



Wealth  
Management

# Sustainability 360

Placing nature at the heart of the transition



Forward-looking  
for generations





**Cover image**  
Thomas Ender, detail from "The Vogelmaier Ochsenkar Kees  
in the Rauris Valley in the High Tauern," 1834  
© LIECHTENSTEIN, The Princely Collections, Vaduz–Vienna

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## Inside the Princely Collections

For more than 400 years, the Princes of Liechtenstein have been passionate art collectors. The Princely Collection is the result. Comprising more than 1,600 paintings, the collection is made up of masterpieces ranging from the early Renaissance to the second half of the nineteenth century. It is one of the world’s major private art collections. While the idea of promoting fine arts for the general good enjoyed its greatest popularity during the Baroque period, the House of Liechtenstein continues to pursue this goal to this day.

At LGT, we take inspiration from the art in the Princely Collections. For us, the collection embodies the values that form the basis of all successful partnerships: expertise, reliability and a long-term focus. Just like the experts who care for the masterpieces, our team of professionals diligently curate the wealth of our clients. By drawing upon this rich heritage, LGT has honed wealth management to an art.



# Nature’s vital role

Dear Reader,

As humans, we occupy the world for the duration of our lifetime, but our mark is left many times longer than this. Over the last few years, countries across the world have started to galvanise some of the required financial resources, primarily through infrastructure spend, to a greener operating model. Whilst technology is crucial in this transition, its application should extend beyond merely being a 'solution' to climate change and a defence for avoiding carbon emissions reduction.

Relying on technological innovation is not the solution for further mitigating climate change. Estimates from the carbon capture and storage industry, for example, place its extraction ability at circa 5% of necessary carbon emissions. The most effective carbon sinks – our oceans, forests, saltmarshes, soil and seaweed – need protecting and restoring. We should be utilising some of the best examples of human ingenuity and technology to do this. We should also improve how we leverage technology to help us adapt to climate change.

Across the world, communities are being increasingly impacted by weather events that have been proven to be exacerbated by climate change. More focus needs to be placed on adapting to climate change and investing in the technology that enables this.

Our sustainable investment offering marked its fifth anniversary in November 2023, representing a significant milestone. We take great pride in our accomplishments, having established ourselves as market-leaders in the sustainable space with a successful proposition. This success is evident in the expansion of assets under management, increased resources and growing teams supporting these services. We have made strategic investments across various facets of our offering, including people, advanced data tools, research capabilities and engagement in stewardship. As we reflect on the past five years, we eagerly anticipate achieving more milestones in the coming years, further solidifying our commitment to sustainability.

As a sustainable organisation and a long-term steward of our clients’ wealth, LGT has acknowledged the necessity and urgency of mitigating and adapting to climate change. We recognise the importance that both nature and biodiversity play in underpinning the vital ecosystem services that form the foundation of our economies. Our commitment to achieve net zero by 2030 in both our operations and our own investments serves as tangible evidence of our unwavering commitment to the principles outlined in the Paris Agreement.

In fulfilling this responsibility to our clients and the global community, we will continue to focus on threats that further declines in climate change pose and the risks associated with a loss in nature and biodiversity.



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Phoebe Stone  
Partner and Head of Sustainable Investing

This year’s Sustainability 360 report emphasises the pivotal role of nature in propelling the green transition, alongside examining how technology and government policies can contribute to its advancement. We discuss the transition from traditional to clean energy, the role of commodities in a more sustainable future and net-zero approaches. We aim to share our expertise and provide a thought-provoking resource on what a sustainable future really means.

Phoebe Stone  
Partner and Head of Sustainable Investing

# How technology can empower nature

In a world facing unprecedented environmental challenges, the harmonious coexistence of nature and technology has never been more essential.

## The role of the natural world

As we place growing emphasis on how technological progress can drive the energy transition, a critical oversight remains: our neglect of the natural world. It is within this world that we find humanity's fundamental resources – materials for construction, essential commodities, nourishing crops and medicinal elements. To effectively tackle the challenges posed by climate change, our focus should pivot towards leveraging technology to complement and enrich our natural environment, rather than merely surpassing it.

Technology has the potential to act as a crucial tool in mitigating the impact humans have on the planet. Artificial Intelligence (AI), championed for its poten-

tial transformative capabilities in diverse fields, has quietly emerged as a potentially powerful ally in the conservation and nurturing of our planet's natural wonders. AI is by no means a silver bullet, but its ability to identify patterns, analyse large amounts and make decisions is critical in tackling the environmental challenges our planet faces.

AI, if used correctly, can play an important role in safeguarding biodiversity, revitalising ecosystems, and reinforcing the delicate bond between humanity and the natural world through some of the exciting companies taking those steps. As we stand on the precipice of a critical ecological turning point, AI offers both hope and solutions for a sustainable future where nature thrives in unison with innovation.

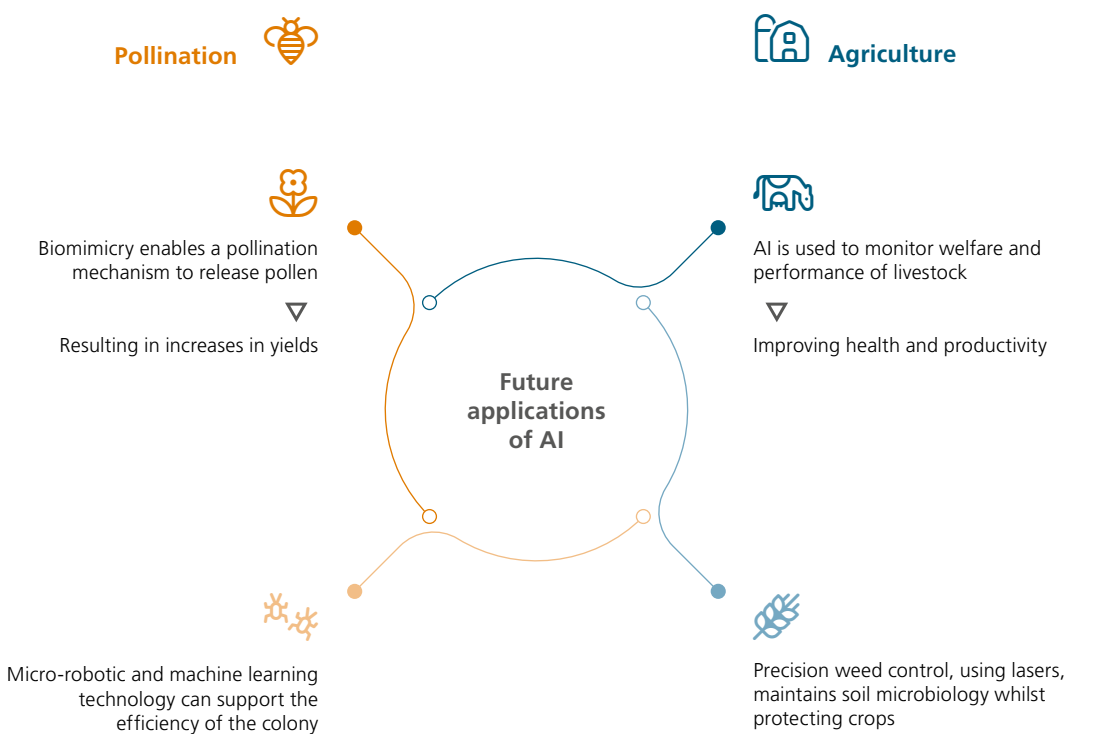


## An agricultural revolution

The United Nations' Food and Agriculture Organisation (FAO) has estimated that one third of the world's food production depends on bees. With this in mind, AI can be utilised to not only support the population of bees but also mimic the way that they work. AI can also be used to improve traditional

farming techniques through methods of irrigation and **vertical farming**.<sup>1</sup> Livestock welfare can likewise be positively impacted by AI intervention. However, care and consideration must be taken in the integration of AI to support traditional farming practices.

### Smart farming: the impact of AI



<sup>1</sup> See appendix



# Governmental policy and promoting nature

It is crucial that policy action by governments to move towards a more sustainable world also places nature at its heart.

## As policy action around the world is taken, we discuss:



In the US, the climate act makes ground



In the UK, focus turns to smart grids



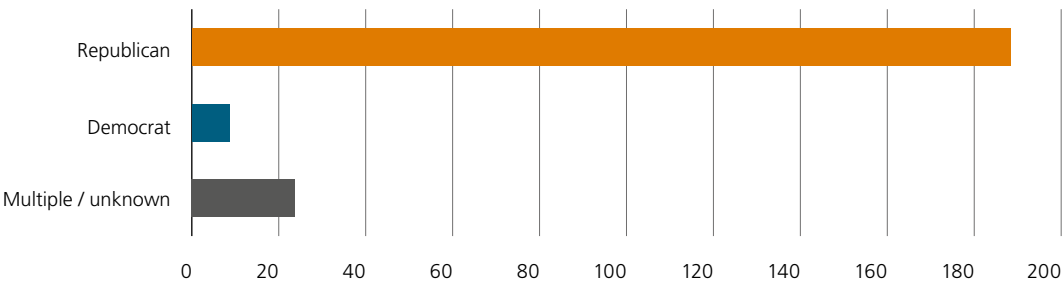
At COP28, significant progress is made, but more remains left to do

Policy holds the power to offer crucial guidance, incentives and regulatory mechanisms necessary for steering the transition. It is imperative that countries continue to craft robust frameworks that not only mitigate the severe impacts of climate change but also help propel us towards a sustainable, safe and low carbon future.

### US climate act makes ground

The United States’ Inflation Reduction Act (IRA) was passed in 2022, but in 2023 we began to see the dynamics of America’s most ambitious efforts yet to combat climate change play out. The attention to nature has not been disregarded as the act allocates around USD 27 billion to safeguard coastlines, support farmers engaged in carbon storage and emission reduction, and assist forest management workers.

Cumulative total of announced projects by district partisanship since August 2022 (\$bn)



Source: FT analysis of company and state press releases and data from fDi Markets, Rystad Energy, Semiconductor Industry Association, S&P Global Market Intelligence, Wood Mackenzie

## Green investment in the US



\$369 billion  
to green technology and  
nature-based solutions



270+  
new clean energy projects



130000+  
new jobs created



\$132 billion  
total investments so far

“Supportive government policy is crucial in tackling environmental challenges. Despite media narratives, bipartisan cooperation often plays a significant role, highlighting a shared commitment to safeguarding our planet for generations to come.

Jordan Kelly, Sustainable Portfolio Manager



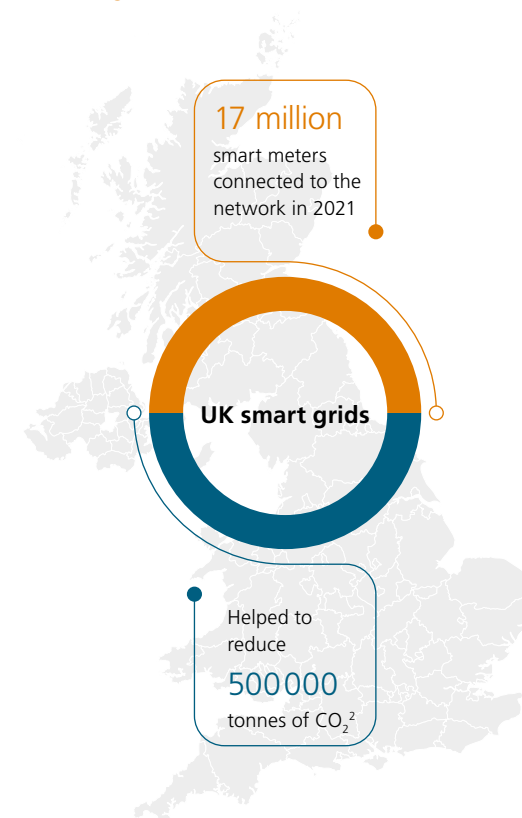




## UK smart grids

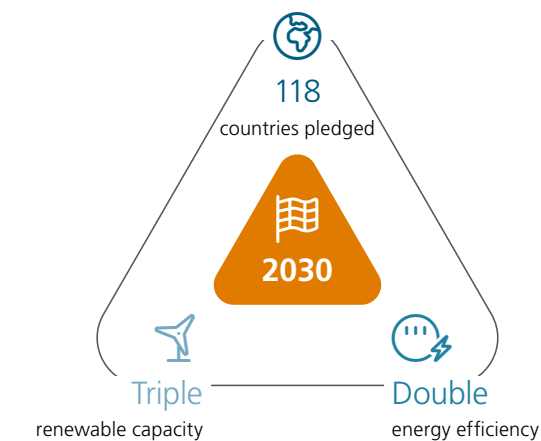
In 2014, the Department of Energy and Climate Change and industry regulator Ofgem published a vision and roadmap for smart grids in the UK. Since then, whilst progress has lagged, the rollout of smart meters means that these now outnumber traditional analogue meters and are making a significant impact. There is a pressing requirement for substantial investments and the expansion of high-voltage transmission lines in the UK. Smart grids are digitalised networks that enable more efficient electricity management. Technology can enhance precision by predicting energy demand based on different weather patterns, optimising asset efficiency, reducing maintenance costs through predictive analytics and providing customers with more energy choices. Despite the many benefits, smart grids face cybersecurity risks. Furthermore, severe weather patterns can have the potential to disrupt the interconnectedness of smart grids. The UK's energy companies have since come together to make plans to reduce emissions and transform the way energy networks operate, including contributing to building the smart grids.

### UK smart grids



<sup>2</sup> [www.tripwire.com/state-of-security/uk-smart-grid-how-it-started-how-its-going](https://www.tripwire.com/state-of-security/uk-smart-grid-how-it-started-how-its-going)

### COP 28 commitments by 2030



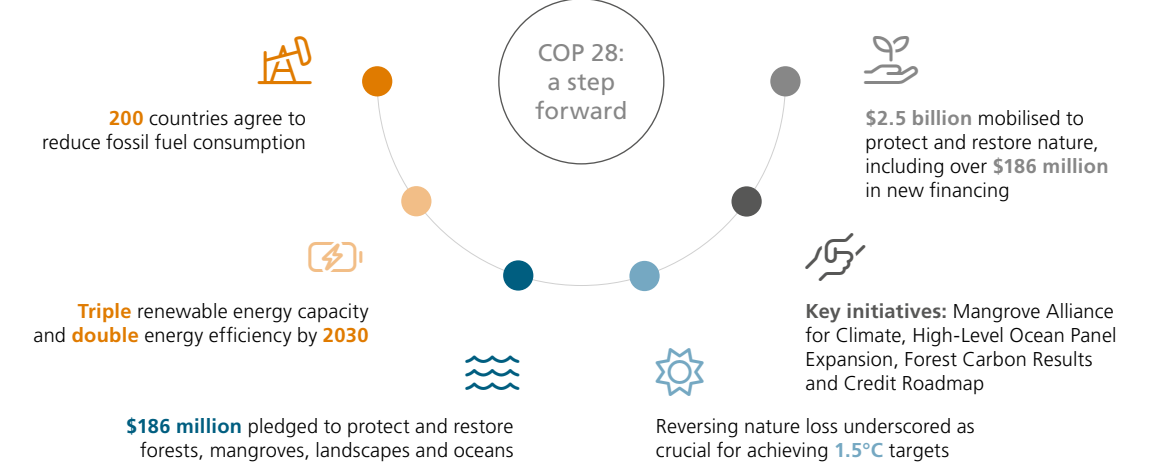
### COP 28: the beginning of the end of fossil fuels?

Progress was achieved at COP 28, with nearly 200 countries reaching a pivotal consensus to initiate the reduction of global fossil fuel consumption. This historic agreement signifies the commencement of a unified global energy transition, signposting a shift from fossil fuel-dependent energy production to sustainable alternatives such as solar and wind power.

Remarkably, this marks the first instance in COP's 28-year history where fossil fuels have been explicitly targeted for limiting global temperature increases. Additionally, a commitment was made to triple renewable energy capacity and double energy efficiency by 2030, acknowledging that further efforts are required. Despite the challenges, there is optimism that this year's COP will serve as a catalyst, propelling progress in the global energy transition to align with the ambitious goals of the Paris Agreement.

COP 28's Nature, Land Use and Oceans Day featured leaders endorsing pledges exceeding USD 186 million for climate action, emphasising the urgency of protecting and restoring nature. Key commitments covered forests, **mangroves**,<sup>3</sup> landscape restoration and ocean conservation, highlighting the essential role of near-term nature action. Reversing nature loss was underscored as crucial for achieving 1.5°C warming targets, offering economic opportunities and potential job creation. Indigenous perspectives highlighted the importance of integrating traditional knowledge into sustainability efforts.

### COP 28



<sup>3</sup> See appendix



Notable outcomes included a joint statement between the UAE COP 28 Presidency and the Convention on Biological Diversity Presidency, endorsed by 18 countries committing to coordinate nature and climate plans. Additional initiatives involved the [Mangrove Alliance for Climate](#),<sup>4</sup> the [High-Level Ocean Panel expansion](#),<sup>5</sup> the [Forest Carbon Results and Credits roadmap](#),<sup>6</sup> and commitments from businesses for climate and nature targets.

We express optimism about the progress made at the conference, including the explicit acknowledgment of fossil fuels, along with the commitment to tripling renewable energy capacity and doubling energy efficiency by 2030, as well as the focus on nature. Whilst recognising that more work lies ahead, we remain hopeful about the success and unity demonstrated by nations around the world of the ongoing transition.

# Our stewardship in action: modern slavery

It is often believed that modern slavery only exists in dictatorships or the global south but, in reality, the issue is significantly larger: it is estimated that over 50 million people are trapped in slavery worldwide.<sup>7</sup>

In the UK, **modern slavery**<sup>8</sup> still occurs. At the end of 2021, over 12 000 potential victims were reported to the Home Office. Of these, 43% were children and 31% were British nationals. Unfortunately, these reported numbers are likely to understate the true levels of modern slavery.

At LGT, we have taken the cautionary approach to assume there is a risk of modern slavery rather than not. We therefore work to look for it, identify it and remediate those risks. Engaging and practicing stewardship with companies in high-risk countries and sectors is a key method for achieving this goal. Earlier this year, we joined the ‘Find it, Fix it, Prevent it’ initiative, which focuses on companies in the construction and hospitality sectors. Construction and hospitality are two sectors that are at higher risk due to the frequent use of sub-contracting and thin margins, meaning that companies are more likely to look to reduce labour costs.

Over the last year, we have engaged with three construction companies with both local and international operations. Our focus was on both their direct and contracted staff, as well as the risks in their supply chains. For example, a commonly used material in landscaping and construction is sandstone, often used for patios, drives and cobblestones. Alarminglly, 38% of the workforce in India’s Rajasthan’s state of Kota and Bundi working in sandstone quarries are from vulnerable groups. Part of the initiative is educating construction companies on their sourcing policies and involving them in educational programmes which go beyond just fixing their own supply chains and involve working with neighbouring quarry sites to address these issues more broadly.

<sup>4, 5, 6, 8</sup> See appendix  
<sup>7</sup> [www.antislavery.org/slavery-today/modern-slavery/](http://www.antislavery.org/slavery-today/modern-slavery/)

# Harnessing data in the natural world

Nature is at a tipping point. Whilst many activists, scientists and those of us who live in nature have known that nature is under threat for some time, now many companies and investors have also woken up to the fact that the loss of biodiversity poses systemic risks.

In the coming years, companies will need to look beyond measuring and assessing impact and dependencies on nature. They will need to start working towards science-based targets for how much they will contribute to restoring forests, soils and freshwater systems.

## What is possible and what are the limitations?

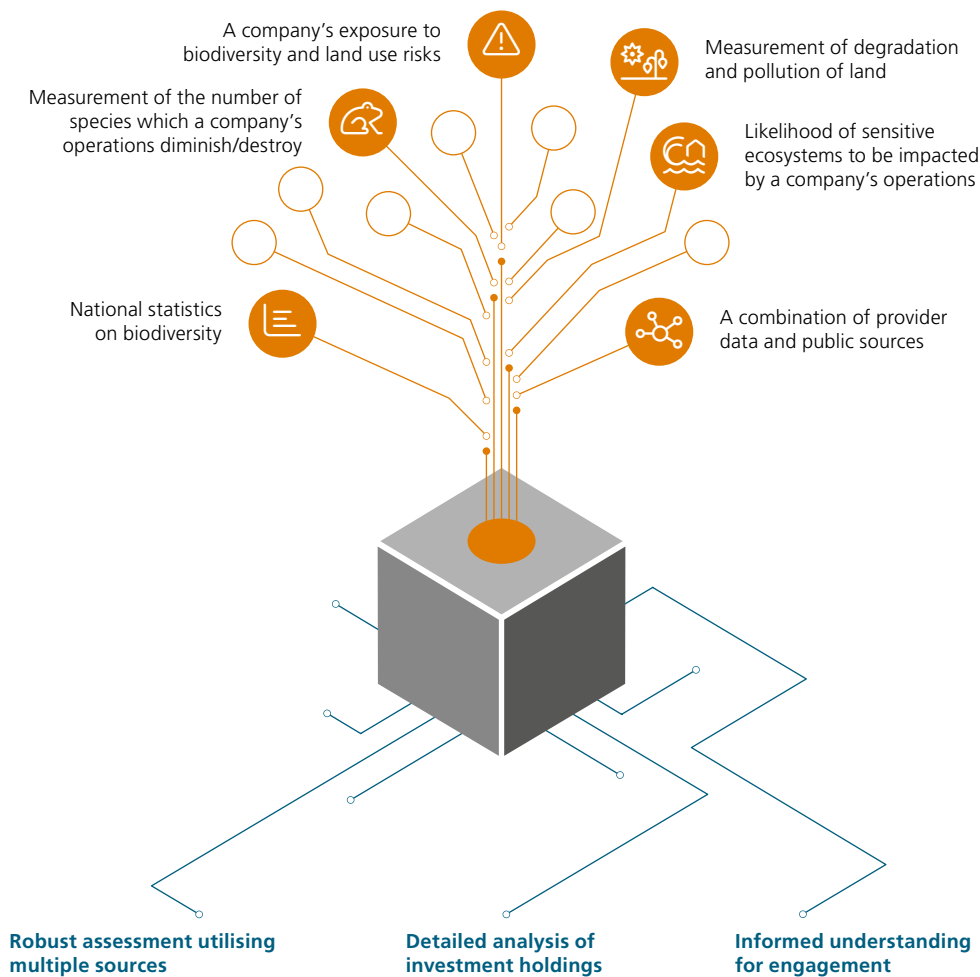
There are significant challenges to understanding biodiversity. The vastness of data and the dynamic relationship between people and ecosystems make it more difficult to measure the impact and dependencies on nature. Because of this, analysis on biodiversity in relation to investments was previously limited to measuring a company’s attitude towards biodiversity through the company’s reporting and policy. Today, there has been a surge of data providers which utilise new methods such as geospatial

## Why is data so important?

Biodiversity data encompasses the multitude of species, ecosystems and genetic diversity that collectively form the intricate web of life. As biodiversity is a key lifeline to the planet’s health and resilience, understanding biodiversity through data is crucial due to its influence on the stability and functionality of essential services such as clean air and water, pollination of crops and climate regulation.



Biodiversity data considerations



technology to measure nature impact and dependencies at an asset level.

For us, this means we are able to identify biodiversity investment risk and opportunities on a more granular level and drive more informed and impactful engagement with our investment holdings. For example, we could examine company supply chains that operate in **Key Biodiversity Areas**,<sup>9</sup> sites that

make a significant contribution to the global persistence of biodiversity.

With the rapid development of biodiversity data, it is crucial to choose the right data partner – one that leads in its understanding of biodiversity but is also open to integrating this data into meaningful investment analysis. This selection is essential for unraveling the complexity surrounding the topic.

<sup>9</sup> See appendix

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Preserving nature is not only vital for our planet's wellbeing but is also an integral part of our path to achieving net-zero emissions. Joining Nature Action, among 190 of our peers, earlier this year represents a true shift in the way the financial industry is incorporating biodiversity risks.

Siobhan Archer, Global Stewardship Lead

Empowered by the robustness of our data analysis, in 2022, we launched a comprehensive stewardship programme, with biodiversity as one of our action pillars. Actions have included:

- **Signing the Finance for Biodiversity Pledge.** The pledge was launched to support action and collaboration among financial institutions to reverse nature loss. Very few wealth managers or private banks have committed to the actions as yet, and LGT was one of the first to show such a strong commitment.
- **Joining Nature Action 100.** Nature Action 100 is a collaborative initiative whereby members engage with companies that do not yet take biodiversity into consideration and help them improve their practices.

## Our stewardship in action: biodiversity

Biodiversity is a relatively new area for investors and shareholders, with many only just beginning to map their impact and dependencies on nature.

Procter & Gamble (P&G) is a consumer goods company that produces commonly used products like Bounty kitchen roll, Charmin toilet paper, Always period products and Pampers for babies, which are all products highly dependent on natural resources like forests.

During 2022, **Friends of the Earth**<sup>10</sup> filed a notice urging shareholders of P&G to oppose the re-election of three board members for insufficient action on deforestation. Last year, we had voted against the re-election of one of these board members, Angela Braly, for her lack of commitment on deforestation as chair of the Public Responsibility Committee, as well as her conflicting role on the board of ExxonMobil (an oil and gas company).

We engaged Nature Alpha, a leading biodiversity data provider, to crosscheck the claims by Friends of the Earth and, using geospatial data and supplier location coordinates, it was clear that P&G's supply chains were having an impact on Canadian primary forests and the Indonesian rainforest's size and species density. Forests play an important role in sequestering carbon to protect against global warming and allowing for biodiversity. Following this analysis, we decided to vote against Angela Braly's reappointment to the board, as well as the board's chairman and CEO, Jon Moeller and Patricia Woertz respectively.

<sup>10</sup> See appendix



# The role of commodities within the energy transition

Commodities play a pivotal role in the energy transition. Historically, however, miners of such strategic minerals have caused significant damage to sites of cultural importance and, in numerous global regions, have engaged in the extraction of materials using both forced and child labour. It is therefore essential for us to understand these supply chain risks, whilst ensuring that the companies we are invested in leverage their influence to progressively steer extraction within the commodity market towards greater sustainability.

## Political risks and energy security

The challenge primarily stems from the geographical locations where crucial materials are sourced. A considerable portion of the minerals essential for advancing the energy transition originates from politically unstable regions. For instance, 70% of global cobalt mining occurs in the Democratic Republic of the Congo, South Africa is a major source of platinum, and the majority of the world's copper is extracted from Chile. This poses a significant concern for investors; addressing it requires international cooperation.

A further issue is that one specific nation, China, holds a predominant position in the processing of crucial materials. China is responsible for processing 40% of the world's copper output, 60% of lithium, 70% of cobalt and over 80% of rare earth elements.

As we consider the future, the quest for energy security extends beyond reducing reliance on Russian gas and building renewable energy infrastructure. It must also involve securing the essential resources crucial for these transformative technologies. The substantial surge in demand for commodities required in facilitating this transition prompts essential considerations. Can these commodities be sourced in an environmentally and socially responsible manner? An insufficient supply would undoubtedly impede the transition's progress, prompting us to critically assess the repercussions of poorly managed production and determine at what cost we are willing to bear such consequences.

Whilst critics of the green transition are quick to pick up on the level of mining, continuing on a fossil fuel-based economy will be 535 times more intensive from a mining perspective than proceeding with the critical minerals for renewables route.<sup>12</sup>

## China's domination of strategic metal processing<sup>11</sup>



<sup>11</sup> [www.distilled.earth/p/a-fossil-fuel-economy-requires-535x](https://www.distilled.earth/p/a-fossil-fuel-economy-requires-535x)

<sup>12</sup> [oec.world/en/blog/green-shift-how-renewable-energy-is-powering-a-global-trade-revolution](https://oec.world/en/blog/green-shift-how-renewable-energy-is-powering-a-global-trade-revolution)



## Our stewardship in action: Mining for a low carbon transition

### Mining 2030

The Global Investor Commission on Mining 2030 is a collaborative investor-led initiative. It recognises the mining industry's important role in the transition to a low carbon economy and considers key systemic issues faced by the mining sector that currently challenge, or could challenge, existing good practice and the sector's social licence to operate. LGT joined as a Commission Investor Supporter in May 2023, to champion the work of the initiative in meeting the needs of society and the low carbon transition.

### Rio Tinto

As one of our highest financed emitters, mining giant Rio Tinto is high on our agenda in terms of decarbonisation. At the same time, mining as a sector is a solutions provider to many of our climate change problems, as the supplier of the critical minerals needed for renewable energy components and technological devices. Following a disappointing climate transition plan at their 2022 AGM, LGT voted against the proposal for lack of scope three targets and insufficient shareholder oversight as they planned to only invite votes every three years.

We met with company representatives earlier this year to discuss their progress on their net-zero commitment and any plans to validate targets through external bodies like the Science-Based Targets Initiative. We also discussed prospects for increasing the proportion of green steel in their production. Green steel is made using hydrogen-based reduction instead of coal which eliminates the carbon emissions from the traditional blast furnace process. The miner reassured us of their goals to increase the shares of green steel as part of their decarbonisation efforts and discussed plans in place to set up further power purchasing agreements in Australia.

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LGT Wealth Management is proud to support the launch of Mining 2030. This important initiative represents an integral sector which is leading the supply of essential components for the low carbon economy. Mining is at the intersection of both sustainable and traditional investors' interests and portfolio holdings. A necessary shift towards more sustainable practices will be crucial for a just transition.

Sanjay Rijhsinghani, Chief Investment Officer



# Approaching net zero

From 2030, LGT's global operational emissions and those stemming from our own investments will be compensated and reduced to net zero.

This commitment entails acquiring offsetting capacity at a scale reaching hundreds of thousands of tonnes of CO<sub>2</sub> in 2030 and beyond. Similar to our requirements, there is a very strong global demand for different types of offsetting solutions. Correspondingly, there is a booming industry and investment sector linked to this growing and accelerating need.

The path to net zero is not easy. We can only achieve our ambitious goal if we regularly scrutinise our actions and constantly adapt our measures – and if we know where we can make improvements. To this end, we are continuously improving data quality and expanding our database. In addition, we voluntarily apply standards that commit us to transparent reporting, including an annual report in accordance with the standards defined by the Task Force on Climate-Related Financial Disclosures.

Ensuring that the offsetting capacity is high-quality, affordable, available and respects and enhances the natural world for the long term is a big challenge and requires an innovative approach. Given the very dynamic and evolving nature of this market, we will closely monitor the market as it develops. We are aware that we face some challenges in setting up and implementing a strategy to offset at scale on an annual basis in a way that is affordable and high-quality. The instruments we consider will provide the necessary offsetting capacity are carbon credits from the voluntary carbon market, as well as emission permits from mandatory carbon markets.

## Voluntary carbon market (VCM)

This is a financial market where participants buy and sell carbon credits. One credit equals one tonne of CO<sub>2</sub> and buyers use them to offset emissions. Un-

### Net-zero challenges include:

**Supply security** To ensure we can deliver on our net zero 2030 commitment, alongside the rising demand in high-quality carbon credits, our aim is to secure offsetting capacity in advance. Therefore, we are closely monitoring the market and the available tools to build a portfolio which is diversified in terms of suppliers and time horizon of delivery.

**Moving target** The exact offsetting capacity we need on an annual basis in 2030 and beyond is dependent on a multitude of factors, including the growth of LGT, our emission reduction efforts and emission data availability, amongst others. We will therefore utilise all available data points to make predictions as accurately as possible and on a regular basis. Processes to prevent undersupply and to handle oversupply will have to be established.

**Greenwashing risk** Frameworks around climate-related claims such as net zero or quality standards for carbon credits are in development. We consistently monitor relevant publications, adapt our claims and approach accordingly and communicate transparently.

As of today, LGT has purchased VCM carbon credits equal to its operational emissions since 2010. Furthermore, we have entered into two forward contracts to source technological carbon removal credits through Clime-works and Net Gen CDR Facility. We have also established the necessary access and platform to participate in selected mandatory carbon credit markets (e.g. UK certificates, EU Emissions Trading System) via corresponding forward instruments. See the Appendix for further details.

like the mandatory carbon markets, the VCM is not subject to governmental supervision. However, that does not mean that the market is unregulated. A carbon credit undergoes multiple stages of validation and verification involving various stakeholders before it can be sold, contributing towards the credibility of the carbon mitigation results. Despite this rigorous process required before the issuance of carbon credits, recently some players in the VCM have been

the subject of negative press. Journalists and carbon credit rating agencies such as Sylvera or BeZero assess that some of the certification standards' methodologies fail to properly ensure at least one of **durability**<sup>11</sup> requirements, **additionality**<sup>12</sup> or **robust quantification**.<sup>13</sup>

LGT applies a cautious and rigorous approach when assessing and selecting specific VCM offsetting instruments. In the future, compliant projects should be labelled to make the market more transparent for quality-conscious buyers. In the meantime, LGT will critically judge projects and subject all the players involved to our due diligence process before purchasing carbon credits.




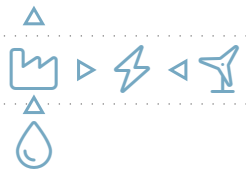
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We are excited about the future and continuing to meet our clients' objectives in a positive and sustainable way that will add value, in every sense, for future generations.

Ben Snee, CEO

<sup>11, 12, 13</sup> See appendix



Project types within the Voluntary Carbon Market

	Removal Negative emissions	Avoidance Prevention of emissions	
Nature-based	e.g. Afforestation (Growing trees)	e.g. Forest conservation (Mature trees)	Atmosphere
			Land
			Lithosphere
Technological	e.g. Direct air capture and storage (DACS)	e.g. Wind energy	Atmosphere
			Land
			Lithosphere

**Nature-based removal:** CO<sub>2</sub> is removed from the atmosphere through photosynthesis and stored in biomass. Examples include afforestation where the carbon is stored in the growing tree or enhanced soil carbon where agricultural practices are adapted to store more carbon in the soil. These solutions are cheap to implement and often bring additional environmental benefits, such as promoting biodiversity. However, the durability of the removed carbon is determined by the fate of the biomass. For example, in afforestation, the removal is quickly reversed if the trees are harvested and processed or catch fire.

**Nature-based avoidance:** While afforestation is a prime example for nature-based removal, an example for nature-based avoidance is forest conservation. With this type of project, the expectation is not for the forest to remove more carbon from the atmosphere, but to continue to store carbon in its roots and stem. In cases where an area of primary forest is threatened by deforestation, a forest conservation project would purchase and protect the land, thereby avoiding emissions relative to a baseline scenario, in which the trees would have been cut down. While carbon credits generated from forest conservation projects are low cost, they have become subject to public criticism. Project developers have been accused of assessing deforestation risk in the baseline scenario to be too high so they can sell more carbon credits.

**Technological removal:** Solutions include:

- Direct air capture and storage (DACS) which filters CO<sub>2</sub> directly from the air and stores it geologically
- Biochar where charcoal is produced directly from biomass
- Bioenergy with carbon capture and storage (BECCS) where CO<sub>2</sub> is stripped from the flue gas when biofuels are burned

While these solutions are still at an early stage and expensive to implement, they are more scalable and the carbon is safely stored for thousands of years.

**Technological avoidance:** In this instance, future CO<sub>2</sub> emissions are avoided relative to a baseline scenario through the implementation of technology. Examples include:

- Renewable energy projects where emissions are avoided through the substitution of fossil fuel-based electricity
- Waste treatment plants in the developing world which prevent the emission of methane and other highly potent greenhouse gases

There has also been criticism levelled at these types of projects, in that economic incentives might have led to the implementation of these projects anyway.





# Appendix and glossary of terms

## Initiatives arising from COP 28

**Mangrove Alliance for Climate (MAC):** The alliance, launched during COP 27 and spearheaded by the UAE in partnership with Indonesia, aims to restore and protect 15 million hectares of mangroves globally by 2030. 30 countries became members of MAC at COP 28; the initiative looks to shine the spotlight on mangroves as a nature-based solutions to combat climate change, taking total membership to 37, covering more than 60% of the world's mangroves.

**High-Level Ocean Panel for a Sustainable Open Economy:** This global initiative builds momentum towards a sustainable ocean economy with the aim to develop an action agenda underpinned by sustainably managing 100% of national waters. Launched in 2018, now a group of 18 countries, together representing 50 percent of the world's coastlines, announced the membership of the Organisation of American States at COP 28.

**The Forest Carbon Results and Credits roadmap:** Launched by 15 countries, outlining a strategy to increase investment in forest carbon results and credits.

## LGT's carbon removals approach

**Climeworks:** The Swiss company and ETH spin-off is at the forefront of scaling up DACS carbon removal. LGT has sourced 9000 tonnes of CO<sub>2</sub> to be delivered between 2025 and 2029.

**Next Gen CDR Facility:** Founded by South Pole, the Swiss carbon finance consultancy, Next Gen aggregates demand for technological carbon removal and sources carbon credits generated by a portfolio of early-stage developers at a blended price of US\$200/tCO<sub>2</sub>. LGT expects to source removal credits worth multiples of ten thousand tCO<sub>2</sub> from this agreement.

## Glossary of terms

**Additionality:** Carbon mitigation would not have happened without the purchase of the carbon credit. To be additional, projects must demonstrate that the removal/avoidance goes beyond the baseline scenario and that the project would not have been implemented without the carbon finance.

**Avoidance:** Emission avoidance projects prevent future emissions of CO<sub>2</sub> relative to the most likely course of action – the baseline scenario. Both nature-based and technological solutions exist to achieve that goal.

**Durability:** As emitted CO<sub>2</sub> remains in the atmosphere for over 100 years on average, carbon mitigation proclaimed by projects must be durable. That means removed carbon should not be reversed within at least 100 years and avoided emissions should be avoided and not just postponed.

**Friends of the Earth:** The global charity campaign on the most urgent environmental and social issues happening today. There are 75 national members who collectively work to ensure environmental and social justice.

**Geospatial technology:** Technologies and modern tools used to analyse the earth and human societies, and enable geographic mapping.

**Key Biodiversity Areas:** These are the most crucial areas in the world for species and their ecosystems. These areas contribute significantly to the planet's biodiversity and we need to focus our efforts globally on conserving the places that matter the most.

**Mangroves:** A shrub or tree that grows in coastal or brackish unique water. Their ability to take in extra oxygen and remove salt allows them to tolerate conditions that would kill many other plants.

**Modern slavery:** Slavery occurring in present day society which can affect men, women and children from the UK or abroad. The term encompasses a range of exploitative practices including forced labour, child labour, organ harvesting, human trafficking and forced criminality.

**Nature-based:** Projects which enhance nature's ability to remove or store carbon without the use of technology.

**Removal:** Carbon removal projects utilise processes whereby CO<sub>2</sub> is removed from the atmosphere and durably stored in another sphere such as land, ocean, the lithosphere or a long-lived product. Removals are also called negative emissions, because it is the reverse process of emitting CO<sub>2</sub> into the atmosphere. Removal processes are either nature-based or technology-based.

**Robust quantification:** All GHG emissions throughout the value chain of the project as well as any potential leakage of emissions should be accounted for.

**Technological:** Projects which utilise technology for carbon removal or avoidance.

**Vertical farming:** Cultivating crops using vertically stacked layers rather than traditional horizontal methods such as fields or greenhouses.



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We recognise the importance  
that both nature and biodiversity  
play in underpinning the vital  
ecosystem services that form the  
foundation of our economies.

Phoebe Stone, Partner and Head of Sustainable Investing

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