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INSTITUTE FOR
SUSTAINABILITY LEADERSHIP

Climate and Nature: **A Route to Mutual Acceleration**

NATURE
POSITIVE 

Climate and Nature: A Route to Mutual Acceleration



Introduction

The words ‘consensus’ and ‘climate’ have historically been rare bedfellows. This is changing. Climatologists signalled the way first, arriving at broad agreement over the causes and trajectory of global heating. Policymakers and businesses are following suit, jointly committing to radically cut emissions and quickly decarbonise the economy.

We know the ‘why’: no-one benefits from a broken planet. We are familiar with the ‘by when’: by mid-century at the latest, but starting now. Where debate now lies in on the ‘how’. How do we secure the future of our planet and prevent average temperature rise climbing above 1.5 degrees Celsius by 2050?

What is becoming clear is that the answer to this question cannot focus on mitigating emissions alone. There is increasing recognition of the contribution of nature to meeting our common desire for a cleaner, greener, more prosperous planet.

With each passing year, this vision of a healthy planet is becoming more fragile. Earth’s natural capital reserves are not just shrinking. They are entering into deficit. Our challenge is therefore not just to conserve what is left. We also need to restore what has already been lost.

More of the same will not work. We need to change tack and adopt a radically different approach – one guided by new thinking and incorporating new players.

The timing for a such a shift is propitious. Last year, the world’s governments agreed a new global goal, including its commitment to protect 30 per cent of the planet for nature by 2030. The appetite for action and innovation is high. The window to act is now.

Enter the climate agenda. The drive to reduce global greenhouse gas emissions has released a flood of innovation in recent years. We are seeing new business models, new breakthrough technologies, and new progressive policies, all of which are converging in interesting and unexpected ways.

Lessons

The lessons for those working to advance the cause of nature are multiple. Most obvious is the opportunity for fresh ideas and novel interventions for the protection and restoration of the planet's biodiversity. Climate-based solutions can aid nature, just as nature-based solutions can aid the climate. The two feed into one another.

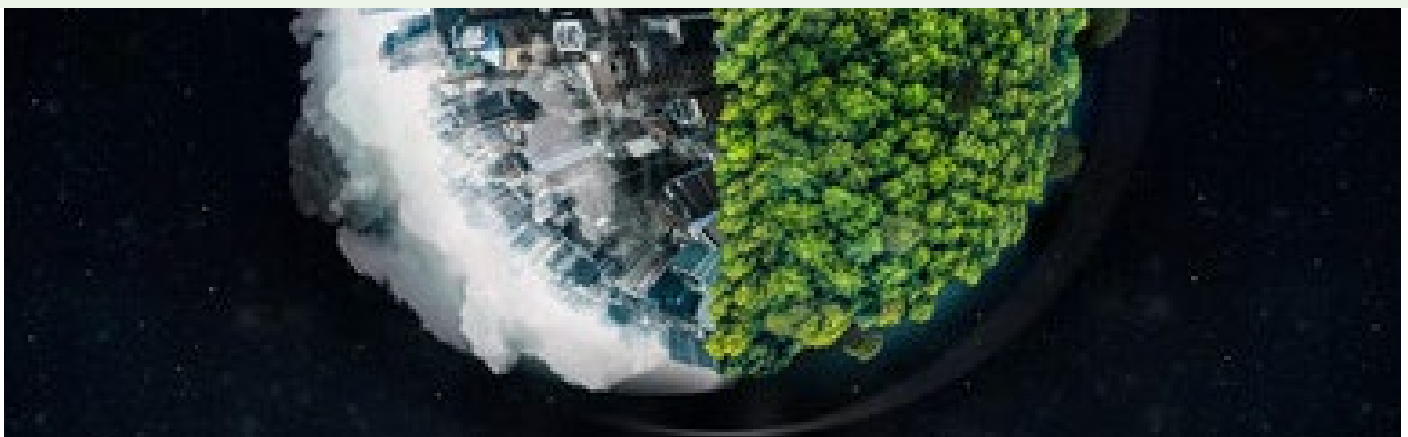
Another critical lesson of the climate movement is its focus on opportunity. Climate solutions are presented not just as a means of curbing emissions; they represent the foundations for a transformation of the global economy, opening up new industries and generating new jobs.

Nature needs a similar opportunity-focused vision, one that will excite the financial markets and mobilise the capital that drives change at scale. Innovators in smart, sustainable farming present one such example. But what are the others? What are nature's other equivalents of smart energy storage or electric transport, of renewable power generation or zero-carbon housing? At present, it is impossible to say.

Breaking down divisions

At CISL, we believe that opportunities for collaboration and joint action between the respective fields of climate and nature have gone untapped for too long. Breaking down the historic divisions between the two is instrumental to the success of both. The act of bringing together different actors in pursuit of a shared goal is a tried and tested route to fresh thinking and innovation.

A liveable planet, in which people, business, and nature can thrive, provides that shared goal. There is no goal greater nor more pressing. So, how can we combine climate and nature to turn this vision into a reality?



Where we stand and what we know

It is important to start with where we are at and what we already know. So where do we currently stand?

1. Nature underpins the functioning of society and the economy – but it is in crisis, it's urgent and it's getting worse

Current extinction rates of species are higher than the average at any time in human history. Around one million species are currently at risk of extinction. Biodiversity loss and ecosystem collapse is considered the fourth-highest global risk currently facing humanity, second only to climate-related risks¹. In fact, the situation has now reached such dramatic levels that many biologists are talking of the Sixth Great Extinction.²

The immediate and obvious cost for our mismanagement of nature is the world's wildlife. Extinction is permanent. Once a species is gone, it's gone. Habitats, too, are often difficult, if not impossible, to replace once they are destroyed. Nearly two-thirds (64 per cent) of the world's tropical rainforests have been destroyed over the last couple of centuries.³ Taking thousands of years to grow, these incredibly rich natural biomes are effectively gone for good.

But the knock-on costs to society and the global economy are of a staggering order of magnitude. Currently, about 50,000 wild species of animals, plants and fungi are used for food, energy, medicine, material, and other purposes.⁴ Healthy natural systems also provide vital services such as pollination and soil health for food crops, and clean water. Collectively, these services support the well-being of everyone and bolstering national and international economies. As the variety of species – biodiversity – decreases, so will prosperity and well-being levels inevitably decline.

The world could not function were the natural ecosystems that underpin pollination, carbon sequestration, fisheries, and timber to disappear. We are not there yet, but the degradation of these ecosystems is happening at a worrying rate. Under current rates, the global economy is set to lose \$US2.7 trillion as soon as 2030.⁵ The effects on the Global South are predicted to be particularly acute. Sub-Saharan Africa and South Asia would see their real GDP reduce annually by 9.7 per cent and 6.5 per cent, respectively. Notably, such devastating impacts come on top of the humanitarian costs already being felt in these regions by droughts, heatwaves, and other climate-related phenomena.

Physical impacts from the degradation of nature are the most obvious financial risk facing businesses, but they are not the only one. As CISL's extensive work on nature-based risk reveals, companies also need to be aware of nature-related risks linked to transition and liability.⁶ These risks can manifest themselves in pricing of externalities, the stranding of key assets, and the volatility of raw material prices, among other knock-on effects – all of which carry serious potential implications for companies' liquidity, access to credit, and future profitability.

2. Human action is the cause of this crisis – and the only solution to it

Our actions have caused the current ecological crisis. Pointing the finger elsewhere flies in the face of science. The overwhelming consensus among the global scientific community is that today's unprecedented pace of biodiversity is the fault of one species: *homo sapiens*.

While humans are not solely responsible (invasive species and disease also play a role), the correlation between biodiversity loss and global industrial expansion is stark and unavoidable. Since the 1970s, for instance, monitored populations of mammals, birds, amphibians, reptiles and fish have seen a devastating average drop of 69 per cent.⁷ In Latin America and the Caribbean, the precipitous pace of decline is even worse, at 94 per cent.

This causal link has a combination of drivers including:

- Modern industrial agriculture, the growth of which has led to massive deforestation, soil degradation, environmental pollution, and other forms of land-use change.
- Our overexploitation of natural resources, through overfishing, overhunting and overharvesting, as well as non-circular economy supply chains.
- Anthropogenic climate change - resulting warming of global temperatures and changes to rainfall patterns alter species ranges as well as disturb the underlying water and chemical cycles on which species depend.⁸

1 World Economic Forum (2023) "The Global Risks Report 2023: 18th edition"

2 Kaiho, K. (2020) Extinction magnitude of animals in the near future. *Scientific Reports*, 12, 19593. <https://doi.org/10.1038/s41598-022-23369-5>

3 Rainforest Foundation Norway. (2020). The State of the Tropical Rainforest. https://d5i6is0eze552.cloudfront.net/documents/Publikasjoner/Andre-rapporter/RF_StateOfTheRainforest_2020.pdf?mtime=20210505115205

4 IPBES (2023) Assessment report on the sustainable use of wild species. <https://www.ipbes.net/sustainable-use-assessment>

5 World Bank (2021) The Economic Case for Nature: A Global Earth-Economy Model to Assess Development Policy Pathways. <https://openknowledge.worldbank.org/handle/10986/35882>

6 CISL (2021). Handbook for nature-related financial risks: key concepts and a framework for identification. <https://www.cisl.cam.ac.uk/system/files/documents/handbook-for-nature-related-financial.pdf>

7 WWF (2022) Living Planet Report 2022. <https://www.worldwildlife.org/pages/living-planet-report-2022>

8 Johnson, C. (n.d.). "Past and future decline and extinction of species." The Royal Society. <https://royalsociety.org/topics-policy/projects/biodiversity/decline-and-extinction/>

- Pollution from non-agricultural activities.
- Land-use change from development.
- Extraction of minerals.

The central role of humans in biodiversity loss places a moral responsibility on us to reverse what we have started. Doing so is also in our self-interest. Humankind does not stand apart from nature. We too are a species dependent for our survival on the ecosystems that support all life. Nature preservation, in this sense, is self-preservation. Importantly, we are also the only species equipped to rectify the current nature crisis. We have the understanding of what is needed. We have the capacity for coordinated action that is required. And we have the political will and popular appetite that is necessary for success.

Restoring nature will not be easy. The scale of the challenge is huge and should not be underestimated. At the same time, the size of the challenge should not trap us in inaction. We do not need to be intimidated. Change is possible. We know that because it is already happening. A growing list of effective examples are now emerging. These serve as a demonstration of the kind of innovation, creativity, and shift in mindset on which future success can and will be built. In the Global Biodiversity Framework, we also have a framework and timeline to guide our collective action. Business and governments know what needs to be done. We must halt and reverse biodiversity loss by 2030. A key part of doing that is constructing an economy that properly values and protects nature.⁹ Again, none of this is easy. But nor is any of it impossible.

3. We need to scale up and accelerate the path to transformative action

There is an urgent need to scale up action on nature in the short term. There is no future for business as usual. The pace of nature loss is showing few signs of slowing. With each passing year, irreversible tipping points get ever closer and our nature deficit grows. Only a fundamental transformation of the socioeconomic systems that govern our planet will secure us against rapid further nature loss and its associated impacts.

Recent years have seen no shortage of debate about the need to act, yet converting debate into concrete action has proved frustratingly slow. At long last, there are signs that this is changing. The signing of the Global Biodiversity Framework in 2022 marked a huge landmark moment. Similar to the Paris Agreement for climate, it has brought new impetus to the global fight to protect nature. In turn, the attention of national and regional policymakers is increasingly turning to the plight of nature.¹⁰

Alongside this political shift, the voice of business in support of nature action is growing ever louder. For example in the run-up to the UN Biodiversity Conference in December 2022, more than 400 business and finance institutions from 52 countries wrote a public letter urging governments to require companies to assess and disclose their risks, impacts and dependencies on biodiversity by 2030 (as per Target 15 of the Global Biodiversity Framework).¹¹ This group, which is coordinated by the Business for Nature coalition, is continuing to advocate for rapid implementation of the requirement by their respective national legislatures.¹²

Progressive businesses have also been at the forefront of the push to increase corporate disclosure of nature-oriented risks and opportunities. As first occurred in the climate field with the Taskforce on Climate-Related Financial Disclosures (TCFD), companies have recently come together to support increased transparency under the Taskforce on Nature-related Financial Disclosures (TNFD). Newly published disclosure recommendations and guidance from the TNFD will enable organisations to report and act on evolving nature-related dependencies, impacts, risks and opportunities.¹³ This information is critical to informing the decision-making processes of investors, ensuring that capital is deployed to viable projects with solid financial returns and high impacts for nature.

A trend among high-profile brands to use their marketing reach to raise public awareness of today's nature crisis and the actions that can be taken is also evidence. Through initiatives such as Nature Action 100, investors are also becoming more active in using their capital reserves to influence and accelerate corporate action on nature.¹⁴

9 Dasgupta, P. (2021) "The Economics of Biodiversity: The Dasgupta Review" p. 487 <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

10 For example, see the EU Nature Restoration Law. <https://www.corporateleadersgroup.com/news/business-nature-clg-europe-welcome-vote-result-nature-restoration-law>

11 See Business for Nature – make it mandatory campaign. <https://www.businessfornature.org/make-it-mandatory-campaign>

12 See: <https://trello.com/b/RN5aBUo8/make-it-mandatory>

13 Getting started with the TNFD Recommendations – TNFD

14 Action Nation 100 is a cross-sector initiative conceived by a group of investors. Its founding companies include: AXA Investment Managers, Columbia Threadneedle Investments, BNP Paribas Asset Management, Church Commissioners for England, Domini Impact Investments, Federated Hermes Limited, Karner Blue Capital, Robeco, Storebrand Asset Management, and Christian Brothers Investment Services. <https://www.natureaction100.org>

Six actions for business, government and financial institutions

Our efforts to address the crisis in nature work through **policy**, **finance**, and **business** as each is a critical lever of change for the sustainable economic system that we need to build. However, the most critical actions will require business, government, and financial institutions to collaborate in support of transforming our societies and economies.

Policy



1. Place nature at the heart of policymaking and regulation. Only by delivering effective stewardship of nature will policymakers be able to provide the security and prosperity that underpin people's livelihoods and sense of wellbeing. Strong policy incentives will be instrumental in determining the success of our efforts to revitalise nature.

At CISL, we leverage the influence of our private-sector partners and networks to lobby in favour of progressive, pro-nature legislation. This sends a strong market signal to policymakers, bolstering their case for change. For example, in the run-up to the recent EU Nature Restoration Law, the CISL-convened Corporate Leaders Group Europe (CLG Europe) joined with other business and investor networks in signing a public letter to the European Parliament's Environment, Agriculture and Fisheries Committees urging them to support this lynchpin legislation.¹⁵

Through CLG Europe, CISL contributes to discussions about policy formulation in Europe. Back in 2021, for example, CLG Europe published an extensive policy briefing on food systems, exploring how training, labelling, trade rules and a suite of other measures at policymakers' disposal could make European agriculture more sustainable and nature-friendly. Rooted in the goals of the EU Green Deal and other key EU commitments, the policy recommendations show how this more regenerative approach to farming would deliver for the planet while also creating 60 million jobs and \$1.1 trillion in economic opportunities.¹⁶

Additionally, through convening the UK Corporate Leaders Group (CLG UK), CISL contributes to discussions about policy formation in the UK, including through their position as a climate leader globally. CLG UK have informed the development of the UK's 2030 Strategic Framework for International Climate and Nature Action, which takes an integrated approach in seeking to keep 1.5°C alive by halving global emissions, building resilience to current and future climate impacts, and halting and reversing biodiversity loss. Measures that CLG UK called for include:

- Continue to negotiate to ensure governments with the resources contribute public finance; ensuring resources are set up to deliver the global goal of nature positive by 2030 and full recovery of nature by 2050.
- Ensure that by 2025 the share of international climate finance that is channelled to high quality nature-based solutions better reflects its 30% abatement potential, while catalysing private sector investments through Article 6 of the Paris Agreement.
- Fully engage with the Convention on Biological Diversity process to establish the Post-2020 Global Biodiversity Framework to ensure that Nature and its contributions to society are fully valued and accounted for and inform all relevant public and private decisions, including through market mechanisms and disclosure requirements for public and private sectors.

¹⁵ Other signatories to the letter included We Mean Business Coalition, World Business Council for Sustainable Development, CDP, One Planet Business for Biodiversity, and UN Principles for Responsible Investment, among others. For a full copy of the letter, dated 15 May 2023, see: https://www.corporateleadersgroup.com/files/clg_europe_letter_on_nature_restoration_-_commission_parliament_may_2023.pdf

¹⁶ CISL (2021). Policy Briefing: Towards a sustainable food future for Europe

Finance



2. Integrate nature into financial decision-making. The financial economy mirrors the real economy. By integrating nature into financial decision making (such as investment, lending and insurance), the real economy can begin prioritising nature protection and restoration. This integration can ensure capital is redirected away from destructive activities and towards those that restore and protect nature.

In collaboration with its investment and banking leadership groups, CISL has built the case for integrating nature into finance¹⁹, the rationale for broadening climate action to include nature and created the market leading Handbook for Nature-related Financial Risks.²⁰ CISL utilised this handbook to produce five use cases with financial institutions assessing and quantifying the risk posed by nature loss, from the equity value at risk along food value chains from land degradation to the credit risk water curtailment poses to heavy industry. Such use cases make the risks posed tangible to financial players.²¹

Insurers are also moving on nature.²² CISL's insurance convening platform, ClimateWise, developed a roadmap which charts a path for the insurance sector towards nature positive underwriting and explores the industry's role in supporting the transition of its clients towards a sustainable economy.²³ To put this into practice, CISL is embarking on a number of use cases with ClimateWise members that will assess the implication of specific types of nature loss to underwriting.

But we must not focus on risk identification alone. Paradigm shifts in how businesses and governments recognise the value of the services nature present a significant opportunity to the stewards of the natural world, from farmers to utility providers, to those further down the value chain that prioritise resilience and adaptation. Financiers can facilitate such a paradigm shift, and specifically reduce its friction. To this end, CISL has piloted experimental financial solutions such as data-for-benefits swap that showcased how trade finance can incentivise nature positive behaviour and evidence flow,²⁴ and led industry coalitions to create banking best practice around anti-deforestation policies.²⁵ It is vital that banks investors and insurers showcase how leadership in expectations (policies) and supportive financial mechanisms can deliver an evidencable nature positive more quickly.

Small steps across risk assessment and financial innovation are vital. Nonetheless, acting on these insights at pace needs there to be redirection of environmentally harmful subsidies, political leadership, and a shift to a future-focused and intergenerational mindset for investing.

Business



3. Integrate nature as a core component of business models, strategy setting and external

engagement. Thinking differently about their business models, will help companies to ensure they restore and protect nature rather than destroy it, building on an understanding that there can be no business on a dead planet. Thinking and acting differently takes courage. Why? Because it requires

businesses to go against the flow. It also calls on them to step into the unknown. CISL supports pioneer companies in this process of bold innovation. For example, CISL published a diagnostic tool to advance organisational understanding of nature-based solutions projects and accelerate their adoption and implementation within companies.¹⁷

CISL is an active part of the Business for Nature coalition, which has collaborated to develop the ACT-D framework for business action on nature: Assess, Commit, Transform, Disclose.¹⁸ This framework clearly sets out how businesses can and should approach nature, and broadly should involve:

- Assessing their impacts on the natural environment, looking at their dependencies and risks but also their opportunities to restore and protect natural resources. Assessing nature related risks will help contribute to businesses' future resilience.
- Committing to ambitious nature action, that includes nature restoration as part of a wider nature, climate and sustainability strategy.
- Delivering on this commitment will require deep, transformative action. Businesses should consider alternative models to ensure they restore and protect nature rather than destroy it, and as they act they must engage with local and regional stakeholders to increase public support and reputation, collaborating with civil society and making the case for policy action that can support their transformation.

After all of this, transparency around this action is essential, requiring disclosure of plans and actions. The TNFD Framework provides a clear guide for this.

¹⁷ For more on Decision Making in a nature positive world Decision-making in a nature positive world | Cambridge Institute for Sustainability Leadership (CISL)

¹⁸ See <https://www.businessfornature.org/high-level-business-actions-on-nature>

Collaborations for wider transformation



4. Support individual behaviour changes that allow everyone to live more in harmony with nature. Understanding the barriers individuals face in making everyday decisions that benefit nature, and how these can be overcome, requires joined-up thinking from policymakers and businesses to encourage behaviour that supports a nature positive pathway. CISL has worked closely with the business and policy communities to design solutions that unlock more nature-friendly practices. Take plastic packaging. Vast quantities of virgin plastic are currently being permitted to escape into our landscapes and waterways, causing major damage to fragile ecosystems. Human behaviour comprises an instrumental factor here. This problem is entirely preventable through collective interventions that present consumers with practical and easy-to-implement alternatives. In 2020, we presented a detailed set of actions for business and recommendations for government to help eliminate plastic waste.¹⁹ Importantly, the measures were supported by research that showed how circular solutions such as the increased use of recycled content would reduce material waste streams, thus creating cost savings – a logic all companies can understand and buy into.



5. Develop shared approaches to natural assets like land and water that allow them to be managed in a way that protects and restores thriving ecosystems and communities. Limited natural assets like land and water will be increasingly critical to meet people's growing needs. At the same time, however, their importance in terms of space for nature and biodiversity is also set to grow, as is their role in reducing climate change (rather than contribute to it as at present). Collaboration is key to managing our natural assets in a way that meets all these demands. Indigenous knowledge and the need to engage stakeholders including local communities in discussions around natural asset management is critical.

One area where CISL has been working for change over recent years is protect water catchment areas. In response to our Catchment Management Declaration, which we issued five years ago, we have been bringing together businesses from across sectors to tackle the collective challenge of water stresses through catchment management.²⁰ Involving governmental and voluntary-sector stakeholders at every step of the way, the initiative is leading to the creation of holistic, multiparty solutions for sustainable managing water catchment areas that work through nature and for nature.



6. Shift value chains and industries and supply chains to address the drivers of nature destruction. Economic production processes must be rethought to minimise impacts on nature, particularly in critical sectors such as fashion, food and agriculture, and water management.

Through our work with the Fashion Pact noted above we are supporting this sector, ensuring lessons can be captured and passed on to others following in their wake. This builds on our work with sectors like dairy²¹, cereal crops²², water²³ and key financial services sectors.

To support sector-level implementation, CISL has also worked with The Fashion Pact and Conservation International to create the first industry specific primer to navigate the new target-setting guidance from the Science Based Targets Network (SBTN).²⁴ This high-level primer provides an introduction to science-based targets for nature for companies in the fashion, apparel, and textile sector, enabling them to plan for an equitable and nature positive future. With input from Textile Exchange and the Science Based Targets Network, this primer provides an overview of science-based targets for nature; how companies in the fashion, textile, and apparel sector can go about setting targets; an illustrative case study; and immediate actions companies can take to address nature loss. Though targeted at one sector in particular, the primer is a practical tool for all companies to understand how they might go about applying the guidance from SBTN in their journey to address impacts on nature.

19 CISL (2020). Towards sustainable packaging materials. <https://www.cisl.cam.ac.uk/system/files/documents/towards-sustainable-packaging-materials-1.pdf>

20 For more on the Catchment Management Declaration, see: <https://www.cisl.cam.ac.uk/business-action/business-nature/catchment-leadership-network/catchment-management-the-declaration>

21 See Modelling better business: Nestlé trials natural capital premium with UK dairy farmers, Cambridge Institute for Sustainability Leadership (CISL) <https://www.cisl.cam.ac.uk/resources/natural-resource-security-publications/modelling-better-business-dairy>

22 See Enhancing Biodiversity in Europe's Oilseed and Cereal Industries, Cambridge Institute for Sustainability Leadership (CISL) <https://www.cisl.cam.ac.uk/resources/natural-resource-security-publications/enhancing-biodiversity-europes-oilseed-and-cereal>

23 See Modelling better business: Anglian Water's approach to valuing its land for biodiversity and preparing for net gain, Cambridge Institute for Sustainability Leadership (CISL) <https://www.cisl.cam.ac.uk/resources/natural-resource-security-publications/modelling-better-business-anglian-waters-approach>

24 See <https://www.cisl.cam.ac.uk/news-and-resources/publications/raising-ambition-nature-fashion-apparel-and-textile-sector-primer>

CISL's Agenda for Change

For CISL, with our mission to activate leadership for a sustainable economy, we are focused on how economic systems must be redesigned to work with nature by placing protection and restoration, rather than degradation and overconsumption, at their heart.

We also know that sustainability efforts to date have often focused heavily on climate change – and ignored wider environmental issues – but these issues are also urgent and significant. CISL is clear: we have to tackle the nature and climate crisis as one. We must set the bar high for meaningful action to achieve net zero while protecting and restoring nature.

Our focus is on providing policymakers, business and finance leaders, and decision-makers with the tools, safe spaces, insights, and rationale they need to set us on an irreversible trajectory to a more harmonious relationship with the natural world. We will work through both our existing influential partner organisations and our broader network, as well as seeking to bring in new partners, to amplify the impact of our work.

A model of business that delivers success for nature, the climate, and asset owners is well within the bounds of possibility... so let's come together to build it.

The University of Cambridge Institute for Sustainability Leadership

The University of Cambridge Institute for Sustainability Leadership partners with business and governments to develop leadership and solutions for a sustainable economy. We aim to achieve net zero, protect and restore nature, and build inclusive and resilient societies. For over three decades we have built the leadership capacity and capabilities of individuals and organisations, and created industry-leading collaborations, to catalyse change and accelerate the path to a sustainable economy. Our interdisciplinary research engagement builds the evidence base for practical action.

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