COP27 Briefing

Delivering for people, nature and climate

The global economic and geopolitical context in which COP27 is taking place is tense and complex.

The **war in Ukraine has precipitated multiple global crises**: from energy and food insecurity, to inflationary and debt pressures around the world – crises that compound existing climate vulnerabilities and ongoing effects of the pandemic.

Alongside this, **leaders and their citizens around the world are dealing with spiralling climate impacts**, with climate catastrophes becoming more frequent and ferocious – impacting millions worldwide. This year floods in Pakistan killed nearly 1500 people and displaced more than 30 million. Thousands of people across Europe were affected by heatwaves, and Hurricane Ian was described as one of the worst hurricanes in America's recorded history.

These **events are becoming increasingly connected**. For instance, extreme drought and heat amplify the drivers of migration, supply chain fragility, and cause significant disruption to major economic sectors, not least global grain production.

By **2030 climate change is expected to push an additional 132 million into extreme poverty** – many of them women, girls and marginalised communities.

Climate change and extreme weather events disproportionately affect Africa, the host of COP27, with severe economic, social, and environmental consequences for its people. In Sub-Saharan Africa, the gross domestic product could be reduced by up to three per cent by 2050. Despite having 17 per cent of the current global population, Africa accounts for a negligible 3 per cent of cumulative worldwide CO2 emissions historically.

There are important **signals of progress**. By the middle of this decade, renewable capacity is expected to be up 60 per cent on 2020 levels. Leaders across the world are increasingly turning to renewables to guarantee cheaper, cleaner, and more secure power for their populations. The US's Inflation Reduction Act paves the way for the country to tackle rising energy insecurity and cost contribution to inflation while cutting emissions. Countries like Australia are back on the frontline of the fight against climate change. India has published a strengthened emissions reduction target, its 2030 NDC. Businesses are also stepping up, with over 8,300 businesses now signed up to the UN Race to Zero campaign—a 60 per cent increase since COP26. Civil society is also embracing the power of the collective, to make clear that it will not accept anything less than a net zero future.

But there is still a long way to go - change is too slow and siloed. We cannot tackle any of the crises we face in isolation. We cannot allow cyclical crises, as challenging as they are, to distract us from the transition to net zero. As many climate vulnerable countries have been recognising for some time, we no longer have the luxury of choice. We have to tackle these crises simultaneously.

This year's Conference of the Parties (COP) in Egypt will be pivotal in setting the stage and direction for global climate action this decade. It will provide a **core opportunity to agree upon new ways to accelerate progress**, renew global climate collaboration in the face of multiple crises and demonstrate that global leaders are working together to address the impacts of climate change.

COP27 offers a unique moment for leaders from across the world to build pathways for a more resilient and sustainable agenda that places climate change at the forefront of future economic prosperity. And with the global stocktake that started during COP26, concluding in 2023 with the COP28 summit in the United Arab Emirates (UEA), **what is decided in Sharm El-Sheikh sets the tone and pace for next year's summit and prepares the ground for the roadmap for 2030 and beyond**.

Decisive climate action contains the **answers to many macro, interlinked challenges** facing the world. A just transition to a low-carbon economy promises to secure (clean) energy supply, provide better jobs, and reduce economic inequality, to name a few of its positive effects.

Moving forward at COP27 will involve trust, between countries and sectors – something in increasingly short supply. Climate leaders in economically wealthier nations need to take the first step, demonstrating their commitment to climate action by meeting their obligations under the Paris Agreement. This starts with **delivering the $100 billion** in climate finance pledged to economically poorer countries.

Creating the right partnerships at COP27 would secure the summit's legacy not just as a platform for meaningful progress on adaptation and finance but also as the foundation for next year's stocktake at COP28 in the UEA. Countries will need to change pledges into concrete results as the starting point on a roadmap for more inclusive climate action. Achieving this outcome will rely on political leaders seeking productive conversations that can **bridge rather than entrench existing divides and silos** in the UNFCCC process.

But action on climate change cannot be done by governments alone. **The private sector will play a vital role in helping countries across the world meet their nationally determined contributions (NDCs)** on reducing emissions and adapting to the impact of climate change. As one of the principal engines of the global economy, private companies have a critical and legitimate role to play here.

Leading corporations can demonstrate their commitment by **instigating and implementing their net-zero plans**. Doing so will accelerate the market shift toward sustainable systems, products, energy, and supply chains. In addition, the **finance sector can support greater flows of capital** to climate-related projects – particularly those geared towards the adaptation of economies, predominantly in the economically developing countries; which are least responsible for climate change but bear its primary brunt.

In this briefing, we seek to show ***why*** **more and more businesses are motivated to act on the climate agenda and to indicate what leading businesses believe governments could do to collaboratively accelerate real-world action**. With this in mind, the report presents a selection of key asks in five core thematic areas – energy, adaptation, ambition, finance, and nature.

The times for 'buts' and 'maybes' have passed. As the long term sustainability of the economy and society hangs in the balance, Governments must use all available opportunities to accelerate action, including using this year's climate summit in Egypt, to reaffirm their collective intent to act without hesitation and their plans to make that intent real.

1. Ambition & Implementation

Close the ambition and implementation gaps: set strong targets and establish the right policies and actions to reach them

What? Setting a new course

2030 is fast approaching. Three years of what needs to be the decisive decade for climate action are already gone, having seen less progress than required to have a chance of achieving the globally agreed climate goals. The time to transform our economy and put the world on track to achieve the Paris Agreement goals is now. A successful transition to a net-zero reality will not be born from unbacked pledges or ambitious strategies that lack effective implementation plans. We desperately need a radically new trajectory for economies and businesses globally – and ensuring robust mechanisms are in place to guarantee science-based targets are established and implemented is essential. COP27 must, at a minimum, ensure that the level of collective ambition agreed upon by governments at COP26 is not reduced: to achieve 1.5°C, and stay as close to 1.5°C in any possible overshoot scenario.

Why? Meaningful progress needs a meaningful plan

The Paris Agreement is unashamedly ambitious. But it is not ambitious for ambition's sake. The target accords with what science tells us. With all the human suffering and destruction to nature that irreversible climate change will bring, we need to keep within safe levels of atmospheric carbon. Hence, the target is to keep temperature rises to a maximum increase of 2oC (ideally below 1.5oC) above pre-industrial levels, by 2050. Every fraction of a degree more will cause substantial human suffering, environmental destruction, and economic cost.

At last year's COP, there was a general agreement that countries needed to raise the ambition levels of their targets. Few have so far done so. Some duly responded with revisions to their Nationally Determined Contributions (NDCs), but most held back, pledging to do so soon. According to the independent, science-focused group Climate Tracker, fulfillment of countries' current NDCs will most likely result in warming of around 2.4°C – assuming that governments will meet their 2030 targets.

Such an assumption is far from certain. As well as NDCs currently falling short, most countries are failing to meet the targets they have set for themselves. If governments keep with their existing climate policies, the world will warm even faster than predicted, with the average global temperature hitting 2.7°C by 2050.

Achieving the Paris goals represents the greatest change process the world has ever tried to engineer. And, like any change-management endeavour, the objectives need to be clear, the targets proportional, and the strategy for implementation robust and practical. At present, we are facing both an ambition gap and an implementation gap. Both need to be closed – and urgently.

Why? Business perspective

Achieving the Paris goals requires the wholesale transformation of all our global systems, from food and transport to energy and heavy industry. As one of the primary agents of economic activity, the private sector is central to the transition's success or failure. How companies choose to develop their products, sell their services, and invest their capital will help determine the pace and nature of the economy's future transition.

Business is increasingly alert to the risks presented by a warming planet, as it is to the opportunities inherent in spearheading a low-carbon future. Companies can go slow or fast. They can embrace the climate challenge, or they can drag their heels. But while business leadership is fundamental, it can only reach scale with the right policies from governments. Political decision makers can create rules and frameworks that enable and enforce market change, prompting a systematic shift in business behaviour. Alternatively, they can fail to engage thoughtfully and leave the farsighted businesses that understand the economic imperatives of climate action too isolated in their leading action. Naturally, the former is preferred.

Above all, businesses crave clarity on the road ahead. As arbiters of climate ambition and as rule-makers for the economy, national governments are uniquely positioned to provide this clarity. When regulations are well thought-through and consistently applied, they give businesses the certainty they want. Indeed, a recent survey commissioned by CISL finds that seven in 10 leaders of large businesses across five continents believe that regulations are needed to realise their net-zero ambitions.

Regulations alone are not enough, however. To plan ahead, companies also need certainty around the immediate and mid-term actions that are expected on their part and on the part of government, respectively. Different countries are attempting this in different ways. In the US, the recently passed Inflation Reduction Act gives businesses in many sectors clear direction and incentives for the next ten years. However, for businesses not directly affected and for timeframes beyond the Act, there are still significant questions about future policy. While in the EU, there is a legislated end goal of climate neutrality and a wealth of increasingly comprehensive and long term policies to deliver on that goal. But complex EU decision making, negotiated between many stakeholders and split across shared competencies between member states, means much of the detail is unclear, and the impetus weakened from where it could be.

Further, the task of providing clarity is written into the Paris Agreement. As part of the accord, participating governments are obliged to: (i) raise their ambitions in line with this long-term goal (including exacting short- and medium-term targets), if they have not done so already; (ii) provide detailed roadmaps (including at the sector level) for how their targets will be achieved; and (iii) develop the policies and support mechanisms necessary to put their economies onto a Paris-compliant footing.

How? Practical steps forward

Success at COP27 will be strongly contingent on closing the ambition and implementation gap, requiring goodwill between all parties, which are currently under strain in an increasingly difficult geopolitical context.

1. Support the case for higher ambition

No one should be naïve about the pressures that politicians are under as they head to COP27. The after-effects of the COVID-19 pandemic, coupled with the reverberations of Russia's invasion of Ukraine present very real economic strains and cost-of-living concerns. Some government leaders may be tempted to argue that more pressing issues exist at present than climate ambition. Without ignoring today's real social and economic stresses, government leaders must step up and make a case for climate action now. There is a looming danger that a net-zero transition is presented as a 'cost' to governments. Pitched as such, it will always come second to more immediate claims to the limited resources that governments have at their disposal. Instead, we need strong voices from political leaders who understand that low-carbon, 'green' growth is a viable and necessary strategy for delivering the security and prosperity their citizens rightfully demand. Vocal support from business leaders can send a strong market signal to delegates at COP27 that green growth is not only necessary but desirable.

2. Establish and support credible science-based pathways

Almost all signatories to the Paris Agreement have responded to their obligation under the accord to provide details of their adaptation and mitigation plans. With a few notable exceptions, however, these plans fail to offer the granularity that is required for decision makers in business to make tangible investment strategies. In particular, companies are calling for sector-level guidance on the 'when' and 'how' of governments' transition vision. Consequently, many sector groups and cross-sector alliances have begun to work up their own industry-specific glide paths to a net-zero future. These are potentially valuable reference points for policymakers looking to develop industry-specific guidance.

Case Studies

1. Race to Zero: Sector Breakthroughs

Under the umbrella of the Marrakesh Partnership, the United Nations' High-Level Climate Action Champions have developed a series of pathways for achieving compatibility with the Paris Agreement at the level of the individual sector. These separate 2030 Breakthroughs seek to galvanise exponential transformation by adopting ambitious goals and target-bound milestones. The initiative covers the 30 main sectors that make up the majority of the global economy. Particular attention is given to the following high-impact sectors: oil & gas, fashion and finance, pharma, tourism, Carbon Capture Usage & Storage (CCUS), and Direct Air Capture. Collectively, the pathways spell out what different actors must do when. The idea of the initiative is to create a vision that all key organisations – including governments – can adhere to in support of transformational change. Underpinning the 2030 Breakthroughs is the evidence-based conviction that exponential change starts to occur when a critical mass (20 per cent of the total) of key players in a sector unite behind the same action plan.
UNFCCC – High-Level Climate Action Champions 2030 Breakthroughs.

More reading

There are a range of sectoral pathways to support companies transition including:

WBCSD's Scaling Positive Agriculture, UNFCCC's Fashion Industry Charter for Climate Action, REN21's Renewable Energy Pathways in Road Transport, Energy Transitions Commission Mission Possible: Reaching Net-Zero Carbon Emissions

2. Adaptation

Ensure we protect everyone and everywhere from the impacts of a changing climate

What? Make climate resilience a strategic priority

While mitigation remains as important as ever, the existing impacts of climate change cannot be ignored. Countries must adapt to this emerging reality by making resilience a strategic priority. Businesses and financial institutions have a valuable role in supporting adaptation actions in the countries in which they operate, managing risk, and investing and collaborating to find the right solutions. Leveraging the powerful synergies between adaptation and jobs, supply chains, and development is crucial, particularly for those countries at the frontline of the global climate emergency.

Why? Adaptation: time to face the uncomfortable fact of climate impacts

COP27 is taking place in a highly climate-vulnerable country on a highly climate-vulnerable continent. Those vulnerabilities are already being put to the test through a rise in natural disasters and other climate-related shocks.

Recent years have seen an upsurge in droughts, floods, heatwaves, and other climate events. The frequency and severity of these events will increase if climate change is not stopped – as will the economic impacts on nation states. In the case of some countries in Africa, climate events are setting back economic growth by between 5 per cent and 15 per cent per year. [1] In the case of Small Island Developing States, which are highly vulnerable to sea-level rises, the very existence of their national economies is in peril.[2] The need to build resilience levels to limit the adverse effects of climate change and simultaneously protect the well-being of both people and the planet is, therefore, essential.[3]

1 African Development Bank. African Economic Outlook: Supporting Climate Resilience and a Just Energy Transition in Africa. Retrieved from: https://www.afdb.org/en/knowledge/publications/african-economic-outlook

2 Martyr-Koller, R., Thomas, A., Schleussner, C., Nauels, A. and T. Lissner. 2021. Loss and damage implications of sea-level rise on Small Island Developing States. Current Opinion in Environmental Sustainability. Vol. 50: 245-259. Retrieved from: https://doi.org/10.1016/j.cosust.2021.05.001. (https://www.sciencedirect.com/science/article/pii/S1877343521000713)

3 The IPCC defines adaptation as: "the process of adjustment to actual or expected climate and its effects". See: IPCC. 2018. Annex I: Glossary. Matthews, J ed. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 541-562. doi:10.1017/9781009157940.008.

Prime responsibility for assisting in this global resilience-building project lies with richer nations. The reason is partly practical. Economically poorer nations typically lack the resources to adapt their economies, effectively consigning them to increased vulnerability in the future. This has significant knock-on ramifications for the global economy as a whole, as trade becomes disrupted and geopolitical risks inevitably increase.

As importantly, however, compelling moral arguments exist for richer countries to assist economically poorer countries in adjusting to the effects of climate change. Collectively, the 54 nations that make up the African continent are responsible for less than 4 per cent of global greenhouse gas emissions; this amounts to around one fifth of the emissions footprint of the United States (19 per cent of total emissions) and one sixth of that of China (23 percent of total emissions).[4] The fact that climate impacts hit economically poorer nations harder than their richer peers strengthens the moral case for rich-world support.[5]

There is also a strong financial case for economically wealthy countries to assist economically poorer countries. Left unassisted to face this growing challenge, these countries will likely fail in many ways to cope with climate impacts, including economic disruption and mass migration - a less stable, less secure and less economically prosperous world. Rich countries will inevitably feel the costs of this failure. They will not be able to insulate themselves from it. If we do not work together to face up to this global problem, we will likely all suffer worse for this lack of international solidarity.

To date, adaptation has played a distant second fiddle to reducing emissions (i.e. 'mitigation') in terms of policy focus. This needs to change. Adaptation does not signify a failure of existing climate policy. Instead, it should be seen as a necessary complement to the ongoing work of climate mitigation. In practice, this translates to investing in measures that promise to limit the destruction and suffering wrought by higher temperatures and other changing climate patterns. Adaptation places a particular emphasis on the construction of resilient infrastructure, from domestic housing through to roads, power facilities, and other infrastructure assets that are vital to well-functioning markets. As well as capital investment, building resilience also requires the transfer of knowledge and technologies, such as water-efficient irrigation, water desalination, and drought-tolerant crops, to name a few.

Adaptation is expected to be the focus of COP27, but loss and damage will also likely be a key issue due to escalating climate change impacts around the world. Many economically wealthy are wary of the issues of compensation and liability. The costs of loss and damage are projected to reach at least $1 trillion annually by 2050. Economically poorer countries have made 'asks' for loss and damage going into COP27. The G77 + China will continue their call for a dedicated loss and damage financing facility. The Climate Vulnerable Forum, a group of climate-vulnerable economically poorer countries, is calling for COP27 to commission an IPCCC report on loss and damage to help fill research gaps as well. Outside of negotiations, Germany has proposed a 'Global Shield Against Climate Risks' for climate vulnerable countries.

4 CDP. 2022. CDP Africa Report. Retrieved from: https://www.cdp.net/en/research/global-reports/africa-report

5 World Bank. 2021. 'When poverty meets climate change: A critical challenge that demands cross-cutting solutions.' Blog post, 5 November 2021. Retrieved from: https://blogs.worldbank.org/climatechange/when-poverty-meets-climate-change-critical-challenge-demands-cross-cutting-solutions

Why? Business perspective

Companies are facing very real disruptions now to their operations as weather patterns become more erratic and extreme climate-linked events become more frequent. Heatwaves, droughts, and floods, in particular, are incurring substantial additional costs in many regions of the world.

The United States presents an illustrative case. While the world's richest nation is historically susceptible to drought (with the Dust Bowl of the 1930s a prime example), instances of intense drought and heat are on the rise. Between 2011 and 2020, for instance, the country experienced nine droughts, each causing at least $1 billion in damages.[6] The State of California has been particularly hard hit, with a drawn-out drought from December 2011 to March 2019 (broken only by the wettest ever winter). Prolonged heat waves in more than a dozen states in the centre and west of the country, meanwhile, directly contributed to the most devastating wildfires on record.

According to data from the global reinsurer Swiss Re, economic losses from natural catastrophe events are increasing by 5.7 per cent per year worldwide.[7] The total bill worldwide in 2021 hit $270 billion. As a spokesperson for Swiss Re concluded: "There is a growing urgency for action to increase the resilience of societies worldwide... and [to] invest in protective measures such as green infrastructure."

Action to build climate resilience is especially urgent for enterprises operating in low-income countries, defences against climate-related shocks are typically low. A recent evaluation by the World Meteorological Organization (WMO) points in particular to the threat of "withering droughts and devastating floods" in Africa, for instance. High water stress currently affects around 250 million people in Africa and could displace as many as 700 million people by the end of this decade. Sea levels are also rising faster (c. 4 mm/year) than the global mean, increasing the risk of coastal flooding in low-lying cities and the degradation of drinkable groundwater. In addition to the human suffering caused by such impacts, economic losses from climate events could rise to $415 billion by 2030 if steps are not taken to improve resilience.

The flip side is also true. A low-carbon economy also presents businesses with commercial opportunities, including in new markets linked to the need to build resilience. The Taskforce for Climate-Related Financial Disclosure identifies the following companies and sectors with particularly high resilience-related opportunities: those with long-lived fixed assets (e.g. real estate, industrial facilities) or extensive supply or distribution networks (e.g. manufacturing, retail, automotive); those that depend critically on utility and infrastructure networks (e.g. power plants, water treatment facilities, energy distribution, transport) or natural resources in their value chain (e.g. food, fashion, pharmaceuticals, cosmetics); and those that may require longer-term financing and investment (infrastructure).[11]

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6 Center for Climate and Energy Solutions. 'Drought and Climate Change. Retrieved from: https://www.c2es.org/content/drought-and-climate-change/

7 Swiss Re. 2022. 'Floods drive high losses in 2021 as global insured nat cat bill hits $111bn: Swiss Re.' Press release, 30 March 2022. Retrieved from: https://www.reinsurancene.ws/floods-drive-high-losses-in-2021-as-global-insured-nat-cat-bill-hits-111bn-swiss-re/

8 The WMO cites severe floods in South Sudan, Nigeria, the Republic of Congo, the Democratic Republic of Congo, and Burundi during 2021. South Sudan, for example, recorded the third straight year of extreme floods, leading to elevated water levels of lakes and rivers. Meanwhile, many parts of Northern Africa experienced extreme heat in this period (especially in Tunisia, Algeria, Morocco, and Libya). This was accompanied by wildfires. Sand and dust storms are also cited by WMO as a recurring problem. See: WMO. 2022. The State of the Climate in Africa 2021 report. Retrieved from: https://public.wmo.int/en/our-mandate/climate/wmo-statement-state-of-global-climate/Africa

9 UN Department of Economic and Social Affairs. 2022. Policy Brief No. 139: Strengthening Disaster Risk Reduction and Resilience for Climate Action through Risk-informed Governance. Retrieved from: https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/PB_139.pdf

10 African Finance Corporation. 2022. 'Roadmap to Africa's COP: A Pragmatic Path to Net Zero.' White paper. Retrieved from: https://s3.eu-central-1.amazonaws.com/afc-assets/afc/Roadmap-to-Africas-COP-APragmatic-Path-to-Net-Zero.pdf

11 TCFD. 2017. Recommendations of the Task Force on Climate-related Financial Disclosures. p.7. Retrieved from: https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf

Ultimately, resilience for business is about guaranteeing long-term success by anticipating, embracing, and adapting to changes and disruptions. Full resilience cannot be achieved solely at the company level. Business has a vested interest in contributing to multilateral efforts to hardwire resilience into all aspects of modern life. As the World Business Council for Sustainable Development states unequivocally: "Companies must shift their mindsets to recognise that they are only as resilient as the systems they are a part of."[12]

How? Practical steps forward

1. Build resilience-related capacities and skills

The scale and urgency of the threat of climate change present a unique challenge to politicians and policymakers. Applying a resilience mindset to decision making requires an updated suite of skills and competencies. In particular, decision makers must be well versed in systems thinking and have access to the tools to support this. Without this, it is difficult to perceive the links, cause-effect relations, and knock-on consequences that a phenomenon on the scale of climate change brings. The best businesses are accustomed to working in fast-moving and complex environments, and have developed a range of risk-management and scenario-planning technologies and strategies to enable them to continue doing so. This experience would be of value to public-sector entities when developing and/or refining their own adaptation plans. Productive interchanges of this kind can be encouraged through international and regional multi-stakeholder partnerships and engagement opportunities. Creating more opportunities for North-South exchanges of this kind is of particular importance.

2. Increase investment in economy-wide resiliency

Creating a climate-resilient economy is impossible without the foundational building blocks in place. This means having built facilities in place that can withstand the impacts of our changing climate. Priority areas in this regard comprise infrastructure (road and rail links, electricity grids, ocean defences, and power plants, among others), industrial facilities (factories, warehouses, logistics hubs, retail units, offices, and so on) and domestic housing. Even without the additional risk of climate change, however, poorer countries struggle to meet their obligations in these areas. Countries across Africa, for instance, currently suffer from an infrastructure investment shortfall of between $130-170 billion per year. Therefore, finding additional capital to finance climate resiliency improvements will require external assistance.

It is important to clarify to both governments and financial markets that investing in resiliency represents an investment in future growth. According to the World Bank, every $1 invested in making infrastructure disaster-resilient saves $4 through fewer disruptions and reduced economic impacts.[14] Even so, the Bank acknowledges that multiple barriers exist to private-sector investment, ranging from insufficient data through to misalignment with institutional arrangements and lack of financial incentives.[15] Strengthening the latter (including through a reduction in risks and costs) could be achieved through blended finance, credit enhancement instruments, public-private-people partnerships, and other targeted risk-reduction (e.g. forecast-based financing) or revenue-boosting measures.

12 WBCSD. 2021. Vision 2050. Retrieved from: https://www.wbcsd.org/contentwbc/download/11765/177145/1

13 African Finance Corporation. 2022. 'Roadmap to Africa's COP: A Pragmatic Path to Net Zero.' White paper. Retrieved from: https://s3.eu-central-1.amazonaws.com/afc-assets/afc/Roadmap-to-Africas-COP-APragmatic-Path-to-Net-Zero.pdf

14 World Bank. 2021. Enabling Private Investment in Climate Adaptation and Resilience: Current Status, Barriers to Investment and Blueprint for Action. Retrieved from: https://openknowledge.worldbank.org/handle/10986/35203. Note: The Global Center on Adaptation finds that spending $800 million on early-warning systems in developing countries would avoid losses of between $3-$16 billion per year. UNDRR (2021). "International Cooperation in Disaster Risk Reduction: Target F" Retrieved from: https://bit.ly/3HALI3a

15 Ibid. pp.27-36.

3. Pursue Nature-Based Solutions

Restoring and enhancing the natural environment and the ecosystem services that it provides represents one of the most effective and sustainable ways of adapting to the negative impact of climate change. The best nature-based solutions are typically stakeholder-driven and tailored to specific regional conditions. Typical examples include the protection of coastal zones, restoration of wetlands and rivers, expansion of agroforestry and 'close-to-nature forestry', and investing in (peri)urban greening and soil protection. In addition to carbon sequestration, such solutions help to minimise erosion, prevent droughts and floods, and mitigate the risk of wildfires. While most projects follow similar generic principles, the localised nature of nature-based solutions means that a reliance on off-the-shelf models is not advised. Governments must think about how best to encourage effective knowledge transfer and local capacity building. Historically, the implementation and evaluation of nature-based solutions have been patchy, indicating that investment in robust governance and technical standards is also required. Nature-based solutions also hold out considerable opportunities for green jobs and other community benefits, thus enhancing the ability of citizens to adapt to the changing labour-market demands and wider economic conditions that the transition will present.

4. Leverage Frontier Technologies

While resilience relies heavily on having robust infrastructure, housing, and industrial facilities in place, the impact of climate-related disasters can be significantly mitigated by better information. Accurate, geographically specific data forewarn decision makers and offer time to take preparatory measures. Advances in frontier technologies such as artificial intelligence, drones, and big data analytics are radically increasing the timeliness and accuracy of climate-related data. To ensure that such information is collected, analysed, and applied to policy decisions more reliably and effectively, governments require robust systems of risk-informed governance.

Case Studies

1. Climate resilient insurance

The UK-based insurance broker and advisory firm Willis Towers Watson, together with the German reinsurer Hannover Re, recently developed a unique public-private partnership project to help insure the city of Medellín in Colombia against floods, landslides, and other natural disasters. The partnership draws on the latest science, modelling, and analytics, and aims to create parametric flood and earthquake insurance products that align with Medellín's Disaster Risk Management plans and activities. It will see Medellín's city government of Medellín become the chief policyholder via its existing fund for disaster risk and emergencies management, which provides financing for emergencies, rehabilitation, and reconstruction. Pay-outs from the scheme are designed to support government response activities such as food and cash disbursements and the rapid repair of basic infrastructure. Co-funding for the initiative is provided by the InsuResilience Solutions Fund, funded by Germany's KfW Development Bank. The initial idea grew out of a tripartite agreement between the German Federal Ministry for Economic Cooperation and Development, the business-backed Insurance Development Forum (IDF),[16] and the United Nations Development Programme (UNDP) to support risk management solutions for climate-vulnerable countries.

16 Insurance Development Forum, 2021, Delivering significant policy and operational impact: Insurance Development Forum 2021 Annual Review https://www.insdevforum.org/

In a similar move, IDF members Allianz and Swiss Re are behind another tripartite project to provide Ghana with a sovereign risk transfer scheme for urban floods.[17] Developed in conjunction with the Ghana Ministry of Finance, UNDP, and the German Government, the project is designed to support long-term investments in the country's capacity to leverage and integrate insurance and risk financing into their development strategies. Evidencing the complexity of such adaptation solutions, the initiative draws on the support of a range of private-sector specialists, including flood risk consultants HKV, microsatellite operator ICEYE, and media monitor Flood Tags. As well as speeding up pay-outs in the event of damaging floods (achieved through the selection of a pre-defined trigger as opposed to assessing actual losses), the partnership also aims to enhance the disaster response capacity of Ghanaian institutions through increased access to data, detailed risk insights, and activation of contingency protocols. Similar projects have also been developed in Peru[18] and Mexico[19].

2. Regionally targeted resilience financing

The Africa Finance Corporation (AFC) recently announced its intention to launch a $750-million Climate Resilience Fund to promote the resilience of its funded infrastructure projects by integrating climate considerations into their financing, design, and operation.[20] The fund will be managed by AFC Capital Partners (ACP), a subsidiary of AFC, which is a pan-African multilateral development financial institution. The goal of the fund is to mobilise concessional financing for climate-resilient infrastructure projects and to co-invest with AFC in similar projects. The fund also promises to offer a tailored technical assistance programme, with a view to increase local capacity for such projects and accelerate the development of an investible project pipeline. The fund will focus on AFC's core transport, logistics, power, telecoms, and industrial parks sectors. The fund is going through an approval process, with financing from the World Bank's Green Climate Fund.

3. Retrofitting for resilience

The Energy Development Corporation (EDC), the Philippines' largest energy company, has undertaken a range of measures to increase the resilience of its physical assets in recent years. Using cutting-edge, high-resolution LIDAR mapping and deluge modelling, EDC identified critical points of its infrastructure that were most at risk from climate change and invested $6.2 million to minimise these risks. The move follows the decision by

EDC's management team to update its modelling and risk analysis to include a greater focus on emerging climate risks. In addition to making its own infrastructure more resilient, the company also deployed disaster prevention and response experts to raise awareness of climate-related natural disasters in vulnerable communities and to train residents in how to increase their own resilience. These measures were reinforced through close cooperation with municipal government entities and other key community stakeholders. Facilitating EDC's adaptation measures was a triple-A Philippine peso-denominated green bond issued by the International Finance Corporation (IFC). The first of its kind at the time, the IFC loan has a value of about $90 million with a 15-year maturity.[21]

More reading

IPCC 6th Assessment Report: Climate Change 2022: Impacts, Adaptation and Vulnerability p.37-118
https://www.ipcc.ch/report/ar6/wg2/

17 IDF. 2022. 'Public-Private Partnership to Develop Flood Insurance and Build Financial Resilience in Ghana.' Press release, 13 June 2022. Retrieved from: https://www.insdevforum.org/press-release-public-private-partnership-to-develop-flood-insurance-and-build-financial-resilience-in-ghana/

18 https://www.insdevforum.org/idf-launches-first-tripartite-project-for-peru/ NEEDS MORE

19 https://www.insdevforum.org/tripartite-project-launched-in-mexico-by-ministry-of-finance-and-public-credit-the-idf-undp-and-the-german-government-to-develop-an-insurance-programme-to-protect-climate-vulnerable-farmers/ NEEDS MORE

20 Green Climate Fund. 'Infrastructure Climate Resilient Fund (ICRF)'. https://www.greenclimate.fund/document/infrastructure-climate-resilient-fund-icrf

21 IFC. 2018. 'IFC Issues First Peso-Denominated Green Bonds to Support Capital Markets and Climate-Smart Investments in the Philippines.' Press release, 25 June 2018. https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=16783

3. Energy

Accelerate the shift to renewables and scale up measures to reduce energy demand through multilateral collaboration

What? Accelerating Clean Energy Transition

The current energy crisis has put energy security at the top of the political agenda. As national governments consider how to meet current and future energy demand in a global context of constrained and contested fossil-fuel supply and current high prices, COP27 provides an opportune moment to signal the transition away from fossil-fuel dependency and towards scaling up energy efficiency and renewable energy. This transition is best delivered through multilateral collaboration between countries.

Why? Renewables and energy efficiency can power a better energy future

As the United Nations has long acknowledged, transitioning the energy sector away from fossil fuels is fundamental to climate action. The logic is self-evident. Emissions from burning fossil fuels such as coal, oil and natural gas for energy, power, and other industrial processes represent the leading cause (i.e. 64of total emissions, 2019) for rising levels of atmospheric carbon (IPCC, 2022).

The IPCC's most recent report, which assesses the impacts of climate change, unambiguously states that the continued use of fossil fuels in the energy sector will "lock in" greenhouse gas emissions. This will result in the certain overshoot of the Paris goal. As the IPCC consequently advises: "Reducing GHG emissions across the full energy sector requires major transitions." Alongside a dramatic cut in fossil-fuel use, high on the IPCC's list of recommendations is reducing energy demand, deploying low-emission energy sources and switching to alternative energy carriers.

1 United Nations Environment Program. 2021. Theme Report on Energy Transition: Towards the Achievement of SDG 7 and Net-Zero Emissions. https://www.un.org/sites/un2.un.org/files/2021-twg_2-062321.pdf

2 IPCC. 2022. Summary for Policymakers. In: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA. doi: 10.1017/9781009157926.001

The timing of this shift is all important. A recent report by the UN Environment Programme shows that governments still plan to produce more than double the amount of fossil fuels in 2030 than what would be consistent with limiting global warming to 1.5°C (UNEP 2021).[3] Far from reducing oil and gas, production levels are set to increase to at least 2040 (with only a "modest decrease" in coal production).

All this despite renewable energy becoming increasingly more reliable and price competitive and an increasing emergency in many countries as they try to reduce the import of fossil gas through demand-reduction measures and alternative fuels. The price of large-scale solar photovoltaics decreased by 89 per cent between 2009 and 2019, while lithium-ion batteries are 97 per cent cheaper than they were three decades ago (UNDP 2022).[4] Some governments have taken advantage of this shift to reorientate their electricity matrices onto a renewable footing, with examples such as Sweden, Costa Rica, Iceland, Norway, and New Zealand among the most notable. More governments need to follow suit. Furthermore, in addition to removing fossil fuels from the power sector, efforts to substitute fossil fuels are also required in other carbon-intensive sectors, such as transport, agriculture, and heavy industry.[5]

Reducing our dependency on fossil fuels will not be easy. The modern global economy was created on the assumption that fossil fuels would be here to stay. Breaking this dependency presents various operational, technological, economic, regulatory, and social challenges. However, with the appropriate political will, none of these hurdles are insurmountable.

Indeed, multilateral collaboration is already leading to tangible results in the push for renewable energy adoption, as a host of real-world examples illustrate – from the rapid adoption of electric vehicles and sustainable biofuels, to the upsurge in renewable energy purchases by private companies.

Why? Business perspective

Businesses are significant energy users. Without reliable energy supplies, companies would struggle to source materials, manufacture goods, or sell their products and services. All the core systems sustaining the economy are energy-dependent, from transport and heating to communications and housing. Keeping the wheel of business turning requires high levels of energy security.

In their search for such security, companies are increasingly looking towards increasing the efficiency of their processes and the faster adoption of renewable energy. Most obviously, a cleaner energy network promises to reduce their carbon footprint and, in turn, mitigate their vulnerability to potentially costly climate-related risks.

3 UNEP. 2021. The Production Gap Report 2021: Governments' planned fossil fuel production remains dangerously out of sync with Paris Agreement limits. https://productiongap.org/2021report/

4 UNDP. 2022. Human Development Report 2022/2022: Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World. https://hdr.undp.org/content/human-development-report-2021-22

5 International Energy Agency. 2022. 'Global natural gas demand set for slow growth in coming years as turmoil strains an already tight market.' Press release, 5 July 2022. Retrieved from: https://www.iea.org/news/global-natural-gas-demand-set-for-slow-growth-in-coming-years-as-turmoil-strains-an-already-tight-market

6 In the first nine months of 2022, 3.4 GW of renewable Power Purchase Agreements were signed by private corporations. This compares to around 5GW for the whole of 2014-2018 put together. See: EV Wind, 6 October 2022. Retrieved from: https://www.evwind.es/2022/10/06/european-businesses-want-to-source-renewables-to-tackle-energy-crisis-but-emergency-measures-risk-threatening-ppa-market/88248

But companies are also alive to other security benefits from renewable energy, particularly around supply. Except for a small number of resource-rich nations, most countries rely on imports of fossil fuels for their energy. This introduces considerable supply-side risk. The current crisis in Ukraine illustrates, conflicts and other geopolitical shocks can restrict the energy supply and/or increase prices.

In contrast to fossil fuels, most countries have the geographic conditions required to develop solar, wind, hydro, geothermal, and/or other forms of clean energy. By developing these assets, they can offer the energy security that they currently lack. This will benefit companies in the economically developing countries, which are especially vulnerable to price shocks in global energy markets.

How? Practical steps forward

With Africa hosting COP27, a unique opportunity exists to build climate-energy bridges between the Global North and economically developing countries. Delegates at the summit can seize this opportunity in a variety of ways.

1. End fossil-fuel subsidies and clarify policies for transitioning energy away from fossil fuels

Globally, governments currently spend almost $6 trillion (equivalent to 6.8 per cent of GDP) on fossil-fuel subsidies. Subsidies, generally larger in emerging markets, are composed of undercharging for supply costs ('explicit subsidies', amounting to around 8 per cent of the total) and undercharging for environmental costs and foregone consumption taxes ('implicit subsidies', comprising 92 per cent of the total). While such moves serve a political objective of keeping energy prices down, they incur substantial fiscal costs and cause economic resources to be poorly allocated. Worse, in terms of climate change, they encourage the ongoing use of fossil fuels. No single approach to subsidy removal exists, but experience indicates that the following steps merit consideration: transparent communication and consultation with stakeholders; phased price increases; targeted financial support for poor energy users, and institutional reforms that depoliticise energy pricing. At the same time, policymakers require a comprehensive reform plan for their domestic energy sectors, clarifying the measures they intend to take to transition away from fossil fuels. Maintaining the security of supply is a key consideration here, as failure in this regard jeopardises public support. Among other considerations, considerable thought needs to be given to how clean electricity is stored, transmitted, and distributed in national grid systems.[8] This may require regulatory reforms, operational changes, and technological advances, such as adopting emerging smart and digital solutions.

2. Push for greater investment in clean energy infrastructure in the economically developing countries

Technological and commercial advances in recent years mean clean energy actively outcompetes fossil-fuel alternatives in many parts of the world. Indeed, with an average cost of around $40 per megawatt hour, solar has been described as the "cheapest power in history".[9] Today's challenge is building the necessary ecosystem to support its widespread adoption at national, regional, and local levels. While the long-term economics of clean energy

7 IMF. Fossil Fuel Subsidies. Retrieved from: https://www.imf.org/en/Topics/climate-change/energy-subsidies

8 US Department of Energy. 2022. 'Building a Better Grid: Addressing Climate Change and Bolstering Electric Grid Security Through Planning & Innovation.' Blog, 18 July 2022. Retrieved from: https://www.energy.gov/policy/articles/building-better-grid-addressing-climate-change-and-bolstering-electric-grid

9 International Renewable Energy Agency. 2021. Renewable Power Generation Costs in 2020. Retrieved from: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jun/IRENA_Power_Generation_Costs_2020_Summary.pdf?la=en&hash=A27B0D0EF33A68679066E30E507DEA0FD99D9D48

are compelling, clean-energy infrastructure requires considerable up-front capital expenditure. This is as true for developed economies looking to retrofit their existing energy systems as it is for developing economies seeking to introduce energy infrastructure for the first time.[10] The continent of Africa alone requires an estimated $190 billion per year from 2026 to 2030 to ensure two-thirds of its energy needs are met through clean energy (in line with their collective climate goals).[11] Low-income countries themselves lack the necessary capital reserves for such investment. Nor is donor finance or private-sector funding structured to take on high-risk energy transition projects at the scale required. The solution lies in developing more innovative approaches to climate finance, including scaling-up mechanisms that crowd in private capital (debt and equity). This is beginning to happen. A prime example is the UN-backed Energy Compact initiative, which encourages UN member states, regional/local governments, private-sector companies, non-profit groups, and other organisations to accelerate Sustainable Development Goal No. 7. Namely, the provision of affordable and clean energy. Since its launch last year, the initiative generated $46 billion in clean-energy investments and provided enhanced electricity access to 6 million people.[12]

3. Phase out investment in fossil fuels

When the international price of oil and gas is high, as, at present, the temptation for resource-rich states is to double down on fossil-fuel production. This is understandable given the importance of receipts from fossil-fuel exports for their domestic economies. While such policies may help meet short-term economic goals, the growing threat of catastrophic climate change presents major medium- and long-term risks (both political and economic) for national governments that fail to diversify. Norway has led the way in this regard, ringfencing oil and gas receipts in a sovereign wealth fund that, among other public-interest goals, helps finance the uptake of renewable energies. Few other fossil-fuel producing nations have followed suit. Indeed, the recent gas crisis following Russia's invasion of Ukraine has encouraged many European countries to increase domestic gas production. Recent research commissioned by the International Institute for Sustainable Development indicates that 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 1.5oC. Moral and climate imperatives put the onus on rich nations (which produce the most fossil fuels) to act first. Still, poorer nations must follow suit to safeguard their people, economies and development prospects.[15]

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10 For a summary of the challenges and costs of clean-energy adoption in emerging markets, see: Goldthau, A., Eicke, L., and S. Weko. 2020. 'The Global Energy Transition and the Global South.' In: Hafner, M., Tagliapietra, S. (eds) The Geopolitics of the Global Energy Transition. Lecture Notes in Energy, Vol 73. Springer, Cham. Retrieved from: https://link.springer.com/chapter/10.1007/978-3-030-39066-2_14

11 International Energy Agency. June 2022. Africa Energy Outlook 2022. Retrieved from: https://www.iea.org/reports/africa-energy-outlook-2022 International Energy Agency. June 2022. Africa Energy Outlook 2022. Retrieved from: https://www.iea.org/reports/africa-energy-outlook-2022

12 United Nations. 2022. Energy Compacts: Annual Progress Report 2022. Retrieved from: https://www.un.org/sites/un2.un.org/files/energy_compacts_annual_progress_report_2022_-_final_version_v2.pdf

13 Calverley, D. and K. Anderson. 2022. Phaseout Pathways for Fossil Fuel Production within Paris-compliant carbon budgets. Manchester, UK: Tyndale Centre for Climate Change Research. Retrieved from: https://www.research.manchester.ac.uk/portal/files/213256008/Tyndall_Production_Phaseout_Report_final_text_3_.pdf

14 The Tyndale Centre identifies 19 countries as first movers. These "highest-capacity" nations, which have average non-oil GDP per capita of more than $50,000, produce over one third (35 per cent) of global oil and gas. They include the US, the UK, Norway, Canada, Australia, and the United Arab Emirates.

15 The Tyndale Centre identifies 19 "low-capacity" countries (including Indonesia, Iran, and Egypt) and 25 'lowest capacity' nations (including Libya, Iraq, Angola, and South Sudan), which have average non-oil GDP per capita of $10,000 and $3,600, respectively. Modelling by researchers indicates that the two groups, which represent 13 percent and 14 percent of total oil and gas production, must phase out fossil fuels by 2045 and 2050, respectively.

Case Studies

1. Innovative financial mechanisms – Green Bonds (Egypt): In 2021, CIB, Egypt's biggest private lender, issued the country's first ever private-sector green bond.[16] The goal of the £100-million fixed-income security mechanism is to help finance clean energy projects and other transition-focused initiatives, such as energy-efficient buildings and waste management. The move follows the issuance by the Egyptian government of a £750-million bond geared towards marshalling private-sector financing in the battle against climate change. This is the first of its kind in Africa or the Middle East, This government-backed bond was five times oversubscribed. Globally, the issuance of green bonds reached $517.4 billion in 2021, a staggering rise from $$98.2 billion just two years before.[17] Projections suggest the figure could exceed $1 trillion this year.

2. Fiscal stimulus - Inflation Reduction Act (USA): Fiscal stimulus represents an effective means through which governments can accelerate the scaling of renewable energy. A prime example is the Inflation Reduction Act, which gained Congressional approval in August 2022.18 The new legislation, which expands upon existing tax credits and consumer rebates to attract investments in renewable energy projects, is expected to generate more than $270 billion in fresh financing for clean energy. Consequently, installed solar and onshore wind capacity is projected to increase by 40 per cent by 2030. As capacity goes up, so are prices expected to fall. The levelized cost of wind could be up to 49 per cent lower in 2030 than it would have been without the Act, for instance. The price drop for hydrogen could be even greater, at as much as 67 per cent lower.

3. Justice-oriented approaches to energy transition - Just Energy Transition Partnership (South Africa): Announced during COP26 in Glasgow, the Just Energy Transition Partnership (JETP) in South Africa lays out the general parameters for a long-term partnership designed to support South Africa's decarbonisation efforts. The initiative, which brings together the governments of South Africa, France, Germany, the United Kingdom, and the United States, along with the European Union, is an example of international cooperation around climate action (Hadley et al., 2022).[20] While the details continue to be worked out, the JETP establishes the importance of establishing a formal platform where various stakeholders can be engaged and consulted, and information can be shared. Other imperatives for ensuring that the energy transition is inclusive and fair include support for a regular and transparent flow of information towards civil society and the public, plus awareness-raising across the wider community, among others. Finally, JETP shows the importance of structuring transition partnerships in alignment with the Sustainable Development Goals, particularly focusing on access to energy for all and creating good job opportunities (including for youth and women).[21]

16 IFC. 2021. 'Going green: How a Landmark Bond is Supporting Climate-Friendly Projects in Egypt.' Retrieved from: https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/going+green+how+a+landmark+bond+is+supporting+climate+friendly+projects+in+egypt

17 Climate Bonds. 31 January 2022. '$500bn Green Issuance 2021: social and sustainable acceleration: Annual green $1tn in sight: Market expansion forecasts for 2022 and 2025.' Retrieved from: https://www.climatebonds.net/2022/01/500bn-green-issuance-2021-social-and-sustainable-acceleration-annual-green-1tn-sight-market

18 The White House. 2022. 'By the numbers: The Inflation Reduction Act.' Press release, 15 August 2022. Retrieved from: https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/15/by-the-numbers-the-inflation-reduction-act/

19 Rystad Energy. 'Inflation Reduction Act will attract an extra $270 billion in US wind and solar investments by 2030.' Press release, 22 August 2022. Retrieved from: https://www.rystadenergy.com/news/inflation-reduction-act-will-attract-an-extra-270-billion-in-us-wind-and-solar-in.

20 Hadley, S., Mustapha, S., Colenbrander, S., Miller, M., & A. Quevedo, A. 2022. Country Platforms for Climate Action. https://cdn.odi.org/media/documents/ODI_Emerging_analysis_Country_platforms_for_climate_action.pdf

21 Wemanya, A. & M. Adow. 2022. 'Implementation of the Just Energy Transition Partnership in South Africa: Lessons Learnt for Civil Society Organisations.' Policy Briefing. G7/G20 Track 2 Dialogue. https://www.germanwatch.org/sites/default/files/g7-g20_track-2_just_energy_africa_policy_brief_rev-1_met_1.pdf

More reading

Markkanen, S. and J. Plummer-Braeckman, J. 2022. Large hydropower in low-income countries: securing investment for the low-carbon transition Hydropower & Dams, 3: 64-69

CISL / Corporate Leaders Group UK. 2022. Policy Briefing: The Best of Both Worlds: How tackling cost-of-living and decarbonisation creates win-wins for the UK economy

CISL/ CLG Europe, 2022, More than 150 business leaders call on EU to strengthen energy security by accelerating green transition

CLG Europe's Fit for 55 package knowledge hub includes thought leadership from the Corporate Leaders Group Europe on the "Fit for 55" package of EU emissions reduction legislation aimed at achieving net 55% greenhouse gas emissions reduction by 2030.

RE100 & CDP. 2022. Ambition on renewables in the G20: Report

4. Finance

Mobilise capital to meet the trillions of dollars that economically poorer countries need to decarbonise and build climate resilience

What? Financing the climate transition at scale and pace

Transitioning the global economy towards net zero requires up-front investment – shifting business-as-usual investment patterns and deploying additional public and private capital to change broader economic systems such as energy, food, and transport. At the same time, the growing body of climate impacts prompts us to finance adaptation and resilience. Some of these financing needs will be met by repurposing existing funds, and some will require new funds. Likewise, responsibility for meeting financial needs will be split between the public and private sectors, with finance institutions playing a pivotal role in the latter group. At almost every stage, cross-sectoral collaboration will be essential. If we are to succeed in getting capital to flow where it is needed most, then partnerships must be forged between governments, central banks, and financial regulators, together with private financial institutions, private businesses, and philanthropies.

Why? Climate ambitions need climate finance to become climate realities

Developing robust goals and ambitious actions plans for meeting the objectives of the Paris Agreement forms an essential first step towards a climate-secure future. Over recent years, the climate pathways published by signatories to the landmark 2015 climate accord provide clarity on the road ahead, showing where action is needed and where finance is needed to support that action. What's more, the costs of climate impacts are rising. To keep these costs down, additional financing urgently needs to be directed to adaptation and resiliency-building measures.

Recent years have seen a number of new public spending commitments to accelerate national climate plans. Yet, current actual spending falls far short of what is needed – a reality that will prove even harder to change as the global economy enters difficult times. Recent estimates suggest a global transition requires additional spending of around $1tn[1] per year. While this is a considerable sum, it is a fraction of what inaction will cost. If climate change is allowed to continue unchecked, the hit to the global economy could be as high as $178tn, according to recent analysis of region-level data from 15 geographies across Asia Pacific, Europe, and the Americas.

1 Burkart, Karl. 2022. 'No McKinsey, it will not cost $9 trillion per year to solve climate change.' Climate and Capital Media. 17 February 2022. https://www.climateandcapitalmedia.com/no-mckinsey-it-will-not-cost-9-trillion-per-year-to-solve-climate-change/

The investment gap is particularly acute for economically poorer countries. Take Southeast Asia. According to the International Energy Agency, the region requires $350-$490 billion between 2025 and 2030 just to achieve the renewable energy aspects of its transition.[2] Other developing economies face a similar scenario, with transition-linked investments averaging 9.4 per cent of GDP for Latin America and 10.8 per cent of GDP for India and Sub-Saharan Africa, respectively. The proportion for North Africa is even higher, at an estimated 16.3 percent of GDP.

In contrast, the investment capacity of global financial markets more than covers the investment needs of a Paris-aligned transition. Yet, climate financing by the private sector currently amounts to a mere $300bn, a fraction of the $210tr or so in private assets under management.[3] The mobilisation of private capital, therefore, needs a far greater focus than it currently enjoys. Indeed, under the terms of the Paris Agreement itself, government signatories have an explicit obligation to "make financial flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development."[4] Efforts to push the providers of private capital to meet this objective need to be massively increased.

In 2015, industrialised nations committed to providing $100 billion per year in climate finance to the developing world.[5] The commitment was partly born from an acknowledgement that the bulk of historic and current emissions are generated by economically more prosperous countries. The $100-bn pledge became a lightening-rod for delegates from the economically developing countries at COP26 and is highly likely to play a similar role at COP27. From the outset, the target figure was always understood to be just a fraction of the climate finance required for economically poorer countries. Even with this proviso, however, rich nations have yet to deliver on their commitment. This consistent failure to hit even this low bar is rightly being flagged as a wake-up call to the finance ministries of wealthy nations.

In summary, not only do governments (especially those in industrialised nations) need to increase their direct financing of the climate transition. They must also get smarter about using their financial resources to leverage private-sector capital for climate projects. The money is there: it just needs to be mobilised.

Why? Business perspective

Global business and financial markets are increasingly alive to the material relevance of climate change. At a macro level, the repercussions of mass migration, stranded assets, food and water stress, and other high-level impacts of runaway climate change threaten to massively destabilise the fundamental pillars of the global economy – presenting financial institutions with potentially disastrous risks to manage.

At the same time, individual savers, beneficiaries and investors are increasingly concerned about how their money is used. Campaigns for investors to divest from carbon-intensive sectors such as oil and gas are growing, as are public calls for financial institutions to stop

2 International Energy Agency. 2021. 'Southeast Asia can reach clean energy targets by investing in transmission.' Blog post, 5 February 2021. https://www.iea.org/commentaries/southeast-asia-can-reach-clean-energy-targets-by-investing-in-transmission; McKinsey. 2022. 'Asia's net-zero transition: Opportunity and risk amid climate action.' 29 April 2022. https://www.mckinsey.com/featured-insights/future-of-asia/asias-net-zero-transition-opportunity-and-risk-amid-climate-action

3 Prasad, A., Loukoianova, E., Xiaochen Feng, A. and W. Oman. 2022. Mobilizing Private Climate Financing in Emerging Market and Developing Economies. IMF Staff Climate Note. Washington DC, USA: IMF. https://www.imf.org/-/media/Files/Publications/Staff-Climate-Notes/2022/English/CLNEA2022007.ashx

4 United Nations. 2015. Paris Agreement, Article 2.1c. p.3 https://unfccc.int/sites/default/files/english_paris_agreement.pdf

5 Rich nations committed to the $100 billion target in 2016 but have never achieved it. In 2019, rich-nation investments barely reached $80 billion. Even then, this required creative accounting and other techniques to artificially inflate the numbers, such as including the full value of loans for large infrastructure projects with only a marginal link to fighting or adapting to climate change. Discussions are expected at COP27 to allocate $100 billion to climate action in the developing world from the $650 billion issued by the IMF in Special Drawing Rights following COVID-19.

investing in new projects in such sectors. A compelling economic logic underlines these positions. On the one hand, orienting capital investment away from carbon-intensive legacy industries serves to reduce the increasingly high risk associated with these sectors. On the other hand, shifting capital toward transition businesses and low-carbon technologies with high-growth potential, positions investors well for the future.

Collaborative action is key to unlocking a more comprehensive and coordinated approach from the financial sector. It is for this reason that CISL has been convening over 60 global financial institutions across banking, insurance, and investment to challenge current assumptions and lead change.[6] Bringing this to the wider financial market, COP26 witnessed the emergence of a more comprehensive and coordinated approach from the financial sector. Most recent in this respect was the launch of the Glasgow Financial Alliance for Net Zero (GFANZ). Comprising members with combined assets under management of $130 trillion, GFANZ describes itself as "a forum for leading financial institutions to accelerate the transition to a net-zero global economy".[7]

The creation of these groups testifies to the growing engagement of the financial sector on climate issues. Investment in climate projects remains scant, however, especially in emerging-market nations where private finance is needed most. What private investment does exist, meanwhile, tends to focus on mitigation measures and has not found the routes to invest in adaptation. The immediate imperative is to increase the latter without detracting from the momentum of the former. Whether the focus is on adaptation or mitigation (or both), the time has come to move from on-paper ambition to on-the-ground action and impact. Identifying policy instruments and market incentives that can push private finance institutions to make this move is crucial.

How? Practical steps forward

The size of the climate finance gap and the urgency of closing it requires policymakers and finance sector leaders to use every tool at their disposal. Below are some possible measures that, if implemented effectively, could result in the rapid mobilisation of public- and private-sector capital in support of climate action – particularly in economically poorer countries.

1. Reform international finance institutions to make the system fit for climate action

While, in many ways, the Bretton Woods institutions have been leading the way on climate finance, the scale and urgency of the climate challenge require a reinvigoration and reorientation of the multilateral system. First and foremost, the lending capacity of multilateral development banks needs to be expanded in size and scope. In particular, limitations on lending for climate resilience need to be eased. This could be achieved by allowing development banks to hold special drawing rights (SDRs) for such lending, with prioritisation for resiliency projects in economically poorer countries. Secondly, multilateral lenders (especially the World Bank and IMF) should develop new, long-term instruments that can accelerate the mobilisation of public and private finance for mitigation and adaptation projects in low-income, highly impacted countries. In this vein, provisions should be made for creating reconstruction grants after climate-induced disasters. The IMF could kickstart this process by exercising its right to issue $650bn in SDRs without US congressional approval. Leading the push for the reform of the Bretton Woods institutions along these lines is a cross-sectoral initiative led by the prime minister of Barbados, Mia Mottley. Building support for this so-called 'Bridgetown Agenda' requires the active engagement of government and business leaders.[8]

6 See: https://www.cisl.cam.ac.uk/centres/centre-for-sustainable-finance

7 Under the GFANZ umbrella sit a raft of sector-specific alliances that represent the main components of the financial sector. Numbered among these are the Net-Zero Banking Alliance, the Net Zero Asset Managers initiative, the Paris Aligned Investment Initiative, the Net-Zero Insurance Alliance, the Net Zero Financial Service Providers Alliance, and the Net Zero Investment Consultants Initiative.

8 For more information on the Barbados Agenda, see: https://gisbarbados.gov.bb/blog/tag/bridgetown-agenda/

2. Build capacity in economically poorer countries for accessing climate finance

A lack of ability to navigate the emerging and often complex world of climate finance prevents many developing countries from accessing the international capital required to fund their transition to a resilient, low-carbon economy. All multilateral, bilateral, and private-sector lenders use somewhat different financial vehicles and have slightly different requirements. This makes for a confusing scenario for governments in economically poorer countries looking to raise capital on the international market. As well as familiarity with the specificities of the climate finance systems, however, government ministries frequently also need support in how to formulate project proposals. Similarly, ensuring that project management and governance standards are sufficiently robust for the requirement of potential lenders can also represent a challenge. Providing capacity building for government planners to overcome such knowledge hurdles is therefore essential. Similarly, investment in hardware and software support is also very valuable in many cases. Economically poorer countries often lack systems for database and knowledge management on climate finance, for example. The same is true for effective coordination and communication mechanisms to facilitate the exchange of information and experience.[9]

3. Increase adaptation finance – but not at the expense of climate mitigation

Both public and private efforts have been more successful at driving up financing for decarbonisation than for adaption and resilience. New technologies to deliver low-carbon climate activities have been demonstrated as capable of delivering good financial returns as well as apparent benefits to countries with significant resources. Adaptation activities provide huge opportunities for both developed and developing countries to address the impacts of climate change. However, they are often considered as costs without the same direct return (except reduced risk). They need to focus on the most vulnerable communities with the least resources and so the least ability to finance the change. Yet, the need of all countries to increase the resilience of their critical infrastructure and built environment against the impacts of climate change is immense and will not go away – something which is particularly an issue for those countries with limited resources to spend on this. Currently, finance for climate adaptation in economically poorer countries amounts to a mere $20 billion, which comprises a fraction of what is needed. Identifying solutions that will ensure financial gives give adaptation the necessary support represents an urgent imperative. To assist in this process, meaningful work is required in better valuing resilience and nature at the early stages of international business supply chains. This would rebalance the risk-reward equation in favour of climate-resilient enterprises, making the opportunities from developing this clearer and fomenting a viable commercial market in nature restoration for small businesses in economically poorer countries.

4. Scale up debt-for-climate swaps to help communities and address climate change

In the context of a global inflation and debt crisis, an urgent need exists for rich nations to show solidarity with countries that have limited resources to weather the multiple challenges they currently face – of which climate is but one of many. Debt relief is one potential way to express such solidarity. In the aftermath of COVID-19, almost six in 10 (58 per cent) of the world's poorest countries are in debt distress or at high risk of becoming so.[10] Of these, the nations of sub-Saharan Africa are among the most vulnerable, with average debt levels above 60 per cent of GDP.

9 The United Nations conducted an assessment of the capacity-building needs of Ethiopia, which provides an instructive insight into the areas where developing countries require support to access climate finance. See: UN Department of Economic and Social Affairs. 2021. 'Ethiopia: Capacity Building on Climate Change Financing.' https://www.un.org/ldcportal/file/1005/download?token=KgPWJwpe

10 World Bank. 2022. 'When the debt crises hit, don't simply blame the pandemic.' Blog post, 28 June 2022. Retrieved from: https://blogs.worldbank.org/voices/when-debt-crises-hit-dont-simply-blame-pandemic

The low-carbon transition requires the support offered by stable, well-functioning economies. By helping poor nations avoid falling into economic crisis or defaulting on their foreign payments (which would precipitate a crisis), debt relief marks a positive contribution to fighting climate change. The rationale of such debt swaps, which recently gained tentative approval from the International Monetary Fund, is that the capital saved in debt repayments is redirected into climate projects.[11] Although debt swaps have been around for decades, the IMF estimates that approximately $4 billion worth of debt has been forgiven through these mechanisms. A notable example is the debt-for-nature swaps in Belize[12] and the Seychelles[13]. Scaling up debt swaps requires the active support of private creditors. In the longer term, the debt market should develop arrangements that see poor countries with strong adaptation and mitigation strategies incentivised to continue through advantageous loan terms. Ideally, equity markets should also develop mechanisms for favourably pricing in leadership by climate frontrunners. The counterparty of any debt-swap arrangement must be intimately involved in the design of climate projects undertaken as a result of such a swap. This way, projects are far more likely to gain community buy-in and deliver social and economic development and climate benefits.

5. Drive private finance investment by de-risking climate investments in economically poorer countries

The current economic risk-return profiles of private financial institutions often make it challenging for them to invest in climate-linked deals in emerging markets, as either the projects or the countries (or both) are viewed as excessively risky. A multilateral approach that sees public lenders offer guarantees to limit these up-front risks offer an effective means of drawing private investors into the climate finance markets. Various initiatives are currently underway to tackle this bottleneck. Some are directed at a macro level through efforts to promote good governance, financial transparency, fiscal responsibility, and other measures that reduce country-level risk. Other focus at a deal level. An illustrative case in point is the use of “blended finance” vehicles. These see public lenders offer incentives such as loan guarantees and first-loss commitments as a means of de-risking investments in transition projects. Measures that governments could take to scale up these vehicles include: creating flexible pools of concessional capital to bring projects within investors’ risk limits; modernising the governance and business models of multilateral development banks and development finance initiatives to align with the Sustainable Development Goals; facilitating the provision of technical assistance by public lenders to secure a robust pipeline of clean-energy projects; and supporting accurate risk pricing by providing access to core credit risk data.[14] Approval of the G20 Capital Adequacy Framework recommendations would serve to see a welcome adjustment to the internal risks tolerance models of the World Bank.[15]

11 Chamon, M., Klok, E., Thakoor, V. and J. Zettelmeyer. 2022. Debt-for-Climate Swaps: Analysis, Design, and Implementation. Working paper. IMF: Washington DC., USA. Retrieved from: https://www.imf.org/en/Publications/WP/Issues/2022/08/11/Debt-for-Climate-Swaps-Analysis-Design-and-Implementation-522184

12 IMF. 2022. ‘Belize: Swapping Debt for Nature.’ Retrieved from: https://www.imf.org/en/News/Articles/2022/05/03/CF-Belize-swapping-debt-for-nature.

13 The Commonwealth. 2020. ‘Case Study: Innovative Financing – Debt for Conservation Swap, Seychelles’ Conservation and Climate Adaptation Trust and the Blue Bonds Plan, Seychelles (on-going).’ 28 November 2020. Retrieved from: https://thecommonwealth.org/case-study/case-study-innovative-financing-debt-conservation-swap-seychelles-conservation-and

14 For more details, see: Net-Zero Assets Owners Alliance. 2022. ‘Call on Policy Makers to Support Blended Finance.’ Retrieved from: https://www.unepfi.org/wordpress/wp-content/uploads/2022/09/NZAOA_Scaling-Blended-Finance.pdf

15 G20. 2022. Boosting MDBs’ investing capacity: An Independent Review of Multilateral Development Banks’ Capital Adequacy Frameworks. Retrieved from: https://g20.org/wp-content/uploads/2022/07/CAF-Review-Report.pdf

Case Studies

Net-Zero Data Public Utility

Gaps, inconsistencies, and inaccessibility issues related to climate data are holding back financiers from investing in transition-linked projects and technologies. In an attempt to address this failure, a multi-party committee comprising the United Nations, the Organization for Economic Co-operation and Development, the Financial Stability Board, and the Network for Greening the Financial System, among others, is proposing a new public utility to make available the foundational data necessary for scaling the transition. The utility, which will be available through the UNFCCC's Global Climate Action Portal, will include company and financial institution-level data for direct and indirect emissions. Also included will be their net-zero targets, accompanying action plans, and details of carbon credit strategies. The proposal to make the data publicly available is designed to circumvent the current state of play. Most climate data is currently accessible only through commercial subscriptions or by paying platform fees. One consequence will be that financial institutions can establish an emissions baseline that allows them to accurately compare clients' and portfolio companies' emissions. When completed, the utility will also support efforts in economically rich and poorer nations to bring accountability around climate action commitments by private enterprises.[16]

Network for Greening the Financial System

Launched at the Paris One Planet Summit on 12 December 2017, the Network for Greening the Financial System (NGFS) is a group of 114 central banks and supervisors that collectively seek to mobilise mainstream finance to support the transition toward a sustainable economy. The group regularly convenes to share best practices and contribute towards developing better environmental and climate risk management in the financial sector. Together, its members supervise all global systemically important banks and 80 per cent of the internationally active insurance groups. It regularly publishes technical assessments and policy recommendations. Among its recent publications are reports on enhancing market transparency in green and transition finance , on climate scenarios for forward-looking climate risks, and on the financial implications of nature-related risks.

Further reading

University of Cambridge Institute for Sustainability Leader's Climate Tango: Principles for integrating physical and transition climate risk assessment. Cambridge, UK: CISL. https://www.cisl.cam.ac.uk/resources/publications/download-climate-tango-principles-integrating-physical-and-transition-climate

16 Climate Data Steering Committee, 2022, Recommendations for the Development of Net Zero Data Public Utility, https://www.nzdpu.com/

17 NGFS. April 2022. Enhancing market transparency in green and transition finance. Retrieved from: https://www.ngfs.net/sites/default/files/medias/documents/enhancing_market_transparency_in_green_and_transition_finance.pdf

18 NGFS. June 2022. Climate Scenarios for central banks and supervisors. Retrieved from: https://www.ngfs.net/en/ngfs-climate-scenarios-central-banks-and-supervisors-september-2022

19 NGFS. March 2022. Statement on Nature-Related Financial Risks. Retrieved from: https://www.ngfs.net/en/communique-de-presse/ngfs-acknowledges-nature-related-risks-could-have-significant-macroeconomic-and-financial

5. Nature

Set the bar for meaningful action to jointly address the climate and nature crises: achieving net zero while protecting and restoring nature

What? A new climate-nature compact

We need a new compact between climate and nature that help deliver on both net-zero and nature-positive pledges through nature-positive investments and strategies. As well as being rooted in climate consideration, this compact must be supported by policies that reflect nature's intrinsic, cultural, economic, and health-generating values for each new generation.

This new-look compact needs to be both expansive and inclusive. That starts with rethinking human dependencies and impacts on the natural environment, from agriculture and land management to water systems and natural resource extraction. Second, it involves local communities in designing and implementing pro-climate solutions that enhance nature and improve their livelihoods.

Ultimately, nature and climate are bound in a mutually reinforcing, cyclical relationship. Fix the first, and we go a long way to helping fix the second. A nature-poor planet, in contrast, is one on which climate change has free rein.

Why? Contribution to Paris Targets

Nature loss is a key driver of climate change. Forests and coastal ecosystems serve as vital carbon sinks. When these are degraded or destroyed, their position on the climate ledger flips from positive to negative. We are witnessing this kind of inversion in some parts of the world. Today's unprecedented deforestation and coastal deterioration result in the emission of around 4.8 and 1 billion tonnes of CO2 yearly, respectively (Carbone, 2021).[1]

The release of stored carbon into the atmosphere is not the only negative climate impact arising from today's nature crisis. Today's significant modifications to biodiversity and land use (often due to agriculture) cause disturbances in critical nitrogen and water cycles. These carry serious negative consequences for the climate system (Pörtner et al., 2021).

1 The rate of global decline in nature is unprecedented in human history, and the vast deterioration of the Earth's ecosystems – oceans, rivers, and forests – is eroding the biological diversity (biodiversity) that underpins our society and economies (F4B Pledge, 2022c; IPBES, 2019)

The same logic works in reverse. Moves to preserve, protect, and regenerate nature can reduce emissions (Seddon et al., 2020).[2] Research finds that widespread reforestation and other terrestrial ecosystem stewardship interventions, coupled with a shift towards regenerative agriculture, could provide almost one-third (30 per cent) of the CO2 mitigation needed by 2030 (Erb K-Het al. 2018; Le Quéré et al., 2018).[3] Nature-based climate solutions in tropical nations with high forest cover, meanwhile, have been shown to mitigate over 50 per cent of national emissions, mainly from avoided deforestation (Griscom, 2019).[4]

Nature also plays a vital role in climate resilience. Take our cities today. Built predominantly from cement, brick, asphalt, and other hard (or 'gray') infrastructure, our urban centres are struggling to cope with the rise in erratic weather conditions. Storms, in particular, are proving increasingly problematic. With little or no absorptive capacity in our modern built environments, heavy rains frequently overrun fixed water management systems. This leads to dangerous flash floods and other negative knock-on effects, such as polluted run-off and sewage overflow. In contrast, nature-based systems that mimic natural hydrological processes are far more effective in managing heavy rains. Such 'green infrastructure' takes multiple forms, from vegetated rooftops and roadside plantings to absorbent gardens and permeable pavements (Ying et al., 2022).[5] In addition to adaptation benefits, a nature-oriented approach offers upsides in terms of carbon sequestration as well as additional health and community benefits.

Why? Business perspective

i. Risk management: The degradation of nature represents a systemic risk for any business reliant on ecosystem services, such as water (e.g. mining, food and beverage, fashion), soil fertility (e.g. agriculture), liveable environments (e.g. leisure, tourism, real estate), and so forth. Climate change also presents a material risk for many businesses. In as much as nature loss compounds these risks (e.g. by increasing the likelihood of flooding, or freak weather events), the interaction between nature and climate (and the policies accompanying both) is germane to business.

ii. Unintended consequences: An overly narrow focus on climate action that ignores or deprioritises nature can lead to negative consequences for businesses and society. An illustrative example is the strong emphasis currently on bioenergy with carbon capture and storage (BECCS). BECCS seeks to replace fossil fuels in the generation of power by replacing it typically with crops, wood pellets, or waste streams, and then capturing the resulting CO2 (Dunne, 2022). However, to work at scale, land-use patterns would need to change in a potentially drastic fashion. This could severely impact ecosystem services and reduce global food supplies, as crops are diverted for use as fuel stocks in bioenergy production (The Royal Society, 2021).[7]

The same is true for afforestation projects designed to sequester carbon emissions. While these may deliver against emission reduction goals, such projects have in the past led to monoculture plantations of fast-growth species that reduce biodiversity. They have also put pressure on native forests and decelerating nature restoration (Seddon et al., 2020).

2 Seddon, N., Chausson, A., Berry, P., Girardin, C., Smith, A. and B. Turner. 2020. Understanding the value and limits of nature-based solutions to climate change and other global challenges. Philosophical Transcripts of the Royal Society B. 37520190120

3 Erb K-Het al. 2018. Unexpectedly large impact of forest management and grazing on global vegetation biomass. Nature 553, 73-76; Le Quéré et al. 2018. Global carbon budget 2017. Earth Systems Science. Data 10, 405-448.

4 Griscom B. et al. 2019. National mitigation potential from natural climate solutions in the tropics. Philosophical Transcripts of the Royal Society B. 10, 20190126

5 Ying, J., Zhang, X., Zhang, Y. & B. Svitlana. 2022. Green infrastructure: systematic literature review, Economic Research-Ekonomska Istraživanja, 35 (1): 343-366, DOI: 10.1080/1331677X.2021.1893202

6 University of Cambridge Institute for Sustainability Leadership (CISL). (2022). Nature-related financial risk: use case How soil degradation amplifies the financial vulnerability of listed companies in the agricultural value chain. Cambridge, UK: CISL. Retrieved from: https://www.cisl.cam.ac.uk/files/robeco-cisl_nature-related_financial_risk_use_case_-_land_degradation_vfinal2.pdf

7 The Royal Society. 2021. Climate change and biodiversity: Interlinkages and policy options. Retrieved from: https://royalsociety.org/-/media/policy/projects/bio-climate- interlinkages/interlinkages-between-climate-change-and-biodiversity.pdf

iii. Potential synergies and cost efficiencies: Effective nature-based solutions promise to deliver dividends for the climate. They also open planet-friendly opportunities for companies to de-risk their infrastructure assets and shore up their land-use activities, such as with agriculture practices . Alongside this, nature-based approaches present potential opportunities to reduce operational and investment costs. Such approaches also kickstart new markets and job opportunities (World Economic Forum and McKinsey, 2021).[8] They further encourage a more systemic and holistic approach to thinking about how business interacts with ecosystems, including their environmental dependencies and trade-offs.

How? Practical steps forward

Bringing the climate agenda more into line with the nature agenda can be achieved in a number of different ways. Among the primary steps that CISL is calling for are:

1. Aligning policy responses

Just as policymakers have been active at national and international levels to drive forward climate action, so have efforts been advancing with regard to the conservation and restoration of nature. However, these two policy streams have mainly been running in parallel, with little or no dialogue between the two. This is slowly changing. The Inter Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), for instance, recently published a joint report on the interconnectedness of nature and climate. We share the stated vision of these critical organisations for greater alignment between the pathways and decision tools adopted under the respective umbrellas of the Paris Agreement and the Post-2020 Global Biodiversity Framework. Targets for the latter will be finalised at the end of 2022, positioning COP27 as an optimum opportunity to bring the climate-nature nexus to the fore.

2. Integration into business and investment decision-making

Nature considerations must be integrated alongside climate considerations in business activities and disclosure. In this way, capital can be mobilised to support the protection and restoration of nature (CISL, 2022). Currently, 45 central banks and supervisors are already implementing measures to address nature-related risks (NGFS-INSPIRE, 2022). With some notable exceptions, private investors are slower following suit. To accelerate progress, moves to improve nature-related data and analytics, and increase the disclosure of nature-related risks and impacts should be encouraged wherever possible. Positive developments in this regard include the ongoing development of the TNFD Framework (TNFD, 2022),[11] the International Financial Reporting Foundation's consultation process on sustainability reporting,[12] the review of the GRI Standards for Biodiversity (GRI, 304)[13], and the update of CDP questionnaires to better cover biodiversity issues.

8 Efforts to better protect, restore, and manage nature could produce as many as 395 million jobs over the next decade, according to research by the World Economic Forum and McKinsey: WEF & McKinsey. 2021. 'Nature and Net Zero.' Retrieved from: https://www3.weforum.org/docs/WEF_Consultation_Nature_and_Net_Zero_2021.pdf

9 IPCC & IPBES. 2021. Biodiversity and Climate Change Workshop report. Retrieved from: https://ipbes.net/sites/default/files/2021-06/20210609_workshop_report_embargo_3pm_CEST_10_june_0.pdf

10 CISL. 2022. Integrating climate and nature: The rationale for financial institutions. Retrieved from: https://www.cisl.cam.ac.uk/resources/publications/integrating-climate-and-nature-rationale-financial-institutions

11 TNFD. 2022b. The TNFD Nature-Related Risk & Opportunity Management and Disclosure Framework Beta v0.1 - Executive Summary. Retrieved from: https://tnfd.global/the-tnfd- framework/tnfd-framework-summary/

12 IFRA, 2021, Sustainability related Reporting See: https://www.ifrs.org/projects/completed-projects/2021/sustainability-reporting/

13 See: GRI 304: Biodiversity 2016 https://www.globalreporting.org/standards/standards-development/topic-standard-project-for-biodiversity/

Case Studies

Land regeneration

Allowing rangelands in the Kenyan drylands to regenerate through restoration within rangeland enclosures diversifies income sources, and has been shown to cushion against climatic shocks (Mureithi et al., 2016; Wairore et al., 2016).[14] Strong evidence also points to the value of agroforestry in providing alternative income sources (including fuelwood, fruit, and timber) for communities in semi-arid areas, while at the same time reducing exposure to climate shocks such as drought and floods and erosion. Zimbabwe, for instance, has introduced a successful policy to protect forested areas to ensure honey production during droughts. In this way, forest communities have a degree of food security if and when other crops fail.[15] (Cited in Seddon et al., 2022)

Nature-based solutions: Livelihoods Carbon Funds

The Livelihoods Carbon Funds aim to improve the living conditions of agricultural and rural communities Large-scale projects in Africa, Asia and Latin America seek to empower smallholder farmers and rural communities to earn stable incomes through sustainable practices, restore ecosystems and contribute to climate action, for example, through restoring mangroves or developing agroforestry. Investors, in turn, receive carbon credits. Fund partners include Crédit Agricole and Caisse des Dépôts, who have supported the project since its launch in 2011. (Livelihoods Funds, n.d.) (Cited in Muller & Robbins, 2022)

More reading

University of Cambridge Institute for Sustainability's Integrating climate and nature: The rationale for financial institutions and Decision Making in a Nature-Positive World: Nature-based Solutions for the Water Sector

14 Mureithi, S., Verdoodt, A., Njoka, J., Gachene, C., & E. Van Ranst. 2016. Benefits derived from rehabilitating a degraded semi-arid rangeland in communal enclosures, Kenya. Land Degradation and Development 27: 1853-1862. (doi:10.1002/ldr.2341); Wairore J., Mureithi, S., Wasonga, O., G. Nyberg. 2016. Benefits derived from rehabilitating a degraded semi-arid rangeland in private enclosures in West Pokot County, Kenya. Land Degradation and Development. 27:532-541. (doi:10.1002/ldr.2420)

15 Lunga, W. and C. Musarurwa. 2016. Exploiting indigenous knowledge commonwealth to mitigate disasters: from the archives of vulnerable communities in Zimbabwe. Indian Journal of traditional Knowledge. 15: 22-29.

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