

Learning About **ESG** Biodiversity: A Crucial Resource

Learning About ESG is an educational series that connects **environmental, social and governance** topics with investing.

Join us each issue to see how global developments can have implications for investors. The better we understand ESG, the bigger the role it can play in our everyday lives – and investment portfolios – contributing to a better world.

Key takeaways

- ◆ Biodiversity is crucial for human survival, providing essential resources and ecosystem services worth an estimated USD125-140 trillion annually.
- ◆ The fact that biodiversity loss and climate change are inextricably linked has further raised the profile of biodiversity-related initiatives.
- ◆ For investors, exposure to assets that are countering instead of aggravating biodiversity loss and climate change will serve as a useful diversifier against environmental risks elsewhere in their portfolio.



What makes biodiversity crucial?



The rich life that exists in nature is what we refer to as biodiversity. Without that variety of plant and animal life around us, ecosystems would collapse, and we'd lose the basic materials that sustain us.

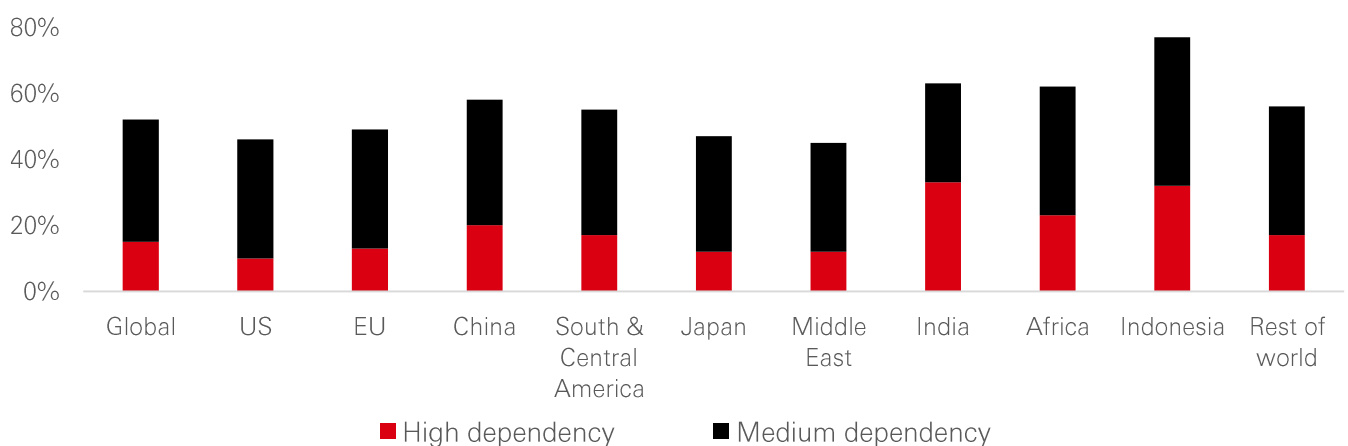
Governments and private companies have been advancing space exploration efforts of late, with the latest attempt at landing a robot on the moon coming days after Earth Day. Yet, slow progress should serve as a reminder that any ambitions of finding exciting new planets to call home will remain science fiction for the foreseeable future, if not forever. In the spirit of Earth Day, we must begin to appreciate the rich life on this planet that has been providing us with a long list of our essentials – breathable air, food, water, building materials, energy sources, medicines, and more, or else face a bleak future.

The planet's biodiversity underpins the global economy. Services it delivers, such as

crop pollination or the removal of carbon from the atmosphere (carbon sequestration), are worth an estimated USD125-140 trillion annually. That is roughly 1.5 times global economic output each year¹.

Herein lies the problem. Ecosystem services are not captured or valued in the formal economy. As a result, up to 1 million species are threatened with extinction, with more than USD200 billion of global crop output annually at risk due to loss of their pollinators². The World Economic Forum estimates that more than half of the world's output is moderately to highly dependent on nature. Yet around a fifth of countries are at risk of their ecosystems collapsing³.

Output dependence on nature



Source: 'Nature Risk Rising', World Economic Forum data, 2020.

1. OECD – Biodiversity: Finance and the Economic and Business Case for Action
2. UN Sustainable Development Report, May 2019
3. 'Biodiversity and Ecosystem Services: A business case for re/insurance', Swiss Re (September 2020)

Why is biodiversity gaining financial attention?



The financial world has paid some attention to climate change. However, until recently, the issue of biodiversity was largely ignored. A growing realisation that continued biodiversity loss will lead to a myriad of problems, including food and materials shortages, is starting to change this.

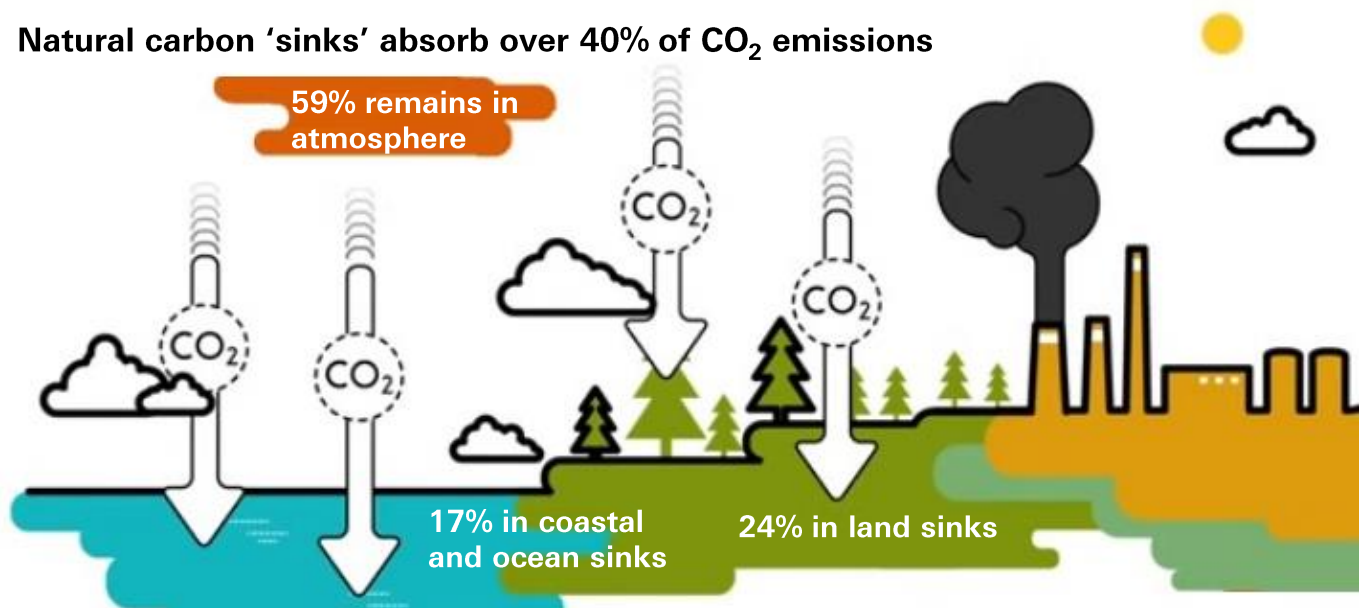
The fact that biodiversity loss and climate change are inextricably linked has further raised the profile of biodiversity-related initiatives. Land use change, mainly consisting of deforestation, is responsible for up to a fifth of CO₂ emissions itself⁴.

One reason for the lack of value placed on biodiversity historically is that it can offer little direct economic benefits to the local landowners. For example, it's typically worth more to a farmer to cut down trees than to keep a forest in the ground. To address this conflict, we need a system that values the ecological services the forest provides and aligns the incentive of the farmer with that of the public good.

Early steps are being taken. As an example, Gabon is one of the world's only net sequesters of carbon, to the tune of over 100 million tonnes annually. In reward, the African republic has become the first to be paid for continued preservation of its forests as part of a USD150 million deal with the UN-backed Central African Forest Initiative.

Even in the absence of such large-scale solutions, preserving and restoring biodiversity can already provide financial gains to landowners. Switching from industrialised agriculture to restorative farming, or from intensive to more sustainable forestry methods, serve as examples.

Natural carbon 'sinks' absorb over 40% of CO₂ emissions



Source: Project Drawdown, IPCC & Global Carbon Project Data, 2020.

4. The London School of Economics and Political Science, February 2023

What are benefits for investors?



Given that the importance of biodiversity to the global economy is being more readily recognised, this creates opportunities for returns through solutions that protect natural resources. Additionally, exposure to assets whose value is not related to the economic cycle offers useful diversification benefits.

The aforementioned examples of sustainable changes can deliver a new and broader set of cash flows, with greater resilience. This is due to the higher value being placed on sustainable agriculture and wood products by consumers, ancillary revenue streams such as eco-tourism, savings on pesticides and fertilisers, along with potential land price appreciation due to the mounting scarcity value of biodiverse land.

Demand from large corporations which have made commitments to biodiversity and reducing carbon emissions offers further financial incentives, through growing sales of carbon offsets, or credits for the removal of carbon dioxide emissions to offset emissions made elsewhere.

Early progress in valuing nature's services is important. With new regulations driving up

the price of carbon emissions, as evidenced by the roughly 600% increase for EU carbon allowances over the last five years, this should translate to enhanced value and revenue streams for natural carbon sinks.

For investors, exposure to assets that are countering instead of aggravating biodiversity loss and climate change will serve as a useful diversifier against environmental risks elsewhere in their portfolio. It also means opportunity for positive impact while investing in assets whose value should rise to match their importance.

Perhaps financial incentives will give Earth Day a more prominent slot in our calendars in future, so that we celebrate it accordingly.

Glossary

ESG: a set of Environmental, Social and Governance criteria that investors can apply to analyse and identify material risks and growth opportunities in investments.

Natural carbon sinks: like forests, the ocean and soil are natural reservoirs that absorb carbon dioxide from the atmosphere.

Carbon sequestration: Capturing and storing carbon dioxide, keeping it out of the Earth's atmosphere so that it doesn't cause the atmosphere to warm. The process helps reduce climate change.

Carbon emissions: are emissions stemming from the burning of fossil fuels during any kind of manufacturing process.



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