

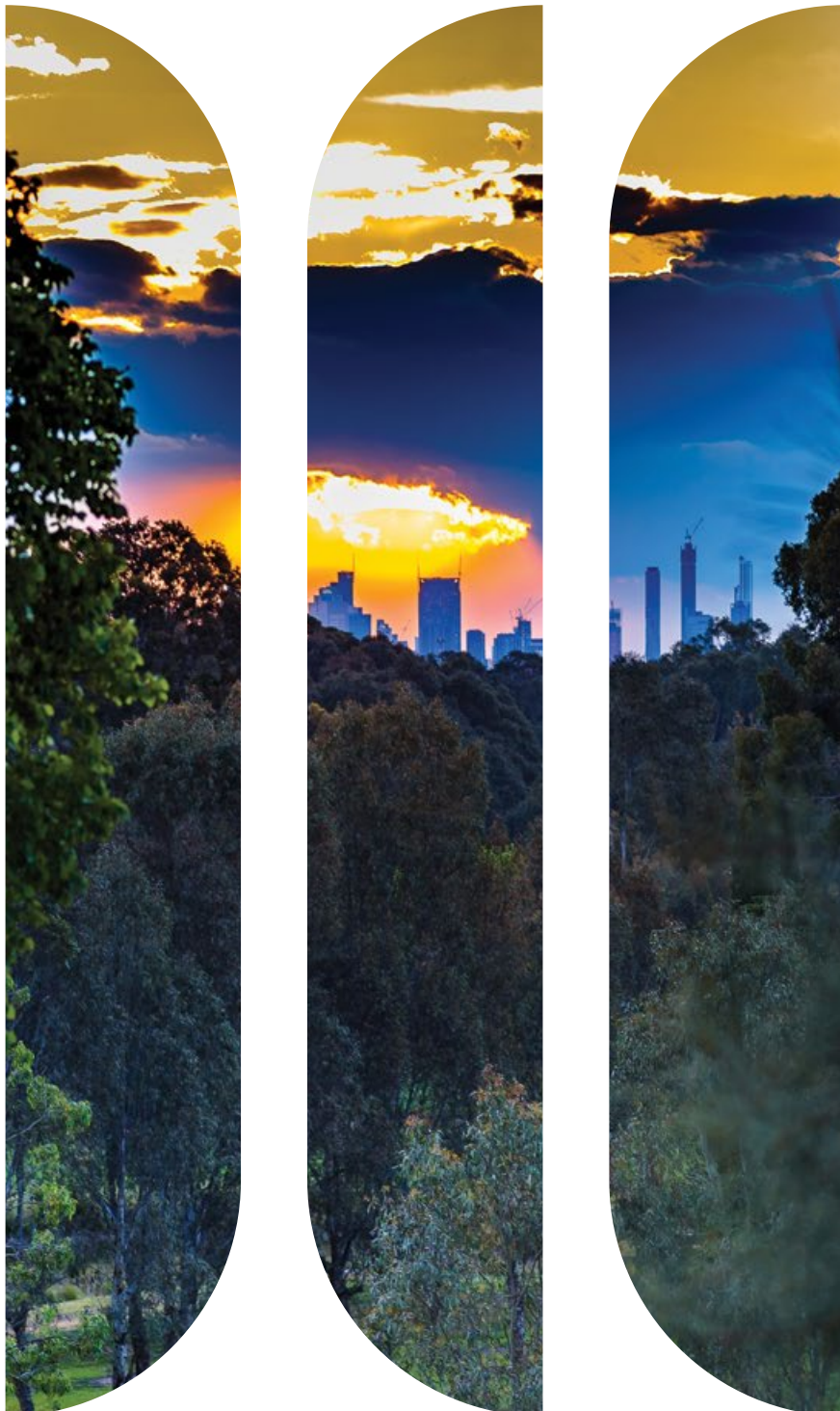
MARTIN CURRIE AUSTRALIA



MARTIN CURRIE

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For institutional, professional and wholesale investors only



BIODIVERSITY: THE NEXT FRONTIER FOR COMPANIES AND INVESTORS

Martin Currie Australia (MCA) have undertaken a project to better understand the role companies and investors have to play in protecting biodiversity, and the challenges and opportunities it brings.



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Executive summary

Biodiversity is in crisis and Australia is at the forefront, having experienced a larger loss of biodiversity than any other continent over the past two centuries. Without biodiversity, the global economy would simply not operate as we know it. Nature provides us with services critical to sectors such as food, housing, and medicine among other daily necessities. Until recently this issue has been vastly overshadowed by climate change, but the reality is that the two issues are inextricably linked, and that biodiversity needs to be the next frontier when considering investment risk.

At Martin Currie Australia (MCA), we believe that we have a responsibility to ensure that companies we invest in on behalf of our clients are considering the potential impact of biodiversity on their business. In much the same way as we approached our work on [Modern Slavery](#) in 2021, we have undertaken a focussed project on biodiversity. This included writing to the management of the top 200 ASX companies, asking a set of detailed questions regarding the management of biodiversity risks across their day-to-day operations and strategic planning. We also held our inaugural Pathway to 2030 Forum where we brought together investors, listed companies, and sustainability experts to explore the real investment implications from action, and inaction, on critical sustainability issues such as biodiversity and climate change. A replay of the forum can be viewed on our [website](#).

Overall, we received an overwhelmingly positive response to our questions from almost 100 of the ASX-listed companies approached, with 82% accepting that they had a role to play in protecting and enhancing biodiversity. However, there is significant progress required to get to where they really need to be in terms of action. Our most surprising finding was despite 82% of companies saying they believe they have a role to play in protecting biodiversity, 61% of companies do not have biodiversity as a material component of a policy and did not commit to developing one in the next two years.

We found the Real Estate, Mining and Energy sectors to be advanced in considering biodiversity in their daily operations. Many of these already have a biodiversity policy or have biodiversity as a material component of another policy, such as an Environmental Policy. We also found several Australian companies that are more advanced in finding ways to put a value on the net benefit (or loss) of biodiversity and even monetising it.

Unsurprisingly, the biggest issue that the survey reinforced was that there is a lack of consensus around how to consistently evaluate and manage exposure to the risks and opportunities regarding biodiversity. In this space, there are clearer skies on the horizon, and the company replies highlighted that technology around biodiversity measurement and disclosure are seen to be improving. There are also initiatives emerging which mirror the extensive work that has already been done on climate change, such as global frameworks like the Taskforce on Nature-related Financial Disclosures (TNFD) and the Science Based Targets for Nature (SBTN). Many companies are awaiting the final release of the TNFD framework in September 2023 to take any next steps, so this will be a real catalyst for change to watch out for.

Recognising that there is no “one size fits all” approach that will work for all industries and companies, we have put our findings into a best practice framework and we will be sharing this with the companies who participated in our survey. We will be using our extensive company engagement program with boards and management to provide guidance and to push for further positive change. This work also provides us with a further lens for looking at a company’s overall Sustainability, supplementing our existing work on issues such as net zero, shadow carbon costs, UN SDGs and Modern Slavery and helps further our mission of [‘Investing to Improve Lives’](#).

The following white paper provides more granular detail on our findings and our best practices framework.

Why does biodiversity matter for investors?

Biodiversity risk results when human activities adversely impact the land based and aquatic ecosystems that are the foundations of the natural resources on which our daily lives rely.

The World Economic Forum's 2022 Global Risk report found that over the next decade, the health of the planet dominates concern for businesses, with "climate action failure", "extreme weather", and "biodiversity loss" ranking as the top three most severe risks¹.

Biodiversity is in crisis and Australia is truly at the forefront, having experienced a larger loss of biodiversity than any other continent over the past two centuries. Until recently, the issue has been vastly overshadowed in the minds of corporates and investors by climate change, despite the two issues being inextricably linked, particularly through land use change and the overexploitation of natural resources. If we are to seriously tackle our decarbonisation goals, we need to consider biodiversity as part of the solution, realising that the biodiversity crisis is even more advanced and time critical than climate change.

The World Bank has estimated that by 2030 the collapse of key ecosystem services provided by nature such as wild pollination and timber could result in a decline in global GDP of US\$2.7 trillion per year².

The reality is that without biodiversity, the global economy would simply not operate as we know it. Critical economic sectors like agriculture, healthcare, and housing have crucial biodiversity dependencies. Yet these dependencies have been largely obscured or remained too complex for most businesses (and investors) to comprehend and action. The value of nature to society, and companies, has been left out of company valuations because so much of it can't be ascribed a monetary charge.

This is changing, spurred on by the final release of the Taskforce on Nature-related Financial Disclosures (TNFD) framework due in September 2023 and the upcoming UN Biodiversity Conference of Parties (COP 15) in December 2022 where governments will determine their post-2020 global biodiversity frameworks. These developments will demand greater corporate and investor focus, and also raise the stakes.

There are risks and opportunities. We believe investors and listed companies have a role to play in protecting and enhancing biodiversity. Biodiversity will increasingly become a licence to operate issue, but also will allow companies to harness new revenue opportunities while reducing their risks and costs.

To understand the magnitude of investment required, the *State of Finance for Nature* report by the UNEP argues "investment in nature-based solutions ought to at least triple in real terms by 2030 and increase four-fold by 2050 if the world is to meet its climate change, biodiversity and land degradation targets"³.

¹Source: World Economic Forum; January 2022. "The Global Risks Report 2022, 17th Edition". Available from https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf

²Source: World Bank; 1 July 2021. Press release: "Protecting Nature Could Avert Global Economic Losses of \$2.7 Trillion Per Year". Available from <https://www.worldbank.org/en/news/press-release/2021/07/01/protecting-nature-could-avert-global-economic-losses-of-usd2-7-trillion-per-year>

³Source: UN Environmental Programme; 27 May 2021. "State of Finance for Nature". Available from <https://www.unep.org/resources/state-finance-nature>

MCA's specific action on biodiversity

Our biodiversity survey

At MCA we believe that we have a responsibility to ensure that companies we invest in on behalf of our clients are considering the potential impact of biodiversity loss from an investment perspective.

This year we have initiated a focussed project to understand:

- the role that companies can play in protecting and enhancing biodiversity;
- which sectors, industries and companies have the highest impacts or dependencies where financial returns are most at risk;
- how advanced companies are in treating biodiversity as a risk issue or considering it in strategic & operational decision making;
- the differing approaches to documenting biodiversity policies, accountability and data collection;
- the existence of opportunities for companies to invest in the natural environment; and
- A framework of best practice for Australian companies.

In much the same way as we approached our work on [Modern Slavery](#) in 2021, we have surveyed the top 200 companies in the Australian market. We wrote to their management asking a set of detailed questions in relation to the management of biodiversity risks across their day-to-day operations. Overall, we received an overwhelming positive response to our questions and the next step will be to put this into action.

Martin Currie's Pathway to 2030 Forum

Why sustainability issues matter for your portfolio

Hosted by Martin Currie and Franklin Templeton, the inaugural Pathway to 2030 Forum was held on 26 October 2022 in Melbourne.

The panel, moderated by Will Baylis, Portfolio Manager for Sustainable Equities at Martin Currie brought together investors, leading ASX-listed companies (NAB, Mirvac and AACo), and sustainability experts (Pollination Foundation) to explore the real investment implications from action, and inaction, on critical sustainability issues such as biodiversity and climate change.

Over the course of 90 minutes, the panel explored a hypothetical investment scenario involving the development of a new community. They provided firsthand insight as to how their respective companies are responding to biodiversity loss, and their vision about what can be done right now and through to 2030 to manage biodiversity risk and identify investment opportunities.

While the best time to act on biodiversity risk was yesterday, the next best is today. Watch a recording of the panel session on our [website](#) to learn more.

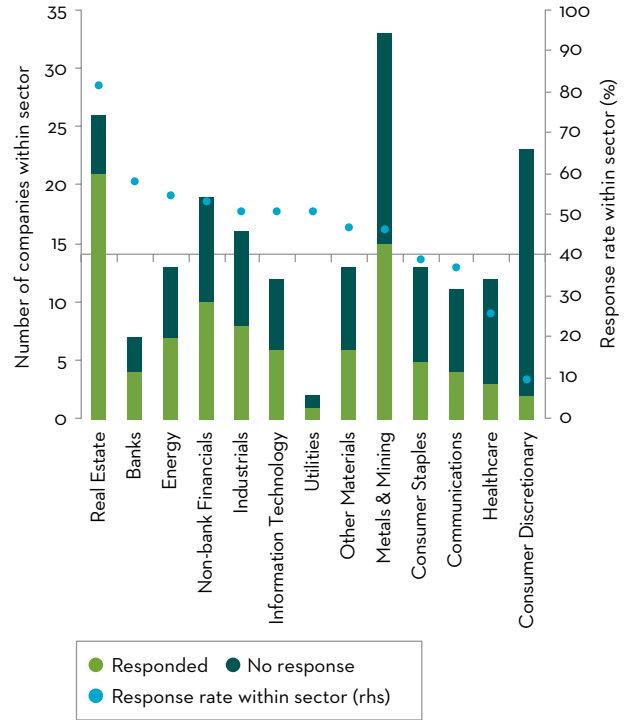


High level survey results

Good response rate

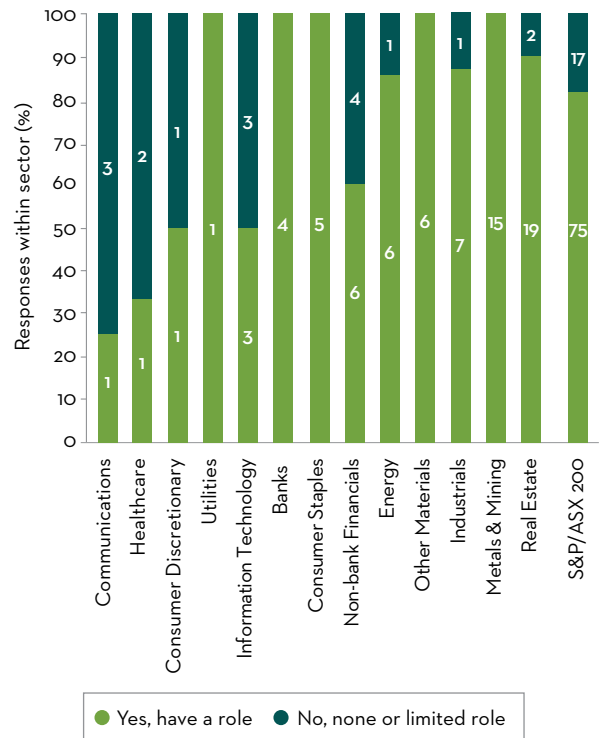
The following analysis accounts for responses from 92 companies within the S&P/ASX 200 index, 46% by number, and 57% by market cap. This also covers the majority of our holdings across our platform of Australian equity strategies⁴.

When drawing conclusions from our questionnaire, it is worth keeping in mind the sectors that had moderate to high response rates as well as the depth of responses. These were the Real Estate, Banks, Energy, Non-Bank Financials, Industrials and IT sectors. In contrast, we are less confident in drawing general conclusions from the Healthcare, Consumer Staples, Consumer Discretionary, Communications and Utilities sectors given the low response rates or low sample size.



Role in protecting and enhancing biodiversity

Our first question asked whether companies had a role to play in protecting and enhancing biodiversity. 82% of respondents answered yes. Generally, those that believed they had a limited or no role were mainly service providers, such as online advertising, software and healthcare services.



⁴Source: Martin Currie Australia, FactSet, as of 31 October 2022. Holdings are based on representative Martin Currie Australia accounts. Chart data shows responses for the S&P/ASX 200 index. Bar chart labels show responses by number within each sector.

Treating biodiversity as a material risk

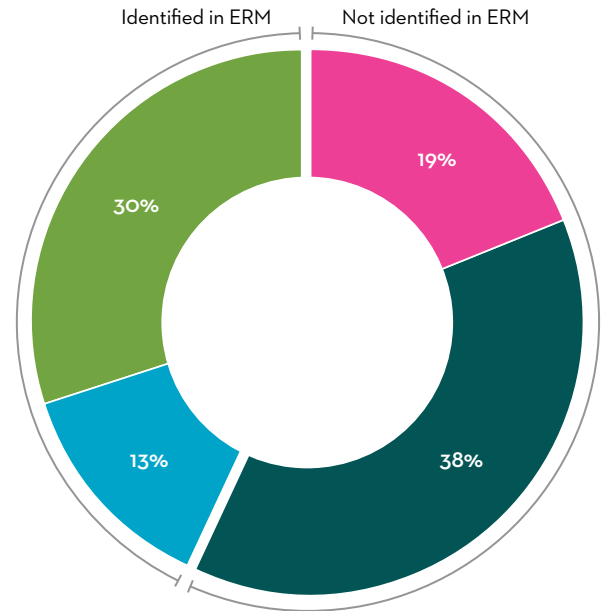
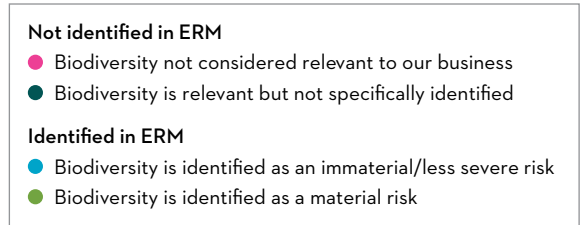
We then asked companies, how advanced they saw their current approach to biodiversity.

Almost a third (30%) of companies viewed biodiversity as a material risk in the enterprise risk management (ERM) processes, while a smaller portion (13%) see it as a less significant risk.

Companies that were most advanced in dealing with biodiversity in their ERM were predominantly companies within the Real Estate, Metals & Mining, Industrials, and Energy sectors.

Across the market, our analysis highlights that there is also a significant portion of companies that think biodiversity is either not considered relevant to their business (18%) or biodiversity is relevant but not specifically identified in their ERM processes (38%). In the latter case, this reflects a view that the company has a role to play in biodiversity, but the issue is not currently considered to be among their most material risks.

On a sector basis, given the service providers we identified earlier as not having a role to play in protecting biodiversity, it is not surprising they were also most likely to identify biodiversity as less relevant risk to their business.



Mining companies at the forefront

Environmental issues are material to mining companies, and our work highlighted the sector as one of the most advanced with respect to biodiversity. One mining company said to us that *“we consider this essential to not only reduce our enterprise risk, ensure future land access and to maintain our licence to operate, but also because it is the right thing to do”*.

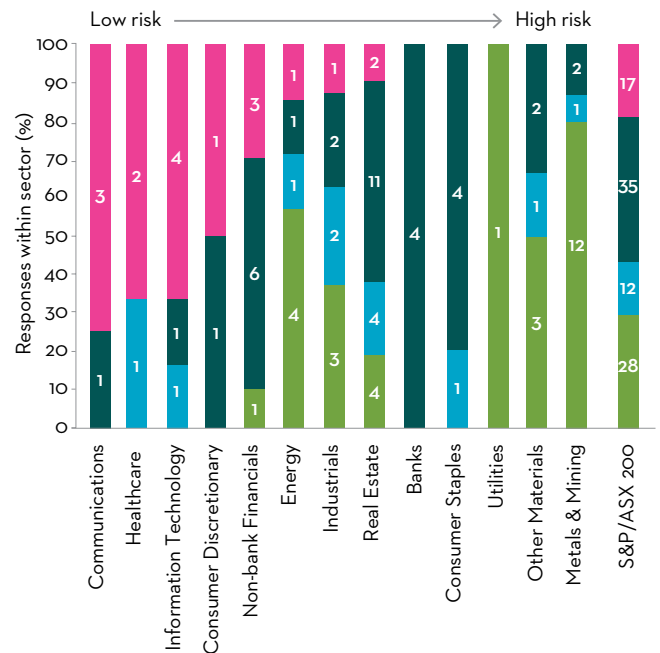


Chart data shows responses for the S&P/ASX 200 index. Bar chart labels show responses by number within each sector.

Few biodiversity policies

In addition, we wanted to know if companies had an existing biodiversity policy and if not, was the board considering developing a biodiversity policy. A policy is important because it is a board level document which provides a clear sign the issue receives the highest possible level of elevation in the organisation.

We identified four companies (4%) that had an existing biodiversity policy which were all Real Estate companies. A further 16% of survey responders have biodiversity as a material component of another policy, which was most often in their Environmental Policy.

On a sector basis, the Metals & Mining, Energy and Real Estate companies who identified biodiversity as a material risk most often had board approved policies to protect nature and stakeholders while also acknowledging potential reputational risk or fines from adverse impacts as well as their license to operate.

Our most surprising finding was despite 82% of companies saying they believe they have a role to play in protecting biodiversity, 61% of companies do not have biodiversity as a material component of a policy and did not commit to developing one in the next two years. Reasons we received included that existing policies were deemed sufficient, or they were non-committal to a timeline and intended to do a review post the final release of the TNFD. As awareness builds on biodiversity, we expect companies to form a better understanding of their nature-related dependencies, impacts, risks, and opportunities.

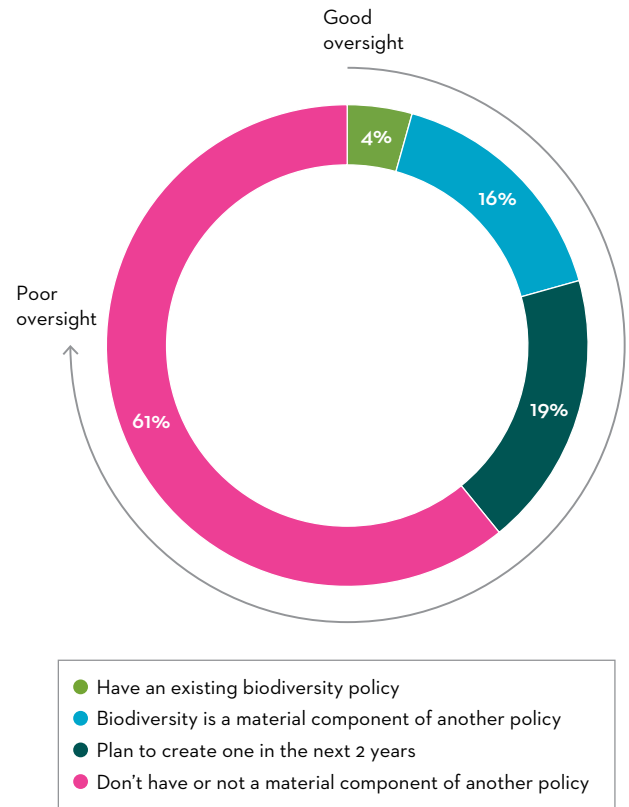
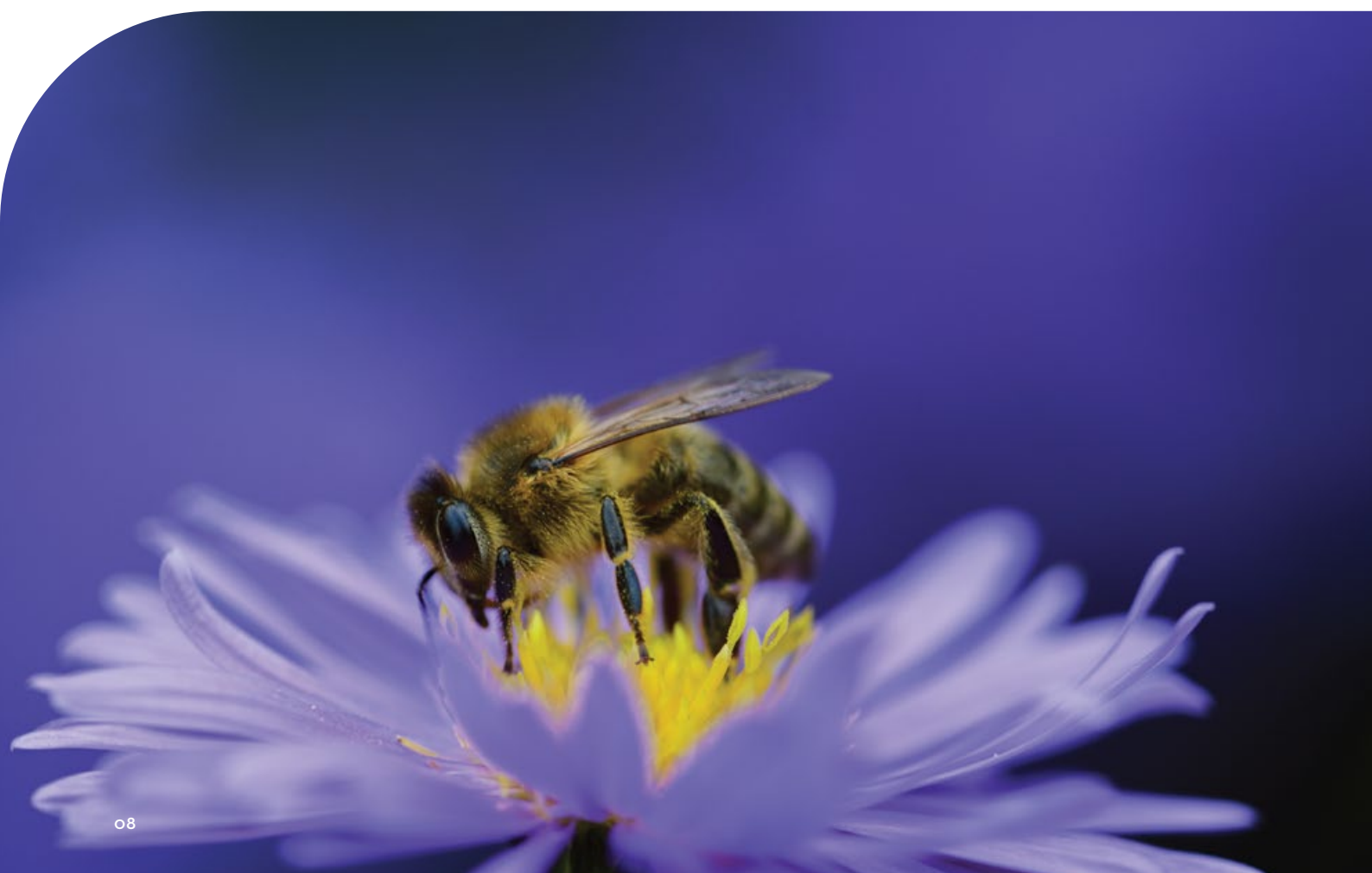


Chart data shows responses for the S&P/ASX 200 index.



Challenges and opportunities

Measurement issues and lack of common methodology restrict progress

A big issue that the survey reinforced was the lack of consensus around how to consistently evaluate and manage exposure to the risks and opportunities regarding biodiversity, even within sectors. This means that it is difficult to use best practice examples to form a baseline to assess each company against. Also, without data that prove a net benefit (or loss), it is difficult to embed environmental risk into financial decisions, and plan and implement projects that require long-term financing considerations.

The key challenge comes down to measurement. Unlike climate change risk, where the market has coalesced around carbon emissions as the metric, there is currently no obvious unifying equivalent for biodiversity.

Furthermore, measuring biodiversity in a company's area of operations and in their supply chain will be new for many companies, and this will likely incur considerable cost and time. There is also the added complexity that natural capital covers a broader range of issues than carbon emissions. It will take time to build knowledge and expertise in this area, and there is a clear opportunity for sector-based collaborations to drive shared learning and progress.

For investors, what is ultimately required is "a set of global standards underpinned by credible, decision-grade data, which businesses and financial institutions can use to fully integrate nature-related considerations into their decision-making, and assess and disclose their use of, and impact on, nature⁵".

Examples of the varied metrics mentioned by respondents



Surveys of sighted flora, vegetation and fauna



Water use (storm water, groundwater, effluent, wastewater)



Native species composition



Net habitat gain/loss



Presence of International Union for Conservation of Nature (IUCN) Red List species and national conservation list species



Land footprint disturbed and rehabilitated



Land footprint conserved



Canopy tree height and cover



Recyclability, compost-ability, and reusability of products



Weed incursion



Source of materials



Soil erosion



Noise and vibration

⁵Source: Dasgupta, P. (2021), The Economics of Biodiversity: The Dasgupta Review. (London: HM Treasury). Available from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957629/Dasgupta_Review_-_Headline_Messages.pdf

Some promising signs emerging

There are clearer skies on the horizon, and technology around biodiversity measurement and disclosure is improving every day. We are also encouragingly seeing biodiversity initiatives emerging which mirror the extensive work that has already been done on climate change.

We are starting to see global frameworks like the [Taskforce on Nature-related Financial Disclosures](#) (TNFD) building off the climate equivalent, launched in 2021. The final release of the framework is due in September 2023. The Biodiversity Conference of Parties (COP 15) is also in December 2022. In their survey responses, companies have told us that they are looking forward to this, and that it should help bring further awareness of how consideration of biodiversity risks can contribute to business outcomes within their companies, and also improve disclosure and reporting requirements. These will both be a real catalyst for change to watch out for next year.

[The Science Based Targets for Nature](#) (SBTN) also leverages the growing climate change momentum behind the Science Based Target initiative (SBTi) and was mentioned by several survey respondents. SBTN is a network of 45+ organizations - including the same organizations behind the SBTi - that is developing methods and resources for SBTs for nature for companies and cities across issues such as water, land, ocean, and biodiversity.

Several new third-party measurement tools were also mentioned by the survey participants that can help companies baseline their state of biodiversity and quantify, monitor and measure improvements in a scientific and robust way. These included:

- eDNA, originally developed by Eske Willerslev from the **University of Cambridge**, which can be used to sample water to baseline what organisms are currently in the landscape in a cost-effective manner.
- Econd®, developed by **Accounting for Nature**, allocated a score of zero to a fully degraded state, while 100 depicts pristine condition. The score is calculated by combining several indicators such as pH, salinity, organic carbon and erosion measures. The change in the score through time allows for the trend in the condition of an environmental asset to be assessed.
- Remote sensing technology for forest cover and groundcover from companies such as **Flintpro** and **CiboLabs**.

We also note the work currently under way by Australia's **Deakin University** on [Blue Carbon](#), led by Dr Peter Macreadie. Blue carbon credits are in development and reflect the long-term nature of carbon retention by mangroves, wetlands and sea grass. Blue carbon may well be a much more efficient way of storing and offsetting carbon than tree plantations on farming land. Protecting and restoring our most critical ecosystems will be critical in improving biodiversity outcomes and helping mitigate the impacts of climate change.

Opportunities for cost savings, products and financial markets

Despite the limitations discussed above, we had asked the survey respondents if they thought there were investment opportunities for the company in the natural environment and to share examples of opportunities where considering biodiversity could be a financial positive.

While only 39% of responders saw opportunities, Banks and Insurance companies were particularly positive on the outlook. This included opportunities for the development of markets for ecosystem services and biodiversity credits, similar to carbon. They are already looking at ways to mobilise capital and support customers (particularly agribusiness) to adopt more regenerative practices, and generally operate to protect and enhance biodiversity.

Monetising biodiversity

Below we have listed several novel examples of monetising biodiversity that were shared through the survey:



Banking

A large Australian bank worked with valuation experts to explore the links and dependencies between good management of natural capital assets, financial performance and business resilience. By integrating this understanding into products and services they reward clients that demonstrate they are working to lower their impact and risk across issues such as soil health, water scarcity, energy cost, runoff and waste. Such products include discounted loans for energy efficient and renewable energy assets like water efficient irrigators, fuel-efficient farm equipment, and green bonds to assist investors in prioritising investments that finance climate change solutions.



Insurance

An insurer is currently exploring investment opportunities related to Negative Emissions including Nature Based Solutions (NBS) and Technology Based Solutions as an innovative way to drive returns and support their commitment. While these are nascent in development, NBS are a cost-effective mitigation and negative emission tool that delivers substantial co-benefits in the transition to a Net Zero economy.



Consumer products

An Australian consumer product company is pioneering water conservation initiatives which enable buildings to reduce water consumption and can enhance ecological outcomes, including biodiversity.



Asset Management

An Australian based asset manager was able to register two of its new environmental planting projects under the Australian Federal Government's Carbon + Biodiversity Pilot initiative. As part of these projects, 67,000 native trees and shrubs will be planted within a 175-hectare conservation area to enhance biodiversity and carbon sequestration, with 28,000 tCO_{2e} projected to be sequestered over the 25-year life of the project.



Summary of best practices

Our best practice framework

Consolidating the responses from the survey with our own research, below we have summarised our view on best practice for companies, recognising that there is no “one size fits all” approach.



Identification

- Exposure mapping to identify and understand material direct and indirect impacts on biodiversity, including upstream and downstream in the supply chain, and material risks and opportunities.



Policy

- An appropriate Board-level policy, subject to periodic review, outlining the organisation’s approach to biodiversity, including risk management, measurement, monitoring, reporting and rehabilitation.
- Where exposure is immaterial, it would be appropriate for biodiversity to be covered as a component in a more general sustainability policy.
- Where biodiversity is a material risk, it is specifically identified in the organisation’s enterprise risk management framework.



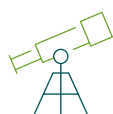
Accountability

- A Board-level sustainability champion who has knowledge and clear accountability for biodiversity either through training or lived experience.
- Coordinated efforts, including clear Board and Executive level awareness and interest in the issue, internal subject matter expertise and processes at the operational level.



Measurement, Monitoring and Disclosure

- Transparent measurement, monitoring, assessment of effectiveness, and reporting of biodiversity risk and opportunities, to both the Board and investors. It is important to apply a materiality assessment alongside this.
 - For those with significant exposure, for example mining companies, this includes project level as well as organisational level processes.
- Use of independent internal and/or external audit resources to provide third-party assurance as required.



Long-term learning mindset

- A willingness to talk openly about risks, challenges, and opportunities to improve.
- Genuine commitment and action to bring policies and procedures to life.
- Investment in the required time and expertise to reduce impact and dependencies.

Examples of real action from the survey

Below are some of the top examples from our survey responses of positive biodiversity action:

- The application of the biodiversity mitigation hierarchy, which refers to avoiding and minimising any negative impacts, then restoring sites that are no longer used before finally offsetting any residual impact. The best examples applied this model both to their operations as well as to their suppliers and subcontractors.
- Product and process innovation to reduce environmental impact/provide a net positive biodiversity gain.
- Partnering with local land services, universities and government agencies to undertake trials and programs to study and assess biodiversity in the areas of operation.
- Designing and commissioning new equipment and processes for better site rehabilitation.
- Modifying activities to reduce the impact on local fauna such as light spill and water discharge.

The challenge for investors

Our biodiversity survey has been a great source of information for understanding each of our investee company's roles in protecting and enhancing biodiversity, and their level of maturity in measuring, monitoring, and managing biodiversity risk.

Looking forward, MCA intend to identify material natural capital risks and opportunities and embed them in our Sustainability research lens. This will help supplement our existing work on Environmental, Social and Governance (ESG) issues such as shadow carbon, UN SDGs and Modern Slavery.

While our first biodiversity survey is now complete, our project to influence biodiversity practices across all our Australian holdings is ongoing and will remain a key topic for future engagements with materially exposed companies in our investment universe and portfolios. We will be using our extensive company engagement program with boards and management to provide guidance and to push for positive change. Engaging with companies is, however, a perpetual effort, and we will continue to dynamically revisit our risk assessments and monitor disclosure and opportunities around management of biodiversity.

Ultimately, our aim is to invest in companies that help to improve lives, and we would like to see all Australian companies that we invest in progress in this space. With the final release of the TNFD and its metrics, we will be exploring how we can incorporate that framework in our process. By identifying, measuring and valuing natural capital, the investor and listed community can make progress in protecting and restoring our natural capital on which society and our economy relies so heavily on.



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