

1.5°C target for globalwarming must prevail



The world is burning, and our political leaders are failing us. With temperatures rising at an alarming rate, it seems that anyone who believes it is still possible to limit global warming to 1.5° Celsius is in a rapidly shrinking minority.

As governments around the world fail to meet their responsibilities under the Paris climate agreement, the window for keeping global temperatures below the 1.5°C limit has all but closed due to insufficient action. But while some eminent commentators have declared the 1.5°C target “deader than a doornail,” I have come to the opposite conclusion: 1.5°C will never die.

To be sure, the world is in a dire state. Greenhouse-gas (GHG) emissions dumped in the atmosphere since the start of the Industrial Revolution have already warmed the planet by roughly 1.3°C, according to this year’s annual report on Indicators of Global Climate Change. And studies, including mine, unequivocally show that crucial climate goals are not

being met. Under current policies, global temperatures are projected to increase by 2.5-3°C by the end of this century. Even if governments meet all their existing climate pledges, the odds against global warming staying below 1.5°C are seven to one. Combine this with the fossil-fuel industry's delaying tactics, including the greenwashing of their polluting business practices and recent roll-back on self-imposed emissions targets, and it becomes abundantly clear that our chances of staying below 1.5°C are indeed slim. Consequently, climate scientists expect global warming to "blast past" the 1.5°C limit.

But just as risks do not vanish when safety limits are exceeded, the Paris agreement's climate commitments do not disappear once we cross 1.5°C. While 1.5°C is a political target, it was not pulled out of thin air. It is a scientifically informed limit, first championed by small island states and later supported by a broad coalition of ambitious countries.

By now, it is clear to many governments that allowing global warming to exceed 1.5°C involves unacceptable societal risks, undermines development, and poses an existential threat to vulnerable communities and their cultures. Moreover, the line between "safe" and "dangerous" warming is becoming increasingly blurred. As the devastating effects of climate change worldwide show, even 1.5°C is dangerous and our societies are ill-equipped to handle it.

Over the past 20 years, we have experienced what a world that has warmed by about 1°C is like. No region has been spared the impact, with a growing number of countries facing fires, floods, and storms, resulting in devastating human and financial costs that extend well beyond national borders. Between 2000 and 2019, climate-related disasters claimed over half a million lives, caused over \$2tn in estimated damage, and affected almost four billion people worldwide. Even at 1.5°C warming, up to one in seven species face extinction, critical ecosystems like tropical coral reefs face destruction, and extreme heat waves that our great-

grandparents experienced once in a lifetime will occur on average every six years. Centuries of ice melt will cause sea levels to rise, flooding major cities like London, New York, Shanghai, and Kolkata. Vulnerable and marginalised communities' efforts to escape poverty will be undermined, and every country's economic development will be impeded.

Limiting global warming is thus a matter of social justice, human rights, and long-term development, and this imperative remains even if we cross the 1.5°C threshold. Moreover, while exceeding 1.5°C will have unpredictable political consequences as compensation claims for avoidable climate-related damage increase, the political implications of reducing GHG emissions remain consistent with what the Paris agreement already outlines.

To halt global warming, the Paris agreement expects countries to implement emission-reduction plans that represent their "highest possible ambition." While governments are failing to meet this goal, exceeding 1.5°C does not change their responsibilities; in fact, fulfilling these commitments will become more important as temperatures continue to rise. The only way to improve our chances of keeping warming close to 1.5°C is by pledging and implementing more ambitious near-term emission cuts every year until 2035.

Even if we cannot avoid overshooting 1.5°C, the 1.5°C target remains relevant. Every fraction of a degree counts, and global climate efforts must therefore focus on limiting the exceedance of 1.5°C and returning to safe levels as quickly as possible. The Paris agreement's target of achieving global net-zero GHG emissions, in particular, could help reverse some of the excess warming. To maintain a safe, liveable, and just planet, we must keep our eyes on the 1.5°C limit and ensure that pursuing it remains our top priority.

Economic development in an age of great-power competition



Now that the United States has introduced a new set of import tariffs on Chinese goods, the world's two largest economies appear to be on the brink of open economic warfare – and developing countries are in danger of getting caught in the crossfire. Beyond the risk that they could face sanctions or other trade restrictions if one superpower perceives them to be helping the other, Sino-American trade tensions are eroding the value of many of these economies' comparative advantages, such as cheap labour and land. Coping with these challenges will require skillful economic statecraft.

Comparative and competitive advantages are dynamic by nature; they can be acquired or lost over time. As Harvard's Michael Porter put it in 1990, "National prosperity is created, not inherited. It does not grow out of a country's natural endowments, its labour pool, its interest rates, or its currency's value, as classical economics insists." Rather, an economy's competitiveness "depends on the capacity of its

industry to innovate and upgrade.”

As a growing number of governments pursue industrial policies – from short-term protective measures, like tariffs, to more forward-looking initiatives, such as targeted subsidies and deep structural reforms – the capacity to innovate and upgrade depends significantly on the state’s ability to work with the market to boost competitiveness. This poses a challenge for advanced economies no less than it does for developing countries.

Consider Europe, which was forced to rethink its prevailing business model – selling high-quality engineering products – after Russia’s full-scale invasion of Ukraine in 2022. As supply chains were disrupted, and energy costs and inflation soared, Europe’s reliance on others for critical goods, including inputs for its own manufacturing, became an enormous economic liability. Add to that China’s growing dominance in electric vehicles, and Europe finds itself increasingly anxious about its future competitiveness.

To be sure, many European economies remain highly competitive: Europe dominates the top 20 of the International Institute for Management Development’s 2023 World Competitiveness Rankings, with Denmark, Ireland, and Switzerland leading the pack. But Europe’s larger economies have been sliding in the rankings. Germany dropped seven spots between 2022 and 2023, to 22nd place, and France fell five spots, to 33rd.

One problem, pointed out in a report from the McKinsey Global Institute, is that while Europe leads in sustainability and inclusivity, per capita GDP (at purchasing power parity) is lagging. In 2022, it was 27% lower than in the United States, with about half that difference attributable to cultural norms – Europeans work fewer hours per capita over their lifetimes – and the other half resulting from differences in productivity levels. Boosting productivity is now a central concern of European policymakers and will have to be addressed partly

through the development of high-tech industries.

This approach has certainly worked for the US, which spends 3.5% of its GDP on research and development – a smaller share than South Korea (4.9%) and Israel (5.6%), but significantly larger than China (2.4%) and the European Union (2.2%). All of these economies are devoting considerable attention to dual-use R&D in strategic areas like artificial intelligence, green tech, and quantum computing. What stands out about the US is that, while the government is providing funding and incentives, not least through the 2022 Inflation Reduction Act, it is the private sector that is driving plans to invest \$400-500 billion in R&D over the next decade.

As a report by the Boston Consulting Group notes, R&D is part of a “virtuous cycle of innovation” that sustains America’s technological leadership. For example, the US claims 46% of the global market for semiconductor design. Thanks to its advanced technologies, the US semiconductor industry has a gross profit margin of 59%, which is 11 percentage points higher than competitors. In 2020, US semiconductor revenues reached \$208 billion – twice the revenues of the second-leading country.

But not just anyone can emulate America’s high-tech success, which is partly a function of its large and dynamic capital market. In 2022, the total market capitalization of the US stock market was 2.5 times higher than that of Europe. As a share of GDP, total market value in the US exceeded 158% in 2022, lower than Taiwan (195% of GDP), but higher than every other economy, including China (65.4%), Japan (126%), Germany (45.5%), and India (103.7%).

With its deep capital markets, the US is well-positioned to generate funding for high-risk R&D and, more importantly, reward and retain talent. Other economies – including China,

the EU, Japan, and most developing countries – cannot compete on this front, not least because their banking systems remain far more risk-averse.

Recognizing America's comparative advantages in high-tech sectors, China focused on building prowess in mid-tech areas of engineering and operational production and distribution, which opened the way to comprehensive competition at scale. Since 2014, China has led the world in exports of high-technology goods, accounting for more than 30% of the global market share. Since 2000, it has tripled its share of gross value added.

For developing countries, this means that it will be very difficult to compete in mid-tech industries, not just the high-tech sectors that the advanced economies (and, increasingly, China) dominate. Add to that their limited capacity to finance investment and their dependence on access to global or regional markets to achieve economies of scale, and economic statecraft becomes all the more challenging.

Some priorities are clear. To achieve technological upgrading, countries must invest as much as possible in digital infrastructure and education, as well as projects related to the United Nations Sustainable Development Goals. To cope with rising protectionism among major economies, they will most likely also increase support for domestic "champions," even if it means perpetuating market fragmentation.

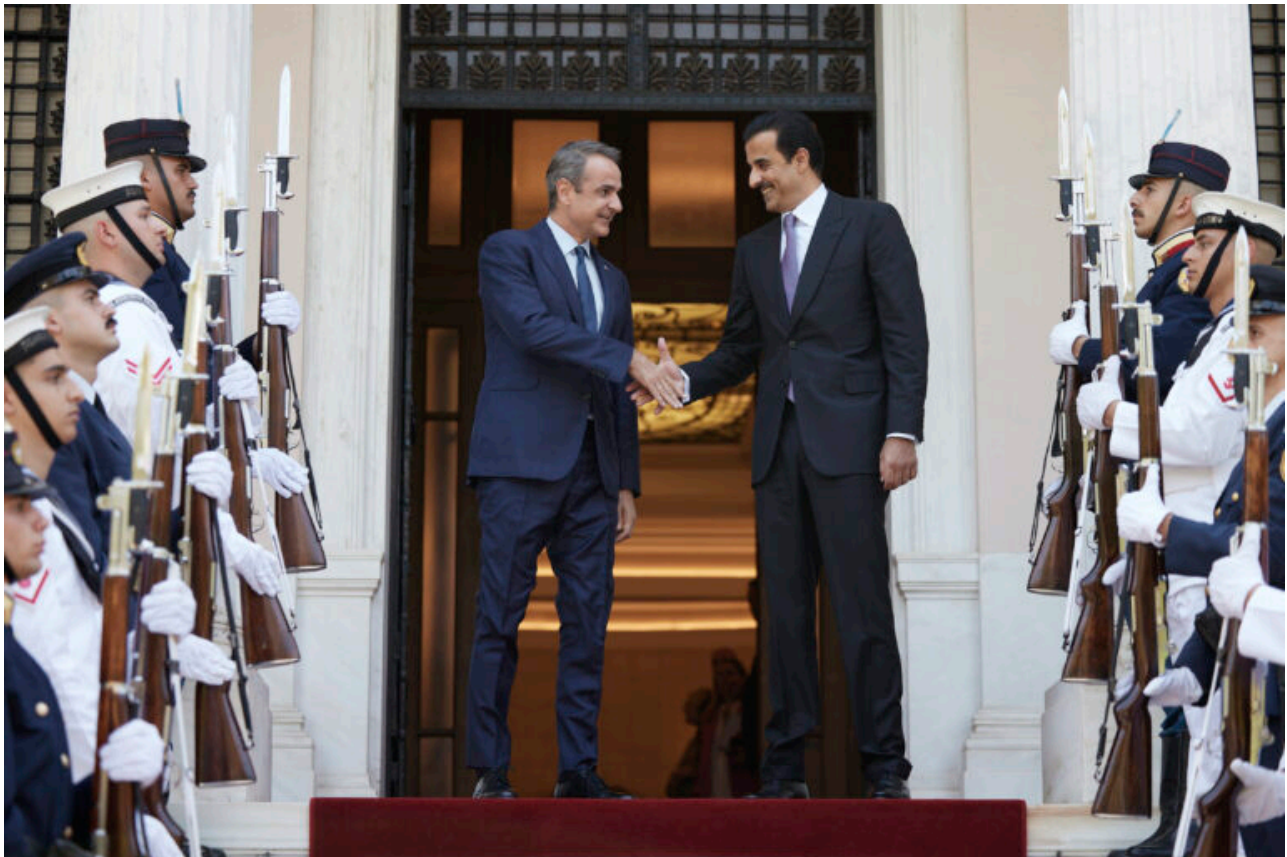
Overall, however, we will probably see a lot more experimentation in development strategies in the coming years. Developing countries will just have to hope that the US and China come to some sort of grand bargain before their competition escalates into conflict.

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EMIR IN GREECE AND CYPRUS



Political 04.06.24

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POLITICAL.GR NEWSPAPER

Athens, Friday 31st of May 2024: Qatar's Emir Sheikh Tamim Bin Hamad AlThani paid official visits to Cyprus and Greece this week, meeting with senior officials from both countries as part of efforts to expand cooperation. International energy expert Roudi Baroudi, CEO of Dohabased independent consultancy

Energy and Environment Holding, sat down to answer a few questions about the outcome and significance of the emir's mission.

Question: Overall, how successful were HH the emir's visits to Greece and Cyprus?

Answer: Both visits appear to have been very fruitful. HH the emir and his delegation held constructive talks with their counterparts in both countries, and all sides came away with clearer understandings of where the already strong relationships should go next, and how they can get there. Several important first steps were taken toward identifying likely areas for further cooperation, and now both sides have the information they need to come up with proposals for the next steps on several fronts.

Q: From your perspective, what are the main takeaways from HH the emir's trip?

A: There are several elements at play here, multiple processes unfolding according to their own timelines, but all interrelated in some ways. The first thing to consider is that both visits constitute reaffirmations of Qatar's traditional diplomatic strategy, much of which revolves around having stable and friendly relations with as many counterparts as possible. That might sound a little basic, but it's really not: many governments "pick sides" in various international disputes, which often amounts to letting other countries decide your foreign policy for you. By contrast, the Qatari model seeks instead to be on good terms with all sides in most disputes, and the value of that approach has been on display for years: Doha has successfully used its good offices as a mediator in the past, and more recently it has done the same for ceasefire talks and other negotiations between Israel and

Hamas.

This same philosophy also informs Qatar's stances in the Mediterranean, where it looks for the warmest possible relations with Greece and Cyprus while simultaneously maintaining close ties with Türkiye, with which both Athens and Nicosia have been at odds for decades. I should mention, too, that Cyprus follows a similar path, maintaining friendly relations with both Israel and Lebanon, for example.

Both Cyprus and Greece also would like to play central roles in the development and buildout of facilities aimed at carrying energy to the European mainland. This is a core part of their respective plans to grow and develop their respective economies, and the necessary investment and expertise will require strong partnerships.

Q: So how do these priorities tie in with the emir's visit?

A: In several ways, really. First, HH the emir's goodwill visit is a reconnection: the COVID pandemic threw a lot of international issues into hibernation as governments everywhere spent a lot of time looking inward for several years. By visiting now, he's demonstrating in general that he values Qatar's relationships with both Cyprus and Greece. The reengagement also bodes well for particulars, and there are several opportunities for cooperation because the parties can help one another. Both Greece and Cyprus want to be part of plans to open new channels for natural gas into Europe, whether it's Eastern Mediterranean gas or from further afield. For this they could find no better partner than Qatar, which, in addition to its own worldleading LNG industry, has also been acquiring stakes in energy assets around the world. But both countries also want investment in other sectors, too, and once again, both the Qatar Investment Authority, the country's sovereign fund, and various private investors are on the hunt

for moneymaking ventures.

Q: What does the emir's trip mean for Greece, in particular?

A: To me the time looks ripe for more cooperation. The period since 2007/2008 has been very difficult, but the current government under Prime Minister Kyriakos Mitsotakis has done wonders, not just to stabilize the Greek economy and restore hope to the population, but also to help Greece regain its rightful place at the European table. The country is now looking to build on this foundation by fully embracing cutting-edge sectors like digital connectivity and cleantech, but also by reinvigorating its traditional shipping expertise by becoming a major logistics center and by getting more out of its hospitality sector, too. The long recession is over, and some asset classes look very attractive to Qatari investors – and others, as well – especially given the stronger, cleaner governance and leadership on which Mitsotakis has built his reputation.

Q: What about Cyprus?

A: Another European land of opportunity. All other things being equal, if the world operated according to logic instead of politics, Cyprus would already be a major energy hub. Its location makes it the ideal base for the Eastern Med's burgeoning offshore gas industry, which also includes strategic ports, telecoms, and other support services. Many analysts see real potential in several sectors, including ports, banking, and a host of technologies. The increased economic activity will also introduce more people to the beaches and other attractions that make the island's tourism industry so popular. Another ingredient is leadership:

President Nikos Christodoulides has been in office for less than a year, but the former diplomat and foreign minister has already shown himself to be both a highly competent Head of State and a stern defender of his country's economic development & interests.

And all this is not to mention the shipping of the gas itself, for Cyprus is not just part of the European Union: it is also very much an East Mediterranean country, so it stands to reason that it should become a gateway through which some of the world's newest gas producers can sell their wares into the world's largest gas market. Whether it's a pipeline to Greece, an LNG plant to supply customers in Asia and East Africa, or both, it's a no-brainer that Cyprus is the place to start the journey. To me, this is Cyprus' destiny, and if it's further Qatari investment that makes it happen, so much the better. Remember, too, that QatarEnergy is already involved in Cyprus' gas industry, partnering with ExxonMobil to explore two offshore blocks. The Qataris know the LNG business like no one else, and their robust & steady reliability as partners is unchallenged: in 2017-2021, despite an illegal blockade imposed by some of their neighbors, they continued to process and ship at the highest rates to keep supplying LNG to all of their customers around the world, helping to calm world markets during a very vulnerable period.

"Baroudi, left, with Mitsotakis at the 2019 EU Arab World Summit in Athens, before the latter became Greece's prime minister. According to Baroudi, Mitsotakis has done much to speed his country's recovery."



Finally, the role played by Qatar and its leaders has captured the attention of the international community due to the wise policies of the Ruler of the Gulf state. His efforts have been lauded and appreciated by East and West alike, ranging from visits of goodwill by the Emir to regional countries, to forging relations based on mutual respect and cooperation. It also has been noted that visits by the Emir tend to manifest high levels of support in mediation, bringing peace, providing materials or otherwise, as and when needed.

Only public-private co-operation can accelerate decarbonisation



As countries around the world experienced record temperatures last year, UN Secretary-General Antonio Guterres declared: “We must turn a year of burning heat into a year of burning ambition.” But to move away from fossil fuels and unlock the green transition’s economic benefits, such as job creation and universal access to clean energy, industry leaders and policymakers must work together to translate the commitments made at the UN Climate Change Conference in Dubai (COP28) into actual renewable gigawatts.

COP28 marked a historic turning point in the battle against climate change. Rallying around the UAE Consensus, world leaders pledged to move away from fossil fuels, agreeing to triple renewable power capacity to at least 11,000 gigawatts

and double energy efficiency by 2030.

But ambition alone is not enough to achieve these targets and limit global warming to 1.5C. Governments must invest in mature, cost-competitive renewable technologies that can be rapidly deployed at scale. When integrated with long-duration energy storage, green hydrogen, and system optimisation, these technologies represent the most reliable and flexible way to accelerate the energy transition.

Renewables will undoubtedly shape the global energy landscape in the coming years. Both solar and wind power are expected to grow significantly, with hydropower serving as the backbone of grid flexibility. Consequently, renewables are poised to become the twenty-first century's dominant source of global electricity.

But as a joint report released by the International Renewable Energy Agency (IRENA) and the Global Renewables Alliance (GRA) ahead of COP28 noted, tripling renewable capacity will require cooperation between the private and public sectors. Partnerships should focus on initiatives that deliver immediate results, such as mobilising low-cost financing, accelerating permitting processes, clearing grid connection backlogs, reforming government auction mechanisms for renewable-energy projects, and diversifying global supply chains. A strong commitment to inclusivity and the active participation of developing economies must be at the heart of these efforts. IRENA and GRA are demonstrating this commitment by collaborating on the annual reports commissioned by the COP28 Presidency to monitor progress toward the global tripling target and facilitate the energy transition.

We must, however, move faster, especially if we aim to ensure that progress is equitably distributed around the world. While renewable power capacity rose by 473 gigawatts in 2023, the economic benefits of the energy transition did not reach every country. Remarkably, 83% of these increases were concentrated in China, the European Union, and the US, leaving many countries in the Global South behind.

In fact, the shift to renewables is alarmingly slow in many

parts of the world. Opportunities to address development and access challenges in Sub-Saharan Africa, where more than 500mn people still lack access to electricity, are being squandered. This sluggish transition can be attributed largely to the lack of affordable financing, adequate planning, and the policy and market frameworks needed to support the adoption of renewable energy. Tellingly, public fossil-fuel subsidies reached \$1.3tn in 2022 – roughly the annual investment needed to triple renewable capacity by 2030.

A critical first step toward fostering greater public-private co-operation in pursuit of COP28's ambitious targets is to reform the global financial architecture. Africa, for example, accounts for 17% of the world's population but has received less than 2% of global investments in renewable energy over the past two decades, underscoring the need to reduce capital costs and attract private investors. Developing industrial clusters and initiating grant programs could also help foster environments conducive to innovation and private-public partnerships.

Recent commitments by world leaders offer glimmers of hope. African leaders at the September 2023 Africa Climate Summit in Nairobi, for example, pledged to increase the continent's renewable capacity to at least 300 gigawatts by 2030. This effort aims to reduce energy poverty and boost the global supply of cost-effective clean energy suitable for industrial use.

Kenyan President William Ruto, a key advocate of the Nairobi agreement, established the Accelerated Partnership for Renewables in Africa, an African-led international alliance of governments and stakeholders that aims to accelerate renewable-energy deployment, increase access, promote green industrialisation, and strengthen economic and societal resilience.

Governments and business leaders should harness the current political momentum to foster co-operation between policymakers and private investors. As governments develop appropriate policy and market frameworks to facilitate the transition to

renewables, the private sector – historically responsible for 86% of global investments in renewable energy – is poised to lead the charge. Together, we can achieve a clean, secure, and just energy future. But to realise this vision, we must act fast. – Project Syndicate

- *Francesco La Camera is Director-General of the International Renewable Energy Agency. Bruce Douglas is CEO of the Global Renewables Alliance.*
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In the dock: Pivotal climate change testimonies in US



From Mexicans left homeless by rising seas to Colombians affected by coral bleaching, hundreds of people are telling the top human rights court in the Americas what climate change means to them in an historic case that could shape international law.

Environmental lawyers also hope the hearings at the Inter-American Court of Human Rights (IACHR), which were requested by Colombia and Chile, will define the duties of states to confront the climate crisis and stop it infringing on human rights.

As well as receiving submissions from climate victims, the Costa Rica-based court, which started its inquiry in Barbados in April, will hear from UN agencies, legal experts, grassroots environmental campaign groups, and youth groups.

The next sessions are due to be held in Brasilia and then Manaus, Brazil at the end of May, and an advisory opinion is expected by May 2025.

“We’re hoping that the court’s legal opinion is a guide and reference for Mexico, and other states, to develop public policies from a climate justice perspective,” said Nora Cabrera, a lawyer and head of Our Future, a Mexico-based youth climate justice campaign group.

“And that it includes loss and damage compensation for affected communities, and adaptation policies for those not yet directly affected by climate change,” said Cabrera, who will be speaking at the next hearing in Manaus.

In January, Colombia and Chile asked the IACHR to issue the advisory opinion, saying that they were experiencing the “daily challenge of dealing with the consequences of the climate emergency,” including fires, landslides, droughts and floods.

“These events reveal the need for an urgent response based on the principles of equity, justice, co-operation and sustainability, with a human rights-based approach,” they said in their petition.

“There is a close relationship between the climate emergency and the violation of human rights,” they added.

It is this link between climate change and human rights that the IACHR will seek to define, while also examining how climate change affects migration and looking at the disproportionate effect on children, women and Indigenous people.

Chile and Colombia also asked the court for clarification on a state's duties to protect environmental activists.

Latin America is the most dangerous place in the world for environmental and land defenders, according to advocacy group Global Witness. Around 90% of the 177 killings of environmental activists recorded in 2022 took place in the region.

"The hearing aims to ask for clarity about human rights obligations and the climate crisis," said Jacob Kopas, senior attorney at the Earthjustice environmental group, one of a group of lawyers who spoke at the Barbados hearing on April 26.

"It will help to create a more concise framework to guide state behaviour and policy to confront the climate crisis and protect human rights," said Kopas.

Among those submitting testimonies will be the residents of the El Bosque fishing community in Tabasco, Mexico, where rising sea levels caused by climate change have swept away about 200 meters of coastline.

Since 2019, the school and more than 50 homes have been destroyed, forcing about 200 people to leave.

El Bosque community leader, Guadalupe Cobos, said she and 10 neighbours will probably have to leave within a year and resettle in an area about 12km away, where new homes are being built by the government.

"We depend on the sea but coastal erosion has affected our way of life. It's important for the court to know that we're living climate change now and that this isn't something that will happen in the future in 20 or 50 years' time," said Cobos.

"We want the court to hear our experiences and to know that our rights have been violated, that we have been forced to migrate," Cobos told the Thomson Reuters Foundation.

The court's advisory opinion could have important implications for climate litigation across Latin America and the Caribbean and make it easier for communities living with the effects of global warming to take legal action.

The opinion will apply to all signatories of the American Convention on Human Rights, most of whom are members of the Organization of American States. The United States and Canada have not ratified the treaty however.

The advisory opinion will help shape the region's legal systems as many countries incorporate its jurisprudence into their laws and constitutions.

"We're hoping that the court makes the link between the climate crisis and human rights violations and that it recognises climate displacement," said Cabrera, whose organisation has been supporting the El Bosque community.

The IACHR is known for its progressive stance on climate justice and human rights.

In March, it recognised that citizens in Peru have the right to a healthy environment when it ruled in favor of people living in the Andean mining town of La Oroya, who had suffered from decades of environmental pollution.

Other courts are also breaking new ground in this sphere.

In Colombia in April, in response to a lawsuit filed by a farming couple who were driven out of their home by flooding caused by heavy rains, the country's constitutional court recognised the links between environmental disasters and climate change and people being forcibly displaced.

Across the world, other top courts are also examining the connection between human rights and climate change. On April 9, the European Court of Human Rights (ECHR) ruled that the Swiss government had violated the human rights of its citizens by failing to do enough to combat climate change.

Two other courts – the International Court of Justice (ICJ) and the International Tribunal for the Law of the Seas (ITLOS) – are also expected to give advisory opinions on international legal obligations of states regarding climate change.

Kopas said the IACHR ruling could lead the way by delivering a "forward-reaching and progressive" advisory opinion.

"It's historic because of the climate crisis we are in. This is the crisis of our lifetime and of all future generations."

– Thomson Reuters Foundation

Climate Leadership from the Global South



Mar 14, 2024OMAR ANDRÉS CAMACHO and SOIPAN TUYA

With vast solar, wind, hydro, and geothermal resources, Africa and Latin America have a central role to play in the clean-energy transition. But while countries like Colombia and Kenya have made impressive progress, additional financing – and thus reforms to the international financial system – is sorely needed.

BOGOTÁ/NAIROBI – Last month, the International Energy Agency’s ministerial gathering took place in Paris, while the African Union, which recently joined the G20, held its annual summit in Addis Ababa. Both fora recognized the urgent need to fulfill the commitments made at last December’s United Nations Climate Change Conference (COP28) in Dubai, not least to triple installed renewable-energy capacity by 2030. But the challenges ahead are substantial.

COP28 identified many actions that are crucial to achieving net-zero emissions by 2050. Beyond the sharp increase in renewable-energy capacity, these include doubling the rate of energy-efficiency improvements by 2030, phasing down the “unabated” use of fossil fuels, and providing financial support to developing countries as they work to expand energy access and advance economic development.

Africa and Latin America have a central role to play in fulfilling the world's net-zero ambitions. Both regions boast abundant renewable-energy potential, thanks to vast solar, wind, hydro, and geothermal resources. By leveraging these, Africa and Latin America can make rapid progress in reducing their carbon emissions, enhancing energy access, and stimulating sustainable economic growth.

Our countries, Colombia and Kenya, are already making significant strides toward a cleaner energy mix. Though Colombia has massive oil and gas reserves, hydropower generation accounts for nearly 70% of its electricity production. And the government is committed to increasing the share of renewables in the energy mix further by 2030. By harnessing wind, solar, biomass, and geothermal, Colombia can diversify its renewable-energy portfolio and further reduce its reliance on fossil fuels.

Colombia is also taking direct action to accelerate the phaseout of fossil fuels. The government recently announced a ban on the issuance of new licenses for oil and gas exploration, and has signaled its intention to address the negative effects of fossil-fuel extraction. These measures will not only curb carbon emissions, but also help protect the country's vulnerable ecosystems and rich biodiversity.

As for Kenya, it is emerging as a renewable-energy success story in Africa. Using its vast geothermal, wind, solar, and hydroelectric resources, Kenya has raised the share of renewables in its electricity generation to a whopping 94%. Its geothermal sector has achieved remarkable growth, making it Africa's leading producer of geothermal power. And now, Kenya is helping its neighbors, Ethiopia and Djibouti, to harness their own geothermal resources as well.

Underpinning Kenya's progress are government efforts to implement supportive policies and create an enabling environment for private investment. The Kenyan government's

forward-thinking approach has not only resulted in expanded energy access for its people; it has also created jobs and local industries, thereby advancing economic development and opening up opportunities to collaborate with others. Kenya is a founding member of Accelerated Partnerships for Renewables in Africa, an initiative that aims to bolster the energy transition in African countries, with support from Denmark, Germany, and the United Arab Emirates.

Colombia and Kenya's achievements should be highlighted and celebrated to motivate and guide other countries in their own clean-energy transitions. Those with fossil-fuel resources, for example, must follow Colombia's example in limiting oil and gas exploration.

But Colombia and Kenya are not only passive models for others to follow; they are also active global leaders. If their clean-energy transitions didn't already make their commitments apparent, their recent decision to join the Beyond Oil & Gas Alliance – an international coalition of governments and partners working to facilitate the fossil-fuel phaseout – should make them so.

Still, financing is key if the world is to realize its clean-energy ambitions. Low investment in Africa is a major challenge. A recent BloombergNEF report shows that in 2021, just 0.6% (\$2.6 billion) of the \$434 billion invested in renewable-energy projects went to African countries. A sharp increase in funding flows from rich countries to clean-energy sectors in both Africa and Latin America is urgently needed.

Beyond direct financial support from rich countries, the global financial system – including the International Monetary Fund and multilateral development banks – must urgently be reformed, so that it is fairer and more efficient. Only then can this system deliver enough financing to meet the growing needs of developing economies. Coordinated action to ease the debt burdens on developing economies is also vital.

At COP28, the Global South demonstrated solidarity and a commitment to cooperation. By sharing knowledge and best practices, developing economies can drastically accelerate the clean-energy transition. But, if the world is to succeed at combating climate change and safeguarding our collective future, bold action to ensure adequate financing is essential.

US gas pipeline accidents pose big, unreported climate threat



Last October, an Idaho farmer using a backhoe punched a hole into a 22-inch pipeline buried under a field, sending more than 51mn cubic feet of natural gas hissing into the air.

While the incident on Williams Companies' Northwest Pipeline

was big, it was no anomaly along the roughly 3mn miles of natural gas pipelines crisscrossing the US.

Accidental pipeline leaks – caused by things like punctures, corrosion, severe weather and faulty equipment – happen routinely and are a climate menace that is not currently counted in the official US tally of greenhouse gas emissions, according to a Reuters examination of public data and regulatory documents.

Pipeline mishaps unintentionally released nearly 9.7bn cubic feet of gas into the atmosphere between 2019 and late 2023, according to a Reuters examination of incident report data maintained by the US Pipeline and Hazardous Materials Safety Administration (PHMSA).

That is the climate equivalent of running four average-sized coal-fired power plants for a year, according to an Environmental Defence Fund (EDF) online calculator.

Those emissions are currently not included in the nation's official greenhouse gas count because federal rules exempt large, unexpected leaks, and mainly only capture emissions from regular operations, according to the US Environmental Protection Agency (EPA).

The Biden administration aims to change that as early as next year under a set of rules proposed by the EPA to crack down on methane emissions from the oil and gas sector, and which would punish emitters with fees of \$900 to \$1,500 per metric tonne when they exceed a certain threshold.

Reuters relied on PHMSA data and interviews with researchers, company officials and regulators to provide new detail on the scale of greenhouse gas emissions from accidental pipeline leaks that could soon be added to the official greenhouse gas tally, as well as the potential cost to companies under the looming fees.

"I don't think the public or regulators have realised just how much methane has been lost from pipeline infrastructure," said Kenneth Clarkson, a spokesperson for the Pipeline Safety Trust, a non-profit watchdog. "Newer studies have come closer to capturing the true amount of emissions and this has started

catching the attention of policymakers.”

Accidental leaks reported from PHMSA by the five biggest US pipelines between 2018 and 2022 showed that those incidents could have significantly increased the facilities’ overall reported emissions, potentially resulting in fees of up to \$40mn under the proposal.

The operators of the five biggest pipelines include Berkshire Hathaway, TC Energy and Kinder Morgan.

Berkshire Hathaway’s 14,000-mile Northern Natural Gas pipeline, for instance, reported unintended releases of natural gas to PHMSA during the five year period that were the equivalent of about 30% of the methane the facility reported to EPA during the period.

Williams, the owner of the pipeline that leaked in Idaho in October, reported unintended gas releases that amounted to about 15% of the methane it reported to EPA.

Berkshire Hathaway and Williams did not respond to requests for comment on Reuters’ analysis or the EPA proposal.

TC Energy said reducing its methane emissions was a critical part of its business, but did not comment directly on the EPA proposal or Reuters’ analysis.

Kinder Morgan said it does not exclude unintended emissions from its reports to EPA, even though it is not required to include them.

The Biden administration unveiled its batch of final rules aimed at cracking down on US oil and gas industry releases of methane at the United Nations COP28 climate change conference in Dubai in December, part of international efforts to curb releases of the gas.

Piped natural gas is typically around 90% methane, a greenhouse gas which is several times more potent in warming the planet than carbon dioxide during the relatively short time it remains in the atmosphere.

The new policies would ban routine flaring of natural gas produced by newly drilled oil wells, require oil companies to monitor for leaks from well sites and compressor stations and establishes a program to use third party remote sensing to

detect large methane releases.

The new reporting requirements for large leaks, meanwhile, are likely to be finalised later this year and take effect in 2025, the EPA told Reuters.

Under the proposal, companies will be required to report abnormal leaks of about 500,000 cubic feet of pipeline gas or more starting next year, a threshold significantly lower than what PHMSA requires.

The new reporting rules would also apply to big, unplanned emissions from other parts of the oil and gas industry, such as drilling operations, EPA said.

The fact that some large methane leaks have never been accounted for in US greenhouse gas inventories underscore concerns among environmental groups and scientific researchers that emissions from the fossil fuel sector have been vastly understated.

An Environmental Defense Fund analysis last year, for instance, estimated US pipelines leak between 1.2mn and 2.6mn tons of methane per year, or 3.75 to 8 times more than EPA estimates.

The EDF figure includes not just large mishaps but also pervasive smaller leaks on tiny distribution lines.

“The failure of EPA to account for these large events is a big driver of that discrepancy,” Edwin LaMair, an EDF attorney who focuses on oil and gas regulations, said in an interview.

The Interstate Natural Gas Association of America, a pipeline industry trade group, said most incidents reported to PHMSA relate to safety systems operating as intended.

The group also pointed to an EPA analysis showing that most transmission and storage facilities may not meet the 25,000 metric tonnes of carbon dioxide equivalent per year emissions threshold required to pay the methane fee.

The EPA analysis said, however, that it was not yet possible to accurately estimate “the magnitude of emissions that will be reported and which facilities will report those emissions.”

The pipeline industry has also said in public comments to the EPA about the new reporting rules that they could lead to

double-counting of some emissions. – Reuters

Greece Spearheads a Dynamic Energy Transition



Countries have different energy priorities due to factors like the availability of energy resources, geopolitics, the population size, environmental considerations and excessive use of energy, the needs of industry, and the availability of technology.

The most representative energy priorities among countries, including Greece, revolve around energy security, reduction of greenhouse gas emissions, affordability, and avoidance of deforestation. Construction of additional energy infrastructure and charging energy consumers with more taxes

for excessive energy use constitute additional energy priorities. According to a market survey conducted by IPSOS in late 2022 that engaged 24 thousand people in 28 countries, the top energy priority was that of energy security followed by the development of cleaner energy sources, like wind and solar, and the affordability of energy.

The war on Ukraine brought energy security to the forefront of concerns for many regions, particularly Europe. Directly impacted countries, like Germany, have had to reactivate coal production and extend the operational lives of nuclear power plants to ensure efficient supply of energy to consumers.

Electricity Generation from Renewables

Despite challenges associated with the war on Ukraine, Greece has emerged more resilient by enhancing reform of its energy market and accelerating deployment of renewables in accordance with the National Climate Law of 2022. The Climate Law signals concrete milestones for Greece's energy transition with most prevalent the reduction of greenhouse gas emissions by 55 percent by 2030 and, achievement of net zero emissions by 2050.

The Climate Law also foresees a total phase-out of lignite generated electricity by 2028. Notably, Greece ranks 2nd out of the 27 EU member states in the reduction of electricity generation from certain solid fossil fuels; lignite generated electricity decreased by 57,7 percent in the first 8 months of 2023 compared to the same period of 2019 according to the Greek Independent Power Transmission Operator (IPTO).

The reduction of the use of solid fossil fuels has been offset by the accelerated development of renewable sources of energy, construction of critical energy infrastructure, and promotion of plans for Greece to position itself as key hydrogen hub in Europe. It is only in four years that Greece enhanced the installed capacity of renewable energy plants, accounting for

50 percent of electricity generation, with a clear target for electricity generation from renewables to reach 80 percent by 2030. The Greek solar photovoltaic market has gained most traction with 1.4 GW of new photovoltaic projects connected to the grid in 2022 and with anticipation of 10.9 GW to be added during the period of 2024-2027 according to the latest report by industry association Solar Power Europe.

The Offshore Wind Challenge

Wind energy in Greece has been surpassed by photovoltaics in new and total installations primarily due to delays in the licensing process. The largest onshore wind power plants include the 336 MW onshore Evia Wind Farm of Ellaktor located in Evia, Central Greece; the 330 MW Kafireas wind farm of Terna Energy on the island of Evia; and the 153MW Imathia Kozani Wind Farm under development by 547 Energy LLC, located in West Macedonia. Greece's revised National Energy and Climate Plan (NECP) sets a clear target of 2 GW for onshore wind capacity and 2.7 GW for offshore wind capacity by 2030.

Greece swiftly moves forward to tap for the first time ever its offshore wind potential in pursuance of the national offshore wind farms development program that incorporates 25 eligible development areas in the Ionian, Aegean, and the East Mediterranean Seas.

An environmental impact assessment that has been completed by the Hellenic Hydrocarbons and Energy Resources Management Company includes maritime zones of over 2,712 square km where floating technology will be employed for the offshore wind farms in full compliance with environmental safeguards striking a balance between offshore wind energy, national security, and tourism.

Offshore wind energy falls under the creation and development of new markets along with carbon dioxide CO2 capture and green hydrogen production.

Unlocking the CO₂ Storage Potential

Clean hydrogen can prove to be commercially viable due to the use of CO₂. CO₂ can be transported from where it is produced, via ship, truck or in a pipeline, and be used in commercial applications such as food and beverage production, metal fabrication, and cooling.

The majority of commercial applications center on the direct use of CO₂ by turning it into chemicals and construction materials. Liquid CO₂ can also be transported to an underground site where it can be permanently stored under strict environmental standards. The capture and storage of CO₂ contribute to the decarbonization of heavy industries and the development of clean hydrogen.

It is in this context that Greece swiftly moves to identify potential areas for CO₂ storage, with the most mature option being that of Prinos basin. Specifically, under Greek and European legal contexts, an exploration permit has been awarded to medium-sized Energean Oil & Gas for CO₂ storage in the depleted Prinos field evaluated as the best option because of its depth and structure.

Prinos is scheduled to be operational from the fourth Quarter of 2025 as small-scale project with capacity of up to 1 million tons (MT) of CO₂ annually and with plans to increase capacity from the fourth Quarter of 2027 up to 3 MT of CO₂ annually. Areas with saline aquifers, mafic rocks and oil and gas fields throughout Greek territory are evaluated as potential storage sites.

Prospects of a Hydrogen Hub for Europe

Green hydrogen production and transportation falls within the priorities of the Greek National Energy and Climate Plan. It is estimated that little investment is required, primarily in the form of developing compression stations, for the conversion of the existing national network to transport

hydrogen. Extensive cross-border pipelines like Interconnector Greece-Bulgaria (IGB) and Trans Adriatic Pipeline (TAP) have the potential to transport hydrogen.

Proper energy infrastructure can guarantee that massive imports of hydrogen from the Middle East and North Africa are directed to Europe via Greece. The European Union has declared that as the Ukraine war goes on it will have to import 10 MT of renewable hydrogen annually until 2030.

The first major hydrogen project that meets demands of industrial production has been launched in the north-west of Saudi Arabia, in a region called NEOM, that has been declared an exclusive renewable and hydrogen zone. The Neom Green Hydrogen Company project constitutes an 8.4-billion-dollar green hydrogen and green ammonia production facility that will integrate 4 GW of wind and solar energy to produce 600 tons of carbon-free hydrogen per day. Large-scale production of renewable hydrogen from the NEOM region is expected to begin in 2026, and green hydrogen will be exported in the form of green ammonia.

Overall, Greece fosters an effective energy transition with a blend of renewable energy pathways and a match of CO₂ storage and hydrogen transportation. It is with no doubt that important targets and deliverables are on the horizon.

Antonia Dimou

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Developing Countries Need Debt Relief to Act on Climate Change



While developed economies have pledged to increase climate financing sharply by 2030, developing-economy policymakers are struggling to cover the costs of action. With medium-term strategies being used to address a short-term threat, progress on the green transition will be undermined, with potentially catastrophic implications.

WASHINGTON, DC/PARIS – If developing economies found it hard to manage their debts in 2023, they are likely to face even more formidable challenges this year. Though most possess relatively small debt stocks and are not considered insolvent, many are in dire need of liquidity. As long as this remains true, they will struggle not only to manage their debts, but also to invest in the green transition.

Developing economies have faced a series of external shocks in recent years, including the COVID-19 pandemic, war-related disruptions of food and energy supply chains, and an uptick in global inflation. Moreover, their access to capital

markets has been curtailed, preventing them from rolling over maturing loans, as they would do in normal times. As a result, countries have been forced to channel a large share of their tax and export revenues to service their debt, avoiding default at the cost of priorities like infrastructure investment, social-welfare programs, and climate action.

The outlook for these countries is likely to worsen in the next few years. According to estimates by the Finance for Development Lab (FDL), large debt payments are coming due in 2024 and 2026 for at least 20 low- and lower-middle-income countries. As countries hit this “debt wall,” their already fragile fiscal positions will deteriorate further. This does not bode well for climate action.

Climate change is not some distant menace; its effects are already being felt worldwide, especially in climate-vulnerable developing economies. But international summits on the topic last year sent a disappointing message: while developed economies pledged to increase climate financing by 2030, developing-economy policymakers are struggling against severe fiscal constraints. With medium-term strategies being used to address a short-term threat, developing and emerging economies have been expressing frustration, including at the Summit for a New Global Financing Pact that was held in Paris last June.

Multilateral development banks can provide an essential lifeline, but their capacity would have to be strengthened – and quickly. According to World Bank data, the new concessional loans the world’s poorest countries received from MDBs in 2022 were smaller than these countries’ debt-service payments, a large share of which went to private and bilateral creditors. Increasing capital flight from the developing world – driven not least by monetary tightening in advanced economies – will intensify the needs of illiquid lower-income countries.

But it is not only a matter of financial capacity. MDBs have

so far been inconsistent, at best, when it comes to supporting countries struggling to repay their debts. For example, both Kenya and Ethiopia have been under pressure to repay their private and Chinese creditors, which are now collecting more in debt-service payments than they are providing in new loans. But only Kenya received enough support from the International Monetary Fund, the World Bank, and others to refinance its debt that is maturing this year.

By contrast, assistance to Ethiopia has declined in recent years. As a result, Ethiopia recently defaulted on its external debt, even though it amounts to just 25% of GDP. While the Kenya approach is not the solution – providing similar levels of support to all illiquid countries would require a tripling of MDB flows – this is clearly unacceptable.

A better approach would focus on closing the gap between short-term debt concerns and long-term investment needs, by unlocking net-positive inflows for countries facing liquidity constraints. As the FDL has proposed, an agreement among debtors, creditors, and MDBs to permit countries to reschedule debts coming due – delaying maturities by 5-10 years – would create fiscal space for climate-friendly investments, financed by MDBs.

For this liquidity bridge to work, MDBs would have to accelerate progress on implementing existing reform plans and increase funding substantially, while the IMF helps manage debt-rollover risks. Importantly, private and bilateral creditors would have to agree to the rescheduling. That is why, compared to the Debt Service Suspension Initiative that the G20 introduced in 2020, the proposal includes stronger incentives for private-sector creditors to participate, in addition to longer time horizons.

There are good reasons to believe that creditors can be convinced to join the program voluntarily. It is, after all,

in their best interest to remain invested in solvent countries with strong growth prospects; no one benefits from debt crises like those that have ensnared Zambia and Sri Lanka. In any case, creditors would continue receiving interest payments, and as global interest rates fall and economic-growth prospects improve in the coming years, debtors may well be able to return to capital markets and resume repayment of the principal.

Shaping a workable blueprint along these lines is a task for upcoming international gatherings, such as the G20 summit in Brazil later this year. Logistical and financial coordination will be needed to ensure sufficient liquidity. Coordination among the IMF, the World Bank, and regional development banks will also be essential to ensure that participating debtor countries pursue investments that genuinely support green growth.

If nothing is done to help countries facing liquidity crises, the world will risk a wave of destabilizing debt defaults, and progress on the green transition will be severely undermined, with catastrophic implications for the entire world. Because promising solutions like the liquidity bridge can prevent such outcomes, they deserve broad global support.

UN climate chief calls for \$2.4tn in climate finance



The world needs to mobilise at least \$2.4tn to keep global climate change goals within reach, the United Nations climate chief said in a speech yesterday.

Simon Stiell, executive secretary of the UN Framework Convention on Climate Change (UNFCCC), addressed a group of students at the Azerbaijan Diplomatic Academy in Baku, host of the COP29 climate summit in November, laying out the steps that need to be taken this year to turn the commitments made at last year's summit in Dubai into reality.

This was Stiell's first major speech since the UN gathering in Dubai, where nearly 200 countries agreed to begin a transition away from fossil fuels to avert the worst impacts of climate change.

"It's clear that to achieve this transition, we need money, and lots of it – \$2.4tn, if not more", excluding China, Stiell said in prepared remarks, citing a report released in December from the High-Level Expert Group on Climate Finance.

"Whether on slashing emissions or building climate resilience, it's already blazingly obvious that finance is the make-or-break factor in the world's climate fight – in quantity, quality, and innovation," he said. "In fact, without far more finance, 2023's climate wins will quickly fizzle away into more empty promises."

Climate finance will be the main focus of the Azerbaijan-

hosted talks, where governments will be tasked with setting a new target post-2025 for raising money to support developing country efforts to cut emissions and adapt to the worsening impacts of climate change.

Setting a new financial goal will be challenging given that countries only met last year a goal set in 2009 to mobilise \$100bn a year in climate finance by 2020.

"It's already blazingly obvious that finance is the make-or-break factor in the world's climate fight," he said, adding that without more finance, the wins achieved at the COP28 Dubai summit will fizzle out.

Stiell said that the year should be spent ensuring that the global financial system and multilateral banks can meet the task of ramping up climate finance, and urged banks to triple the amount of climate grants and concessional finance by 2030 and triple the rate of private capital they mobilise.

More broadly, he cautioned against taking "victory laps" after the UAE agreement, saying that the political agreement reached in Dubai enables countries to hide behind "loopholes".

"The action we take in the next two years will shape how much climate-driven destruction we can avoid over the next two decades, and far beyond," he said.

The world is currently far off track in delivering on its cornerstone climate deal, agreed in Paris in 2015.

Under the Paris Agreement, world leaders pledged to keep the rise in Earth's average temperature to "well below" 2.0°C above the pre-industrial level and preferably the much safer threshold of 1.5°C.

The 2020s are critical for keeping that 1.5°C target in view, with UN climate experts estimating that planet-heating greenhouse gas emissions need to be slashed by some 43% by 2030.

There is progress, with a surge in clean energy technologies like solar, wind and batteries, as well as electric vehicles.

However, emissions continue to rise.

A key challenge that is likely to take centre stage at this

year's climate talks in Baku, as well as meetings of the World Bank and International Monetary Fund (IMF), is how to support emerging economies manage and pay for their transition to clean energy.

Many of these nations are currently mired in debt and facing a raft of challenges, from inflation to growing climate impacts. Meanwhile global warming continues, with 2023 confirmed as the hottest ever recorded and experts warning 2024 could be even hotter.

The Earth is now about 1.2°C warmer than it was in the 1800s. This is already having an accelerating impact on people and ecosystems across the planet, from heatwaves and droughts, to devastating floods and storms.

A damning appraisal of countries' decarbonisation efforts so far, released last year, showed the world heading for catastrophic planetary heating.

Stiell conceded it would take an "Olympian effort" to get the world on track.

One key task for countries will be to outline a new round of national climate targets for 2035 ahead of a pivotal COP30 meeting, due to be held in Brazil in 2025.

These pledges should be strengthened to align with the 1.5°C goal, cover the whole economy and all greenhouse gases, Stiell said.

"The action we take in the next two years will shape how much climate-driven destruction we can avoid over the next two decades, and far beyond," he added.