

# COP28 Briefing

In this briefing, we seek to show why private businesses and financial institutions are motivated to act on the climate agenda, and to indicate what they believe national governments could do to collaboratively accelerate real-world action. With this in mind, this report presents a selection of key policy ‘asks’ that are designed to unlock private sector ambition and galvanise their participation in delivering the Paris Agreement goals.

Business and finance leaders know that climate action is both essential and inevitable. Yet to be successful, they require clarity on the long-term direction of climate policy, plus an enabling environment to action these policies through investment and innovation. These base conditions are in the gift of political leaders at COP28. It is time for Parties to exercise that gift – and to inject the low carbon transition with a future-framing dose of new momentum.

## We want to:



**Ask 1:**  
Phase out  
fossil fuels



**Ask 2:**  
Take urgent  
1.5-aligned  
action



**Ask 3:**  
Consider  
nature and  
climate  
together in  
all decisions



**Ask 4:**  
Agree an  
ambitious  
and detailed  
global  
goal on  
adaptation



**Ask 5:**  
Scale up  
private finance  
for emerging  
markets and  
developing  
economies  
(EMDES)



**Ask 6:**  
Include risk-  
sharing  
mechanisms to  
operationalise  
the Loss &  
Damage fund

## While:



**Ask 7:**  
Placing  
people at  
the centre  
of decision  
making



**Ask 8:**  
Scaling up  
innovation  
alongside  
other  
measures

# Introduction

**2023 will see the holding of the 28th ‘Conference of the Parties’ to the United Nations (UN) climate change convention, or ‘COP28’ hosted by the United Arab Emirates (UAE) in Dubai. The UAE’s presidency has promised that COP28 will set out a clear roadmap for a “pragmatic global energy transition” and “inclusive climate action”. Neither goal is new. Both are rooted in the text of the Paris Agreement on climate action signed eight years ago. As the results of the Global Stocktake – a review of what countries have achieved on climate change – show, however, progress towards delivering on either goal has not been as fast as signatories to the landmark Paris accord hoped – nor as fast as the planet and its population of eight billion people urgently need.**

Unlike in 2015 when the Paris Agreement was struck, we now have a far clearer idea of the policies and actions that can accelerate progress towards an effective transition. COP28 presents an opportunity that Parties can simply not afford to miss to coalesce around solutions that are proven accelerators of change, and to bring these to a scale that will fundamentally reshape the global economy on climate-safe lines.

The years since Paris have also highlighted what does not work, as well as what does. Many hurdles to progress exist, but few if any are unresolvable. With the political will, anything is possible. Heads of state at COP28 need to issue a uniform, ambitious vision for delivering a 1.5°C future, leaving no-one in doubt about the pathway forwards.

This will involve making upfront decisions about where we are going. None are more undeniably required than the phasing out of fossil fuels. Our modern economy has been built around their ubiquitous consumption. Yet the science could not be clearer. Either we shift massively to renewable energy and other clean energy sources or we miss the Paris goals. Politically contentious as it undoubtably is to declare an end to fossil fuels, the time to do so is now, at COP28.

There also needs to be money on the table. For the ongoing credibility of international climate negotiations as well as the boost to on-the-ground climate action, COP28 needs to be remembered for the moment that the world's industrialised nations stood up and delivered on past climate finance pledges. Looking forward, Parties must work closely with traditional financial institutions and multilateral development banks to close the global climate finance gap. While efforts to scale up public financing are essential – particularly for developing country priorities like the Loss and Damage Fund – COP28 should also result in efforts to mobilise the trillions of available private finance, including tapping into capital markets for Loss and Damage through measures like risk-sharing.

Essentially we need to see the COP embrace an approach that situates climate change alongside wider issues and questions. We can only effectively deal with climate change if we equally focus on the collapse in biodiversity and design solutions to protect and restore nature as well as stabilise our climate. At the same time, for the climate transition to be deliverable it must bring people along with it – and a people-centric approach managing the costs and opportunities fairly is clearly necessary. Both of these issues come fundamentally to the fore when we look at how the world adapts to climate impacts – another subject that needs additional focus and engagement by the United Nations Framework Convention on Climate Change (UNFCCC) parties.

Another legacy of COP28 has to be a once-in-a-generation boost to another vital accelerator of climate action: innovation. Low carbon goods and services will form the bedrock of the green economy – an economy that promises millions of jobs and a healthier, more prosperous planet for all. But tomorrow's breakthrough solutions will not appear magically. Innovation is the product of highly focused national industrial strategies and research ecosystems that are structured to foster knowledge sharing and cross-sector collaboration.

The private sector is looking to political leaders for a clear sign of intent. More and more companies are now demonstrating their commitment to climate action by instigating and implementing their net-zero plans. Likewise, the finance sector is exhibiting ever greater interest in shifting capital at scale to climate solutions. As a major engine of productivity and economic opportunity, business is central to our transition to a low carbon economy.



# Ask 1. PHASE OUT FOSSIL FUELS

## What? Phase out fossil fuels

Fossil fuels remain by far the single largest cause of climate change, accounting for over 75 per cent of global greenhouse gas emissions and nearly 90 per cent of all CO<sub>2</sub> emissions.<sup>1</sup> Today, the use of coal, gas and oil is still baked into our economic system. Most electricity and heat currently produced relies on these carbon-intensive fuels. Likewise, the majority of the energy used in manufacturing, industry, agriculture and transport is derived from the burning of fossil fuels. While shifts to renewable sources of energy are occurring, they are not doing so quickly enough. The use of fossil fuels is too hardwired for a full transition to occur spontaneously. Success will require governments to unambiguously commit to phase out fossil fuels within the necessary timeline and with the support of national plans and policies designed to achieve this outcome.

## Why? Accelerating the transition

As the UN itself states declares, fossil fuels are “by far the largest contributor to global climate change”. Reducing and ultimately eliminating their use is therefore essential to achieve the Paris Agreement goal of a temperature rise of below 2°C. This transition must also occur in a way that is just and fair to workers, consumers and other affected parties (for more, see Ask 6). Failure to advance this scenario is the main reason that global greenhouse gas emissions are increasing, rather than decreasing. The share of fossil fuels in global energy consumption last year currently stands at 82 per cent, for example, which is unchanged from the year before.<sup>2</sup>

Defenders of fossil fuels argue that their continued use is essential for energy security – an argument that has gained traction since Russia’s invasion of Ukraine and the subsequent difficulties many European states faced in sourcing affordable energy. In some cases, this has led to governments promoting the licensing of new oil and gas fields (as in the UK)<sup>3</sup> or revitalising mothballed gas- or coal-fuelled power plants (as in Germany).<sup>4</sup> However, such moves run in stark contrast to the scientific projections on which government climate commitments are based – namely, the peaking of emissions by 2025 and their halving by 2030.

The connection between persistent fossil fuel use and the rising global temperature is not lost on either the wider public or the private sector. As delegates from all Parties convene for COP28, they do so against a backdrop of rising calls for the phase-out of fossil fuels. Citizen groups around the world, for example,

1 “Causes and Effects of Climate Change,” United Nations, accessed November 21, 2023, <https://www.un.org/en/climatechange/science/causes-effects-climate-change#:~:text=Fossil%20fuels%20-%20coal%2C%20oil%20and,of%20all%20carbon%20dioxide%20emissions>.

2 “Renewables growth did not dent fossil fuel dominance in 2022, report says,” Reuters, June 26, 2023, <https://www.reuters.com/business/energy/renewables-growth-did-not-dent-fossil-fuel-dominance-2022-statistical-review-2023-06-25/>.

3 “Hundreds of new North Sea oil and gas licences to boost British energy independence and grow the economy,” UK Prime Minister’s Office, July 31, 2023, <https://www.gov.uk/government/news/hundreds-of-new-north-sea-oil-and-gas-licences-to-boost-british-energy-independence-and-grow-the-economy-31-july-2023>.

4 “Germany to reactivate coal power plants as Russia curbs gas flow,” The Guardian, July 8, 2022, <https://www.theguardian.com/world/2022/jul/08/germany-reactivate-coal-power-plants-russia-curbs-gas-flow>.

have gathered behind calls led by the Pacific Islands for a Fossil-Fuel Non-Proliferation Treaty.<sup>5</sup> Designed on similar grounds as its nuclear namesake, the proposed treaty calls not only for an end to the expansion of fossil fuel production, but also an “equitable plan for [its] wind down”. Issuing a similar demand for a full and rapid phase-out is a group of 131 major companies organised by the We Mean Business Coalition and its members, including the University of Cambridge Institute for Sustainability Leadership’s (CISL’s) Corporate Leaders Groups. On the eve of the summit, the group, which represents nearly US\$ 1 trillion in global annual revenues, issued a first-of-its-kind public letter in which they called for “leadership from policymakers” in setting phase-out targets and timelines.<sup>6</sup>

By issuing a clear signal of intent at COP28, delegates can give new impetus to the UNFCCC process, proving that the goal of 1.5°C remains at the centre of the political agenda. Failure to do so, on the other hand, will feed the growing scepticism around the negotiation process, potentially undermining collective action in the future and severely delaying meaningful climate action. A strong perception exists that the Paris Agreement has been captured by national governments and large multinationals with vested interests in the continued use of fossil fuels. An ambitious phase-out commitment – ideally led by the hosts, the UAE, as an oil-dependent state – would do more to galvanise the global climate effort than any other single measure.

## Why? Business rationale

Those leading businesses that are calling for an end to the use and production of fossil fuels do so for three main reasons. First and most obvious are the enormous costs, both now and in the future, incurred by extreme climate-related weather events and gradual temperature rise. In the last 50 years alone, the number of such events has increased by a factor of five, causing billions of dollars in damages.<sup>7</sup> In 2022, estimates put the costs of such damage at £280 billion.<sup>8</sup> The negative impact on the economy will only increase if climate change remains unchecked, climatologists warn.

The source of these disruptive factors is excessive greenhouse gas emissions, which primarily derive from the burning of fossil fuels. Phasing out these fuels will not only make the future of humanity and the planet more secure, it will also stabilise the operating environment for economic production and trade. There is also a volatility to the costs of fossil fuels – relying on unequally distributed natural reserves and vulnerable global trade flows – that a renewable energy based system is likely to be less exposed to.

A second reason for business backing of a phase-out is the signal it provides for the market at large. Companies are constrained in their ability to transition away from fossil fuels by the in-built dependency on oil, coal and gas of today’s macro-systems – such as in energy, transport, industrial production and so on. To transform a global economic structure premised on fossil fuel use will require a herculean effort. The private sector has the resources to lead in this transition but it needs the security – and, in some cases, the threat – that comes from political leadership and regulatory requirements.

The third reason speaks to the question of ‘why now?’. Holding back previous calls to a phase-out has been the fear that the removal of fossil fuels would slow business activity and economic growth. The fossil fuel industry has pushed this argument hard in order to defend its continued existence. Yet the exponential rise of renewable alternatives over recent years means this position no longer holds water. Clean energy technologies are now sufficiently advanced and affordable to step into the gap left by fossil fuels. The notion that phasing out fossil fuels will stall the economy is therefore fundamentally misconceived. Indeed, over the long term, renewable fuels offer more energy security, not less. With the right transition plans and investment incentives, they can also expand the scope and overall capacity of energy production.

5 “It’s time for a Fossil Fuel Non-Proliferation Treaty,” Fossil Fuel Non-Proliferation Treaty, accessed November 21, 2023, <https://fossilfuel treaty.org>.

6 “COP28: Businesses Urge Governments to Phase Out Fossil Fuels,” We Mean Business Coalition, accessed November 21, 2023, <https://www.wemeanbusinesscoalition.org/cop28-businesses-urge-governments-to-phase-out-fossil-fuels/>.

7 “Weather-related disasters increase over past 50 years, causing more damage but fewer deaths,” World Meteorological Organization, August 31, 2021, <https://public.wmo.int/en/media/press-release/weather-related-disasters-increase-over-past-50-years-causing-more-damage-fewer#:~:text=The%20number%20of%20disasters%20has,deaths%20decreased%20almost%20three%2Dfold>.

8 Rebecca Newman and Ilan Noy, “The global costs of extreme weather that are attributable to climate change,” *Nature Communications* 14, no. 1 (September 2023): 6103, <https://www.doi.org/10.1038/s41467-023-41888-1>.

## How? Practical steps forward

A commitment to urgently phase out fossil fuels is not an end in itself. Better to think of it as the ‘starting gun’ for a new, super-accelerated phase in the race to establish a low carbon economy. Actions must be urgent and impactful. The race we now face is a sprint, not a marathon. Proven strategies now exist for first reducing our reliance on fossil fuels, and then replacing them altogether. Success in the race ahead rests on finding ways to ramp up these strategies massively.

### **1. Agree ambitious and detailed global goals on energy efficiency and renewable energy capacity.**

A staggering 60 per cent of energy is currently lost or wasted.<sup>9</sup> Robust, well-funded national plans to increase energy efficiency through measures such as property insulation and waste heat recovery are essential to rectifying this avoidable own goal. Parties should also spell out strategies to reach 100 per cent decarbonised power systems in the near term (ie by 2035 for advanced economies and by 2040 for other countries, at the latest).

**2. End fossil fuel subsidies.** Globally, governments currently spend an estimated US\$7 trillion (equivalent to 7.1 per cent of gross domestic product (GDP)) to support the cost of energy – a rise of US\$2 trillion since 2020.<sup>10</sup> More than four-fifths of this total is used to prop up the balance sheets of oil, gas and coal companies. Direct and indirect subsidies (eg payment for climate impacts and other external costs not covered in energy retail prices) for fossil fuels should be curtailed immediately and eliminated altogether soon after. Such government subsidies as are available should be shifted to support the expansion of the renewable energy industry.

**3. Decarbonise electricity generation, then electrify everything possible.** Setting a global target of tripling renewable electricity capacity to at least 11,000 GW by 2030 would galvanise the power sector’s long-standing – yet environmentally destructive – reliance on fossil fuels. At the same time, Parties should establish ambitious action plans for making fully electric systems that are currently heavily fossil fuel-dependent (eg transport, heating/cooling, heavy industry).

**4. Build out intra-linked and inter-linked power grids.** Power grids form the backbone of electricity distribution but today’s grid infrastructure needs to be overhauled to keep pace with the rapid growth of key clean energy technologies. An estimated 1,500 gigawatts of clean energy projects are currently at an advanced stage (five times the new solar and wind capacity added in 2022) – all of which will efficient connection to the grid in the very near future.<sup>11</sup> Integrating new renewable capacity will require rapidly expanding and strengthening grid interconnections within countries, between countries and across regions.

**5. Invest in storage.** The construction of modern, interconnected power grids should reduce the need for power storage in the coming clean-electricity era, but it will not eliminate it entirely. Parties must therefore make provision for investing in the development of innovative storage technologies and their subsequent roll-out.

**6. Innovate for hard-to-abate sectors.** Parties should do everything within their means to phase out fossil fuels and shift to 100 per cent clean energy sources. As this transition process unfolds, options for solutions such as hydrogen or carbon capture may well be needed for so-called ‘hard-to-abate’ sectors such as heavy industry, aviation and shipping. Innovation and pragmatic focus will be needed to secure the most efficient and timely route to change in these sectors.

9 Olivier Blum, “Curbing energy waste is the first step to solving the energy crisis,” Schneider Electric Blog, November 7, 2022, <https://blog.se.com/energy-management-energy-efficiency/2022/11/07/curbing-energy-waste-is-the-first-step-to-solving-the-energy-crisis/>.

10 “Climate Change: Fossil Fuel Subsidies,” IMF, accessed November 21, 2023, <https://www.imf.org/en/Topics/climate-change/energy-subsidies>.

11 “Lack of ambition and attention risks making electricity grids the weak link in clean energy transitions,” IEA, October 17, 2023, <https://www.iea.org/news/lack-of-ambition-and-attention-risks-making-electricity-grids-the-weak-link-in-clean-energy-transitions>.

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**Rich nations have until 2034 at the latest to phase out oil and gas to give the world a 50 per cent chance of staying within the Paris goal of 1.5°C**

International Institute for Sustainable Development<sup>12</sup>

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## **Links to further reading**

Phasing Out Fossil Fuels (CISL)

Grace on Fossil Fuel Industry Ties (University of Cambridge, 2023)

Fossil to Clean (We Mean Business Coalition, 2023)

Fossil Fuel Non-Proliferation Treaty

<sup>12</sup> Dan Calverley and Kevin Anderson, “Phaseout Pathways for Fossil Fuel Production Within Paris-Compliant Carbon Budgets,” IISD, March 22, 2022, <https://www.iisd.org/publications/report/phaseout-pathways-fossil-fuel-production-within-paris-compliant-carbon-budgets>.



## Ask 2. TAKE URGENT 1.5-ALIGNED ACTION

### What? Take urgent 1.5-aligned action

All Parties attending COP28 who take their responsibility in terms of protecting their citizens, economies and the wider environment will need to contribute to the ambition loop and set their sights on policies and targets that will meaningfully work towards keeping temperature rise to a maximum of 1.5°C. The climate emergency is more evident than ever. Now is no time for half measures. The World Meteorological Organization puts a 66 per cent probability on the 1.5°C mark being passed within the next five years.<sup>13</sup> The urgency of radical action cannot be overstated.

### Why? A safer future

There is never any lack of flowing rhetoric at climate summits like COP28. Yet behind the speeches are indisputable facts that remain impervious to statements of ambition or promises of progress. Chief among these is the direction of travel. In the fight against climate change, we are losing. Since the signing of the Paris Agreement in 2015, the concentration of carbon dioxide in the atmosphere has increased from 399.4 parts per million (ppm) to 419.1 ppm today.<sup>14</sup> If we continue on this path, the central goal driving the entire COP process – namely, to keep the global temperature rise below a maximum of 2°C and ideally within 1.5°C – will be rendered redundant.

The short- and long-term effects of surpassing the 1.5°C target are well known. As the Intergovernmental Panel on Climate Change's (IPCC's) *Sixth Assessment Report* spells out, with the continued rise in greenhouse gas emissions, the probability of irreversible climate change and subsequent ecological breakdown grows exponentially.<sup>15</sup> The effects of these alterations are not restricted to the natural world. Accompanying them also comes a heightened risk of global hunger, mass migration, property damage, civil conflict and other highly worrying social impacts. Above 3°C and the implications for the environment and society become “disastrous”, European parliamentarians confirm.<sup>16</sup> Moreover, the further climate change advances, the harder it becomes to keep it in check. Once tipping points such as the melting of the polar icecaps and the heating of the oceans are passed, the trajectory of the planet's deteriorating stability becomes fixed. There will be no way back.

As defenders of the public good and protectors of their citizens' basic rights, Parties have an obligation to take meaningful action to prevent the existential threats that climate change poses. This will require standing up against vested interests that are urging for a continuation of the status quo or, at best, incremental transition measures over an extended period of time. In addition, Parties need to take steps to defend the integrity of the UNFCCC process.

13 WMO, “Global temperatures set to reach new records in next five years,” press release, May 17, 2023, <https://public.wmo.int/en/media/press-release/global-temperatures-set-reach-new-records-next-five-years>.

14 “Latest Daily CO<sub>2</sub>,” CO<sub>2</sub>.earth, accessed October 2023, <https://www.co2.earth/daily-co2#:~:text=416.01%20ppm&text=This%20table%20presents%20the%20most,Source%20%3D%20NOAA%20GML>.

15 IPCC, Sixth Assessment Report, Climate Change 2022: Impacts, Adaptation and Vulnerability (IPCC, 2022), <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>.

16 European Parliament, “The effects of climate change on human rights and the role of environmental defenders on this matter,” Official Journal of the European Union (2022) P9\_TA(2021)0245, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021IP0245>.

## Why? Business rationale

Taking action to keep the global temperature within a 1.5°C threshold is not just beneficial for the planet and wider society, it also delivers manifest benefits for business. Companies around the world report a growing concern about the effects that climate change is having, and will have, on their operations. A recent survey of chief executives by professional services firm PwC found that more than half of respondents anticipated some form of climate-related issue negatively impacting their company within the next five years.<sup>17</sup> Such concerns recently led 131 companies, representing nearly US\$1 trillion in global annual revenue, to sign a public letter reaffirming their support for halving global emissions by 2030 and calling on governments to implement their national climate “without delay”.<sup>18</sup>

Many will not have to wait that long. The European Environment Agency, for example, estimates that the EU has experienced economic losses worth €45 billion (US\$159 billion) due to climate change-related events over the last decade.<sup>19</sup> The alert echoes findings from Lloyd’s of London, which recently called for “urgent” investment in risk modelling. The call comes on the back of US\$50 billion in estimated weather-related losses for the global insurance sector in the first half of 2023.<sup>20</sup> Losses on this scale have led some in the industry to speculate that some high-risk assets, such as coastal properties and industrial facilities, may become uninsurable in the medium- to long-term future.<sup>21</sup> The insurance industry is therefore in the vanguard of discussions about building greater climate resilience within the financial sector;<sup>22</sup> for now, however, progress towards this goal remains slow.

The concern among businesses about the negative effects of climate change explain why a growing number of companies have adopted science-based climate targets over recent years. As the name suggests, these targets are modelled on what the latest science indicates are emission reductions necessary to keep a company’s carbon inventory within a 1.5°C scenario. It is incumbent on Parties to undergo a similar exercise for their individual national economies. Part of this process should include obliging companies that do not yet have science-based targets to adopt them. This will level the playing field and open up the opportunity for collaborative climate action across industries and within global supply chains.

As well as helping prevent a climate catastrophe, 1.5-aligned actions by Parties will set in motion an economic transition in which ever-greater demand exists for low carbon and zero carbon products and solutions. Companies that have invested early in renewables, electrification and other climate-friendly technologies and services are already reaping the business benefits. A survey by professional services firm EY, for instance, recently found that nearly 70 per cent of the more than 500 global companies it surveyed were generating better financial returns on climate-focused investments than they initially expected.<sup>23</sup> Those firms taking the boldest steps also report unexpectedly positive benefits in areas like staff retention, recruitment, brand perception and customer purchasing behaviour. Bold action by Parties to realise a 1.5°C-aligned future will inspire many more such positive examples of climate-led business success.

17 “PwC’s 26th Annual Global CEO Survey,” PwC, accessed November 21, 2023, <https://www.pwc.com/gx/en/issues/c-suite-insights/ceo-survey-2023.html>.

18 “COP27: Business And Civil Society Is All In For Delivery,” We Mean Business Coalition, November 12, 2023, <https://www.wemeanbusinesscoalition.org/cop27-all-in-for-one-point-five/>.

19 “Losses from climate change: €45 billion in a decade,” Eurostat, October 24, 2022, <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20221024-1>.

20 Ian Smith, “Lloyd’s of London warns insurers climate-related pain is still to come,” Financial Times, October 23, 2023, <https://www.ft.com/content/44cc0731-e863-468a-a6b7-f55e4d28e90d>.

21 Nick Kounis, “Are extreme weather events becoming ‘uninsurable’?” ABN Amro, September 13, 2023, <https://www.abnamro.com/research/en/our-research/are-extreme-weather-events-becoming-uninsurable>.

22 The ClimateWise Insurance Advisory Council, an industry coalition co-ordinated by CISL, provides an illustrative example of collective action among large insurers around the sector’s role in promoting the zero carbon, climate-resilient transition. For more on the Council, see: <https://www.cisl.cam.ac.uk/business-action/sustainable-finance/climatewise/the-climatewise-insurance-advisory-council>.

23 Steve Varley, “How can slowing climate change accelerate your financial performance?” (EY Sustainable Value Study) EY, November 2, 2022, [https://www.ey.com/en\\_gl/sustainability/how-can-slowng-climate-change-accelerate-your-financial-performance](https://www.ey.com/en_gl/sustainability/how-can-slowng-climate-change-accelerate-your-financial-performance).

## How? Practical steps forward

**1. Leverage the Global Stocktake.** One of the distinguishing and much-anticipated elements of COP28 is the publication of the *Global Stocktake*.<sup>24</sup> Only published every five years, the stocktake provides Parties and the wider public with an assessment of progress towards achieving the Paris Agreement's 1.5°C goal. In addition, it serves as an inventory of what actions have been taken – by individuals, sectors, regions and actors – and what impacts these have (or have not) had on reducing emissions. To this end, the stocktake serves as an opportunity for Parties to identify gaps that need to be urgently addressed, and high-impact policies and practices that need to be encouraged. They should maximise its potential on both fronts to increase ambition, action and accountability. COP28 should recognise the urgent warning from the stocktake and include steps to accelerate the pace of action.

**2. Provide an ambitious, clear and stable policy framework.** Nothing upsets ambitious, long-term business action on climate more than political uncertainty. Companies are used to working in volatile environments. Consumer tastes change, new markets open up, unexpected competitors emerge. Successful companies can pivot quickly and adjust to such changing circumstances. Delivering on the 1.5°C goal is different, however. It requires large amounts of sustained investment (in new assets, research, talent, management time, etc) and, very often, a shift in long-term business strategy. Companies are far more likely to take the steps required when they are confident that climate policies will not chop and change. Parties should therefore commit to ambitious 1.5°C-aligned measures and stick to them.

**3. Ensure robust accountability and transparency.** Mechanisms for holding key actors to account in the low carbon transition are very often the clinching factor in moving from verbal support for a 1.5°C future to actual, on-the-ground action. Such 1.5°C action will require tough decisions by Parties, some of which could prove unpopular in the short term and may carry a political cost. The same is true for companies. Introducing accountability measures such as carbon disclosure and transition plans requires businesses to up their game and take robust climate action. Transparency is a powerful route to such accountability. Parties should mandate all large businesses to regularly disclose their direct and indirect emissions in a way that is easily accessible and digestible. Similarly, they should require companies to disclose their climate-related risks and opportunities, as per the recommendations of the Task Force on Climate-Related Financial Disclosures.<sup>25</sup>

**4. Require companies to publish science-based transition plans.** Progress towards achieving a 1.5°C economy has been hampered by the adoption of climate action plans that are either unambitious or vague, or both. Meaningful action over time is only possible when companies set firm, ambitious targets (covering the short, medium and long term). These must not only accord with the science, but must also include details on how they will be implemented and reported upon. Parties should require businesses to publish such transition plans, and hold them to account for their progress against them. Given their limited resources, tailored assistance and advice should be made available to assist small businesses in developing and implementing relevant transition plans.

**5. Remember people and nature.** Radically reducing greenhouse gas emissions rightly comprises a central plank in any and all action plans in support of the 1.5°C Paris Agreement goal. However, to ensure maximum effectiveness, Parties should develop 1.5°C action plans that also account for other relevant social and environmental factors. Expanding climate policies to incorporate measures that protect communities and workers affected by the transition away from carbon-intensive industries is a case in point. Similarly, in light of the contribution that nature plays in sequestering carbon and stabilising the global temperature, steps to conserve and regenerate biodiversity are integral to 1.5-aligned action plans.

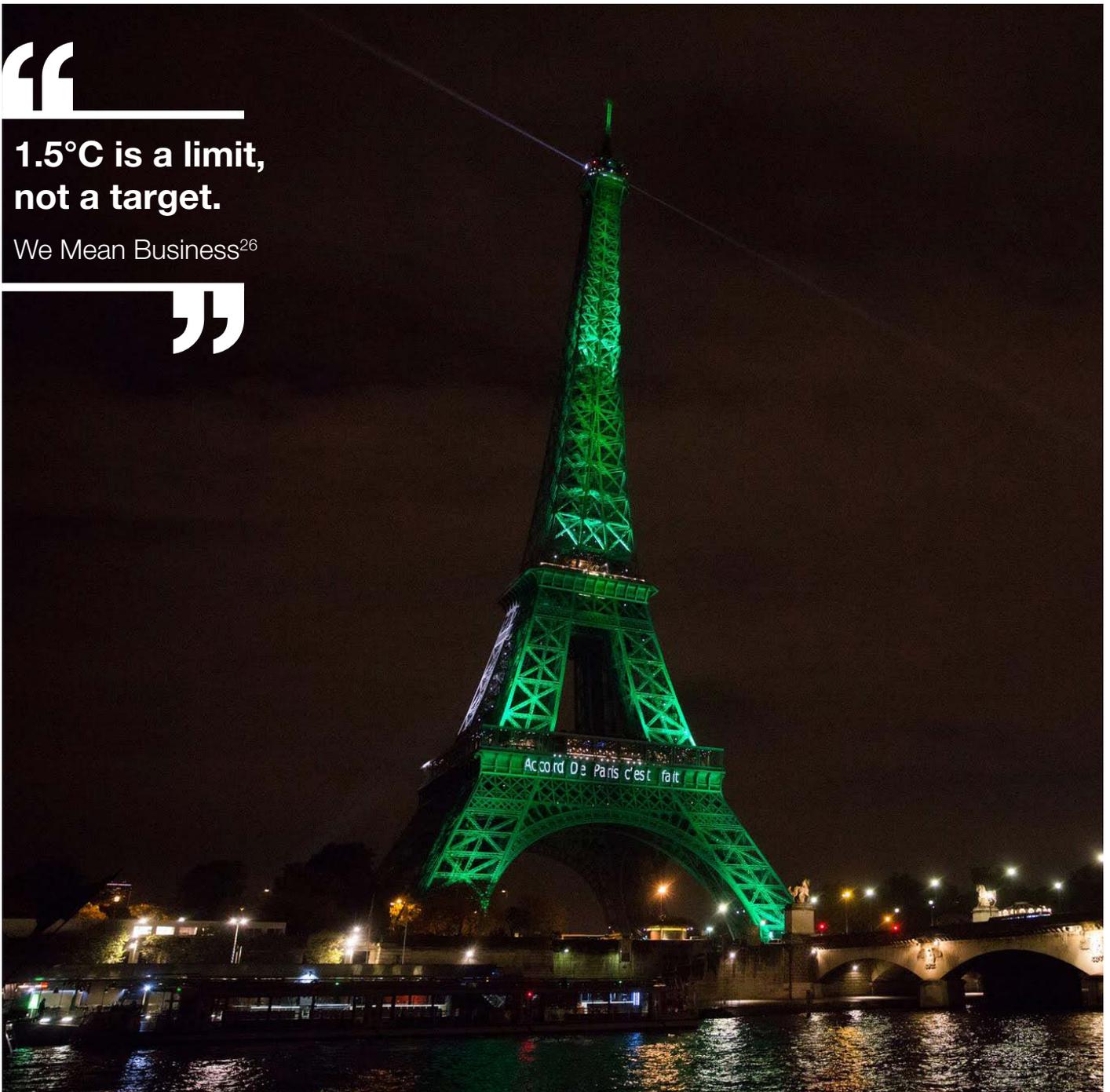
<sup>24</sup> "Global Stocktake," UNFCCC, accessed November 21, 2023, <https://unfccc.int/topics/global-stocktake>.

<sup>25</sup> "Task Force on Climate-related Financial Disclosures," TCFD, accessed November 21, 2023, <https://www.fsb-tcfd.org>.

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**1.5°C is a limit,  
not a target.**

We Mean Business<sup>26</sup>

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## Links to further reading

[IPCC Report 2023](#)

[Sharm el-Sheikh four year work plan](#)

[UNFCCC Global Stocktake](#)

[Stocktake of Corporate Climate Action \(We Mean Business Coalition, 2023\)<sup>27</sup>](#)

[UNFCCC Recognition and Accountability Framework](#)

<sup>26</sup> "250+ business and civil society voices: 1.5°C is a limit not a target," We Mean Business Coalition, November 14, 2022, <https://www.wemeanbusinesscoalition.org/blog/200-business-and-civil-society-voices-1-5c-is-a-limit-not-a-target/>.

<sup>27</sup> Rasmus Valanko and Katherine Dixon, "We've taken stock of corporate climate action and business knows what it needs to deliver the clean energy transition," We Mean Business Coalition, September 13, 2023, <https://www.wemeanbusinesscoalition.org/blog/weve-taken-stock-of-corporate-climate-action-and-business-knows-what-it-needs-to-deliver-the-clean-energy-transition/>.



## Ask 3.

# CONSIDER NATURE AND CLIMATE TOGETHER IN ALL DECISIONS

### What? Consider nature and climate together in all decisions<sup>28</sup>

Climate negotiators have historically treated the climate crisis and the nature crisis as if they were unrelated. This is a mistake. It is of course true that the planet's limited natural assets are critical, both to meet people's needs as well as to provide space for nature and biodiversity. Yet it is equally true that these assets provide a way to reduce rather than contribute to climate change. Policymakers and scientists increasingly recognise this connection and accept the impact that natural ecosystems have on climate change, and vice versa. However, international negotiations, led by different parts of the UN, continue to proceed on a dual-track basis. This restricts opportunities for joint thinking and limits the development of combined policies or agreements. Delegates at COP28 need to unequivocally recognise the undeniable link between nature and climate, and ensure that climate policy reflects this co-dependence. They must also explicitly affirm the importance of indigenous knowledge and the need to engage local communities and other stakeholders in discussions around natural asset management.<sup>29</sup> The lack of a UN Conference on Biodiversity this year makes the opportunity presented by COP28 to link nature and climate all the more important.

### Why? Nature, climate's best ally

It is easy to portray nature as a distraction from the urgent need to reduce greenhouse gas emissions in line with the goals of the Paris Agreement. Indeed, the structure of the COP process lends itself to a climate-only focus to negotiations. For a variety of reasons, however, side-lining discussions about nature is short-sighted and, ultimately, counterproductive in the pursuit of a 1.5°C future.

Most obviously, biodiversity and ecosystems are integral to the regulation of the climate. The capacity of peatlands, wetlands, soil, forests and oceans to sequester carbon and prevent it escaping into the atmosphere make them ideal 'carbon sinks'. Marine ecosystems play a particularly important role, storing and cycling an estimated 93 per cent of all Earth's CO<sub>2</sub>. Measures to conserve existing sinks and regenerate those that are depleted or degraded (such as deforested woodland) will have a direct impact on atmospheric carbon levels.

Bringing a stronger nature focus to climate discussions also represents an opportunity for fresh ideas and novel interventions. The search for nature-based solutions to climate change in recent years has led to the emergence of exciting new business models, breakthrough technologies and progressive policies. Climate solutions that deliver ancillary benefits for nature are serving as a similar launchpad for novel ways of thinking and acting. The opportunities that emerge from a convergence of nature and climate thinking appeal to the financial markets and thus help to mobilise the capital needed to drive change at scale.

Treating climate and nature as separate phenomena can also lead to unintended consequences for the environment that can reduce policy effectiveness and potentially provoke public backlash. Afforestation provides an illustrative example. The planting of trees is rightly seen as a popular climate solution. However, when adopted without consideration for nature, afforestation policies can lead to large-scale monocultures that negatively affect biodiversity. This is often the case with carbon offsetting schemes given their

<sup>28</sup> For more, see: University of Cambridge Institute for Sustainability Leadership (CISL), *Climate and Nature: A route to Mutual Acceleration* (Cambridge, UK: University of Cambridge Institute for Sustainability Leadership, 2022), [https://www.cisl.cam.ac.uk/files/cisl\\_nature\\_briefing\\_sheet.pdf](https://www.cisl.cam.ac.uk/files/cisl_nature_briefing_sheet.pdf).

<sup>29</sup> UNFCCC, "On an Inclusive COP28 – Joint Statement by the United Arab Emirates and UN Climate Change," August 1, 2023, <https://unfccc.int/news/on-an-inclusive-cop28-joint-statement-by-the-united-arab-emirates-and-un-climate-change>.

preference for large-scale plantations of single, fast-growth tree varieties. Such approaches can actually result in reversing their intended climate mitigation goals (ie sequestering carbon from the atmosphere), as in the case of plantations replacing native forests or falling victim to wildfires.<sup>30</sup>

In a similar vein, negative feedbacks between climate change and nature loss can be missed or underplayed when a joint perspective is not employed.<sup>31</sup> Higher temperatures and rainfall volumes caused by climate change illustrate this point well. These alterations cause natural landscapes to be at increased risk of fire or drought, which are exacerbated when ecosystems are degraded. Likewise, mutual reinforcement can also occur for flooding risks, due to combined impacts from climate change and land degradation: climate change makes extreme weather events more frequent, while deforestation removes the capability of forests to prevent run-offs and damage from flooding.<sup>32</sup>

The opposite is also true – namely, taking action to counter the current nature crisis can help avoid pending ecological collapses that threaten to rapidly accelerate climate change.<sup>33</sup> An example of such a tipping point is the ‘dieback’ of the Amazon rainforest.<sup>34</sup> The world’s largest rainforest currently serves as a major sequester of CO<sub>2</sub>. However, only 20 to 30 per cent of the rainforest needs to be lost for the integrity of this unique biome to be compromised and for the entire forest to collapse. Should such an event occur (up to 26 per cent of the Amazon has already been deforested), the Amazon would transform into a net emitter of carbon, causing climate change to rapidly accelerate. Other similar climate tipping points that could potentially be decelerated or potentially avoided altogether through nature-based interventions include the dieback of warm-water corals and the loss of mountain glaciers.<sup>35</sup>

## Why? Business rationale

No business would be viable if the natural ecosystems that underpin vital services such as carbon sequestration, pollination, water purification and flood risk mitigation were to disappear. These challenges are in addition to the very direct reliance that many companies have on nature for resources such as food, fibre, minerals and building materials. We are not yet at the point of ecosystem collapse, but the degradation of nature is happening at worrying speed. Under current rates, the global economy is set to lose US\$2.7 trillion as soon as 2030.<sup>36</sup> 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.

As CISL’s extensive work on nature-based risk reveals, companies are also liable to nature-related risks linked to the climate transition and liability.<sup>37</sup> These risks can manifest themselves in the 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. As mentioned above, the negative unintended consequences for biodiversity that can arise from an overly narrow climate focus can present companies and investors with additional business risks and uncertainties.

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30 For more, see: University of Cambridge Institute for Sustainability Leadership (CISL), Integrating climate and nature: The rationale for financial institutions (Cambridge, UK: University of Cambridge Institute for Sustainability Leadership, 2022), [https://www.cisl.cam.ac.uk/files/integrating\\_climate\\_and\\_nature\\_the\\_rationale\\_for\\_financial\\_institutions.pdf](https://www.cisl.cam.ac.uk/files/integrating_climate_and_nature_the_rationale_for_financial_institutions.pdf).

31 Daisy Dunne, “Can climate change and biodiversity loss be tackled together?” Carbon Brief, June 16, 2022, <https://www.carbonbrief.org/explainer-can-climate-change-and-biodiversity-loss-be-tackled-together/>.

32 Finance for Biodiversity Initiative, Towards an Integrated Transition Framework: Managing Risks and Opportunities at the Nature-Climate Nexus (Finance for Biodiversity Initiative, 2022), <https://www.f4b-initiative.net/publications-1/towards-an-integrated-transition-framework---managing-risks-and-opportunities-at-the-nature-climate-nexus>.

33 David Armstrong McKay et al., “Exceeding 1.5°C global warming could trigger multiple climate tipping points,” *Science* 377, no. 6611 (September 2022), <https://www.doi.org/10.1126/science.abn7950>.

34 Chris A. Boulton, Timothy M. Lenton, and Niklas Boers, “Pronounced loss of Amazon rainforest resilience since the early 2000s,” *Nature Climate Change* 12 (2022): 271–278, <https://doi.org/10.1038/s41558-022-01287-8>.

35 Simon Willcock, Gregory S. Cooper, John Addy, and John A. Dearing, “Earlier collapse of Anthropocene ecosystems driven by multiple faster and noisier drivers,” *Nature Sustainability* 6 (2023): 1331–1342, <https://doi.org/10.1038/s41893-023-01157-x>.

36 Justin Andrew Johnson et al., *The Economic Case for Nature: A Global Earth-Economy Model to Assess Development Policy Pathways* (Washington, DC: World Bank, 2021), <https://openknowledge.worldbank.org/handle/10986/35882>.

37 University of Cambridge Institute for Sustainability Leadership (CISL), Handbook for nature-related financial risks: Key concepts and a framework for identification (Cambridge, UK: University of Cambridge Institute for Sustainability Leadership, 2021), <https://www.cisl.cam.ac.uk/system/files/documents/handbook-for-nature-related-financial.pdf>.

In light of these realities, business is facing growing expectations from regulators, investors and civil society to demonstrate its positive contribution to the preservation and regeneration of nature. The recently agreed Global Biodiversity Framework, for instance, places an explicit expectation on business to positively contribute to the conservation and restoration of the natural world. Target 15 of the Framework stipulates that companies should assess, disclose and monitor their impacts and dependencies upon nature.<sup>38</sup>

Leading corporations are committing in ever greater numbers to a nature-positive agenda, very often in conjunction with their work on delivering net zero. Indeed, many multinational companies attended the 2022 UN Biodiversity Conference in Montreal, Canada, when the Framework was adopted in order to express their support for greater business action on nature.<sup>39</sup> 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 Task Force on Climate-Related Financial Disclosures (TCFD), companies have come together to support increased transparency under the Taskforce on Nature-related Financial Disclosures (TNFD). Recently published disclosure recommendations and guidance from the TNFD will enable organisations to report and act on evolving nature-related dependencies, impacts, risks and opportunities. Together, the information arising from disclosure processes informed by the TCFD and TNFD is welcomed by investors as they seek to deploy capital to viable projects with solid financial returns as well as high impacts for climate and nature.

Carbon sequestration and climate regulation fall into this last category. Both are vital to the operational activities of business. Failure to tackle climate change increases the likelihood of natural disasters. Figures from the UN, for example, show that the ten worst natural disasters caused by climate change last year generated economic damages in excess of US\$3 billion.<sup>40</sup> At the same time, developing nature-based services in support of climate mitigation presents business with substantial untapped opportunities.<sup>41</sup> As is already becoming evident, for example, economic activities such as regenerative agriculture, green infrastructure (such as mangroves and salt marshes) and sustainable forestry are helping to drive forward the green economy.

## How? Practical steps forward

**Place nature at the heart of policymaking and regulation.** As with the Paris Agreement, the Convention on Biological Diversity obliges Parties to produce National Biodiversity Strategies and Action Plans that outline how they will align with the recently agreed Global Biodiversity Framework. COP28 will present an opportunity for countries to discuss potential synergies between their respective nature and climate strategies and plans. Regulatory moves such as the EU's Nature Restoration Law demonstrate emerging opportunities for such joint thinking at a legislative level.<sup>42</sup> COP28 presents a unique opportunity to build momentum for a nature-influenced approach to climate decision-making ahead of COP30, which will be hosted by Brazil and which will put the Amazon at the heart of the negotiating process.

**Integrate nature into financial decision-making and close the nature financing gap.** An estimated US\$8.8 trillion of cumulative investments are needed in nature between now and 2050 to ensure biodiversity risk is manageable.<sup>43</sup> Currently, that global annual investment number is just US\$146 billion. Global cost and benefit sharing mechanisms are needed, such that countries that have developed in part from the depletion of their own natural capital help support projects, primarily in the Global South, to protect the world's

38 Matt Swain, Martina Forbicini, and Samy Porteron, Meeting the Global Biodiversity Framework's Target 15, Brussels: ECOS – Environmental Coalition on Standards, 2023), <https://ecostandard.org/wp-content/uploads/2023/04/ECOS-report-Meeting-the-Global-Biodiversity-Frameworks-Target-15-April-2023.pdf>.

39 "Make it Mandatory Campaign," Business for Nature, 2022, <https://www.businessfornature.org/make-it-mandatory-campaign>.

40 "New report: Top 10 climate disasters cost the world billions in 2022," UNDRR – United Nations Office for Disaster Risk Reduction, December 27, 2022, <https://www.preventionweb.net/news/new-report-top-10-climate-disasters-cost-world-billions-2022>.

41 Margaret Kuhlman, Charlie Dixon, Ana Lima, Emily McKenzie, Sue Reid, Robin Smale, and Wang Yao, How can finance help address our dual climate and nature crisis? (FSEG, 2021), p. 11, [https://climatechampions.unfccc.int/wp-content/uploads/2022/03/CC-report\\_Draft-4.pdf](https://climatechampions.unfccc.int/wp-content/uploads/2022/03/CC-report_Draft-4.pdf).

42 "Business for Nature & CLG Europe welcome vote result on Nature Restoration Law," University of Cambridge Institute for Sustainability Leadership, July 17, 2023, <https://www.corporateleadersgroup.com/news/business-nature-clg-europe-welcome-vote-result-nature-restoration-law>.

43 UNEP, State of Finance for Nature (Nairobi: UN Environment Programme, 2021), <https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/36145/SFN.pdf>.

remaining biodiversity. Options for Parties to consider include expanding the carbon markets that fund nature-based solutions, scaling up the nascent market for biodiversity credits and promoting debt-for-nature swaps.

**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.** Parties should look for opportunities to collaborate with all stakeholders in the development and implementation of nature-based climate solutions. Particular attention should be given to the involvement of indigenous peoples, smallholder farmers, and communities vulnerable to the twin threats of nature loss and climate impact. Co-creating solutions that deliver multiple benefits – for people and nature, as well as climate – will increase the probability of social buy-in and a just transition.<sup>44</sup>

**Shift industry practices and supply chains to address the drivers of nature destruction.** As part of their national climate and nature plans, Parties at COP28 should declare their intention to reform the main economic activities that are driving today's spike in nature loss and, thereby, weakening climate resilience. Special attention should be paid to critical sectors such as fashion, food and agriculture, and water management. As part of this declaration, Parties should commit to the promotion of greater corporate disclosure of nature-based risks and opportunities.

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**Humanity is waging war on nature. This is suicidal...  
Making peace with nature is the defining task of the  
21st century.**

António Guterres, General Secretary,  
United Nations

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## Links to further reading

Climate and Nature: A route to Mutual Acceleration (CISL, 2022)

Leadership for a Nature Positive Economy (CISL, 2023)

Let's Discuss Nature with Climate: Engagement Guide (CISL, 2023)

Roadmap: Identification and integration of nature-related risks and impacts in underwriting and insurance brokerage (CISL, 2023)

Integrating climate and nature: The rationale for financial institutions (CISL, 2022)

Towards a Sustainable Food Future for Europe (CISL/CLG, 2019)

Kunming-Montreal Global Biodiversity Framework (COP15)

It's Now for Nature (Business for Nature, 2023)

<sup>44</sup> For examples of inclusive, scientifically robust nature-based solutions, see: "Nature-based solutions to climate change," University of Cambridge Institute for Sustainability Leadership 2023, <https://www.cisl.cam.ac.uk/nature-based-solutions-climate-change>.



## Ask 4.

# AGREE AN AMBITIOUS AND DETAILED GLOBAL GOAL ON ADAPTATION

### What? Agree an ambitious and detailed global goal on adaptation

The impacts of climate change are becoming clearer and closer – being felt here and now. In light of this present-day reality, it is imperative for Parties to bring their collective weight behind an ambitious adaptation goal. Doing so will set in place the foundation for greater climate resiliency in our communities and in the wider economy. The commitment to establish an adaptation goal was agreed in principle in the 2015 Paris Agreement but, eight years on, it remains elusive. It is vital to understand that such a plan in no way reduces the urgency of mitigating climate change in pursuit of the accord's governing 1.5°C goal. Parties have already delayed too long. COP28 marks the culmination of the two-year Glasgow–Sharm el-Sheikh (GlaSS) work programme on the global goal on adaptation, making it a natural juncture to bring overdue clarity on this pressing issue.

### Why? Present-day reality of climate impacts

Signatories to the 2015 Paris Agreement pledged to “promote mitigation and adaptation ambition”.<sup>45</sup> In successive COPs, discussions among Parties have concentrated almost exclusively on the first part of this commitment. Underlying this mitigation-centric position is a tacit but widely held concern that focusing on adaptation will limit Parties’ future ambition to cut greenhouse gas emissions in line with the 1.5°C goal. To date, this preoccupation has prevented Parties from realising their stated commitment to agree an ambitious and detailed global goal on adaptation.

Why should COP28 become the point at which Parties finally offer clarity on an adaptation pathway? Firstly, because of the mistaken nature of the assumption that an underlying tension exists between mitigation and adaptation. This is not an ‘either-or’ equation. As multiple examples show, it is possible to pursue ambitious mitigation strategies alongside equally ambitious adaptation strategies. Take the example of Norway, which tops the influential Notre Dame Global Adaptation Initiative for its readiness to improve climate resilience.<sup>46</sup> This focus on adaptation has in no way detracted from its mitigation ambitions, with the Scandinavian nation last year increasing its emission reduction target to at least a 55 per cent reduction by 2030 (compared to 1990 levels).<sup>47</sup>

Secondly, the reality of climate change’s rapid advancement means no more time can be lost. Climate negotiators have a clear choice. Either they lay aside their fears over the possible weakening of concerted action on mitigation and provide much-needed clarity on the way ahead for adaptation, or they assign communities and businesses to ever greater vulnerability to the impacts of a changing climate. In 2022 alone, for example, weather- and climate-related events generated economic losses of at least US\$165 billion in the United States<sup>48</sup> and around €2.3 billion (US\$56.2 billion) in Europe.<sup>49</sup> The effects of climate change are real – and rising.

45 UNFCCC, Paris Agreement. Article 6, Paragraph 8, sub-clause (a), p. 8, (2015), [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf).

46 “ND-GAIN Country Index,” University of Notre Dame, accessed November 21, 2023, <https://gain.nd.edu/our-work/country-index/rankings/>.

47 Norway’s previous goal was a cut of between 50 and 55 per cent by 2030. See: Government of Norway, “Norway’s new climate target: emissions to be cut by at least 55%,” press release, November 3, 2022, <https://www.regjeringen.no/en/aktuelt/norways-new-climate-target-emissions-to-be-cut-by-at-least-55-/id2944876/>.

48 Adam B. Smith, “2022 U.S. billion-dollar weather and climate disasters in historical context,” NOAA, January 10, 2023, <https://www.climate.gov/news-features/blogs/beyond-data/2022-us-billion-dollar-weather-and-climate-disasters-historical>.

49 “Economic losses from weather- and climate-related extremes in Europe,” European Environment Agency, October 6, 2023, <https://www.eea.europa.eu/en/analysis/indicators/economic-losses-from-climate-related>.

Moreover, the cost of failing to adapt is counted not just in financial losses but also human lives. It is a cruel irony that those parts of the world that contribute least to climate change currently count the largest cost. In low-income countries of the southern hemisphere, higher temperatures and more extreme weather conditions are already leading to failed harvests and worsening food insecurity, as well as a sharp rise in displacement, political instability and civil conflict. Africa is among the worst affected. A minimum of 110 million people across the continent saw their livelihoods severely impacted last year, while at least 5,000 lost their lives due to drought or flooding.<sup>50</sup> Similar impacts are being registered in the low-lying island nations of the Pacific, which are particularly vulnerable to storms and sea-level rise. Storms alone directly affected eight million people in the South West Pacific last year, for example, with the cost of flooding estimated at US\$8.5 billion – four times higher than the 20-year average.

Giving adaptation its due weight within the international climate effort is a moral and humanitarian imperative, as well as an essential step towards future economic stability and global prosperity.

## Why? Business rationale

Preparing for the impacts of climate change is nothing more (and nothing less) than sound management practice. Indeed, to ignore the substantial risk that a rise in temperature and an increase in freak weather events poses to business operations would be a dereliction of companies' fiduciary duty to their owners. Without adequate adaptation, there is a very real threat of certain business activities becoming uninsurable – a scenario that would precipitate chaos in the world economy.<sup>51</sup>

The clear business case for companies to adapt to the effects of climate change and build resilience into their operations and governance is further bolstered by an emerging crop of regulatory requirements. Commencing with the Task Force on Climate-related Financial Disclosures (TCFD),<sup>52</sup> which published its initial recommendations back in 2017, companies are under growing pressure from their financial regulators to identify the risks they face from the impacts of climate change. Such risk assessments implicitly or explicitly include a requirement to disclose the steps taken to minimise these risks and, where eliminating them is not possible, to adapt to them. Similar requirements are coming down the track in regard to nature-related risks, influenced in part by the recent launch of the Taskforce on Nature-related Financial Disclosures (TNFD).<sup>53</sup>

While individual companies can take some steps to adapt to climate change, effective preparation requires a collective effort on the part of government, business and civil society together. While estimates for the total cost of adaptation vary considerably, the United Nations Environment Programme puts the figure for developing countries alone at US\$340 billion a year by 2030.<sup>54</sup> Adaptation support today stands at less than one-tenth of this amount. The private sector is increasingly open to supporting the funding of adaptation measures, but for adaptation finance to flow in the volumes required needs governments and international institutions to take the lead. The announcement at COP28 of a commonly agreed adaptation goal would provide the impetus that is currently missing from this vital component of climate action.

## How? Practical steps forward

**1. Provide the lead at a national level and deliver national adaptation plans.** Parties have an obligation to provide a clear vision and firm objectives for their respective national economies, thus enabling businesses and other actors to take the necessary steps to adapt. Given the multiple, overlapping and cascading risks that climate change brings, national adaptation plans should be based on a comprehensive risk assessment and extensive scenario planning based on the latest science. Taking a leadership role starts with ensuring that all levels of national and sub-national government are co-ordinated and have an identified role to play in

50 WMO, "Africa suffers disproportionately from climate change," press release, September 4, 2023, <https://public.wmo.int/en/media/press-release/africa-suffers-disproportionately-from-climate-change>.

51 United Nations University – Institute for Environment and Human Security, Uninsurable future: Technical Report (UNU-EHS, 2023), [https://s3.eu-central-1.amazonaws.com/interconnectedrisks/reports/2023/TR\\_231024\\_Uninsurable\\_Future1.pdf](https://s3.eu-central-1.amazonaws.com/interconnectedrisks/reports/2023/TR_231024_Uninsurable_Future1.pdf).

52 "Task Force on Climate-related Financial Disclosures," TCFD, accessed November 21, 2023, <https://www.fsb-tcfd.org>.

53 "Taskforce on Nature-related Financial Disclosures," TNFD, accessed November 21, 2023, <https://tnfd.global>.

54 United Nations Environment Programme, The Adaptation Gap Report 2022: Too Little, Too Slow – Climate adaptation failure puts world at risk (Nairobi: UNEP, 2022), <https://www.unep.org/resources/adaptation-gap-report-2022>.

delivering adaptation and resilience. Particular attention should be given to priority areas for adaptation, such as the construction of climate-resilient housing, roads, power facilities and other infrastructure assets that are vital to well-functioning markets. A co-ordinated approach must also see governments give direction and support to businesses (especially small firms) and other critical actors in their national economies. Part of this should involve providing common standards for what high-quality corporate adaptation plans look like, recognising that this will vary according to context. Equally essential is promoting the transfer of knowledge and technologies, such as water-efficient irrigation, natural flood management and drought-tolerant crops.

**2. Provide a place-based approach that promotes local leadership.** Currently, less than 10 per cent of global climate finance reaches communities directly, leading to widespread calls for greater local participation.<sup>55</sup> Adopting a place-based approach facilitates such participation. This is vital to ensuring adaptation actions are tailored to locally specific needs, as well as to creating community involvement and support in policy delivery. Parties should remove institutional barriers to local leadership and should exercise tools such as local planning that help build place-specific climate resilience. Any national or sub-national adaptation strategy must be sensitive to local land-use practices, aiming for a balance between climate imperatives and societal needs (such as for housing, energy, food, nature and leisure).

**3. Ensure enough financial resources are available for adaptation.** Parties urgently need to close the estimate gap of US\$194–366 billion per year in adaptation finance.<sup>56</sup> This requirement is particularly acute for developing countries, where international public finance flows are 10–18 times below what is required. In addition to increasing overall spend, governments and development finance institutions must rectify the strong bias in public financing towards mitigation. Further, Parties should look for innovative ways to mobilise private sector finance towards adaptation needs. Potential steps include improving the quality of, and access to, climate risk information in order to address the widespread problem of asymmetric information. Blended finance arrangements that bring together concessional public capital and private capital through the provision of de-risking devices such as credit guarantees and insurance should also be considered.

**4. Strive to achieve mitigation and adaptation simultaneously wherever possible.** As per the advice of the European Commission's latest guidance, adaptation should not be performed in isolation from existing climate programmes and policies.<sup>57</sup> Looking for opportunities to connect well-established mitigation efforts with emerging adaptation priorities marks an obvious step in this direction. At the same time, it is important to recognise that support for adaptation might actually trump the need for investment in mitigation in a limited number of cases. Topping this group are poor countries facing the imminent threat of sea-level rise, desertification, or other existential climate-linked pressures.

**5. Use nature to build resilience.** Nature-based solutions can address a wide range of adaptation issues, including coastal and inland flooding, soil health and food production, and cooling urban environments. An example of the former is the conservation and replanting of mangroves. This is an illustrative case in point. These salt-tolerant trees not only help capture and store carbon in the intertidal areas where they grow,<sup>58</sup> but their interlocking root networks and branches also interrupt rising water and large waves – thereby protecting coastal communities and business infrastructure from storm surges. Parties should scale up the delivery of solutions such as these through direct financing as well as through policy levers. In the case of the latter, there is a real imperative for governments to set clear standards to ensure that nature-based solutions are scientifically robust while also being socially inclusive and equitable. Another policy priority is to end perverse input subsidies that cause damage to natural capital. An illustrative example is fuel subsidies for long-range fishing (as in China), which generate avoidable emissions as well as raise the risk of overfishing and the consequent depletion of fish stocks.<sup>59</sup>

55 Danielle Falzon et al., “How ‘locally led’ adaptation can help address climate change,” Carbon Brief, July 18, 2023, <https://www.carbonbrief.org/guest-post-how-locally-led-adaptation-can-help-address-climate-change/>.

56 United Nations Environment Programme, *Adaptation Gap Report 2023: Underfinanced. Underprepared – Inadequate investment and planning on climate adaptation* (Nairobi: UNEP, 2023), [https://wedocs.unep.org/bitstream/handle/20.500.11822/43796/adaptation\\_gap\\_report\\_2023.pdf?sequence=1&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/43796/adaptation_gap_report_2023.pdf?sequence=1&isAllowed=y).

57 European Commission, *Guidelines on Member States’ adaptation strategies and plans* (European Commission, 2023), <https://climate.ec.europa.eu/system/files/2023-07/Guidelines%20on%20MS%20adaptation%20strategies%20and%20plans.pdf>.

58 The amount of carbon stored beneath mangrove trees is estimated to be up to four times greater than that stored by other tropical forests. See: Emma Barnes, “Mangroves as a solution to the climate crisis,” WWF, January 4, 2022, <https://www.worldwildlife.org/stories/mangroves-as-a-solution-to-the-climate-crisis>.

59 Gabriel Englander, Jihua Zhang, Juan Carlos Villaseñor-Derbez, Qutu Jiang et al., “Input Subsidies and the Destruction of Natural Capital: Chinese Distant Water Fishing,” National Bureau of Economic Research Working Paper Series, No. 31008 (2023), <https://www.doi.org/10.3386/w31008>.

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**As severe weather- and climate-related extreme events are expected to intensify further, it seems unlikely that the associated economic losses will reduce by 2030**

European Environment Agency<sup>60</sup>

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## Links to further reading

Adaptation Advocacy Toolkit (CISL/CLG UK, 2023)

European Commission's Guidelines on Member States' adaptation strategies and plans

International Platform on Adaptation Metrics

Locally led adaptation: Promise, pitfalls, and possibilities

<sup>60</sup> "Economic losses from weather- and climate-related extremes in Europe," European Environment Agency, October 6, 2023, <https://www.eea.europa.eu/en/analysis/indicators/economic-losses-from-climate-related>.



## Ask 5. SCALE UP PRIVATE FINANCE FOR EMERGING MARKETS AND DEVELOPING ECONOMIES (EMDEs)

### What? Scale up private finance for emerging markets and developing economies (emdes)

Addressing the challenge of climate change is a monumental task that requires significant financial resources. The Paris Agreement has set ambitious goals, and to achieve them, a massive influx of capital is needed. The annual climate finance needs range between US\$3 trillion and US\$6 trillion until 2050 to meet the Paris Agreement objectives.<sup>61</sup> Although private sector investments in climate finance have increased, the current multilateral financial architecture is insufficient in delivering financing at the needed scale and speed. There are also significant challenges in ensuring equitable financing flows to Emerging Markets and Developing Economies (EMDEs) and in diverting funds from high-emitting, low-resilience activities. Given these challenges, engaging the private sector in climate finance is not just beneficial but essential.

Historically, the burden of climate finance has primarily been on governments, but private capital markets are increasingly showing an interest in climate finance. This shift presents an opportunity to leverage public financing to mobilise private finance for greater climate action. As COP28 approaches, there is an urgent need to reform the international financing architecture to meet the demand for climate mitigation and adaptation funding. In this context, understanding the role of private finance, in collaboration with Multilateral Development Banks (MDBs) and other international financing firms, is crucial for driving resources towards building net-zero and nature-positive economies globally.

### Why? Mobilise private capital in aid of climate action

Mobilising private capital for climate action is crucial given the substantial investment needs in low carbon infrastructure, energy transition, adaptation, research and innovation. The post-Covid era is marked by inflation, high public debt and slow economic growth, constraining government budgets for climate action. Despite significant initiatives like the US\$500 billion US Inflation Reduction Act (IRA)<sup>62</sup> and the €600 billion EU Green Deal,<sup>63</sup> public finance alone is insufficient to bridge the climate finance gap. The estimated US\$100–120 trillion required for the net-zero transition far exceeds the capacity of public finances, even in times of economic buoyancy.<sup>64</sup>

The centrality of finance in international climate policy debates acknowledges this shortfall. The impasse in finance negotiations risks undermining the credibility of the COP process and jeopardising the achievement of the Paris Agreement goals. The Bridgetown Initiative, supported by developing nations, calls for mobilising US\$1.5 trillion per year in private sector investment for the green transition, underscoring the high political stakes involved.<sup>65</sup>

61 International Monetary Fund, Global Financial Stability Report, “Chapter 3: Financial Sector Policies to Unlock Private Climate Finance in Emerging Market and Developing Economies,” (IMF, 2023), <https://www.imf.org/en/Publications/GFSR/Issues/2023/10/10/global-financial-stability-report-october-2023?cid=bl-com-AM2023-GFSREA2023002#chapter3>.

62 For more on the IRA, see: Eric Van Nostrand and Laura Feiveson, “The Inflation Reduction Act and U.S. Business Investment,” U.S. Department of the Treasury, August 16, 2023, <https://home.treasury.gov/news/featured-stories/the-inflation-reduction-act-and-us-business-investment>.

63 For more on the EU’s Green Deal, see: “The European Green Deal,” European Commission, accessed November 21, 2023, [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en).

64 Krysten Crawford, “Beyond promises: The \$120 trillion path to a ‘net zero’ world,” Stanford Institute for Economic Policy Research, March 9, 2023, <https://siepr.stanford.edu/news/beyond-promises-120-trillion-path-net-zero-world#:~:text=The%20International%20Energy%20Agency%20estimates,over%20the%20next%2030%20years..>

65 United Nations, “With clock ticking for the SDGs, UN Chief and Barbados Prime Minister call for urgent action to transform broken global financial system,” press release, April 26, 2023, <https://www.un.org/sustainabledevelopment/blog/2023/04/press-release-with-clock-ticking-for-the-sdgs-un-chief-and-barbados-prime-minister-call-for-urgent-action-to-transform-broken-global-financial-system/>.

The UAE Presidency at COP28 has emphasised the importance of climate finance in maintaining public trust and political co-operation.<sup>66</sup> Fulfilling the 2009 pledge of industrialised nations to mobilise US\$100 billion annually for adaptation financing in developing countries is crucial for climate justice and the credibility of global climate action calls. However, even fulfilling these commitments will not suffice to close the global climate finance gap. Hence, at COP28 and beyond, more efforts to mobilise private capital in support of the Paris Agreement are essential.

To do this, creating innovative and ambitious partnerships between governments, central banks, financial regulators and private financial institutions, corporations and philanthropies is necessary. This could include public-private approaches like blended finance and risk-sharing instruments<sup>67</sup> as well as reforms in MDBs and addressing the cost of capital, which are vital in attracting private investors. For instance, the Asian Development Bank's (ADB's) capital management reforms unlock US\$100 billion in new funding capacity over the next decade.<sup>68</sup>

Private finance has been growing at a rate of 10 per cent per year, indicating its substantial funding capacity.<sup>69</sup> This trend is evident in the steady increase in financial flows to developing countries, primarily driven by private finance. MDBs mobilised an average of US\$33.8 billion annually in private finance between 2018 and 2020. The International Energy Authority estimates that US\$2 trillion annually by 2030 is needed to meet global climate goals, with the private sector expected to supply about 80 per cent of this investment. However, the high cost of capital in developing countries, compared to those with international reserve currencies, is a fundamental barrier.

Leaders with influence on the global financial architecture at COP28 have an opportunity to rethink strategies and reconfigure funding arrangements to mobilise private capital for climate mitigation and adaptation. The necessary funds exist; innovative approaches are needed to channel them effectively.

## Why? Business rationale

Corporations and financial institutions are increasingly recognising the immediate threat posed by climate change to their traditional business models. They face two main types of risk: physical risks, where their assets or those of their clients are jeopardised by extreme weather events and long-term climate shifts; and transition risks, where the move to a low carbon economy could disrupt operations or create regulatory pressures that affect the viability of their products and services, leading to unserved loans or stranded assets.

Adopting a climate focus not only helps financial institutions de-risk their portfolios, but also positions them to capitalise on emerging business opportunities in the green economy. The market for green goods and services is projected to reach US\$10.3 trillion by 2050.<sup>70</sup> Redirecting capital from carbon-intensive industries to rapidly growing, low carbon sectors like renewable electricity generation, projected to be worth US\$5.3 trillion by mid-century, and electric vehicle manufacturing, estimated at US\$3.3 trillion, is a strategically sound investment.

Private sector financial institutions are increasingly adopting a climate lens in their decision-making, influenced by the changing demands of individual savers and major asset owners. Notably, US\$35 trillion in assets under management, representing one in every three investable US dollars, is now subject to at least one environmental, social or governance (ESG) requirement.<sup>71</sup>

66 'Finance' constitutes one of the four main cross-cutting themes of COP28. See: "Thematic Program," COP28 UAE, accessed November 21, 2023, <https://www.cop28.com/en/thematic-program>.

67 Dr Nina Seega and Dr Mohsen Gul, "Private capital and global climate finance architecture: a winning combination?" University of Cambridge Institute for Sustainability Leadership, July 28, 2023, <https://www.cisl.cam.ac.uk/news/blog/private-capital-and-global-climate-finance-architecture-winning-combination>.

68 ADB, "ADB Capital Management Reforms Unlock \$100 Billion in New Funding Over Next Decade to Support Asia and the Pacific," press release, September 29, 2023, <https://www.adb.org/news/adb-capital-management-reforms-unlock-100-billion-new-funding-over-next-decade-support-asia>.

69 World Bank Group, A Changing Landscape: Trends in official financial flows and the aid architecture (World Bank Group, 2021), <https://thedocs.worldbank.org/en/doc/9eb18daf0e574a0f106a6c74d7a1439e-0060012021/original/A-Changing-Landscape-Trends-in-Official-Financial-Flows-and-the-Aid-Architecture-November-2021.pdf>.

70 James Lambert, "\$10.3 trillion: the value of the green economy opportunity," Oxford Economics, November 8, 2022, <https://www.oxfordeconomics.com/resource/the-value-of-the-green-opportunity/>.

71 Saijel Kishan, "There's \$35 Trillion Invested in Sustainability, but \$25 Trillion of That Isn't Doing Much," BNN Bloomberg, August 18, 2021, <https://www.bnnbloomberg.ca/there-s-35-trillion-invested-in-sustainability-but-25-trillion-of-that-isn-t-doing-much-1.1641418>.

Recent years have seen the formation of initiatives aimed at mobilising greater climate finance, such as the Glasgow Financial Alliance for Net Zero (GFANZ). Since its launch in April 2021, GFANZ has grown to include over 650 banks, asset owners, managers, insurers and other finance entities, collectively managing over US\$15 trillion in assets.<sup>72</sup> The majority of GFANZ members have verified science-based targets for achieving net zero, similar to other rapidly growing finance-sector initiatives.

Parties should take advantage of the momentum currently evidenced in the private finance markets to encourage greater cross-sector collaboration and innovation in the mobilisation of climate finance – starting with shifting investments away from fossil fuels and towards clean energy.

## How? Practical steps forward

**Support the Bridgetown Initiative.** The Bridgetown Initiative is an essential step in reshaping global climate finance. It emphasises the need for leveraging the IDA for concessional finance, targeting a substantial US\$279 billion. Furthermore, the initiative advocates establishing a robust US\$500 billion Global Climate Mitigation Trust. It also highlights the importance of introducing innovative financial and insurance instruments tailored to address the challenges of climate change. Endorsing the Bridgetown Initiative could be a game-changer, unlocking significant funding necessary for climate mitigation and adaptation. It has the potential to modernise MDB allocation strategies, bring forth innovative financial tools, and bolster resilience in Small Island Developing States (SIDS), thereby catalysing a more effective and far-reaching global climate action.

**Support diverse financing models.** There is a critical need to support diverse financing models in the climate finance sector. This support includes the promotion of originate-and-share or originate-and-transfer models. Additionally, it involves the introduction of hybrid capital instruments for MDBs, leveraging innovative models such as the International Finance Facility for Education's (IFFEd) donor portfolio guarantee fund. By promoting these advanced financial mechanisms, there is an opportunity to diversify risks, making climate investments more bankable and attractive. This approach could accelerate the pace of climate finance and enhance its effectiveness in fostering sustainable development globally.

**Strengthen risk management and guarantees.** Strengthening risk management and guarantees is vital for bolstering climate finance, particularly in EMDEs. This involves the adoption of flexible instruments that are tailored to address contemporary crises. Moreover, there is an increased need for the use of guarantees by MDBs and donors to mitigate investment risks in these regions. By encouraging MDBs to adopt more flexible risk management instruments, the approach can significantly mitigate investment risks in EMDEs. This strategy has the potential to broaden the investor base, mobilising more private capital for climate and nature projects, thereby enhancing the scale and impact of global climate action.

**Enhance data transparency.** Enhancing data transparency is crucial in the climate finance landscape. This enhancement can be achieved through comprehensive data accessibility from platforms such as the GEMs (Global Emerging Markets) Risk Database. Moreover, the launch of GEMs 2.0 as a standalone entity by 2024 would mark a significant step forward. Enhanced dialogue between MDBs, Credit Rating Agencies (CRAs) and shareholders regarding the transparency of information exchange and rating methodologies is also paramount. Improved data transparency will foster informed risk-sharing and build investor confidence, crucial for attracting more private sector engagement and facilitating better decision-making in climate finance.

**Incentivise and align criteria with the private sector.** To effectively mobilise climate finance, there is a need to define clear risk/return criteria in climate and nature financing. This definition aligns with the mandates of commercial investors, making investment models more resilient and appealing. Additionally, incentivising private financial firms to provide currency-hedging solutions for climate and nature projects is essential. Aligning incentives and risk/return criteria with commercial investor mandates can lead to an increased flow of private capital into climate and nature projects, thereby enhancing the overall effectiveness and reach of climate action investments.

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72 "Glasgow Financial Alliance for Net Zero," GFANZ, accessed November 21, 2023, <https://www.gfanzero.com>.

**Promote collaborative platforms.** The establishment of collaborative platforms is crucial in the context of climate finance. These platforms should pool resources and expertise from public development banks, MDBs, governments and private entities. Establishing such platforms will foster a holistic approach to sustainable investments, scaling up efforts, improving access to finance and enhancing affordability. It will potentially lead to a more integrated and effective global climate action, unifying diverse stakeholders in a concerted effort to tackle one of the most pressing issues of our time.



## Links to further reading

Everything, everywhere, all at once: how can private finance be unlocked for nature and climate in the international financial architecture? (CISL, 2023)

Chapter 3: Financial Sector Policies to Unlock Private Climate Finance in Emerging Market and Developing Economies. Global Financial Stability Report (International Monetary Fund (IMF), 2023)

Bridgetown Initiative

Summit on a New Global Financing Pact (June 2023): Chair's summary

<sup>73</sup> The comment was made at the conclusion of the UN-backed Africa Climate Week in September 2023. For more, see: "Africa Climate Week 2023," UNFCCC, accessed November 21, 2023, [https://unfccc.int/ACW2023?gclid=EAlalQobChMI14mvqujegAMVTMXtCh2fegJsEAAYASAAEgJZKPD\\_BwE](https://unfccc.int/ACW2023?gclid=EAlalQobChMI14mvqujegAMVTMXtCh2fegJsEAAYASAAEgJZKPD_BwE).



## Ask 6. INCLUDE RISK-SHARING MECHANISMS TO OPERATIONALISE THE LOSS AND DAMAGE FUND

### What? Include risk-sharing mechanisms to operationalise the loss and damage fund

The reality of climate change is that the world faces a set of unavoidable impacts. Climate change is happening and a level of increased climate damage is locked into the system. For vulnerable developing countries – those countries that have usually done the least to contribute greenhouse gases to the atmosphere – this represents a significant and deeply threatening additional burden, and one they will struggle to cope with, causing both further damage and suffering and undermining the strength of the whole global economy. After three decades of advocacy by developing nations, the agreement to establish a fund for this ‘Loss and Damage’ (L&D) at COP27 demonstrates the growing global support for mobilising substantial financial resources for this.

Risk-sharing systems have a crucial but underappreciated role to play in this as they allow participating countries entitlement to resources in response to defined events. These systems, encompassing mechanisms like (re)insurance, catastrophe bonds, or financial guarantees, collectively engage risk capital markets in responding to the issue. By creating pools of shared capital, sourced from public sectors, private and mutual insurance sectors, and financial markets, the financial risks associated with climate events can be transferred from communities and governments in the Global South to insurance and capital markets. The premium for accessing these markets, crucial in the context of L&D, is not borne by the affected countries but by international sources of funding. This approach builds upon existing international risk-sharing experiences and institutions, and provides an important part of the emerging mosaic of solutions for L&D.

### Why? Access the risk capital markets for scale, efficiency and predictability of funds

Accessing risk capital markets is crucial for financing L&D due to the scale, efficiency and predictability these markets offer. Risk-sharing systems, such as insurance and catastrophe bonds, leverage the vast capacity of these markets to absorb and distribute financial risks globally. This approach aligns with the recent developments in climate finance, as observed in the negotiations leading up to and during COP27.

However, the complexities and disagreements that surfaced during the formation of the L&D fund, especially regarding contributions from developed countries and the fund’s location, highlight the need for innovative financing mechanisms. The risk capital markets, with their ability to generate large-scale funding for catastrophic events, offer a solution that can complement traditional financial sources. For instance, the New Zealand Earthquake Commission’s (EQC) purchase of US\$7.6 billion of annual protection demonstrates the significant capacity of these markets.<sup>74</sup> Furthermore, the increasing frequency of natural catastrophes resulting in annual insurance claims of over US\$100 billion signals the growing relevance of these markets in addressing the financial needs of L&D.

<sup>74</sup> “Toka TēAke EQC Adds Catastrophe Bonds to New Record High Reinsurance Portfolio,” EQC, June 1, 2023, <https://www.eqc.govt.nz/news/catastrophe-bonds-added-to-new-record-high-reinsurance-portfolio/>.

In this context, the proposed risk-sharing systems for L&D, which transfer the financial burdens from the Global South to international markets, become increasingly pertinent. These systems can provide the scale needed to address the burgeoning costs of climate impacts, which are estimated to be as high as US\$150–300 billion by 2030 for immediate impacts and subsequent reconstruction.<sup>75</sup>

## Why? Business rationale

The business rationale for prioritising risk-sharing systems in L&D financing is multi-faceted. Firstly, these systems transfer financial responsibility to the private sector, which is capable of handling large payouts that may far exceed annual premiums. This is exemplified by the case of Morocco, which received a substantial payout from the global risk capital markets following a catastrophic event, highlighting the private sector's capacity to absorb significant losses.

Secondly, for donors and L&D funds, risk-sharing systems offer better value for money. The premiums paid unlock access to extensive financial resources from risk capital markets, providing a cost-effective way for donors to support large-scale climate resilience and recovery efforts. This approach aligns with the needs identified in the ongoing discussions around the L&D fund, where there is a clear demand for new, additional, predictable and adequate financial resources.

Furthermore, risk-sharing systems provide more security for L&D funds against major losses, particularly in years with multiple catastrophic events. This aligns with the complexities and challenges discussed in the recent meetings of the transitional committee for the L&D fund. The committee's efforts to balance the diverse interests and concerns of various countries underscore the need for a robust and reliable financial mechanism capable of addressing the scale of L&D.

Finally, the efficient and predictable administration of donor funds through pre-arranged financing is crucial. This approach minimises unpredictable demands on donors and ensures responsible use of public funds. As countries continue to debate over the operational aspects of the L&D fund, including contribution sources and fund management, risk-sharing systems offer a structured and transparent way to manage financial resources effectively.

In sum, prioritising risk-sharing systems to access risk capital markets and implementing them as part of the L&D financial architecture provides a pragmatic and efficient solution. These systems align with the ongoing global efforts to establish a sustainable and effective L&D fund, addressing the pressing need for large-scale, predictable and efficient financial resources to tackle the impacts of climate change.

## How? Practical steps forward

**Include risk-sharing mechanisms to operationalise the L&D fund.** Including risk-sharing mechanisms in the operationalisation of the L&D fund is crucial. These mechanisms offer a structured approach to managing financial risks associated with climate impacts, ensuring that funds are allocated efficiently and effectively. By transferring the financial burdens of climate events from affected countries to international markets, these systems can provide the necessary financial support without overburdening the public coffers of developed countries. The recent developments in setting up the L&D fund, with its focus on inclusivity and accessibility for the Global South, underline the importance of integrating such mechanisms to ensure the fund's effectiveness and sustainability.

**Use risk modelling of pre-arranged finance systems to inform integrated adaptation and L&D interventions.** Employing the risk modelling of pre-arranged finance systems is key to informing integrated adaptation and L&D interventions. This approach involves using established and robust modelling techniques to assess and quantify climate risks, which can then guide the allocation of resources and design of interventions. By focusing on overall economic impacts at a national scale, such as the implementation of umbrella stop-loss mechanisms, policymakers can develop targeted strategies that address the specific needs and vulnerabilities of different countries. This aligns with the broader disaster risk management strategy, enhancing both the effectiveness and efficiency of L&D funds and adaptation efforts.

<sup>75</sup> LSE, Finance for climate action: Scaling up investment for climate and development – Report of the Independent High-Level Expert Group on Climate Finance (LSE, 2022), <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/11/IHLEG-Finance-for-Climate-Action-1.pdf>.

**Integrate interdependent global risk management mandates of climate policymakers with global and national financial system policymakers.** Integrating the mandates of climate policymakers with those of global and national financial system policymakers is vital for creating a cohesive and comprehensive approach to global risk management. This integration ensures that climate risks are adequately addressed within the broader financial system, promoting resilience and sustainability. The collaboration between these diverse policymaking bodies can lead to the development of innovative financial instruments and strategies that effectively mobilise resources for L&D while aligning with global financial regulations and practices. Such integration is crucial in the context of the evolving landscape of climate finance and the need for robust, multi-faceted solutions to tackle the challenges posed by climate change.



“

**Billions of people, lives and livelihoods who are vulnerable to the effects of climate change, depend upon the successful delivery of the Loss and Damage Fund.**

COP28 President<sup>76</sup>

”

## Further reading

Q&A: The fight over the ‘loss-and-damage fund’ for climate change (Carbon Brief, 2023)

Outcomes of the Work of the Transitional Committee: Proposal from Developing Countries on the Launch of the Loss and Damage Fund and Funding Arrangements (UNFCCC, 2023, p. 9)

<sup>76</sup> Attracta Mooney, “Climate fund talks collapse as rich and developing countries clash,” Financial Times, October 21, 2023, <https://www.ft.com/content/20356e04-4fcf-4034-9bcc-5b998e8caf15>.



## Ask 7. PLACE PEOPLE AT THE CENTRE OF DECISION-MAKING

### What? Place people at the centre of decision-making

Successfully transitioning to a low carbon economy rests on the coming together of critical levers of change, from technological innovation and political ambition to industrial transformation and capital mobilisation. But overlaying all these drivers is the active participation of society as a whole. Ultimately, public participation lies at the heart of the transition. It is therefore crucial that the Parties incorporate mechanisms to ensure that the voices of their citizens are heard and that their concerns and ambitions are factored into the formation, implementation and evaluation of climate policy. It is therefore welcome that the UAE Presidency of COP28 has singled out ‘Inclusion’ and ‘Frontline Communities’ as two of its four cross-cutting themes for this round of negotiations. This is particularly timely due to the establishment at COP27 of a new UNFCCC work programme on just transition for discussion of pathways to achieve the goals of the Paris Agreement, as well as the decision to convene annual high-level ministerial roundtables on just transition, beginning at COP28.

### Why? Turn the transition into a society-wide effort

The transition will, of necessity, require the involvement and support of individuals, households and communities who are often excluded from formal decision-making processes, especially at national level. Yet their participation in, and enthusiasm for, ambitious climate action depends on the impact of these policies being perceived as ‘fair’ or ‘just’. Efforts on the part of policymakers to set out what ‘fair’ might look like may not be shared across all of society: attitudes are likely to differ according to demographics, income levels, educational attainment, economic opportunity, gender, cultural background and other factors. What’s more, participation informs people’s verdict of what is and is not fair: top-down decisions tend to be regarded with more scepticism than decisions that are reached through multi-stakeholder participation. Hence, there is a growing recognition that the process of climate policymaking must provide opportunities for the public to actively engage with the process and have their thoughts and concerns reflected in the outcome.

A people-centric approach is crucial to delivering the transition in a way that ensures equitable distribution of the benefits and burdens of the transition. In recent years, civil society organisations and other citizen representatives have started using the term ‘just transition’<sup>77</sup> to refer to socio-economically equitable low carbon transition, reflecting an extended scope and application of this term, which was first coined by US trade unions to highlight the need to protect workers affected by new water and air pollution regulations.<sup>78</sup> The need for the principle of fairness to guide the low carbon transition was explicitly recognised in the 2015 Paris Agreement, where the Parties express their support for “taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.” In the subsequent years, the term ‘just transition’ has become widely used in relation to both positive and negative social impacts linked to the transition, within and between countries and continents.<sup>79</sup>

Although the concept of just transition has gained traction in policy discussions, mechanisms to make the actual policymaking process more people-centric have, so far, largely failed. This has left key social actors

77 For more on the viewpoints of civil society, see: “What Do We Mean By Just Transition?” Climate Justice Alliance, accessed November 21, 2023, <https://climatejusticealliance.org/just-transition/>.

78 “About Just Transitions,” Just Transition Initiative, accessed November 21, 2023, <https://justtransitioninitiative.org/about-just-transitions/#:~:text=The%20concept%20of%20just%20transitions,environment%20as%20well%20as%20workers.>

79 Sanna Markkanen and Annela Anger-Kraavi, “Social impacts of climate change mitigation policies and their implications for inequality,” *Climate Policy* 19, no. 7 (April 2019): 827–844, <https://www.doi.org/10.1080/14693062.2019.1596873>.

feeling disengaged from the low carbon transition and increasingly critical of climate policies, which are seen as imposed from above with limited regard to their potentially adverse impacts. Similar sentiments have also been felt by some Parties who fear the impacts of global climate objectives on domestic jobs, tax revenues or opportunities for economic development. These fears, if not adequately addressed, risk disrupting global climate negotiations and hindering future climate action.

The Marrakech Partnership for Global Climate Action provides a solid model of a people-centric approach that Parties could, and should, adopt at national and subnational levels. This model, adopted under the UNFCCC banner, provides corporations, business associations, trade unions and civil society groups with the chance to actively collaborate in national, industry and community planning and policy creation.<sup>80</sup> The Scottish Government's Just Transition Commission shows how such a model can be adapted at the national level. Among other things, the Commission has the responsibility to evaluate who may be adversely affected by the low carbon transition, and advise the government agencies on how best to engage with them. Such approaches increase the likelihood of policy coherence and society-wide buy-in, both of which are desperately needed for a successful and rapid transition. Other well-known tools and frameworks to help countries ensure equitable transition to climate-neutral economies include the EU's Just Transition Mechanism (JTM)<sup>81</sup> and the World Bank's 'Just Transition for All' initiative.<sup>82</sup>

## Why? Business rationale

As with governments, businesses do not operate in a vacuum. For companies to action their climate plans and transition strategies, they require inputs from multiple external actors, ranging from suppliers and raw material producers through to consumers and educators. The logic of public dialogue and social engagement applies as much to business as to policymakers – namely, for people to buy into companies' transition plans, they need to feel that their viewpoints have been properly heard and their interests adequately met.

While the impacts of the transition will be felt across all spheres of society, the most immediate and most substantive knock-on effects will centre on the cost of living and employment. The green economy promises to rapidly expand low carbon industries, generating millions of new jobs. At the same time, the transition will bring about a restructuring of the global economy that will result in the progressive scaling back of carbon-intensive sectors such as fossil fuel production and heavy industry. As the primary engine of economic production, the private sector finds itself at the centre of this transformation process – and, as such, both responsible for, and dependent upon, the formation of a transition-ready workforce.

Only with a people-centric approach to employee development and lifelong learning will companies be able to access the skills they require to succeed in the low carbon economy. To quote from the just transition of SSE, a Scottish energy company: "History also tells us that economic growth, innovation, digitalisation and 'smart' are not necessarily natural partners of social fairness. The risk is that the rapid transformation leaves some people behind – perhaps those without opportunity to reskill into the low-carbon industries."<sup>83</sup> By proactively investing in people and factoring their future needs into workforce strategies, companies can build a loyal and skilled employee base to support their growth in the emerging low carbon economy.

As with the policymaking process, the public legitimacy of business (and, as a direct consequence, its social licence to operate) depends on its activities leading to fair rather than unfair outcomes for society. Aside from the impact on employment, which is already well known, the transition may create unintended consequences that could jeopardise companies' reputations and lead to restrictive regulatory constraints. Engaging in ongoing dialogue with social actors can serve as an early warning mechanism for corporations, enabling them to identify unexpected social repercussions of their transition plans and intervene ahead of time to avoid these.

80 For a further example, see: "The Just Transition Mechanism: making sure no one is left behind," European Commission, accessed November 21, 2023, [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en).

81 "The Just Transition Mechanism: making sure no one is left behind," European Commission, accessed November 21, 2023, [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en).

82 "Just transition for all: the World Bank Group's support to countries transitioning away from coal," World Bank, accessed November 21, 2023, <https://www.worldbank.org/en/topic/extractiveindustries/justtransition#:~:text=Since%201995%2C%20we%20have%20provided,from%20decades%20of%20transition%20experience>.

83 SSE, Supporting a Just Transition (SSE, 2020), <https://www.sse.com/media/j4shimca/just-transition-strategy-sse-final.pdf>.

## How? Practical steps forward

As the Parties design and deliver the ‘Just Transition Work Programme’, they should adhere to the following steps:

**Engage people in the change.** The work programme and wider discussions and actions need to be founded on meaningful social dialogue and transparent stakeholder participation, including workers, business and civil society. Where working with local communities, their culture and values should be respected. In-depth analysis on the social implications of different pathways will be essential.

**Support inclusive outcomes.** The Parties should ensure their actions advance decent work and promote greater respect for labour and human rights across the whole of society, including business operations, supply chains and communities affected by the low carbon transition. They should also follow pathways that are 1.5°C-aligned, ambitious, real, equitable and social-justice centred, and support countries, sectors and communities as they transition away from fossil fuels towards clean energy. Such pathways should guide the Parties in developing strengthened, high-quality Nationally Determined Contributions (NDCs) by 2025.

**Provide resources to support a just transition.** Alongside wider needs for climate finance there is a need for international co-operation to deliver just transition pathways globally, including through finance, technology and capacity-building for countries in the Global South. This should include scaled-up grants, funds and blended finance, as well as de-risking low carbon investments.

**Consider the needs of smaller sustainable enterprises.** The private sector plays a key role in delivering the low carbon transition but, without support, many sustainable smaller companies may not be able to navigate the required transition. Parties should develop strategies to support green skills development and other transition-related needs of small and medium enterprises (SMEs) to ensure they are not left behind in the transition to a net-zero economy.



## Links to further reading

Just Transition Resource Platform

Justice in the transition to a low carbon economy (CISL, 2017)

Supporting a Just Transition (SSE)

Just Transition Commission (Scottish Government)

Guidelines for a just transition towards environmentally sustainable economies and societies for all (ILO, 2016)

<sup>84</sup> “Opening remarks by IPCC Chair Jim Skea, at Climate Week NYC,” IPCC, September 18, 2023, <https://www.ipcc.ch/2023/09/18/climate-week-ipcc-chair-jim-skea/>.



## Ask 8. SCALE UP INNOVATION ALONGSIDE OTHER MEASURES

### What? Scale up innovation alongside other measures

Huge advances have been made in clean energy and other transition technologies over recent years, with many more promising developments in the pipeline. Parties need to invest in the full innovation pipeline, from scaling up research into promising emerging technologies to driving rapid scale-up of proven clean technologies. This should be supported by widespread systems innovation, where we rethink the ways transport, energy and manufacturing infrastructure function in our society. Parties should be mindful of excessive techno-optimism, however. Support for technology and innovation must not detract from other ongoing adaptation and mitigation measures. A balanced portfolio of measures covering everything from engagement in behaviours and values, to regulating unsustainable activities, to supporting the development of new innovative approaches, is the soundest way to ensure a resilient and effective decarbonisation pathway.

### Why? Unleashing a powerful accelerator of climate action

As part of its presidency of COP28, the government of the UAE has taken the welcome step of electing ‘Technology and Innovation’ as one of its key cross-cutting themes.<sup>85</sup> Advances on both fronts are already making a huge contribution to the global fight against climate change. The roll-out of technologies such as photovoltaics, wind turbines and sustainable biofuels is helping to gradually transform the electricity industry, for instance. Today, an estimated 40 per cent of installed electricity capacity derives from clean sources like these – a reality that would have been impossible without public and private investment in technology and innovation.<sup>86</sup> Similar trends are unfolding across a range of other sectors, with the decarbonising effect of electric vehicles on transportation<sup>87</sup> and sustainable Agri-Tech on the food industry<sup>88</sup> presenting two illustrative cases in point.

Yet the incredible potential of technology and innovation in achieving the central goals of the Paris Agreement is far from being fully tapped. Not only do technologies that have proven their contribution need to be taken to scale faster, but evolving new approaches such as low-emissions hydrogen require concentrated investment. Government policies are helping accelerate progress on both fronts. The Inflation Reduction Act in the United States promises to direct US\$369 billion in public funding to existing and future clean technologies, for instance, mobilising trillions of private sector dollars in the process.<sup>89</sup> China’s 14th Five-Year Plan and its associated market reforms are having a similar stimulative effect,<sup>90</sup> as is the EU’s Green Deal and the European Commission’s related REPowerEU plan.<sup>91</sup>

85 “Technology & Innovation,” COP28 UAE, accessed November 21, 2023, <https://www.cop28.com/en/technology-and-innovation>.

86 IRENA, Renewable Capacity Statistics 2023 (IRENA, 2023), <https://www.irena.org/Publications/2023/Mar/Renewable-capacity-statistics-2023>. See also: IEA, World Energy Outlook, 2022 (IEA, 2022), <https://www.iea.org/reports/world-energy-outlook-2022>; IEA, Renewables 2022 (IEA, 2022), <https://www.iea.org/reports/renewables-2022>.

87 “EVs: Towards Carbon-Neutral Transportation,” Eurelectric, March 17, 2023, <https://www.eurelectric.org/in-detail/evs>.

88 See: Global AgTech Initiative, accessed 21 November, 2023, <https://www.globalagtechinitiative.com>.

89 “\$369 billion in investment incentives to address energy security and climate change,” UNCTAD, August 16, 2022, <https://investmentpolicy.unctad.org/investment-policy-monitor/measures/4004/-369-billion-in-investment-incentives-to-address-energy-security-and-climate-change->.

90 “Issue Brief - China’s 14th Five-Year Plan,” UNDP, July 23, 2021, <https://www.undp.org/china/publications/issue-brief-chinas-14th-five-year-plan>.

91 European Commission, “REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition,” press release, May 18, 2022, [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_22\\_3131](https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131).

Releasing innovation is not solely about providing capital investment. Parties also have a host of policy instruments that can remove blockages to innovation as well as introduce incentives. Public programmes to encourage the reskilling of workers can also help accelerate the transition, as can initiatives to enhance the resilience and competitiveness of low carbon domestic companies. Finally, Parties can utilise their convening power to bring together innovative businesses and also encourage creative interactions with the research and policymaking communities. This can help stimulate fresh thinking and promote collaboration in support of climate-linked technological and policy breakthroughs.<sup>92</sup>

Important as support for innovation undoubtedly is, Parties should be wary about overreliance on new technological breakthroughs to deliver on the Paris Agreement. There is no 'silver bullet' for resolving climate change. This does not negate the possibility of technologies that are currently in their early stages developing into significant contributors to the creation of a more stable climate. Carbon capture, use and storage (CCUS) represents one such example. Although yet to be tested at commercial scale, CCUS plays an important role in most emission scenarios for reaching the 1.5°C goal.<sup>93</sup>

Given the unproven nature of such innovations, however, Parties should maintain their focus on range of options, with a priority on those that are already shown to be delivering mitigation and adaptation benefits. Furthermore, any attempt to present support for innovation as a pretext for current inaction on climate change should be called out for the dereliction of moral and political duty that it is.

## Why? Business rationale

Innovation has always comprised a key component in business competitiveness and growth. In the transition to the low carbon economy, the capacity to identify emerging needs and deliver new products and services to meet these will be more central to business success than ever.

The size of the prize for companies that invest in developing the leading clean technologies and services of tomorrow is vast. A recent analysis by consultancy firm Oxford Analytica and global engineering company Arup, for example, puts the value of new business opportunities at £10.3 trillion (in 2020 prices) to 2050 – equivalent to 5.2 per cent of projected global GDP by the mid-century mark. It is important to note that the economic benefits of this sea-change in the business landscape extend beyond just innovator companies themselves. Indeed, the creators of tomorrow's low carbon innovation will harness a minority (US\$4.0 trillion) of the total value generated, with the remainder captured by companies in the wider supply chains of these industries. What is good for individual companies is therefore also good for the wider business sector.

Progress on climate action has historically been hampered by a widespread perception in the private sector that transitioning to a low carbon economy represents a cost. This is true to an extent, especially for carbon-intensive industries that will need to invest in re-engineering their operations and potentially divest from currently profitable business activities in order to align with a 1.5°C trajectory. The promise of innovation, however, is that these costs will be offset – and very possibly exceeded – by the emergence of new, fast-growth markets in the medium and long term.

This prospect of innovation-driven profitability and competitiveness drives forward-looking companies to make the up-front investments in research and development (R&D) that are so necessary to achieving the Paris Agreement. Take the car market. By 2030, conservative estimates suggest one in three passenger vehicles sold worldwide will be electric,<sup>94</sup> for example, with more ambitious projections putting the figure at over four in five (86 per cent) for advanced markets such as Europe and China.<sup>95</sup> This represents a multi-billion-dollar industry that was economically inconsequential as little as a decade ago.

At present, however, climate-related R&D is concentrated in a small number of companies headquartered in a limited number of geographies. A joint study by the European Commission and the Organisation for Economic Co-operation and Development (OECD), for example, finds that 70 per cent of all patents

92 For further examples of non-financial levers that can be pulled by governments to stimulate green innovation, see: European Commission, "Commission reports on EU policy initiatives to promote investments in clean technologies," press release, October 24, 2023, [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_23\\_5245](https://ec.europa.eu/commission/presscorner/detail/en/ip_23_5245).

93 CCUS's mitigation potential is estimated by the International Energy Agency to be capable of reaching a point where it can capture 6.3 Gt CO<sub>2</sub> in 2050, up from around 0.2 to 0.4 Gt CO<sub>2</sub>e today. See: "Thematic Areas: Carbon Capture, Use and Storage," UNFCCC, 2020, <https://unfccc.int/resource/climateaction2020/tep/thematic-areas/carbon-capture/index.html>.

94 "Global EV Outlook 2023," IEA, April 26, 2023, <https://www.iea.org/events/global-ev-outlook-2023>.

95 RMI, X-change: Cars (RMI, 2023), <https://rmi.org/insight/x-change-cars/>.

related to climate mitigation and adaptation solutions are owned by a pool of just 2,000 large companies. Many of these are domiciled either in the United States or China.<sup>96</sup> Expanding the net of innovators is essential to tapping the private sector's innovation potential and thereby driving both economic growth and decarbonisation. This is especially important given the study's conclusion that small, non-corporate firms (especially start-ups and early-stage enterprises) typically develop "more radical innovations" and are therefore "more likely to generate the breakthrough discoveries needed to achieve net-zero emissions". Placing green innovation at the core of national industrial strategies will persuade more businesses to greenlight the R&D that leads to such breakthroughs coming to fruition.

## How? Practical steps forward

**1. Accelerate the deployment of proven technologies at scale.** Recent years have witnessed the development of a suite of innovative green products and services, with clean energy (notably solar, wind and biogas) and battery-powered transport among the most obvious. Parties must help turbocharge the roll-out of technologies like these through the provision of incentives (financial and non-financial)<sup>97</sup> and the removal of market barriers (most notably, fossil fuel subsidies).<sup>98</sup>

**2. Speed up the development and deployment of promising new technologies.** Parties must invest in building more effective ecosystems for cutting-edge climate innovations. The creation of cross-sector research networks, the construction of 'innovation hubs' for early-stage clean-tech enterprises, and the promotion of business tie-ins with universities are just some of the policy tools at their disposal.<sup>99</sup>

**3. Remain open and attentive to innovations from non-traditional sectors.** Technology now develops so fast and on so many fronts that the possibility of climate solutions appearing from unexpected quarters is very real. Parties must have systems to proactively monitor the innovation landscape for potential climate wins. An example is the field of artificial intelligence, which presents huge opportunities for risk management, disaster management and recovery, adaptation and electricity grid management, among other climate solutions.<sup>100</sup> Likewise, advances in satellites and other space technologies promise improvements to the monitoring of greenhouse gas emissions and, consequently, to the accuracy of climate monitoring.<sup>101</sup> Beyond these high-profile sectors, however, Parties should also invest time and energy into looking at innovations available from grassroots groups and communities, particularly indigenous peoples who often have innovative practices and capabilities not well captured in the formal economy.

96 S. Amoroso et al., *World Corporate Top R&D Investors: Paving the Way for Climate Neutrality*, a joint JRC and OECD report, EUR 30884 EN (Luxembourg: Publications Office of the European Union, 2021), <https://www.oecd.org/sti/world-corporate-top-rd-investors-paving-the-way-for-climate-neutrality.pdf>.

97 George Atalla, "Six ways that governments can drive the green transition," EY, May 13, 2022, [https://www.ey.com/en\\_pt/government-public-sector/six-ways-that-governments-can-drive-the-green-transition](https://www.ey.com/en_pt/government-public-sector/six-ways-that-governments-can-drive-the-green-transition).

98 Filipe Duarte Santos, Paulo Lopes Ferreira, and Jiesper Strandsbjerg Tristan Pedersen, "The Climate Change Challenge: A Review of the Barriers and Solutions to Deliver a Paris Solution," *Climate* 10, no. 5 (May 2022): 75, <https://doi.org/10.3390/cli10050075>.

99 Antoine Dechezleprêtre and Tobias Kruse, "The effect of climate policy on innovation and economic performance along the supply chain: A firm- and sector-level analysis," *OECD Environment Working Papers*, No. 189, OECD Publishing, Paris, 2022, <https://doi.org/10.1787/3569283a-en>.

100 Dylan Walsh, "Tackling climate change with machine learning," MIT Sloan School of Management, October 24, 2023, <https://mitsloan.mit.edu/ideas-made-to-matter/tackling-climate-change-machine-learning>.

101 "Environment and Natural Resources: Climate Change," UN Office for Outer Space Affairs, accessed November 21, 2023, <https://www.unoosa.org/oosa/en/ourwork/psa/emnrm/climatechange.html>.



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**When I think of climate, I think of innovation... that’s why I am so optimistic about the future.**

Joe Biden, 46th President of the United States<sup>102</sup>

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## Links to further reading

Innovation for Sustainability: The driving force of circular economy start-ups (CISL, 2023)

Navigating low carbon disruption (CISL, 2023)

Founders to Funders: Key trends and reflections of fundraising for circular disruptors & innovators (CISL,

The Canopy: A sustainable workspace for impact-focused enterprises

UN Climate Change Global Innovation Hub (UNFCCC)

Fighting Climate Change with Innovation (IMF, 2021)

EIT Climate-KIC (European Commission)

Adaptation Fund Climate Innovation Accelerator (UNDP)

<sup>102</sup> Lucy Evans, “Remarks by President Biden on Climate Resilience | Palo Alto, CA,” The White House, June 19, 2023, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2023/06/19/remarks-by-president-biden-on-climate-resilience-palo-alto-ca/#:~:text=Throughout%20our%20history%2C%20we%27re,climate%2C%20I%20think%20of%20innovation.>