

Chapter 4. The business case for biodiversity action

There exists a strong business case for scaling up action on biodiversity. This chapter highlights how businesses depend on and impact biodiversity. It underscores the importance of acknowledging and measuring these dependencies and impacts for managing biodiversity-related risks, and harnessing new business opportunities. The chapter then discusses emerging tools, methodologies and initiatives to account for and integrate biodiversity into the decisions of business and financial organisations. Finally, the chapter recommends the creation of a multi-stakeholder advisory group on biodiversity, business and finance, to advise on the adoption of a common approach for measuring and integrating biodiversity in business and investment decisions in support of the post-2020 global biodiversity framework.

4.1. Business and biodiversity: Dependencies, impacts, costs and risks

4.1.1. Dependencies, impacts and costs

Managing costs and ensuring long-term value creation across supply chains requires businesses to understand better their dependencies on biodiversity and ecosystem services, and to integrate these considerations into long-term business strategies, risks-management approaches and other business activities. The profitability and long-term survival of a number of business sectors (such as agriculture and fisheries) depend directly on biodiversity and well-functioning ecosystems. The loss of biodiversity has a direct impact on the key activities in a value chain and can result in increases in costs of inputs and raw materials (e.g. in agriculture, forestry, fisheries, aquaculture and ecotourism). As discussed in Chapter 3, specific examples include the reliance of:

- the agricultural sector on pollination services: USD 235-577 billion (US dollars) worth of annual global food production relies on the direct contribution of pollinators (IPBES, 2016^[1])
- the timber, pulp and paper sectors on forestry: forest products account for USD 247 billion in global trade exports (FAOSTAT-Forestry database, 2017^[2])
- multiple sectors on sustainable water supply across their supply chains: the garment and footwear sector is responsible for around 20% of global wastewater use (UNECE, 2018^[3])
- the ecotourism sector on well-functioning coral reefs, which generate USD 36 billion in global tourism value per year (Spalding et al., 2017^[4]).

Business operations, supply chains and investment decisions can also have direct and indirect adverse impacts on biodiversity and ecosystem services. Business activities can directly cause adverse impacts on biodiversity, contribute to actual and potential impacts, or have indirect impacts (e.g. through business linkages).¹ As discussed in Chapter 3, possible adverse impacts include habitat loss and degradation owing to land use; over-exploitation of biodiversity resources; pollution, including air and water pollution (e.g. from pesticides and fertilisers, or chemicals from industrial sectors); and invasive alien species (e.g. from the shipping industry, owing to ballast water). Examples of business impacts on biodiversity include:

- The fisheries sector: around 76% of the world's marine fish stocks monitored by the Food and Agriculture Organization of the United Nations (FAO) are now fully exploited, overexploited or depleted (FAO, 2018^[5]). The share of stocks fished at biologically unsustainable levels increased from 10% in 1974 to 33% in 2015 (FAO, 2018^[6]).
- The garment and footwear sector: Impacts stem from all segments of the value chain, including raw materials, manufacturing, transportation of goods, consumer care and end-of-life disposal (Aiama et al., 2015^[7]). The fashion industry alone is responsible for around 20% of global wastewater. Cotton farming is responsible for 24% of insecticide use and 11% of pesticide spread, despite using only 3% of arable land (UNECE, 2018^[3]).

With few exceptions, existing approaches to value the costs of biodiversity (and broader “natural capital”²) dependencies and impacts remain limited. In 2013, the unpriced natural capital consumed by primary production (agriculture, forestry, fisheries and mining) and some primary processing sectors (including cement, steel, pulp and paper) was valued at USD 7.3 trillion (Natural Capital Coalition, 2016^[8]). The luxury group Kering estimated the impacts of its operations and supply chains on the environment at EUR 482 million in 2017, mostly in raw-material production and processing (using Kering's Environmental Profit & Loss [EP&L] account) (Kering, 2017^[9]).³

4.1.2. Risks

Risks to business and financial organisations

Biodiversity-related risks to businesses manifest themselves primarily through the dependencies from – and impacts on – biodiversity of business and financial organisations (especially investors, lenders and insurers). Drawing on the typology of climate-related risks defined by Bank of England Governor Mark Carney,⁴ biodiversity-related risks to businesses are briefly categorised here as:⁵

- *Ecological risks*: these comprise risks related to biodiversity, and ecological impacts and dependencies (similar to climate-related physical risks). Such risks are mainly operational risks associated with resource dependency, scarcity and quality, for example linked to: increased raw material or resource costs (e.g. limited natural resources like timber or fresh water); deteriorated supply chains (e.g. due to resource scarcity or more variable production of natural inputs); or disrupted business operations (CBD, 2019_[10]; Natural Capital Coalition, 2016_[11]).
- *Liability risks*: parties who have suffered biodiversity-related loss or damage seek compensation from those they hold responsible. The risk of legal suits founded in biodiversity may increase as disclosure and external reporting on companies' biodiversity impact assessments increases (especially at the local site level).⁶
- *Regulatory risks*: these include restrictions on land and resources access, clean-up and compensation costs, procurement standards, and licensing and permitting procedures or moratoriums on new permits.
- *Reputational risks*: businesses face reputational risk linked to growing pressure by investors, consumers, shareholders, policy makers and civil society to assess, report and manage risks to society and the environment, including biodiversity risks. According to the Union for Ethical BioTrade (UEBT) Biodiversity Barometer (2018_[12]), the majority of consumers expect companies to respect biodiversity, but do not trust them to do so. Consumer preferences can even lead to boycotts, e.g. on Bluefin tuna or palm oil.
- *Market risks*: changes in consumer preferences (e.g. towards products with reduced biodiversity impacts) or purchaser requirements (e.g. biodiversity safeguards in supply-chain requirements) can create market risk for companies (Girvan et al., 2018_[13]). Market risk is likely to increase as consumer awareness and understanding of biodiversity rises globally (Table 4.1) (UEBT, 2018_[12]).
- *Financial risks*: businesses, banks and investors may also face financial risk. These include insurance risks (e.g. linked to higher insurance premiums stemming from biodiversity loss); access to capital (owing to higher cost of capital, or more stringent lending requirements based on negative impacts or dependencies on biodiversity); and loss of investment opportunities as investors increasingly integrate biodiversity in their investment strategies (Girvan et al., 2018_[13]). As ecological risks to businesses increase, business and financial organisations may face depreciation of assets, e.g. in agriculture and food production (Caldecott and McDaniels, 2014_[14]). The risk of “stranded assets” linked to regulatory or market risk likely remains smaller for biodiversity than for climate change.

Table 4.1. Consumer awareness and understanding of biodiversity in selected G7 countries

Over the period 2009-18

	France	United Kingdom	Japan	United States
Have heard of biodiversity (%)	90%	66%	62%	55%
Correct definition of biodiversity (%)	34%	22%	29%	25%

Source: (UEBT, 2018^[15])

A few businesses, investors and regulators, such as Unilever, the California public pension fund CalPERS and the Dutch central bank DNB, are beginning to recognise that biodiversity loss and degradation can create a “material” risk to the profitability of businesses and investors, albeit to a lesser extent than climate risks (Dempsey, 2013^[16]; Unilever, 2019^[17]; Friends of the Earth (FOE), 2018^[18]; DNB, 2019^[19]).⁷ Several OECD instruments and international guidelines calls on business and financial organisations to assess the materiality of biodiversity impacts (OECD/FAO, 2016^[20]). Assessing the materiality of biodiversity issues for companies remains extremely challenging, however, especially at the project and site levels (Alliance for Corporate Transparency Project, 2019^[21]). More work is needed to integrate biodiversity considerations into risk management and integrated reporting. In particular, aggregation tools are needed to reflect local materiality issues at the corporate or portfolio level, and ensure accountability at the board and management levels (CEF and WEC, 2015^[22]).

Responsible business conduct risks to society and the environment

Business impacts and dependencies on biodiversity create risks to society and the environment – which are part of broader “responsible business conduct” (RBC) risks – in addition to risks to businesses. According to the *OECD Guidelines on Multinational Enterprises* (OECD, 2011^[23]), “RBC risks are defined as possible adverse impacts on society and the environment related to the environment, human rights, workers, bribery, consumers and corporate governance”. RBC is important to ensure trust in business (OECD, forthcoming^[24]). Acknowledging and managing their dependencies and impacts on biodiversity can help business and financial organisations manage and avoid risks associated with biodiversity loss and threats to ecosystem services.

4.2. Business opportunities for biodiversity and ecosystem services

The conservation, sustainable use and restoration of biodiversity provides significant opportunities for businesses and thus, incentives to integrate biodiversity and broader sustainability issues in business models, operations, investment decisions and sourcing across supply chains. Such opportunities include:

- Long-term viability of business models: making more sustainable use of resources to address business dependencies on biodiversity can help ensure long-term availability of natural resources, thereby guaranteeing long-term viability of business operations and long-term value creation (CBD, 2019^[10]).
- Cost savings and increases in operational efficiency: improved tracking on the origin and processing of inputs and resources (e.g. energy savings from green roofs or increased productivity of permaculture) can help control costs, while minimising adverse impacts on biodiversity.

- Increased market share: customer loyalty favouring environmentally responsible business conduct can lead to market share gains,⁸
- New business models: business action for biodiversity can generate new products, technologies and services with reduced impacts on biodiversity, driven by changes in consumer awareness and preferences and new business models; new markets (e.g. ecotourism, organic agriculture and certified sustainable products); new businesses (e.g. ecosystem restoration); and new revenue streams (e.g. for new markets or payments for ecosystem services in wetlands and forests) (Table 4.2) (BITC, 2011^[25]).
- Better relationships with stakeholders, including customers, shareholders, regulators, civil society and employees.

Table 4.2. Scale and growth potential of new markets with reduced biodiversity impacts and dependencies

Sector/market (globally)	Current market size (annual revenue, USD billion) (latest year available)	Forecasted compound annual growth rate (timeframe)	Projected market size (annual revenue) (USD billion) (year)	Estimated annual investment needs (USD billion)
Organic food and beverages	116 (2015)	16.4% (2015-22)	327 (2022)	n/a
Ecotourism	77 (2009)	10-30%	n/a	n/a
Eco fibres	n/a	11.46% (2015-20)	75 (2020)	n/a
Sustainable forest management	n/a	n/a	n/a	70-160
Sustainable seafood	12.7 (2017)	4.97% (2017-25)	18.6 (2025)	n/a
Biopharma	240-270 (2018)	n/a	n/a	n/a

Source: (Allied Market Research, 2016^[26]) (Globe Newswire, 2018^[27]) (OECD, 2018^[28]) (Sustainability Watch, 2009^[29]) (Markets and Markets, 2015^[30]) (World Bank, 2016^[31]) (Rader, 2018^[32]) (Global Market Insights, 2016^[33])

Of course, the business and investment opportunities associated with biodiversity are not the only rationale for action, as biodiversity delivers broader benefits and public goods to society and the environment (Chapter 2). In the agriculture sector, for instance, land should not be perceived solely as a productive asset; its environmental and socio-cultural roles should be recognised as well (OECD/FAO, 2016^[20]).

4.3. Signs of progress

4.3.1. Increasing awareness from businesses

Forward-thinking businesses increasingly recognise the case for biodiversity action (Smith et al., 2018^[34]). According to PwC's 21st Annual Global CEO Survey, climate change and environmental damage rank in the top 10 threats to the growth prospects of organisations (PwC, 2018^[35]). Most companies acknowledge environmental, social and governance (ESG) issues in their reports (KPMG, 2017^[36]). A recent assessment of 100 companies in selected sectors in the European Union finds that 55% mention risks associated with biodiversity (Alliance for Corporate Transparency Project, 2019^[21]). Few companies, however, distinguish biodiversity issues from other ESG issues, and more are aware of climate change than of biodiversity (KPMG, 2017^[36]).

4.3.2. Emerging business commitments

In December 2016, over 100 companies signed the Cancun Business and Biodiversity Pledge to take concrete actions that deliver solutions for biodiversity conservation and sustainable use (CBD, 2018^[37]). In 2018, 65 French companies committed to the Act4Nature initiative. Act4Nature featured both a joint commitment to factor biodiversity into all activities (from governance and strategy to the most concrete operations) to achieve a net positive contribution to nature, as well as individual company commitments (Act4Nature, 2018^[38]). Financial organisations are also gradually committing to decreasing the impact of their activities and investment strategies on biodiversity, e.g. under the Natural Capital Financial Alliance (NCFA) or the Finance for One Planet initiative, launched by 15 banks and institutional investors under the Community of Practice Financial Institutions and Natural Capital (CoP FINC), representing around EUR 1 trillion (euros) in assets under management (AUM) (CoP FINC, 2016^[39]).

Business and financial organisations' awareness of biodiversity factors (including impacts, dependencies, risks and opportunities) remains limited, however, compared to their awareness of climate change. In comparison to the CoP FINC, 323 investors, representing more than USD 32 trillion in AUM, have signed the Climate Action 100+ initiative. As of 2018, more than 500 organisations, representing USD 7.9 trillion in market capitalisation – including 289 financial firms responsible for nearly USD 107 trillion in assets – have also supported the Task Force on Climate-related Financial Disclosures (TCFD).

Business and biodiversity initiatives – including domestic, regional or international networks, councils, partnerships and platforms aiming to integrate biodiversity across business activities and supply chains – are emerging with support from industry associations and civil society. In Japan, a group of 14 corporations launched the Japan Business Initiative for Biodiversity in 2018, which now comprises 50 companies (including Fujitsu) committed to biodiversity conservation (JBIB, 2016^[40]). Other examples in G7 countries include the Canadian Business and Biodiversity Council, the French Initiative for Business and Biodiversity, Germany's Biodiversity in Good Company Initiative, and the Japan Business and Biodiversity Partnership (CBD, 2019^[41]).

Several sector-specific initiatives, partnerships and platforms on biodiversity also exist (e.g. CanopyStyle in the garment sector or the Indonesia Palm Oil Platform), in addition to individual corporate initiatives. Business initiatives driven by sectoral champions (such as Kering or Unilever) can help share information and emerging good practices among businesses and industry associations. Biodiversity initiatives remain fewer among financial organisations than corporations, despite a few initiatives (e.g. Engage the Chain in food supply).

Business initiatives for biodiversity also receive support from international organisations and collaborations. They include the CBD Global Platform on Business and Biodiversity, the World Business Council for Sustainable Development (WBCSD), the International Union for Conservation of Nature (IUCN), the EU Business @ Biodiversity Platform, the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), the Economics of Ecosystems and Biodiversity initiative, and the Natural Capital Coalition (Section 4.3.3).

4.3.3. Towards a framework for integrating biodiversity in business and investment decision-making

A few leading companies are already integrating biodiversity into their decision-making process (Smith et al., 2018^[34]; Rainey et al., 2014^[42]; Addison et al., 2018^[43]). Several targets, indicators and accounting approaches are available to help businesses understand, measure and account for their biodiversity impacts and dependencies, as well as associated costs, risks and opportunities, across business activities (e.g. risk management) and organisational levels (e.g. site, product, supply chain, corporate and portfolio). Mainstreaming biodiversity is a priority across key business activities, i.e. strategy,

governance, impact assessment, risk management, due diligence, internal reporting, external disclosure, and internal and external communication. However, business action on biodiversity is mostly driven by corporate responsibility and risk management (Smith et al., 2018^[34]). In addition, no consensus has been reached on a protocol or framework for integrating biodiversity in business and investment decision; there exists only a protocol for natural capital (Box 4.1).⁹

Box 4.1. The Natural Capital Protocol

The Natural Capital Protocol was launched in 2016 by representatives from over 160 leading business, civil-society and policy organisations. It is a standardised decision-making framework to generate information allowing businesses to identify, measure, value and prioritise their direct and indirect impacts and dependencies on natural capital, and understand the associated risks and opportunities. The protocol has been applied to sector-specific guides, including in apparel, food and beverages, and forest products. It has limitations, however, in terms of valuating biodiversity benefits (e.g. it does not incorporate the value of the quality-of-stock decline for key biodiversity sectors like forestry, only its quantity). Recognising those challenges, the Natural Capital Coalition launched a project in 2017 to strengthen the Protocol's coverage of biodiversity.

The Natural Capital Coalition, the NCF and the Dutch Association of Investors for Sustainable Development have also developed a Finance Sector Supplement to the Natural Capital Protocol, recognising the critical role the financial sector needs to play to factor biodiversity in business and investment decisions.

Source: (Natural Capital Coalition, 2016^[11]) (Natural Capital Coalition, 2016^[8]) (Natural Capital Coalition, 2018^[44]).

Goals and targets

Businesses and investors need to set clear goals and quantitative targets for managing biodiversity that are tailored to their dependencies and impacts, and measure their progress (Addison et al., 2018^[43]). Such goals, targets and commitments can be voluntary, encouraged or required by regulation, or can relate to international biodiversity goals and societal targets (Lammerant et al., 2019^[45]). Existing biodiversity-related goals and targets for businesses and financial organisations to consider include: societal targets (including international biodiversity goals, i.e. the Aichi Targets and the SDGs¹⁰) (Smith et al., 2018^[34]); No net loss or Net positive impact (or Net gain) goals on biodiversity, which are increasingly being adopted by businesses; science-based targets; corporate-level biodiversity commitments; and other targets linked to regulator and permitting requirements, voluntary standards and agreements, and lender requirements.

Biodiversity metrics, measurement and accounting approaches

Several metrics or indicators, and around a dozen accounting approaches and methodologies, are available for businesses and investors to understand and measure their dependencies and impacts on biodiversity (Lammerant et al., 2019^[45]; Berger et al., 2018^[46]; Lammerant et al., 2018^[47]). Ongoing work by UNEP-WCMC and the EU B@B Platform shows these indicators and approaches are applicable to different segments of the value chain and organisational levels, i.e. product and service, project, site, supply options, corporate and portfolio. Existing accounting approaches support businesses and investors in assessing biodiversity performance for diverse business applications, e.g. strategy, risk management, impact assessment, disclosure and due diligence. They typically do not currently cover ecosystem services.

Several metrics for business to measure biodiversity impacts and dependencies, e.g. mean species abundance; potentially disappeared fraction; risk of extinction; and natural capital value, whether expressed in monetary terms (e.g. euros) or using Environment Profit & Loss (EP&L) accounting, developed by Kering and used by other companies to monetise the costs associated with biodiversity dependencies and impacts.¹¹

Key measurement approaches and indicators include the Global Biodiversity Score, the Biodiversity Impact Metric, Biodiversity Indicators for Extractives, the Product Biodiversity Footprint, the Biodiversity Footprint for Financial Institutions, Biodiversity Return on Investment, the Agrobiodiversity Index, the Biodiversity Footprint Calculator, the LIFE Impact Index and Bioscope, as well as assessments under the Life Cycle Assessments and the Natural Capital Protocol.

Most accounting methodologies have been developed through collaboration between academia and the private sector. They typically rely on one of the aforementioned metrics. Approaches are either sector-specific or cover multiple sectors. They use real or estimated data, drawing on existing biodiversity data sets (e.g. the IUCN Red List of Threatened Species). They then typically link economic activities to pressures¹² (using, for instance, input-output modelling) before linking pressures to impacts (using models such as GLOBIO or ReCiPe Life Cycle Analysis). Most methodologies are not fully aligned with the Natural Capital Protocol.

Key areas to integrate biodiversity in business and investment decisions

Opportunities to factor biodiversity arise across several dimensions of business and financial operations. In addition to metrics and targets, key entry points for integrating biodiversity are broader than the areas identified by the Task Force on Climate-related Financial Disclosures (TCFD) and include:¹³

- **Strategy:** embedding biodiversity in the overall corporate strategy of businesses and financial actors is critical to integrate biodiversity in their decisions (e.g. by developing a biodiversity-specific or broader environmental policy, strategy, plan or management plan that accounts for biodiversity), in addition to aligning goals and targets with corporate strategy. Several investment strategies (including thematic investment in support of biodiversity) are available to help banks, asset owners and asset managers factor biodiversity in their investment decisions. Banks and institutional investors in particular can influence the behaviour of investee corporations (e.g. to encourage producers of soft commodities to reduce their impacts on forest ecosystems).
- **Governance:** aligning corporate governance frameworks with biodiversity factors through strong leadership and changes in governance at the board and management levels is critical to ensure consistent business action for diversity across organisational levels.
- **Impact and dependency assessment and risk management:** businesses and financial organisations need to undertake biodiversity-related impact and dependency assessments across organisational levels (site, product, project and supply chains) and aggregate them at the corporate and portfolio levels. Several performance-assessment and impact-assessment methodologies are available in addition to existing risk-screening tools and biodiversity-monitoring approaches. Additional work is needed to mainstream biodiversity in corporate and financial risk management. Analyses at sectoral and geographical levels can be used to screen portfolios to determine risky assets (AXA and WWF, 2019^[48]).
- **Due diligence:** a due-diligence approach can help businesses identify and prioritise action in order to avoid or mitigate adverse impacts on biodiversity. As recommended under the *OECD Guidelines for Multinational Enterprises* (OECD, 2011^[23]) and *OECD Due Diligence Guidance for Responsible Business Conduct* (OECD, 2018^[49]), businesses and financial organisations need to consider biodiversity and broader RBC risks in their due-diligence approach (Box 4.2).

Box 4.2. OECD Due Diligence Guidance for Responsible Business Conduct

The OECD due-diligence approach, as defined in the *OECD Guidelines for Multinational Enterprises* and *OECD Due Diligence Guidance for Responsible Business Conduct*, can help enterprises prioritise the order in which they take action based on the severity and likelihood of adverse impacts through a risk-based, ongoing process of prioritisation. The OECD has also developed sector-specific guidance on the agriculture, garment and footwear, mineral supply chains and financial sectors.

Additional work is needed to better highlight biodiversity as a key risk businesses need to address as part of implementing RBC through internationally recognised standards on due diligence. Following the OECD guidance and undertaking new OECD work to tailor it to biodiversity could help businesses identify, prioritise, prevent and address adverse impacts on biodiversity, and regularly report on these efforts and their outcomes (See Chapter 8).

Source: (OECD/FAO, 2016^[20]) (OECD, 2018^[49]) (OECD, 2011^[23]) (OECD, 2017^[50]) (OECD, 2016^[51]) (OECD, 2017^[52]).

- **Disclosure and external reporting:** disclosure and external reporting of biodiversity impacts, dependencies, risks and opportunities remain limited compared to climate disclosure, which has gained momentum in recent years. Companies rarely disclose specific, measurable and time-bound biodiversity commitments (e.g. quantitative indicators on biodiversity), biodiversity impacts or internal impact assessments. However, they need to disclose how they assess the impacts and dependencies of their operations and value chain on biodiversity, society and the environment, in addition to the risks and opportunities for their businesses. Any approach towards developing a harmonised framework or protocol for measuring biodiversity should ensure it is compatible with existing reporting and disclosure frameworks. Integrated reporting for financial and non-financial information can help in this regard, and the OECD acknowledges existing initiatives such as the ongoing mission in France on extra financial reporting.
- **Voluntary industry standards, labels and certification schemes:** these are being developed by businesses to embed biodiversity in their products, services, operations and supply chains.
- **Communication:** communicating internally and externally (to staff, consumers and local communities) on biodiversity impacts and dependencies is critical for businesses to raise awareness about biodiversity and encourage education, knowledge sharing and engagement with key stakeholders. Business efforts should build on education initiatives to sensitise an increasingly urbanised population to the importance of biodiversity. Engaging civil society and local communities is particularly important to factor in human well-being and human rights issues, as well as the potential trade-offs between the desired biodiversity outcomes and the desired social outcomes.

4.4. The role of policy makers and other stakeholders in addressing barriers to business actions for biodiversity

4.4.1. Challenges and opportunities for integrating biodiversity in business and investment decisions

Despite some signs of progress – especially from large global companies and well-known business champions on business action on biodiversity – progress in integrating biodiversity in business and investment decisions remains limited across most corporations, investors and insurers (Addison, Bull

and Milner-Gulland, 2018^[53]; CBD COP14, 2018^[54]). A study by Arcadis and JNCC (2018^[55]) found that 46% of FTSE companies that have a medium to high impact on biodiversity have no policies in place to manage exposure to biodiversity. The challenges with integrating biodiversity in business and investment decisions relate to:

- Lack of business case in the absence of pricing of biodiversity: further efforts are needed to internalise externalities associated with biodiversity loss or degradation.
- Lack of awareness and understanding by businesses and the financial sectors on biodiversity impacts and dependencies, and related risks and opportunities: many companies still need to understand how biodiversity is material to their businesses.
- Quantifying the value of biodiversity, and agreeing on common metrics and a framework to understand and measure biodiversity impacts and dependencies: a common protocol with harmonised metrics for measuring biodiversity impacts and dependencies (such as the Greenhouse Gas Protocol for climate change) is missing.
- Integrating the measurement of biodiversity impacts and dependencies across governance, strategy, risk management, impact assessment, due diligence, disclosure and communication of corporations and financial actors: biodiversity and natural-capital assessments often remain an academic exercise, with limited business applications beyond a few industry leaders. This is partly due to the multiplicity and diversity of available indicators and accounting approaches. Corporate balance sheets rarely reflect biodiversity impacts, even though biodiversity measurement and accounting approaches are now available. Further work is needed to assess the dependencies, impacts and materiality of biodiversity for corporations and investors, and align accounting approaches in order to aggregate biodiversity impacts at portfolio level.
- Short-termism in business and investment decisions: building the business case for biodiversity requires a long-term approach, yet short-term investment can lead to long-term returns (WBCSD, 2018^[56]).
- Considering biodiversity investment opportunities within green sustainable finance: this is critical for the financial sector to promote the transition towards a more sustainable model of agriculture, forest management, fishery and other key sectors, as recommended by the EU High-Level Expert Group on (HLEG) Sustainable Finance.

Policy makers have multiple opportunities to scale up business action on biodiversity, in co-operation with other stakeholders (as discussed in more detail in Chapter 8):

- The G7 could notably create a multi-stakeholder advisory group on biodiversity, business and finance, to advise on the adoption of a common approach for measuring and integrating biodiversity in business and investment decisions in support of post-2020 biodiversity goals. Such an approach would address biodiversity-related impacts and dependencies – and associated risks and opportunities – and develop methodologies, metrics and guidelines. This new initiative would notably develop a set of practical actions on due diligence and biodiversity to support efforts by businesses, drawing on the *OECD Due Diligence Guidance for Responsible Business Conduct* (OECD, 2018^[49]). The framework could be improved over time through a learning-by-doing approach.
- Policy makers can also exploit the momentum and visibility of the SDGs, and climate action by business and financial organisations. Linking biodiversity and climate pressures in measurement approaches and reporting is also critical, in order to avoid trade-offs between business investment decisions with climate-mitigation benefits and negative impacts on biodiversity (e.g. land-use impacts of biomass fuels).
- Biodiversity requires taking a supply-chain approach. Kering's 2017 EP&L account revealed that 90% of its total biodiversity impacts are generated in the supply chain (Kering, 2017^[9]).

4.4.2. Policy and regulatory tools to integrate biodiversity in business and investment decisions

This section briefly summarises key policy recommendations to consider biodiversity in business and investment decisions, drawing on a review of key policy and regulatory tools available.¹⁴ Policy makers can encourage the business and financial sectors to factor biodiversity dependencies and take a longer-term approach through multiple policy and regulatory tools, e.g. by:

- Requiring companies to publish long-term plans factoring in long-term management of biodiversity and other sustainability impacts, dependencies and risks.
- Requiring corporations, banks, asset owners and asset managers to assess both their impacts and dependencies on biodiversity, ecosystem services and natural capital, and how they can become financially “material” (HLEG, 2018^[57]).
- Mainstreaming quantitative biodiversity assessments in reporting requirements and disclosure schemes, e.g. under the EU Non-Financial Reporting Directive, whose guidelines could be updated to improve biodiversity reporting.
- Setting policies promoting RBC (such as France’s 2017 Duty of Vigilance Law) and improved due diligence for RBC, and tailoring RBC to biodiversity impacts and risks, drawing on the OECD Guidelines on Multinational Enterprises (OECD, 2011^[23]) and OECD Due Diligence Guidance for Responsible Business Conduct (OECD, 2018^[49]) (which requires further technical support and guidance for companies on how to measure their biodiversity impacts and dependencies so that they can incorporate them into a due-diligence approach). This work could be undertaken as part of the proposed advisory group on biodiversity, business and finance, or independently.
- Increasing awareness from financial regulators and supervisors on biodiversity and other sustainability risks, building on central banks and other regulators’ increased awareness of climate risks (DNB, 2019^[19]).

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Notes

¹ Direct impacts occur through direct interaction of an activity with biodiversity and ecosystems. Indirect impacts on biodiversity are those which are not a direct result of the project, site or facility, often produced away from or because of a complex impact pathway. Sectors like agro-food, mining, construction and power generation can have both direct and indirect impacts on biodiversity and ecosystems. Other industries, like pharmaceuticals or cosmetics, can have indirect impacts as their products use biological resources. Pharmaceuticals are also increasingly recognised as an environmental concern when their residues enter freshwater systems (OECD, forthcoming^[58]).

² Including climate change, water, energy, biodiversity and waste.

³ See Box Annex C.1 on EP&L Accounting.

⁴ See (Carney, 2015^[60]) and the Task Force on Climate-related Financial Disclosures' recommendations (TCFD, 2017^[59]).

⁵ See Annex A.

⁶ Examples of lawsuits include the 2010 Deepwater Horizon Oil Spill Case, which cost USD 65 billion to BP (Bouso, 2018^[61]) and lawsuits to protect spotted owls (Welch, 2009^[62]). See the Annex A for more information.

⁷ According to the International Accounting Standards Board (IASB), "information is material if omitting, misstating or obscuring it could reasonably be expected to influence the decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity." (IASB, 2018^[63]).

⁸ Several studies suggest RBC and corporate social responsibility (including on environmental issues) have a direct effect on customer loyalty by enhancing trust in business (Raza et al., 2018^[64]) (Han, Yu and Kim, 2019^[65]).

⁹ See Annex B for more information about the targets, goals, metrics and approaches to measure and integrate biodiversity in business and investment decisions.

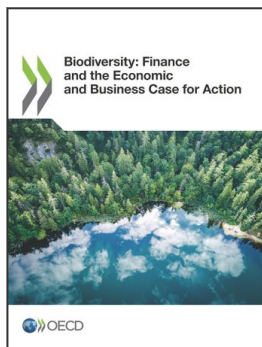
¹⁰ SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development; and SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

¹¹ See Box Annex C.1 on EP&L Accounting.

¹² Including habitat change, overexploitation, invasive alien species, pollution and climate change (Lammerant et al., 2019^[45]).

¹³ See Annex D for further details.

¹⁴ See Annex E for more information.



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