Integrate nature-based key performance indicators into performance reviews, dashboards, development plans and incentives.

5. **Engage with investors and external stakeholders on nature-related issues.** As investors are increasingly asking how businesses are exposed to nature-related risks and how they plan to respond, articulate and show awareness of the strategic importance of nature to the business and its forward strategy in investor briefings.

Box 10: Case studies: CFO leadership in integrating nature considerations into finance and decision-making

- **Forico** (Forestry, Australia/Tasmania): The CFO leads Forico's work on Natural Capital, overseeing the development of its Natural Capital Reports. The sustainability team is now part of the CFO's remit.
- **British Land** (Property, UK): The CFO integrates sustainability into board decisions by aligning financial and non-financial reporting, sponsors the sustainability strategy and is supported by sustainability experts in finance, treasury, investor relations and development. The CFO chairs the Sustainability Committee, which includes management from various departments and operates as a working group to review strategy and report to the Corporate Social Responsibility Committee.
- **AngloGold Ashanti** (Mining, South Africa): The CFO leads integrated reporting by overseeing risk management, aligning financial and non-financial reporting, and engaging investors on ESG-related performance.

Further resources *for CFOs*

- **TNFD in a box – board-level overview:** key messages for business leaders on why corporates need to consider nature as a strategic risk management issue and how to respond.
- **Why nature matters to accountants:** Global Accounting Alliance's guide for finance professionals (including CFOs), exploring actions they can take to integrate nature into their work.
- **The business case for nature:** A4S's guide outlining how nature-related risks and opportunities translate into financial impacts, with case study examples and practical tools.
- **TNFD asking better questions on nature:** series to help senior business executives surface critical nature-related insights to inform decision-making (the first guide released so far is for board directors).
- **Essential guide to finance culture:** practical guidance from A4S on how to embed sustainability in finance team culture, leadership and incentives.
- **ICAEW Sustainability Accelerator Programme:** practical training courses covering key sustainability topics (including nature) tailored for finance professionals.

→ *Finance director*

As a finance director, your focus is on internal financial leadership, overseeing the implementation of strategy, governance and performance across the organisation. You are responsible for enabling sound decision-making, ensuring financial integrity and connecting finance with other business functions. Working alongside the CFO and financial controller, you play a key role in embedding nature into the day-to-day workings of the finance function. Your leadership is essential to ensuring nature is recognised as a strategic issue and your team is equipped to respond. ***Box 11*** presents examples of finance director actions to embed sustainability in company operations.

> **“Our chief financial officer and financial director are both heavily involved in embedding sustainability into our decision-making and linking non-financial factors back to financial and operational benefits.”**
>
> *(South West Water, 2024)*

Five actions *to get started:*

1. **Build your knowledge of why nature matters to the business.** Familiarise yourself with essential nature-related concepts, frameworks, regulations and standards using the resources signposted in this primer. Review existing nature- and sustainability-related materiality assessments, reports or disclosures for your business to help you understand its key risks and opportunities and articulate the business case for action.

2. **Review how nature is reflected in financial strategy.** Take a fresh look at your financial strategy, long-term plans and capital allocation processes: are nature-related issues being considered alongside climate and wider sustainability-related risks and opportunities? Work with sustainability, risk and strategy colleagues to identify material issues and explore potential implications for financial and strategic decision-making.

3. **Enable your team to engage with nature-related issues.** Encourage your finance team to explore how nature connects to their roles. This might involve supporting training, allocating time for cross-functional collaboration and integrating nature into role expectations and performance objectives alongside climate and wider sustainability-related issues.

4. **Establish collaboration between finance, sustainability and strategy teams.** Help connect teams, align priorities and establish ways of working that foster collaboration. Encourage joint problem-solving on key issues like supply chain resilience, investment planning or reporting. Build a shared understanding of the business case for nature by linking nature-related issues to financial outcomes and organisational objectives.

5. **Strengthen governance, controls and reporting on nature.** Actively work with finance controllers and with internal audit, sustainability, risk and strategy teams to establish how nature is currently factored into critical processes (e.g. performance measurement, risk management, strategic planning, capital allocation, reporting and governance, including oversight or audit processes). Identify key priorities to enhance critical systems and controls for integrating nature alongside climate and wider sustainability-related issues.

Box 11: Case studies: finance director actions to embed sustainability in company operations

- **SSE** (Energy, UK and Ireland): The company's finance director oversaw the development of a Sustainable Commercial Model that quantified the social, environmental and economic impacts of capital investment projects.
- **Olam Agri** (Agriculture, Global): formed its Finance for Sustainability (F4S) team, bringing together finance, accounting and other disciplines. It collaborates extensively with other functions across the company, including the sustainability and business teams to support decision making.
- **City of Mississauga** (Municipality, Canada): The finance team led a project to help the city embrace sustainability and identify ways to embed it in its planning, accounting and reporting activities.

Further resources *for finance directors*

- **TNFD – Knowledge Hub:** learning materials and capacity-building tools to help organisations assess, report and act on nature-related issues (including materials tailored for business leaders and boards).
- **Essential guide to finance culture:** practical guidance from A4S on how to embed sustainability in finance team culture, leadership and incentives.
- **ICAEW Sustainability Accelerator Programme:** practical training courses covering key sustainability topics (including nature) tailored for finance professionals.
- **Strategic planning, budgeting and forecasting guide:** A4S's guide for finance teams providing tools, practical examples and guidance on how to integrate sustainability into strategic planning, budgeting and forecasting.
- **Aligning transition planning and financial planning:** key questions for finance teams: guidance from A4S on how to undertake the financial planning and analysis needed to support their company's transition plan.
- **Integrated decision-making framework:** a roadmap to navigate holistic decision-making by integrating multiple capitals into business strategy, developed by the Capitals Coalition.
- **Essential guide to debt finance:** A4S's guide on how to align financing strategies with nature-positive outcomes.
- **Transition planning resources:** materials developed by the United Kingdom's Transition Plan Taskforce to help businesses develop transition plans (including the incorporation of nature-related issues).
- **Capitals Coalition – Free online training courses:** a training hub offering learning pathways for finance professionals on natural capital and systems thinking.

→ *Financial controller*

As a financial controller, you are generally responsible for ensuring accurate financial reporting, governance, compliance and robust internal controls. You also implement financial policies and may oversee essential functions such as budgeting, forecasting and cash flow. With these duties, you play a key role in driving the integration of nature-related considerations into core finance processes to ensure they are reflected in the data and insights used for decision-making. This often involves working closely with the finance director and collaborating with key functions such as internal audit to ensure a coordinated approach to incorporating nature-related and sustainability aspects into financial practices and reporting. *Box 12* presents examples of company actions at the controller level to integrate environmental considerations into financial operations.

> **"The role of the financial controller is increasingly intertwined with ESG principles. As these considerations become more central to corporate strategy and risk assessment, controllers should incorporate them into the financial planning and reporting processes. This must be aligned with sustainability goals and should be communicated to the stakeholders."**
>
> *(Ernst & Young,2024)*[17]

17 How the role of financial controller is evolving (EY Global, 2024)

Five actions *to get started:*

1. **Build your knowledge of why nature matters to the business.** Familiarise yourself with essential nature-related concepts, guidance, frameworks, regulations and standards using the resources signposted in this primer. Review existing nature- and sustainability-related materiality assessments, reports or disclosures for your business to help you understand its material risks and opportunities.

2. **Check risk management processes incorporate nature-related considerations.** Examine risk registers and financial procedures to confirm that nature-related risks are appropriately addressed. Collaborate with the sustainability team to determine areas of exposure and potential gaps that could impact risk management, financial oversight, audit preparedness or regulatory compliance.

3. **Evaluate and enhance data collection and management systems.** Focus on improving information systems, data gathering practices, measurement protocols and internal reporting mechanisms to ensure the accurate tracking of nature-related data (e.g. impacts, expenditures, revenues). This may involve modifying current systems or piloting new solutions. Work with financial analysts, sustainability and IT teams to streamline and automate the monitoring and internal reporting of nature-related and other sustainability information (e.g. using digital platforms, dashboards, artificial intelligence and data analytics). Focus on a specific business unit or issue to allow testing and refinement before organisation-wide implementation.

4. **Prioritise the revision of policies and controls.** Assess internal policies and procedures to identify ways to integrate nature alongside climate and wider sustainability-related considerations. Assemble cross-functional teams from finance, sustainability, legal and operations to evaluate priorities and develop viable solutions. Partner with internal audit staff to establish robust systems for data validation and audit-ready disclosures, including protocols for verifying environmental statements in annual reports.

5. **Promote capacity-building and upskilling initiatives.** In partnership with the CFO and finance director, advocate for training and knowledge-sharing across teams regarding nature-based concepts and frameworks. Encourage cross-functional collaboration, specifically with colleagues in sustainability. Share practical examples of successful integration, such as cost savings achieved through improved resource allocation or value creation via green financing instruments. Cooperate in developing financial models that accurately reflect the benefits of ecosystem services and the costs associated with nature degradation, including scenario analyses.

Box 12: Case studies: company actions to integrate environmental considerations into financial operations

- **Iberdrola** (Renewable energy, Europe & Americas): Iberdrola's 2024 annual report applies a double materiality approach aligned with the Corporate Sustainability Reporting Directive and European Sustainability Reporting Standards. Site-level assessments identified nature-related dependencies and impacts, particularly on species and ecosystems. These assessments informed asset-level decisions and were used to update the company's risk control and management system. Nature-related risks are disclosed in the MD&A, with references to biodiversity action plans and water stress exposure affecting asset valuation.
- **De Nederlandsche Bank** (Finance, Netherlands): The bank applied the TNFD LEAP approach, establishing internal controls to assess nature-related risks in sovereign bonds and electric utilities. It implemented systems for verifying location-based biodiversity data, enabling reliable integration into investment analysis, risk registers and financial disclosures.
- **Natura & Co** (Cosmetics, Brazil): The controller and finance team are involved in the development of the integrated profit and loss methodology, including data collection, measurement and valuation. They support the measurement and quantification of key impacts linked to business activities, enabling decisions that achieve a balance between positive impacts and profitability.

Further resources *for financial controllers*

- **Strategic planning, budgeting and forecasting guide:** A4S's guide providing tools, practical examples and guidance on how to integrate sustainability into strategic planning, budgeting and forecasting.
- **Aligning transition planning and financial planning: key questions for finance teams:** guidance from A4S on how to undertake the financial planning and analysis needed to support their company's transition plan.
- **ICAEW Sustainability Accelerator Programme:** practical training courses covering key sustainability topics (including nature) tailored for finance professionals.
- **Essential guide series:** Capex: A4S's guide to help finance teams assess nature-related impacts in capital investment decisions.
- **Integrated decision-making framework:** a roadmap to navigate holistic decision-making by integrating multiple capitals into business strategy, developed by the Capitals Coalition.

→ *Financial analyst*

As a financial analyst, you analyse financial data to help your company's executives make informed decisions. Your responsibilities may include risk assessment, investment analysis, forecasting and other activities, taking into account trends and external factors. Nature-related risks and opportunities can significantly influence financial performance, making it essential to integrate them into your work to inform strategic and capital allocation decisions. Analysts also have a growing role in managing nature-related data and must understand key nature-related concepts and how they relate to the company. ***Box 13*** presents examples of company actions to integrate nature-related aspects into financial analyses and results.

> **"The demands on (and expectations of) you in your role as an analyst are changing. Investors, consumers and other stakeholders are increasingly demanding information about organisations' sustainability and nature-related issues."**
>
> *(Global Accounting Alliance, 2025)*[18]

18 Why nature matters to accountants (GAA, 2025)

Five actions *to get started:*

1. **Build your knowledge of why nature matters to the business.** Familiarise yourself with essential nature-related concepts, guidance, frameworks, regulations and standards using the resources signposted in this primer. Review existing nature- and sustainability-related materiality assessments, reports or disclosures for your business to help you understand its key risks and opportunities.

2. **Build a picture of material nature-related risks and opportunities.** Collaborate with finance colleagues, sustainability teams and external experts to identify the most significant vulnerabilities that could affect the business operations of supply chains (e.g. resource scarcity, regulatory exposure or reputational risks). Monitor market, sector and investor trends to understand external drivers.

3. **Integrate nature factors into your financial modelling and analysis.** Adjust revenue, cost or asset assumptions in your models to reflect potential impacts from nature-related issues, where data allows, leveraging routines already used for analysing climate-change issues. Stress test key drivers using nature-related risk scenarios to identify how these could affect financial performance and outlook (e.g. cash flows, asset values, investment returns, liabilities).

4. **Proactively engage with other business functions to enhance data quality and insight.** Participate in cross-functional discussions to clarify the quality and relevance of nature-related analyses and identify any challenges and gaps (e.g. to support internal reporting, strategic planning or disclosures). Triangulate insights with alternative sources (e.g. sector benchmarks and ESG ratings). Launch pilot projects with other teams to explore the use of technology and analytics tools (e.g. use of satellite data and AI to inform risk modelling and scenario analysis).

5. **Communicate insights proactively.** Highlight material nature-related risks and opportunities in internal reports and briefings. Suggest further research or due diligence where gaps exist. Stay alert to market signals and investor sentiment regarding nature and adapt your workflows as expectations and available tools evolve.

Box 13: Case studies: company actions to integrate nature-related aspects into financial analyses and results

- **Swire Properties** (Construction, Hong Kong SAR): The company uses the TNFD LEAP approach to assess nature-related risks and opportunities across high-impact commodities and priority sites. These insights inform the corporate risk register and support integrated reporting aligned with the IFRS S2 Climate-related Disclosures, the HKEX Environmental, Social and Governance Reporting Code and TNFD recommendations.
- **Reckitt** (Consumer goods, Global): The multinational applies a double materiality lens to the assessment of nature-related risks. These risks (e.g. water scarcity) are assessed using tools like Aqueduct and the Water Footprint Network, and the assessments inform asset-level decisions and financial risk modelling. Reckitt integrates nature-related risks into its enterprise risk management system and uses scenario modelling to evaluate mitigation strategies. These risks and opportunities are discussed in its MD&A and linked to financial risk parameters.
- **South West Water** (Utilities, UK): The utility company catalysed the use of natural capital accounting to compare investment solutions, quantify benefits and shift capital decisions towards upstream, nature-based interventions.

Further resources *for financial analysts*

- **Business case for nature – Tools 1 and 2:** a nature guidance series developed by A4S to help businesses assess and communicate the value of nature-related initiatives.
- **Natural capital management accounting methodology:** a structured approach to assessing nature-related assets, impacts and dependencies.
- **Essential guide series: Capex:** A4S's guide to help finance teams assess nature-related impacts in capital investment decisions.
- **Integrated decision-making framework:** a roadmap to navigate holistic decision-making by integrating multiple capitals into business strategy, developed by the Capitals Coalition.
- **Guidance on scenario analysis:** guidance from the TNFD to help organisations explore future nature-related risks and opportunities through structured scenario planning.
- **Transition planning resources:** materials developed by the United Kingdom's Transition Plan Taskforce to help businesses develop transition plans (including the incorporation of nature-related issues).

→ *Management accountant*

As a management accountant, you focus on providing internal financial reports to your company's executives to enable them to make informed decisions. You may be involved in activities such as financial and business strategy modelling, scenario analysis, risk management, budgeting, forecasting and analysing variances. With these core responsibilities, you play a key role in ensuring that nature-related factors are integrated into and accurately reflected in financial information systems and processes to support decision-making and achieving business strategic goals. Management accountants are also increasingly involved in nature-related data management and governance and must understand key nature-related drivers that may affect financial performance and decision-making. ***Box 14*** presents examples of management accountant actions to integrate nature-related considerations into financial systems and processes.

> **"Embedding sustainability metrics into management accounting systems ensures a balanced approach to decision-making that aligns environmental, social and financial objectives. This integration supports organisations in meeting short-term needs while working towards long-term sustainability goals."**
>
> *(AICPA & CIMA, 2025)*[19]

19 how-management-accountants-use-business-intelligence-and-analytics-the-road-to-improved-decision-making.pdf

Five actions *to get started:*

1. **Build your knowledge of nature-related risks and opportunities.** Familiarise yourself with essential nature-related concepts, guidance, frameworks, regulations and standards using the resources signposted in this primer. Review existing nature- and sustainability-related materiality assessments, reports or disclosures for your business to help you understand its material risks and opportunities. Work with sustainability and finance teams to help you identify the potential implications for costs, revenues, budgets and investments.

2. **Integrate nature-related metrics into management accounting systems.** Collaborate with sustainability, finance and IT teams to identify ways to embed relevant nature metrics into regular budgeting and forecasting cycles, management reports and board presentations, building on routines already established for climate-change issues. Consider piloting natural capital accounting to provide additional quantitative and monetary data to augment what the business already collects. Begin by piloting this integration in high-impact areas, expanding as capabilities increase.

3. **Automate sustainability data collection and analysis.** Establish governance practices and assign ownership for nature data. Work with IT and sustainability teams to identify and implement digital solutions that streamline the gathering, validation and processing of nature-related metrics; this reduces manual workload, minimises risk of errors and ensures timely insights for decision-makers. Pilot automation with a small set of critical nature key performance indicators, then expand implementation as results demonstrate success.

4. **Create user-friendly dashboards for nature metrics.** Collaborate with finance, sustainability and operations colleagues to design user-friendly dashboards that integrate financial and nature- and wider sustainability-related metrics. Prioritise integration with existing financial systems, while exploring the potential to leverage innovative business intelligence and analytics tools. Review and improve systems based on user feedback and evolving requirements.

5. **Champion the alignment of financial and non-financial performance reporting.** Advocate for the inclusion of nature-related key performance indicators in routine management and board reports. Share progress on sustainability initiatives in internal communications to reinforce accountability and momentum. Show how integrated reporting improves business resilience, risk management and value creation using tangible examples. Seek feedback from across the business to improve processes.

Box 14: Case studies: management accountant actions to integrate nature-related considerations into financial systems and processes

- **Crossrail** (Transport, UK): The finance team played a central role in embedding sustainability in the budgeting process for one of Europe's largest infrastructure projects. It led extensive financial modelling to integrate sustainability considerations (e.g. biodiversity protection and resource efficiency) alongside costs, influencing budget allocation, investment and strategic decisions.
- **Multinational companies** (Textiles, Italy): Analyses by AICPA & CIMA on companies in the garment sector, showing how management accountants can integrate environmental metrics (e.g. carbon, biodiversity) into supply chain management, product-level budgeting, performance reviews and board-level decision-making. This integration can lead to emissions reductions, cost efficiencies and improved supply chain resilience.
- **Listed companies** (UK and South Africa): Analyses by AICPA & CIMA showing that integrating biodiversity into reporting and management processes improves risk management and drives value creation.

Further resources *for management accountants*

- **Management information guide:** A4S's guide for management accountants and other finance team members on how to integrate social and environmental information into management reporting.
- **Biodiversity accounting, management and reporting:** AICPA & CIMA-funded research on integrating nature-related sustainability metrics into management accounting and reporting processes.
- **The role of management accounting in building sustainability and resilience:** AICPA & CIMA-funded research to help management accountants align sustainability initiatives with resilience strategies.
- **Strategic planning, budgeting and forecasting guide:** A4S's guide providing tools, practical examples and guidance on how to integrate sustainability into strategic planning, budgeting and forecasting.
- **How management accountants use business intelligence and analytics:** AICPA & CIMA-funded research on the use of business intelligence and analytics to support their role as strategic business partners.
- **Natural capital management accounting methodology:** a framework developed by the Capitals Coalition to help organisations establish corporate natural capital management accounts to support decision-making.
- **Achieving effective internal control over sustainability reporting:** guidance from the Committee of Sponsoring Organizations (COSO) to assist organisations in ensuring robust internal oversight of sustainability reporting.

→ *Report preparer*

As a report preparer, you focus on communicating information to external stakeholders. Your responsibilities may cover both financial and non-financial reporting. You stay up to date with accounting and reporting standards to ensure compliance, compile data and establish effective controls, working closely with internal teams and external auditors or assurance practitioners. Considering nature-related issues in the preparation of financial statements and linking financial and non-financial reporting is becoming increasingly important in your role. To ensure compliance and achieve the board's strategic objectives, you must be familiar with nature-related issues affecting the business and their intersection with evolving accounting and reporting standards and frameworks. ***Box 15*** presents examples of company reporting that integrates nature-related issues into financial information and documentation.

> **"The shift from voluntary to mandatory nature reporting is a significant step towards embedding sustainability into core business operations. This transition ensures that companies are not just reporting for compliance but are genuinely integrating nature-positive strategies into their business models."**
>
> *(Will Evison, Director of Climate and Nature Strategy at PwC)*

Five actions *to get started:*

1. **Understand your organisation's nature-related dependencies and risks.** Familiarise yourself with essential nature-related concepts, guidance, frameworks, regulations and standards using the resources signposted in this primer. Review existing nature- and sustainability-related materiality assessments, reports or disclosures for your business to help you understand its material risks and opportunities. Work with sustainability and finance teams and external experts to interpret findings and their relevance to financial and non-financial reporting.

2. **Identify relevant reporting requirements.** Keep abreast of evolving reporting and disclosure standards (including nature-related ones) that apply to your business, from regulatory requirements to industry- or jurisdiction-specific guidelines. Benchmark your reports and disclosures against leading industry practices. Work with finance, sustainability and internal audit colleagues to identify gaps and areas for future improvement. Determine whether specialist expertise is needed, especially as expectations for both financial and non-financial reporting increase.

3. **Assess data needs and gaps to support reporting.** Map data requirements and engage sustainability and other relevant teams to identify data sources (including the potential for leveraging natural capital tools) and gaps. Review, processes and systems for data collection, management and control (including systems in place to support climate-related disclosures) to identify improvements needed to support reliable, decision-useful, and audit-ready disclosures. Explore potential to implement efficient, automated systems.

4. **Integrate material nature-related matters into financial reporting.** Stay updated on updates to standards and guidance (e.g. from the International Accounting Standards Board). Regularly review annual and sustainability reports to ensure references to nature are clear, thorough and consistent with the organisation's strategy and operations. Ensure that material nature-related risks and opportunities are clearly reflected in financial statements and annual reports. Align nature-related information with your organisation's financial and sustainability narratives, leveraging natural capital tools where appropriate.

5. **Engage key stakeholders early in the reporting process.** Anticipate increased scrutiny and questions from auditors regarding nature-related issues, and foster collaboration with internal audit colleagues, subject-matter experts, and external assurance providers. Plan the reporting process to ensure nature-related issues are considered in financial reporting and disclosures are relevant, faithfully represented, verifiable and understandable. Use internal audits to strengthen governance and controls, and leverage their insights to enhance overall reporting quality and stakeholder trust.

Box 15: Case studies: company reporting that integrates nature-related issues into financial information and documentation

- **Kao Corporation** (Food and beverages, Japan): The company applied the TNFD LEAP approach to assess biodiversity risks and opportunities in the supply chain. Findings were disclosed in its Sustainability Report 2023, with financial impacts analysed and included in the 2024 report, aligning with evolving nature-related reporting standards.
- **Forico** (Forestry, Tasmania): The CFO leads the forest management company's publication of natural capital reports, incorporating nature into strategic decision-making and land management. The reports describe Forico's approach to integrating environmental metrics with financial information and illustrate how the company communicates nature's contributions to financial performance and broader societal benefits to stakeholders.
- **Towngas** (Energy supplier, Hong Kong SAR): The public utility published a combined TNFD-Taskforce on Climate-related Financial Disclosures report and adopted biodiversity mitigation strategies throughout its operations. This highlights the value of aligning climate- and nature-related disclosures and shows how operational biodiversity actions can be communicated effectively within a comprehensive sustainability reporting framework.
- **Eni** (Oil and gas, Ecuador): The company has integrated both financial and non-financial sustainability information into its 2024 annual report and is working to incorporate biodiversity and ecosystem services into its financial reporting. This includes recognising environmental management actions as part of asset valuation and risk mitigation.

Further resources *for report preparers*

- **ICAEW non-financial reporting:** a wide range of resources and guidance to support organisations in non-financial reporting.
- **IFRS educational material – Nature and social aspects of climate-related risks and opportunities:** guidance to help entities apply requirements in IFRS S1 and S2.
- **European Financial Reporting Advisory Group IG1 – Materiality assessment implementation guidance:** guidance for large listed and unlisted companies subject to the Corporate Sustainability Reporting Directive.
- **Guidance on the identification and assessment of nature-related issues: The LEAP approach:** guidance on the prepare to respond phases P1/P2/P3/P4 and on how to disclose nature-related issues in line with the TNFD's recommended disclosures.
- **Prioritising nature-related disclosures:** a report by the UN Environment Programme Finance Initiative that aims to help financial institutions assess, measure and report on their nature-related risks, with a focus on high-risk sectors.
- **Example TNFD reporting:** a selection of reporting examples identified by the TNFD.
- **Achieving effective internal control over sustainability reporting:** guidance from the Committee of Sponsoring Organizations (COSO) to assist organisations in ensuring robust internal oversight of sustainability reporting.

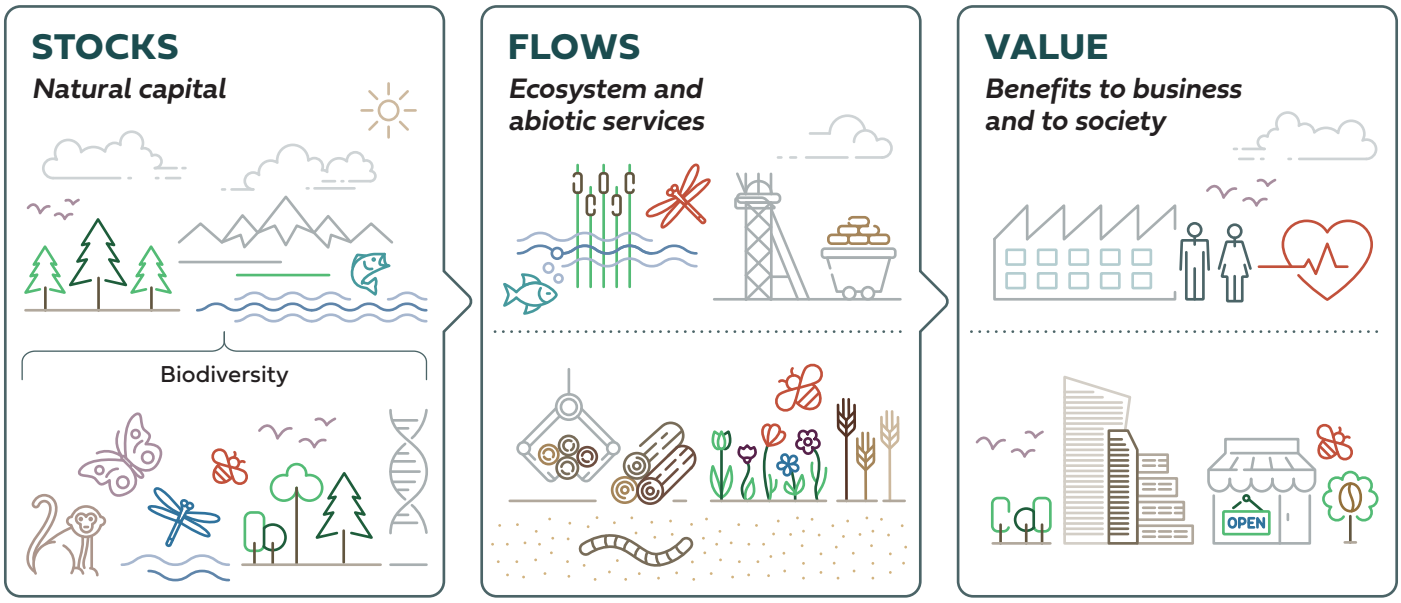
Appendix 1: **What is nature?**

The terminology related to nature can be confusing. Below is a brief explanation of some key concepts finance teams should know. Full technical definitions and further information can be found in the Glossary *(see Appendix 5)* as well as online in the Taskforce on Nature-related Financial Disclosures' Glossary of Terms.

- **Nature** refers to the plants and animals inhabiting the natural world (including humans) and the environment they interact with (such as water, soils, minerals and atmosphere). Climate is part of nature.
- Nature provides a range of vital services that businesses, economies and society depend on, including the provision of food, water, raw materials; crop pollination; protection from flooding and other hazards; recreational opportunities; and climate regulation through carbon absorption. The services that **ecosystems** (e.g. forests, wetlands and rivers) provide are called **ecosystem services.**
- Diversity in the biological (i.e. living) components of nature is known as **biodiversity.** High biodiversity is good for businesses because it boosts the productivity of ecosystems and increases resilience and adaptability to climate change and other pressures.
- In a business context, nature can be viewed as **natural capital,** a stock that provides a flow of benefits that support business operations and value creation *(see Figure A1.1).*

Figure A1.1: Natural capital stocks, flows and values

Source: Adapted from the Natural Capital Protocol (Natural Capital Coalition, 2016)



- Ecosystems and biodiversity are being degraded faster than at any time in human history, due to land conversion, overexploitation, pollution, invasive species and climate change. Most of the ecosystem services on which businesses depend are declining. The global economy is operating outside the safe zones for seven of the nine **planetary boundaries** (critical processes that maintain Earth's stability).[20]

- Ecosystem degradation is a significant source of carbon emissions. It also amplifies the impacts of **climate change** (e.g. increasing the frequency and severity of flooding and drought). Protecting and restoring ecosystems is vital for both mitigating climate change and adapting to its impacts.

20 Why nature matters (TNFD, 2025)

Appendix 2: Natural capital assessment and accounting – key standards, frameworks and guidance

Tool type	Overview of key guidance, frameworks or standards
Natural capital assessment	TNFD's LEAP approach (Locate, Evaluate, Assess, Prepare) provides a structured process to identify and assess nature-related dependencies, impacts, risks and opportunities across an organisation's operations and value chain. Scenario analyses and materiality assessments are core elements of the process. The TNFD also provides assessment guidance (including on scenario analysis and target setting for specific industry sectors) and recommended metrics. The Natural Capital Protocol can also be used alongside LEAP, providing additional detailed guidance on how to identify, measure and value dependencies and impacts on nature. *Other specialised tools and methods can also be used to support the process:* • ENCORE helps companies assess their nature-related dependencies and impacts. • Life-cycle Assessment (LCA) helps companies evaluate the environmental impacts associated with different stages in the life cycle of their products, processes or services across the value chains. For A-Track resources on the use of LCA for biodiversity and ecosystem service impact assessment (A Biodiversity and Ecosystem Services Footprint: the A-Track approach). • The Science Based Targets Network materiality screening tool helps companies assess which of their impacts on nature are material. • The Integrated Biodiversity Assessment Tool helps practitioners access global biodiversity data to support the assessment of nature-related impacts and risks.
Natural capital accounting	ISO 14054 Natural capital accounting for organizations (under development) provides terminology, principles, requirements and guidance for the preparation of natural capital accounts for organisations. ISO 14054 builds on BS 8632:2021, which has been applied by several UK organisations (e.g. Transport for London and Forestry England). *Other related approaches include:* • The Integrated Profit & Loss approach for quantifying and valuing the impacts of an organisation, including its effects on nature; it draws on the concept of the financial profit and loss and is applied in a variety of forms (see Accounting for value: emerging approaches of integrated profit & loss and impact statements (Capitals Coalition, 2025) for examples). • The Natural Capital Management Accounting Methodology that integrates natural capital considerations into organisational management and decision-making.

Appendix 3: **Forico Natural Capital Reports**

Forico, Tasmania's largest private forestry management company, has published audited annual Natural Capital Reports since 2020, alongside its financial reports. Its pioneering approach has garnered international recognition in what is still an evolving field, including the Embedding an Integrated Approach award at the Finance for the Future 2022 Awards (see Forico's full case study Embedding an integrated approach).

Forico's move towards natural capital accounting was championed by its former CFO, Rayne van den Berg. Forico's finance team led the development of the natural capital reports, with independent limited assurance of the reporting metrics providing additional credibility. Regular natural capital reporting has played a direct role in shaping business strategy and operational practices, boosted the company's public reputation and enhanced trust among stakeholders.

Natural Capital Report 2023 (Forico, 2023)

The main components of Forico's Natural Capital Report 2023 appear in Tables A3.1, A3.2 and A3.3.

1 **Materiality assessment:** This identifies the business's most significant natural capital impacts and dependencies, such as biomass provisioning, carbon sequestration, carbon emissions, water flows, sediment control and biodiversity. The process used the Natural Capital Protocol's definition of materiality. The assessment focused on issues directly tied to estate operations, directly informing the scope and key metrics used in the natural capital accounts.

Table A3.1: Value chain impacts and dependencies materiality assessment

Driver Category		Driver	Forest Type: Natural Forest	Forest Type: Plantation	Materiality Assessment	Included in FY23
IMPACTS						
Outputs		Carbon sequestration	✔	✔		Yes
		GHG emissions	✔	✔		Yes
		Non-GHG emissions	✘	✔		
		Water pollutants	✘	✔		
		Soil pollutants	✘	✔		
		Solid waste	✘	✔		
		Disturbance (noise & odour)	✘	✔		
Resource Use	Provisioning	Biomass for Timber	✘	✔		Yes
		Biomass for Fibre	✘	✔		Yes
		Cultivation of Food	✔	✘		
		Biochemicals, natural medicines and pharmaceuticals	✘	✘		
		Habitat for animals and plants	✔	✔		Yes
		Water filtration, purification and waste treatment (groundwater)	✔	✔		
		Water filtration, purification and waste treatment (surface water)	✘	✘		
		Water use (groundwater)	✔	✔		Yes
DEPENDENCIES						
Consumptive		Energy	✔	✔		Yes
		Water	✔	✔		Yes
		Nutrition	✔	✔		
		Materials (Fibre)	✔	✔		Yes
		Land use	✔	✔		Yes
		Regulation of physical environment (e.g. ecosystem providing water filtration)	✔	✔		Yes
Non-Consumptive		Regulation of biological environment (e.g. resilience against disease)	✔	✔		
		Regulation of waste and emissions (e.g. pollution assimilation by ecosystem)	✔	✔		

■ Likely to be significant ■ Potential to be significant ■ Unlikely to be significant or not applicable
✘/✔ refers to whether the forest management practice is typically associated with each forest type.[6]

6 Natural Capital Coalition, Natural Capital Protocol – Forest Products Sector Guide, 42–43.
Source: Natural Capital Report 2023 (Forico, 2023)

2 **Environmental profit and loss:** This provides an estimate of the annual natural capital benefits generated and ecosystem services used by Forico during the year ending 30 June 2023. It quantifies enhancements and reductions in four of the estate's most material ecosystem services (biomass, carbon, water and natural habitat) in monetary terms (Australian dollars), highlighting the net change in value from the previous year.

Table A3.2: Environmental profit and loss

NATURAL CAPITAL REPORT Environmental Profit & Loss for the year ended 30 June 2023	Note	Mea-sure	Metric	30-Jun-23 Value to business $k	Value to society $k	TOTAL $k	30-Jun-22 Measure	Metric	TOTAL $k
ENHANCEMENTS TO NATURAL CAPITAL									
Biomass - Productive Forest									
Fibre from growth	3	1,396	'000 gmt	62,903	-	62,903	1,330	'000 gmt	61,404
Revaluation on biomass	3			(13,838)	-	(13,838)			62,371
				49,065	-	49,065			123,775
Carbon Sequestration									
Revaluation of opening balance carbon sequestration	4			(143)	(451,445)	(451,588)			2,395,955
Increase in carbon sequestration due to growth - current year	4	4,937	kt C02-e	717	185,816	186,533	4,827	kt C02-e	149,708
Increase/(decrease) in future estimated carbon sequestration due to current year changes in production profiles	4	6,781	kt C02-e	4,076	162,182	166,258	(29,640)	kt C02-e	(972,610)
Revaluation in opening balance of future estimated carbon sequestration	4			(3,860)	(74,023)	(77,883)			1,032,928
				790	(177,470)	(176,681)			2,605,981
Water									
Water flows to the estate (rainfall)	6a	1,229	GL	135,146	-	135,146	1,277	GL	140,470
Sediment control - erosion prevented due to riparian buffers	6b	15,765	tonnes	-	268	268	12,726	tonnes	216
Water transfers	6a	1,165	GL	(128,106)	128,106	-	1,183	GL	-
				7,040	128,374	135,414			140,686
Natural Forest Habitat									
Profit/(Loss) on revaluation of Habitat	7			(11,686)	-	(11,686)		-	29,932
Investment in vegetation condition improvements	8			-	813	813		-	695
Decrease in provision for Natural forest maintenance	8			(3,443)	-	(3,443)		-	4,971
				(15,129)	813	(14,316)		-	35,598
				41,766	**(48,283)**	**(6,518)**			2,906,041

				Measure	Metric	Cost/ Impact from Business $k	Cost/ Impact from Society $k	TOTAL $k			TOTAL $k
REDUCTIONS TO NATURAL CAPITAL											
Biomass - Productive Forest											
Harvested biomass from Sustainable Plantations			3	1,444	'000 gmt	66,694	-	66,694	1,404	'000 gmt	58,571
Devaluation on biomass			3				-	-			-
						66,694	-	66,694			58,571
Carbon Sequestration											
Sequested carbon transferred on harvest - current year			4	5,993	kt C02-e	-	190,866	190,866	6,657	kt C02-e	233,011
Carbon emissions from operations - future years based on harvest profile			9	268	kt C02-e	119	-	119	295	kt C02-e	8,403
Carbon emissions from operations - current year			5	93	kt C02-e	2,961	-	2,961	114	kt C02-e	3,987
						3,081	190,866	193,947			245,401
Water											
Water consumed by operations			6a	64	GL	7,042	-	7,042	93	GL	10,254
Sale of water resources			6a	0.1	GL	7	-	7	0.1	GL	6
Estimated sediment impact from operations			6b	1589	tonnes	27	-	27	1,298	tonnes	22
						7,076	-	7,076			10,282
Natural Forest Habitat											
Natural forest maintenance costs incurred			8			813	-	813			695
						813	-	813			695
						77,663	190,866	268,530			314,950
Net increase/(decrease) in Natural Capital						**(35,898)**	**(239,150)**	**(275,047)**			**2,591,091**

These statements should be read in conjunction with the accompanying notes and scope, and users should note its limitations regarding completeness.

Source: Natural Capital Report 2023 (Forico, 2023)

3 **Natural capital balance sheet:** This provides an estimate of the value of Forico's natural capital assets and liabilities as of 30 June 2023, valued over the remaining asset life cycle using standard discounted cash flow methods. Only measured assets with reliable monetary valuations are included, while certain ecosystem services (such as air filtration and flood mitigation) are excluded. As such, this represents a conservative estimate of the estate's total natural capital value.

Table A3.3: Natural capital balance sheet

NATURAL CAPITAL REPORT Natural Capital Balance Sheet as at 30 June 2023	30 June 2023						30 June 2022		
	NOTES	Measure	Metric	Value to Business $k	Value to Society $k	TOTAL $k	Measure	Metric	TOTAL $k
ENVIRONMENTAL ASSETS									
Biomass									
Productive Plantation	3	11,889	'000 gmt	535,530	-	535,530	11,977	'000 gmt	553,159
Carbon Sequestration									
Productive Plantation									
Carbon - above ground	4	12,344	kt C02-e	1,949	384,909	386,858	12,387	kt C02-e	433,441
Carbon - below ground	4	52,370	kt C02-e	-	1,641,822	1,641,822	52,309	kt C02-e	1,830,809
Carbon - forest debris	4	6,423	kt C02-e	-	201,280	201,280	6,576	kt C02-e	230,177
Future carbon sequestration before harvest	4	31,506	kt C02-e	14,253	788,259	802,512	24,725	kt C02-e	714,137
Natural Forest									
Carbon - above & below ground	4	52,453	kt C02-e	-	1,644,417	1,644,417	52,453	kt C02-e	1,835,872
		155,096		16,202	4,660,687	4,676,889	180,471		5,044,436
Natural Forest Habitat									
	7	76,976	ha	-	273,084	273,084	77,024	ha	284,769
TOTAL ENVIRONMENTAL ASSETS				551,732	4,933,770	5,485,503			5,882,365
ENVIRONMENTAL LIABILITIES									
Maintenance provision - Natural Forest	8	76,976	ha	24,831	-	24,831	77,024	ha	21,388
Provision for future harvest carbon emissions	9	268	kt C02-e	8,522	-	8,522	295	kt C02-e	8,403
TOTAL ENVIRONMENTAL LIABILITIES				33,353	-	33,353			29,792
TOTAL NET NATURAL CAPITAL				**518,379**	**4,933,770**	**5,452,149**			**5,852,573**

Source: Natural Capital Report 2023 (Forico, 2023)

Appendix 4: How nature-related issues may affect financial statements

Nature-related factors can lead to a range of financial effects for businesses which, in turn, will have implications for financial reporting and disclosures. ***Figures A4.1*** and ***A4.2*** illustrate how nature-related issues may affect individual elements in the financial statements, in line with key accounting and reporting standards (e.g. IFRS Accounting Standards). The figures draw on previous work by the Global Accounting Alliance and the Association of Chartered Certified Accountants and are for illustrative purposes only (they do not relate to any real organisation).

Figure A4.1: Illustrative income statement

Nature-related risks may reduce revenues (e.g. reduced sales due to supply chain disruption or changes in consumer demand) or create new revenue streams (e.g. markets for sustainable products).

Environmental degradation can increase operating costs (e.g. higher costs for water and raw materials, land maintenance or restoration, risk mitigation measures, compliance, research and development, fines and penalties for environmental impacts).

Environmental factors may shorten the useful lives of assets (e.g. water scarcity or pollinator declines affecting agricultural assets), potentially requiring revaluation and resulting in higher depreciation charges.

Poor sustainability performance may increase the cost of capital as lenders adjust risk profiles and terms.

	2024 (£'m)	2023 (£'m)
Revenue	890	750
Cost of goods sold	-650	-520
Operating profit	**240**	**230**
Operating expenses	-120	-100
Depreciation	-30	-25
EBIT	**90**	**105**
Interest	20	20
Tax	20	23
Profit after tax	**50**	**59**

Source: adapted from Is natural capital a material issue? (Association of Chartered Certified Accountants, Fauna & Flora International and KPMG, 2012, Appendix 2) and Why nature matters to accountants (Global Accounting Alliance, 2025).

Figure A4.2: Illustrative balance sheet

Investments in carbon or biodiversity credits may qualify as intangible assets under International Accounting Standard 38, valued at cost.

Land (including habitats such as natural forests or wetlands) may be recognised as property, plant and equipment assets under International Accounting Standard 16, valued on a cost or revaluation basis. Nature-related risks (e.g. flood damage, water scarcity or regulatory restrictions) may shorten the useful lives and residual values of assets, potentially requiring an impairment under International Accounting Standard 36.

Timber, crops, livestock and other biological assets may be recognised under International Accounting Standard 41 (agriculture), using fair value or cost-based approaches. Nature-related risks may also affect the useful lives, residual values and impairments of these assets.

Nature-related risks (e.g. potential obsolescence due to declining demand for unsustainable products) may need to be factored into inventory valuations and could trigger write-downs in accordance with International Accounting Standard 2.

Obligations such as land restoration, remediation or the payment of fines may require provisions under International Accounting Standard 37.

	2024 (£'m)	2023 (£'m)
Goodwill	20	25
Intangible assets	40	43
Property, plant & equipment	730	800
Biological assets	500	540
Non-current assets	**1290**	**1408**
Inventories	12	15
Trade & other receivables	35	45
Cash & cash equivalents	4	5
Current assets	**51**	**65**
Total assets	**1341**	**1473**
Borrowings	-80	-100
Trade & other payables	-23	-26
Current liabilities	**-103**	**-126**
Borrowings	-150	-170
Provisions	-350	-340
Non-current liabilities	**-500**	**-510**
Total liabilities	**-603**	**-636**
Net assets	**738**	**837**
Share capital	14	14
Share premium	139	139
Reserves	35	85
Retained earnings	50	59
Total equity	**238**	**297**

Source: adapted from Is natural capital a material issue? (Association of Chartered Certified Accountants, Fauna & Flora International and KPMG, 2012, Appendix 2) and Why nature matters to accountants (Global Accounting Alliance, 2025).

Appendix 5: **Glossary**

Term	Definition
Asset (of an entity)	A present economic resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.
Biodiversity	The variability among living organisms from all sources, including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part, encompassing diversity within species, between species and of ecosystems.
Dependencies (on nature)	Aspects of environmental assets and ecosystem services that a person or organisation relies on to function, such as a company's dependence on ecosystem services including water flow, water quality regulation and the regulation of hazards like fires and floods; the provision of suitable habitats for pollinators, which in turn provide services directly to economies; and carbon sequestration.
Disclosure	The process of converting internal information into an external output (or the output itself), including corporate disclosure, which involves providing relevant information to stakeholders, with the structure, frequency and format typically defined by a regulatory body (such as a securities regulator) and applied to all aspects of general-purpose financial statements.
Double materiality	A concept introduced through the European Sustainability Reporting Standards (ESRS) that requires companies to assess and report sustainability information from both a financial materiality perspective (how sustainability-related issues affect the company's financial performance) and an impact materiality perspective (how a company's operations affect the environment and society).
Ecosystem	A dynamic complex of plant, animal and microorganism communities and the non-living environment, interacting as a functional unit.
Ecosystem service	The contributions of ecosystems to the benefits that are used in economic and other human activity.

Term	Definition
ESG (Environmental, Social and Governance)	A set of environmental, social and governance standards used by investors to evaluate a company's operations and performance, reflecting risks and opportunities that may affect its ability to create long-term value, and encompassing issues such as climate change, resource scarcity, diversity and inclusion, health and safety, data security, board diversity, executive compensation and tax transparency.
Financial accounting	A systematic process of recording, categorising and communicating summaries of the company's financial transactions and performance to external users, such as creditors, investors and regulators.
Financial effect/ financial impact	Occurs when financial items such as physical assets, capital expenditures, operational expenditures and revenues are affected, whether positively or negatively. (Note: the TNFD uses the term "effect" rather than "impact" to avoid confusion with impacts on nature.)
Financial reporting	The process through which an organisation communicates its financial performance and position to external parties, such as investors, creditors, regulators and other stakeholders, by collecting, analysing and presenting monetary data in a structured format that adheres to established accounting principles and standards.
Financial statements	Typically a regulatory disclosure obligation for publicly listed companies, released to a broad group of users and intended for a wide range of purposes, such as credit analysis and stock valuations, including the income statement, balance sheet, statement of cash flows, statement of shareholders' equity and any accompanying disclosures, and, if audited, also including the audit report.
Impact materiality	Information on how an organisation's activities may materially impact the planet and society (including consumers, civil society and other stakeholder) from a non-financial perspective, encompassing impacts the organisation directly caused or contributed to, as well as those otherwise directly linked to its upstream and downstream value chain.

Term	Definition
Impacts (on nature)	Positive or negative changes in the state of nature (in quality or quantity) that may alter nature's capacity to provide social and economic functions, resulting from the actions of an organisation or another party, and which can be direct, indirect or cumulative (with even a single impact driver potentially causing multiple impacts).
Kunming-Montreal Global Biodiversity Framework	A framework adopted during the 15th meeting of the Conference of the Parties (COP 15) to the UN Convention on Biological Diversity in December 2022, which aims to halt and reverse biodiversity loss and sets out ambitious goals for 2050 and targets for 2030 to protect and sustainably use biodiversity.
Liability (of an entity)	A present obligation of an entity arising from past events and whose settlement is expected to result in an outflow of resources embodying economic benefits.
Management accounting	A branch of accounting concerned with the identification, measurement, analysis and interpretation of accounting information, helping company management make informed operational and business decisions.
Management discussion and analysis (MD&A)	Often referred to as the front half of the annual report, where management explains performance using qualitative narrative and quantitative measures, including the industry context, the company's strategy and mission, its major risks and uncertainties, and other elements relevant to understanding current performance and how future performance may differ from past performance.
Material information for investors	Information that, if omitted, misstated or obscured, could reasonably be expected to influence investor decisions, encompassing matters that may affect an organisation's financial performance and position, including nature-related issues. (The IFRS Sustainability Disclosure Standards' definition of material information is aligned with that used in IFRS Accounting Standards.)
Natural capital	The stock of renewable and non-renewable natural resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.

Term	Definition
Natural capital accounting	Definitions are still evolving. The Capitals Coalition define corporate natural capital accounting as the process of 'systematically identifying, measuring, recording, summarising and reporting the periodic and accumulated net changes to: (a) the biophysical state of natural capital and (b) the associated flows of value to the business and society.' ISO 14054 Natural capital accounting for organizations (under development) provides terminology, principles, requirements and guidance for the preparation of natural capital accounts for organizations, including presentation of a natural capital income statement and balance sheet, with additional notes outlining data sources and assumptions.
Natural capital assessment	Definitions are still evolving. Encompasses a wide range of approaches and frameworks for exploring, identifying and assessing an organisation's nature-related dependencies, impacts, risks and/or opportunities. Flexible in approach and scope (may use a combination of qualitative, quantitative and monetary methods). Materiality assessment and scenario analysis are usually integral elements.
Nature	The natural world, with an emphasis on the diversity of living organisms (including people) and their interactions among themselves and with their environment.
Nature loss	The loss and/or decline of the state of nature, including, but not limited to, the reduction of biological diversity.
Nature positive	A high-level goal and concept describing a future state of nature (e.g. biodiversity, ecosystem services and natural capital) that is greater than the current state.
Nature-based solutions	Actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems that address societal, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits.
Nature-related issues	The dependencies and impacts that organisations have on nature, which give rise to nature-related risks and opportunities and collectively encompass the four concepts of dependencies, impacts, risks and opportunities.

Term	Definition
Nature-related opportunities	Activities that create positive outcomes for organisations and nature by creating positive impacts on nature or mitigating negative impacts on nature.
Nature-related physical risks	Risks that arise from the degradation of nature (such as changes in the quantity, quality and distribution of ecosystems, water resources and soils) and the resulting loss of ecosystem services on which economic activity depends, which can be chronic (e.g. the gradual decline of pollinator species leading to reduced crop yields or water scarcity) or acute (e.g. natural disasters or forest fires).
Nature-related risks	Potential threats to an organisation that arise from its own and society's broader dependencies and impacts on nature, which may be physical, transition or systemic in nature.
Nature-related systemic risks	Risks arising from the breakdown of entire systems rather than the failure of individual components, encompassing risks to biological (ecosystems), financial or socio-economic systems, characterised by modest tipping points that combine and interact to produce large-scale failures and cascading effects of physical and transition risks, where one loss can trigger a chain of others and prevent systems from returning to equilibrium after a shock.
Nature-related transition risks	Risks to an organisation that stem from a misalignment between economic actors and actions aimed at protecting, restoring and/or reducing negative impacts on nature, which may be driven by changes in regulation or policy, legal precedent, technology, investor sentiment or consumer preferences.
Non-financial reporting	The process of reporting on matters related to a business's activities that extend beyond its financial transactions and financial position, encompassing various types of reporting (across different frameworks and standards) that provide information on the business's narrative context, intangible assets and intellectual capital, as well as environmental, social and governance issues.

Term	Definition
Planetary boundaries	A framework that identifies nine critical Earth system processes regulating the planet's stability and resilience, defining safe operating limits for human activity to prevent irreversible environmental change, and encompassing climate change, biodiversity loss, land-system change, freshwater use, biogeochemical flows (nitrogen and phosphorus), ocean acidification, atmospheric aerosol loading, novel entities (e.g. chemical pollution) and stratospheric ozone depletion.
Reporting	The process of measuring performance according to a prescribed set of reporting standards, using an information structure defined by and compliant with specific financial accounting and reporting frameworks, such as International Accounting Standard 1, Accounting Standards Codifications 205 and 505, or the US Securities and Exchange Commission's Regulation S-X, Article 3 (General Instructions as to Financial Statements), applying to all aspects of financial statements and which may or may not be shared externally.
Sustainability reporting	A form of non-financial reporting that considers how non-financial matters, including environmental, social and governance issues, influence or contribute to an organisation's ability to create value.
Sustainability-related financial disclosures	A particular form of general-purpose financial report that provides information on the reporting entity's sustainability-related risks and opportunities that could reasonably be expected to affect its cash flows, access to finance or cost of capital over the short, medium or long term, including details on the entity's governance, strategy and risk management related to those risks and opportunities, as well as associated metrics and targets.
Tipping points	A point at which environmental systems experiencing profound upheavals from global warming, pollution and the over-exploitation of natural resources accumulate sufficient changes over time to cross a critical threshold into a new state, triggering abrupt, drastic transformations and cascading feedback loops that accelerate the process and often result in irreversible changes.

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UNIVERSITY OF CAMBRIDGE
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