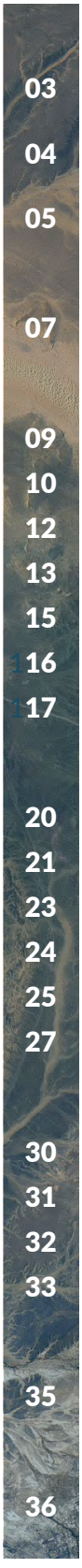

CLIMATE
ANALYTICS
ANNUAL
REPORT
2024

Contents



Foreword

In 2024, the world edged closer to the 1.5°C temperature limit set by the Paris Agreement. Global temperatures exceeded 1.5°C for the first time over a full year – a stark warning that while we have not yet reached the warming limit, we are perilously close. This warning came after a year marked by worsening climate impacts: searing heatwaves scorched Europe and Asia, floods and wildfires displaced millions, and emissions reached record heights.

Despite the rising sense of urgency, international climate action faltered. COP29 failed to deliver, offering little more than a finance deal widely perceived as a betrayal of vulnerable countries. The re-election of President Trump cast a long shadow over the talks, and in 2025, these fears have been more than realised through his withdrawal from the Paris Agreement, cuts to climate research and attempts to hold back the energy transition.

In these challenging times, Climate Analytics remains steadfast in its mission. We are science-driven, evidence-based, and guided by the priorities of those on the frontlines of the climate crisis. While geopolitics shift, our focus is unwavering: working with countries most at risk to advance climate-resilient development, hold major emitters to account, and accelerate climate action aligned with the 1.5°C limit.

To our dedicated team, partners, and supporters: thank you. Your work has not only shaped global climate thinking but also delivered real wins that prove change is possible. As we look ahead, we do so with clarity of purpose and a deep belief in the power of science and collective action to shape a more livable future for all.

Bill Hare

CEO, Climate Analytics

Our mission and vision

Climate Analytics is a global climate science and policy institute engaged around the world in driving and supporting climate action aligned to the 1.5°C warming limit.

We connect science and policy to empower vulnerable countries in international climate negotiations and inform national planning with targeted research, analysis and support.

Our international team of 130 experts and support staff work from our headquarters in Berlin and our regional offices in Africa, Australia and the Pacific, the Caribbean, North America and South Asia.

Our vision:

We want a climate-safe, sustainable and just future for all.

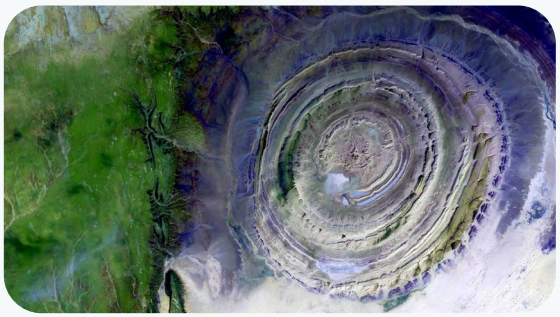
Our mission

We deliver cutting-edge science, analysis and support to accelerate climate action to limit warming below 1.5°C.
Our work empowers countries, communities and peoples on the frontlines of the climate crisis.

Our expertise

Climate impacts and risks

We research how climate impacts – from storms and droughts to fires and water scarcity – affect peoples and ecosystems around the world, and what could happen at higher levels of warming.

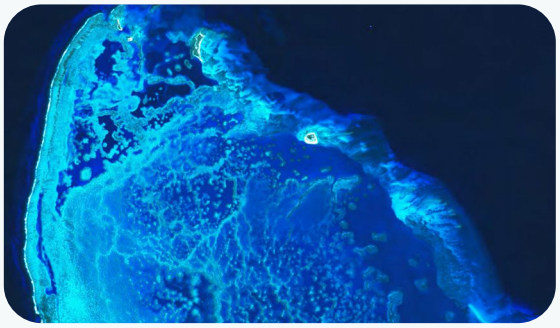


Adaptation

We innovate and advise on science-based adaptation planning with a special focus on transformational change to address long-term challenges.

Loss and damage

For over a decade we have been both building the scientific evidence base for loss and damage, and following and supporting the negotiations on this issue in the UN climate negotiations.



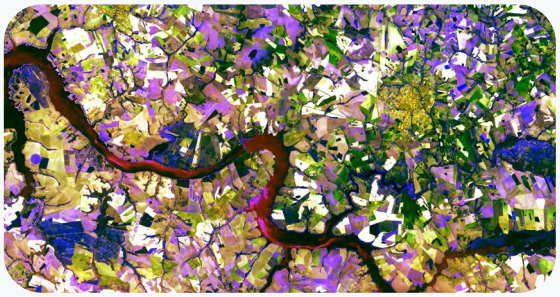
Decarbonisation targets and 1.5°C pathways

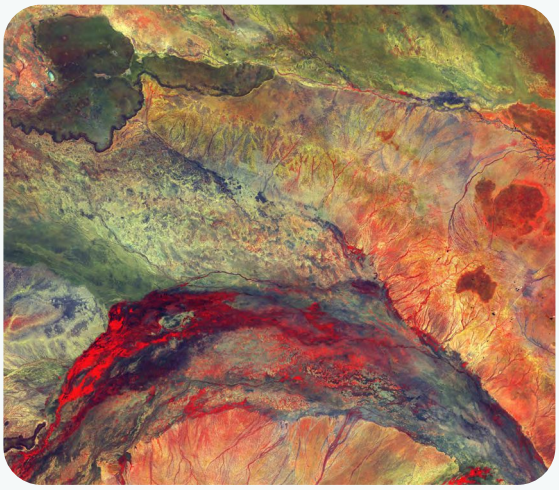
We develop new methods to calculate the emission reductions needed to decarbonise in line with 1.5°C at the global, regional and national levels based on the latest science.

Our expertise

Climate finance

Our team supports developing countries to access climate finance and deliver on their climate mitigation and adaptation objectives.



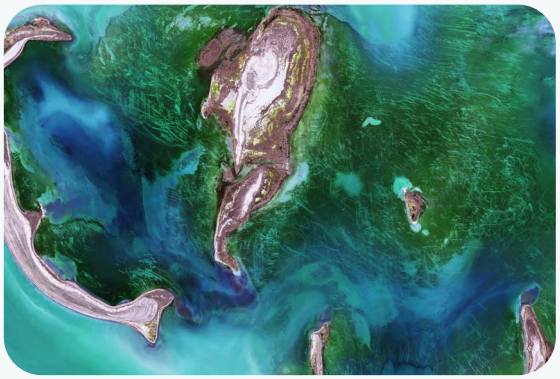


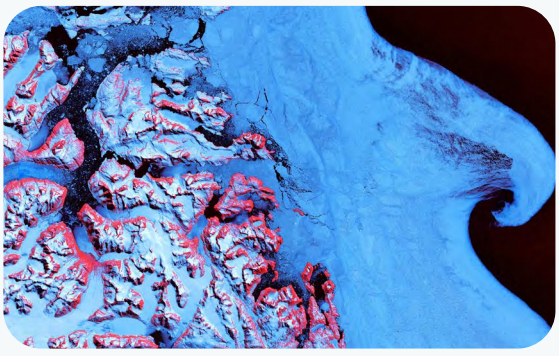
Climate diplomacy

We provide strategic, technical and real-time negotiations support and capacity building to countries on the frontlines of the climate crisis, Small Island Developing States (SIDS) and Least Developed Countries (LDCs), in international climate forums including the UNFCCC, IPCC and the GCF.

Climate justice

We support the development of inclusive climate policies, conduct scientific research on equitable and fair climate action, support for just transition and provide thought leadership on climate justice.





The 1.5°C limit

We have pioneered science detailing the impacts of warming at 1.5°C compared to higher levels of warming to illustrate the relevance and urgency of climate action.

Impact 2024

Staff
135
TOTAL MEMBERS

54% WOMEN
46% MEN

38
NATIONALITIES

6
Offices
ACROSS AFRICA, AUSTRALIA, ASIA, NORTH AMERICA AND EUROPE

Publications

54
REPORTS, BRIEFINGS AND PEER-REVIEWED PAPERS

20
Blogs

7.9k
Media Articles

9.1k
Report Downloads

31k+
LinkedIn Followers

8k+
BlueSky Followers

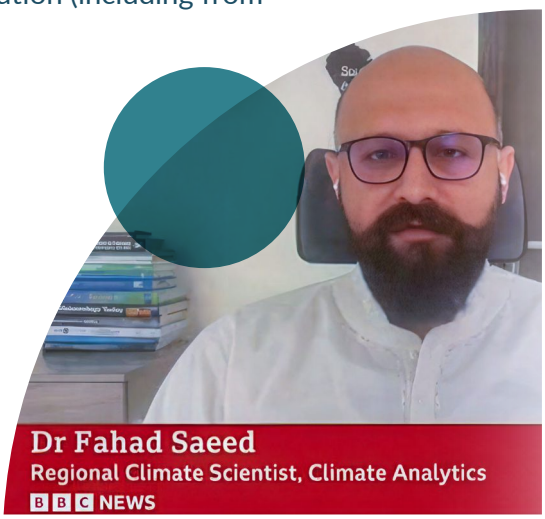

CLIMATE
ANALYTICS
2024
IN STORIES

2024 in stories

Extreme climate events on the rise

2024 was the hottest year on record, and the first year the annual global average temperature exceeded 1.5°C.

These exceeded 2023 temperatures, which had previously been the hottest year on record, largely driven by growing greenhouse gas emissions and concentrations, a strong El Niño for the first half of the year, a drop in aerosol pollution (including from shipping) and the solar cycle nearing its peak. Warm oceans also spurred ice loss in glaciers and ice sheets worldwide.



These high temperatures fuelled extreme events around the world, from record-breaking heatwaves and flooding in Asia, fires in Brazil and devastating hurricanes in the Caribbean and North America.

Our scientists contributed to research determining the role of human-induced climate change in these extreme events, such as the heavy precipitation event in the UAE and Oman. Our scientists were frequently expanding the public's understanding of them by commenting in the media.

May saw record-breaking pre-monsoon heatwaves in South and Southeast Asia. Our climate scientist Dr Fahad Saeed based in Pakistan told the BBC that climate change is bringing issues **"to a level where it is testing the limits of adaptation."**

One of the worst heat-related disasters this year occurred during the Hajj pilgrimage to Mecca in Saudi Arabia, where tragically over 1,300 pilgrims died from extreme heat stress. Drawing on his previous research on the potential risk of dangerous heat stress during the pilgrimage, Dr Saeed wrote a blog on the event and spoke to many news outlets, including the New York Times.

Nepal experienced a glacial lake burst in August, an indication of the accelerated impact of climate breakdown in the Himalaya.

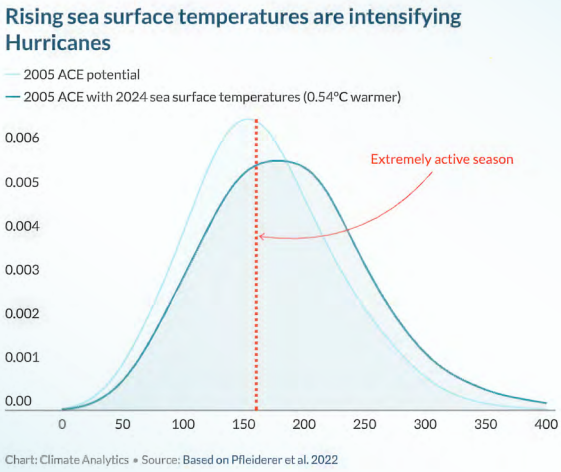
Manjeet Dhakal, Head of our South Asia office, wrote an op-ed in the Nepali Times about the event calling for the urgent need for global action on climate in response.

When torrential rainfall in September caused further devastating flooding in Nepal, he spoke to the South China Morning Post about the short and long term impacts.

Sea surface temperatures were at an all-time high in 2024, which our previous research has shown intensifies hurricanes.

In June, Hurricane Beryl left thousands without power across the Caribbean, breaking many records, most notably the earliest known category 4 (and category 5) hurricane.

Following the devastation left by Beryl, our scientists examined why 2024 could be the worst hurricane season on record for the Caribbean.



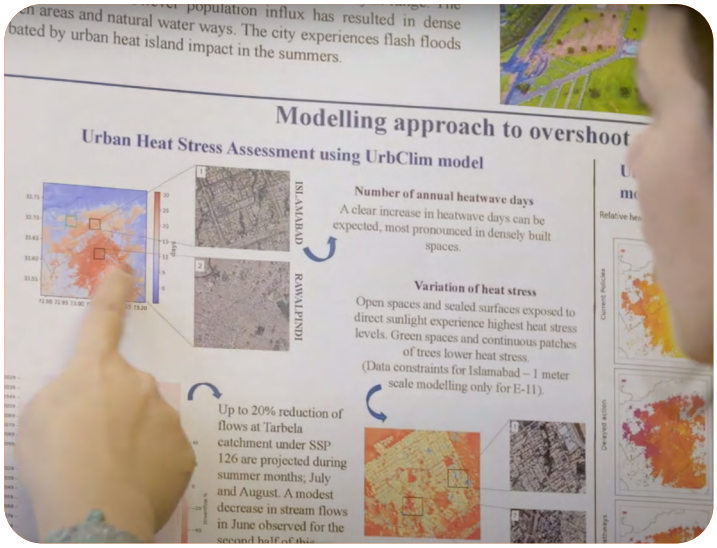
Risk of 1.5°C overshoot increasingly likely

Our researchers also evaluated the extreme heatwaves in 2023 in a journal article, which found large swathes of the world experienced at least 20 more heatwave days in 2023 compared to the 30-year average.

Current trends show that we are rapidly nearing the limit set by the Paris Agreement—though the Paris Agreement refers to long-term human-induced warming assessed over 20- to 30-year periods. Without substantial reductions in global emissions by 2030, overshoot of the 1.5°C limit by more than 0.1°C or higher, will become inevitable.

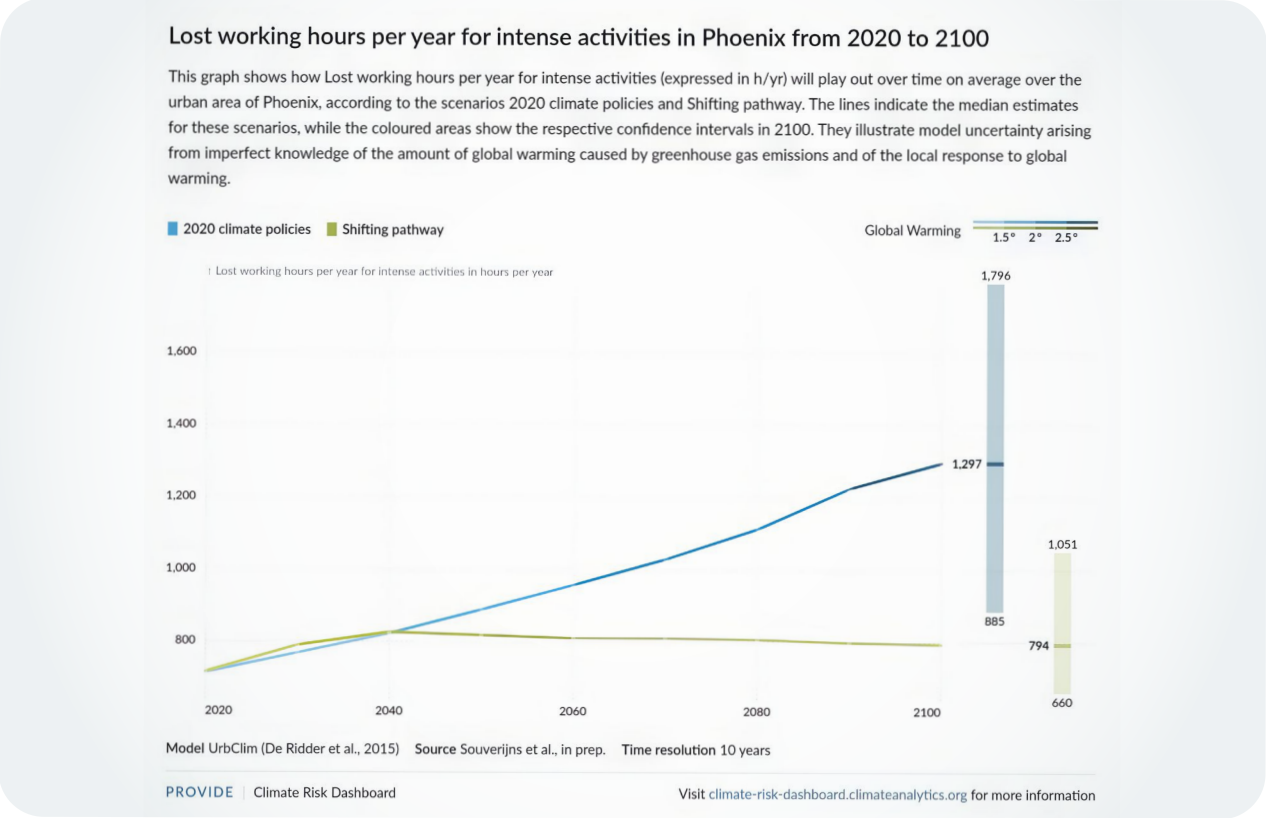
Avoiding overshoot and keeping below the 1.5°C limit results in far fewer climate impacts and risks, making the case for achieving net zero even more stark. Our scientists, led by our Head of Science Dr Carl-Friedrich Schleussner, published a paper in *Nature* on the risks of overshoot and a briefing on what this means for the most vulnerable countries and regions. Coverage from our media outreach on this paper resulted in 189 media articles.

Even if we manage to reduce global mean temperatures back below the 1.5°C limit after a period of overshoot, research led by our climate scientist Dr Peter Pfleiderer found that regional climate changes may only be partially reversed in the decades after peak warming. Further research led by our carbon dioxide removal expert Dr Gaurav Ganti, highlighted the importance of incorporating fairness and broader sustainability considerations in future assessments of overshoot mitigation pathways with carbon dioxide removal.



Our researchers developed the Climate Risk Dashboard to provide policymakers and practitioners with easy access to information on future climate impacts – and which ones can still be avoided if we act swiftly today. The dashboard is an interactive online tool that allows users to compare climate impacts over various timeframes (2030, 2050, 2100) and scenarios. For example, you can explore what the world would look like under current climate policies compared to those that limit warming to 1.5°C. The dashboard has country, regional and city level data on climate impacts such as urban heat stress, biodiversity decline, glacier loss and lost working hours.

Researchers in Australia partnered with our scientists to determine how climate change will impact the safe temperature ranges for trees in the city of Melbourne using the tool.



Could global emissions peak soon?

Despite rapid clean energy growth, the world did not peak emissions in 2024. The Global Carbon Budget's first estimate for 2024 indicates that CO2 emissions growth slowed to 0.8%, which may be a sign that collective action on climate could soon bend the emissions curve down.

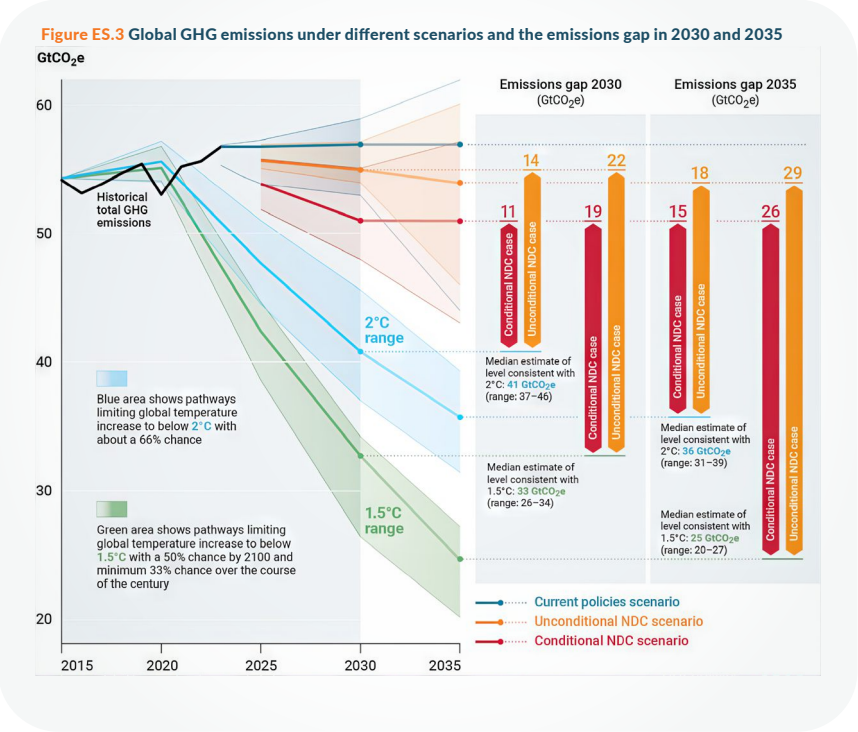
While our 2023 analysis estimated that 2024 had a 70% chance of being the year emissions started falling, higher oil and gas use and higher energy demand than predicted delayed the peak. Gas was the main driver of emissions growth in 2024, with demand growing 2.7% according to the IEA. Energy demand also grew faster than expected (2.2% according to the IEA). This was driven by increased manufacturing demand, the electrification of transport, the expansion of data centres, and increased use of air conditioning due to climate change-fuelled extreme heat.

It remains to be seen whether emissions will start declining in 2025, making 2024 the year of peak emissions. This would meet the milestone identified by the Intergovernmental Panel on Climate Change to peak emissions before 2025.

Another milestone on the road to peak emissions is whether or not the world's largest emitter, China, has peaked emissions. Our Senior Climate and Energy Analyst Dr Neil Grant fielded many media enquiries about this throughout the year and spoke to the Washington Post about the need for China's peak emissions to be followed by a steep decline.

Our CEO Bill Hare told Nature News we would need five years of emissions data to confidently assess whether China's recent emissions decline is temporary or the beginning of a long-term trend: "There are very, very big uncertainties."

The good news is that renewables roll out is accelerating year-on-year and electric vehicle sales continue to show impressive growth. Our peaking analysis relied on reaching 4.5 TW of renewables by the end of 2024. This estimation was blown out of the water by the year-end total of 4.9 TW, after a record 700 GW of renewables were installed over the year.



Governments need to urgently ramp up action to substantially reduce emissions by 2030 and reach net zero CO_2 emissions by 2050. While this is ambitious, the UNEP Emissions Gap Report 2024, in which our policy experts led one chapter and contributed to others, shows a 52% reduction in emissions by 2030 is achievable. Better yet, it's affordable.

Setting sectoral benchmarks on the road to 1.5°C

At COP28, governments agreed to triple global renewable capacity by 2030. In February, we released a report breaking down how a 1.5°C-aligned renewables rollout could play out on the regional level.

It found almost half of the expected capacity would be built in Asia, and that to achieve the tripling goal, along with the necessary grids and storage infrastructure, would require an investment of US $2 trillion a year on average until 2030 – half of which could be diverted from planned fossil fuel investments. The sub-Saharan Africa portion would cost $100 billion a year, which, if financed, would also ensure energy access for all.

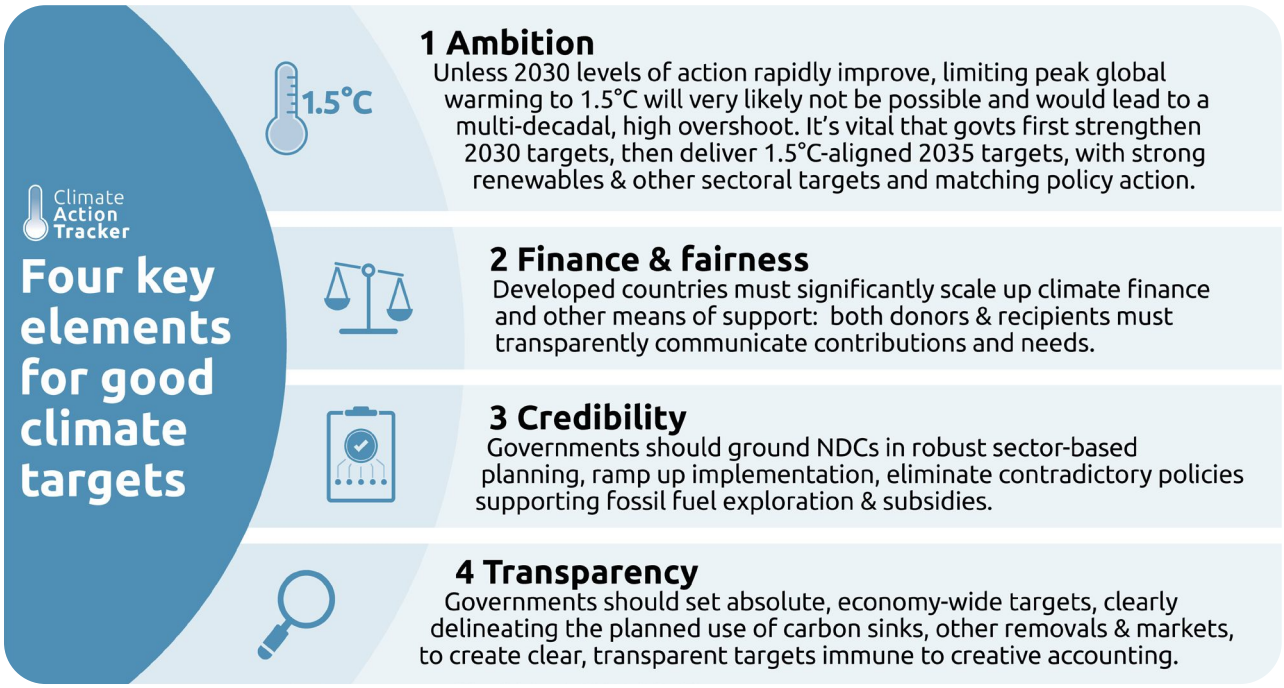
To help guide national target setting towards the tripling goal, we produced 1.5°C compatible wind and solar benchmarks for 11 key countries responsible for over 70% of global wind and solar deployment.

For the transport sector, the Climate Action Tracker set 1.5°C compatible benchmarks for decarbonising light-duty vehicles.

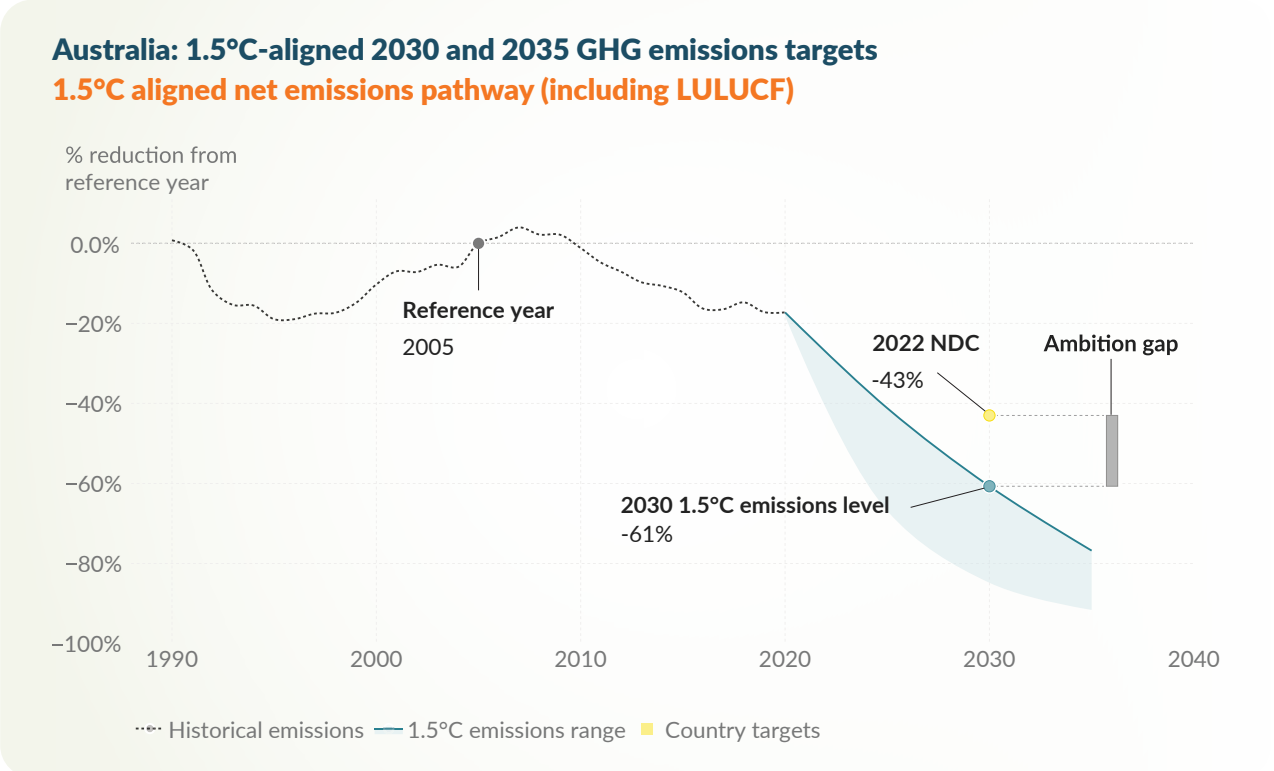
We continued to develop our benchmarking methodology for the State of Climate Action series as part of our work in the Systems Change Lab. We also produced power and transport indicators under the project.

Ahead of the next round of Nationally Determined Contribution (NDCs) due in 2025, the Climate Action Tracker released a briefing on the key elements that make a good 2035 NDC at the Bonn climate talks: they need to be ambitious, fair, credible, transparent, and include aspects of climate finance and a just and fair transition.

In November, we also produced factsheets for seven big emitters showing 2030 and 2035 greenhouse gas emission reduction milestones these countries could include in their NDCs to align with 1.5°C.

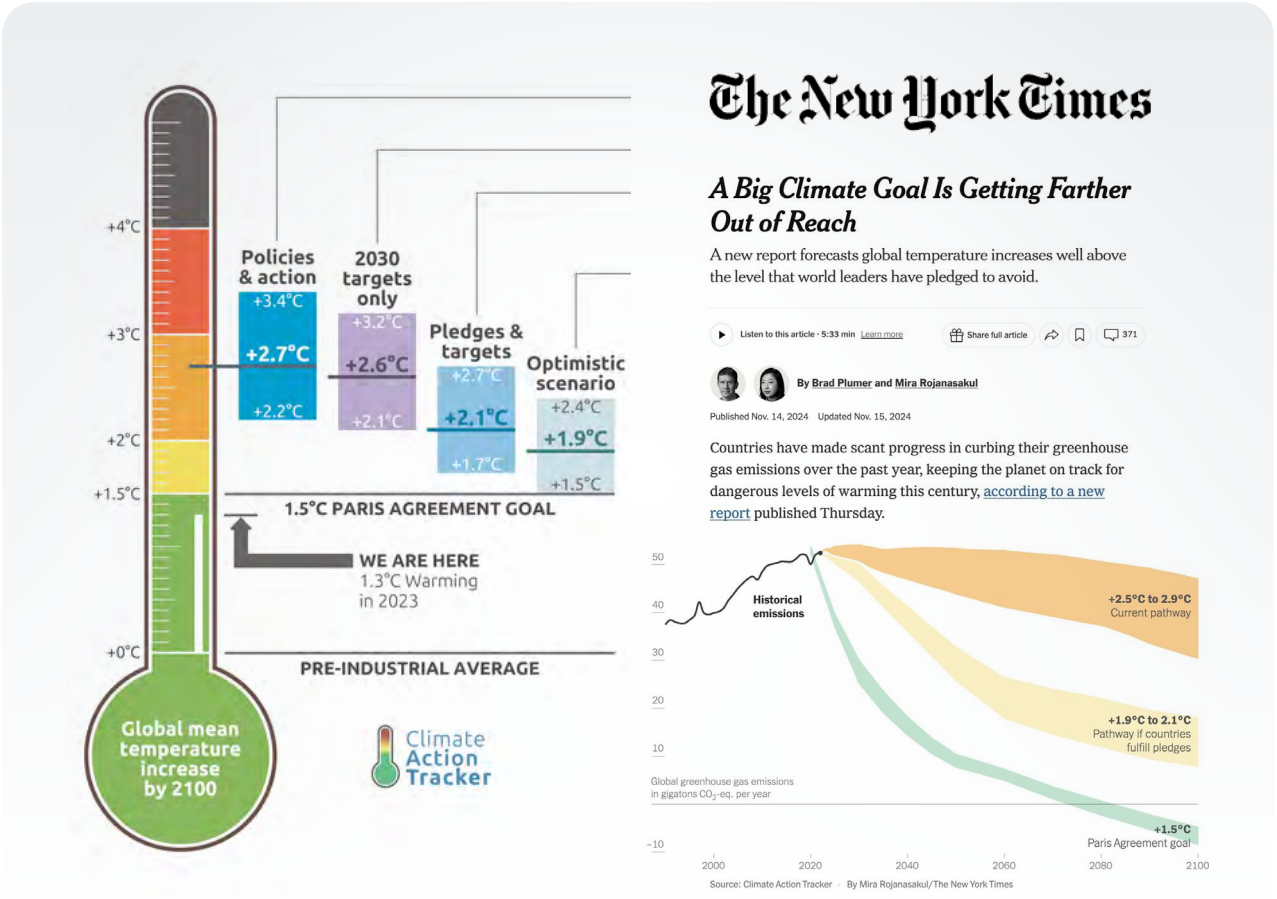


The factsheets drew from data in our flagship 1.5°C national pathway explorer tool, which updated the pathways and policy analysis for 20 countries in 2024. The tool also added new pathways including land use, land-use change and forestry (LULUCF) for selected countries to allow for better comparison with country targets ahead of their new 2025 NDCs – expressed as net (including LULUCF) targets. The tool also added information on the investments required to meet the renewable energy capacity laid out in the pathways.



In April we released a briefing outlining seven key policy recommendations for the June G7 summit that would demonstrate the ambition and leadership needed by the G7 to keep the Paris Agreement's 1.5°C limit in sight.

This generated over 450 news articles. However, progress was slow, and our Climate Action Tracker's annual global temperature update released at COP29 showed the aggregate effect of current policies are setting the world on a path toward 2.7°C of warming – a prediction that has remained almost unchanged over the past three years. The report and press conference generated over 850 news articles, including the New York Times.



Carbon sinks a trojan horse on the road to net zero

Ahead of the 2025 round of NDCs, the role of the land sector on the road to net zero has been heavily debated. Our work on climate impacts in northern forests highlights that relying on northern forest carbon sinks is inherently risky due to the temporary nature of these sinks and risk of carbon returning to the atmosphere from fire, drought, pest outbreaks and increased mortality from climate change itself. Notwithstanding issues of logging.

Analysis of 1.5°C-compatible pathways out to 2050 in our follow-up report on the role of northern forests in limiting warming to 1.5°C, suggests the land-based carbon sink cannot compensate for the vast majority of CO_2 expected to be emitted from burning fossil fuels. 1.5°C aligned pathways show that over 90% of the emissions reductions needed by 2050 in northern forest regions need to come from transitioning away from fossil fuels in the energy system and from halting deforestation by 2030.

Another issue is that national inventories and climate models count carbon removals differently. As a result, national inventories show the global land system as a net sink, while models suggest it's a net source. This discrepancy could lead countries to think they can emit more than the 1.5°C limit allows.

Our CEO Bill Hare also contributed to work on the need for Geological Net Zero, where every tonne of CO2 emitted from fossil fuels is removed from the atmosphere and permanently stored in the solid Earth.

Article 6 negotiations concluded at COP29 last November, finalising the rules of play for an international market for carbon credits – nearly ten years after the Paris Agreement agreed to establish them. While it is a major step forward to get these rules over the line, they have established a system that could seriously undermine efforts to keep 1.5°C in reach. These rules may lead to an increase in global emissions, less ambitious NDCs, and reduce financial flows. Experts are concerned self-policing may not be enough to ensure the quality of carbon removal units. Evidence from Australia suggests the majority of land sector offsets fail to deliver genuine or additional emission reductions, our CEO Bill Hare wrote in a comment piece.

Climate diplomacy support to countries on the frontlines

2024 was lauded to be the year of climate finance with the New Collective Quantified Goal on Climate Finance (NCQG) set to be agreed at COP29 after four years of ongoing discussions and negotiations. Throughout the year, our diplomacy team provided technical support to Small Islands Developing States (SIDS) and Least Developed Countries (LDCs) on climate finance, as well as other priority issues.

At COP29 in Baku, the NCQG text set a new goal of US $300 billion, with this figure to come from a wide variety of sources, rather than solely public finances. While a new figure is better than no new figure, this is a far cry from the minimum $1 trillion SIDS and LDCs called for. There was also no mention of minimum allocations for them — a key ask. Following the first roundtable on the Just Transition Work Programme at COP28 in December 2023, our experts produced a briefing in May on what a just transition looks like for Caribbean SIDS. The briefing provides regional leaders with an overview of the Programme and explains how just transition policy and funding mechanisms could be applied in national planning.

Our experts also published a briefing for SIDS and LDCs on how to participate in the Article 6.4 mechanism (also known as the Paris Agreement Crediting Mechanism). This mechanism allows countries to trade reductions in carbon emissions beyond zero-sum offsetting, to achieve their commitments under the Paris Agreement.

Our Africa office produced a guide to prepare delegates from French-speaking countries for the climate negotiation process. The guide provides explanations of the key issues at stake in the COP sessions, as well as practical advice for organising and communicating in this process.

As governments start planning the IPCC's seventh assessment cycle, our experts weighed in on several elements in a comment piece – including that more funding and support for African climate science and scientists could result in more equitable climate policies. At the August IPCC plenary in Sofia, Bulgaria, despite days of deliberation, delegates could not agree on delivering the next round of reports in time for the second global stocktake. This was despite a request to do so from governments in the first global stocktake outcome agreed in Dubai in 2023. Our science diplomacy experts who were present at the discussions dissected the delay tactics in a comment piece, explaining why an up to date assessment of the science will be an absolutely critical input to the next Global Stocktake in 2028.

Loss and damage growing on the global climate agenda

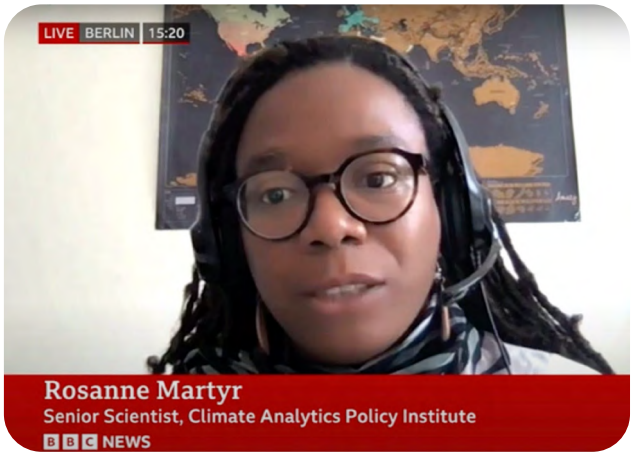
Following the operationalisation of the Fund for responding to Loss and Damage (FRLD) and the establishment of funding arrangements at COP28, 2024 saw our staff working hard to fill knowledge gaps to get the Fund off the ground and assist countries in identifying, reporting and financing loss and damage.

For the first time, the UNFCCC invited countries to report on loss and damage in 2024. To assist countries looking to do so, our researchers produced a briefing examining the types of costs that can be reported and where, how and why to report on loss and damage finance needs. We also contributed to a paper on what makes an event 'climate-related'. Calculating financing needs to respond to loss

and damage requires response activities to be costed. While the research base on economic losses incurred due to climate change (such as the value of lost assets or foregone income) is relatively healthy, calculating non-economic losses (such as the loss of cultural heritage, ancestral lands or identity) is still in its infancy. Throughout the year, our researchers published work to progress these knowledge gaps.

Difficulties calculating the quantum of the problem globally, makes it hard to determine the financing gap that the Fund would ideally close. Our researchers held webinars and produced reports on these issues to propel the conversation forward. Ahead of the September meeting of the Fund Board, our experts weighed in in a comment piece on the divide between developed and developing countries on the payoff between high standards and administrative burdens, arguing that the FRLD must be accessible to those it was set up to serve: those most vulnerable to climate change.

"The need for loss and damage finance is here today, and costs will only rise without urgent climate action now," our adaptation scientist Dr Rosanne Martyr told the BBC, commenting on a new UN report on sea level rise. "In 2020, some Pacific Island nations including Vanuatu, Papua New Guinea and Micronesia lost more than 1% of their GDP to rising seas," she said.



Applying a climate justice lens to loss and damage in a comment piece in a research journal, our Loss and Damage Expert Sasha Jattansingh writes how economic and political inequities can compound the scale and extent of loss and damage on vulnerable groups beyond biophysical processes.

Loss and damage from climate change has been the lived reality of Caribbean SIDS for decades. Despite efforts to adapt, it is reversing development gains, leaving lasting financial stress, and causing irreparable damage, including the loss of cultural heritage. Our researchers detailed how Caribbean countries have framed and reported on loss and damage over the last thirty years in a report released at the Bonn climate talks. Ahead of COP29, our Caribbean team held an interactive online event drawing on this research to explore loss and damage, debt and climate justice in the Caribbean.


CLIMATE
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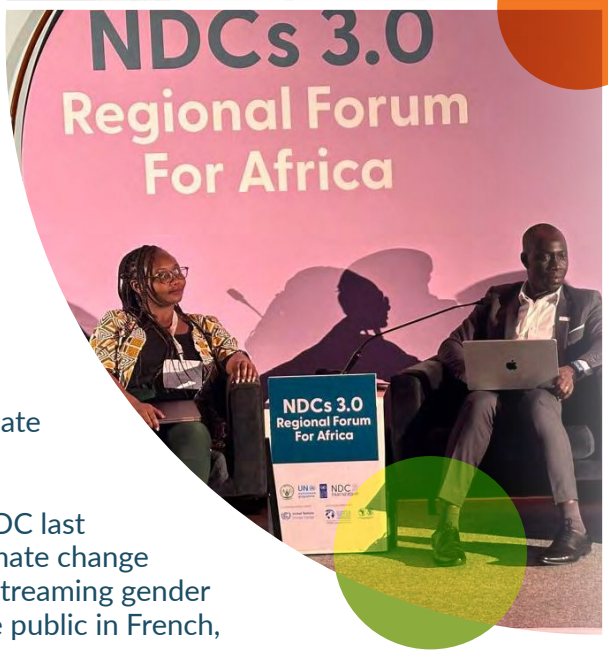
REGIONAL
HIGHLIGHTS

Regional highlights

Africa

Climate Analytics Africa leads our work supporting Least Developed Countries' (LDCs) climate adaptation needs by preparing clean energy-based development plans and mobilising the funding to implement them. Adaptation remains the main priority in LDCs, who are striving to adopt low-carbon and climate-compatible development pathways to avoid the negative impacts of climate change on the economic growth of their territories.



Countries are increasingly recognising the importance of integrating climate action into their development planning. Climate Analytics Africa published a technical guide to assist African countries in their development of long-term low emission development strategies (LT-LEDS). By offering practical insights and actionable steps, the guide aims to empower African countries to develop robust and effective LT-LEDS that foster resilience, drive innovation, and unlock opportunities for green growth. The team also supported a number of African countries in drawing up their LT-LEDS and assisted Togo with a financing strategy for its LT-LEDS.

A core component of the office is assisting African countries in implementing their Nationally Determined Contributions (NDCs) by providing technical and institutional capacity building and climate finance mobilisation support.

We worked with Burkina Faso to implement their NDC last year, including the development of a portfolio of climate change adaptation and mitigation projects, assistance mainstreaming gender into the process and communicating the NDC to the public in French, English and four local languages.

Our team also provided technical assistance to Benin in implementing its revised NDC. This involved capacity-building and training for over 40 executives from municipalities, ministries, universities and civil society organisations in the technical skills needed to develop climate projects. As part of a different project, Climate Analytics Africa also supported Benin to update its National Strategy for Low-Carbon and Climate-Resilient Development (2016-2025), alongside providing modelling assistance for its LT-LEDS.

In response to the considerable shortfall in climate financing in the French-speaking countries of North and sub-Saharan Africa, the NDC Partnership Support Unit has initiated a regional capacity-building programme to mobilise adaptation financing.

Led by Climate Analytics Africa, this programme aims to strengthen and develop the skills of 19 French-speaking beneficiary countries, while creating favourable conditions to increase the mobilisation of the funding needed to implement their climate change adaptation priorities. The team has conducted six regional training sessions covering all essential skills in the development, implementation, monitoring, evaluation and risk management of adaptation projects.

Since 2022, Climate Analytics Africa has been supporting the implementation of a project that aims to strengthen the institutional capacities of the LDC Universities Consortium on Climate Change network members. The project builds collaboration between universities and governments to take advantage of scientific analysis to mobilise the funding needed for climate change adaptation. In 2024, as part of this project our Africa office supported the establishment of think tanks on adaptation financing in four pilot countries: Senegal, Mozambique, Uganda, and Nepal. We have carried out five rounds of capacity-building training for these think tanks and members of the network and supported them in developing business plans.

Australia and the Pacific

In 2024, our work remained focused on the critical challenge of phasing out fossil fuels and ensuring a just transition in Australia and the broader Asian region and supporting small islands of Pacific in dealing with climate impacts and loss and damage.

Despite global commitments to limit warming to 1.5°C, Australia continues to expand fossil fuel production, while Asian economies navigate complex transitions away from coal, oil, and gas.

Our report on Australia's global carbon footprint found Australia is responsible for 4.5% of global fossil carbon dioxide emissions, with 80% of those emissions coming from its fossil fuel exports. Australia was the world's third largest fossil fuel exporter in 2021, trailing only Russia and the United States. Our submission to an Australian Treasury consultation on the Petroleum Resource Rent Tax (PRRT) highlighted "not a single LNG project has paid any PRRT, and many are not expected to pay significant amounts of PRRT until the 2030s".

At a sub-national level in Western Australia, the push for large-scale LNG expansion poses a significant climate and economic risk. Drilling into areas of possible gas expansion, our report on fracking in Western Australia's iconic Kimberley region found plans for thousands of fossil gas production wells over the next 20 years would seriously undermine Australia's ability to meet its climate goals.

We have been also closely tracking energy sector shifts in key Asian economies (India, Indonesia and Japan) in terms of their national commitments towards meeting the Paris Agreement's temperature limit. Across Asia, governments are facing increasing challenge to phase out coal, but progress remains uneven. While some countries have made progress towards renewables, others continue to support fossil fuels, particularly fossil gas infrastructure that could lock in emissions for decades.

Our updated report on the global shipping capacity for future liquified natural gas (LNG) found a massive oversupply of LNG shipping capacity, highlighting the growing risk of stranded assets in the region, particularly as South Korea aggressively expands its LNG transport fleet despite declining long-term demand projections.

We have continued our work on the Global Mitigation Potential Atlas for Southeast Asian countries. The Atlas highlights opportunities for reducing emissions domestically and is designed to facilitate international collaboration and connections across sectors and countries.

We have continued to support industrial decarbonisation efforts in other parts of Asia, such as China, ensuring that key sectors align with international climate targets. Our engagement with policymakers and industry stakeholders has focused on aligning sectoral policies with the country's long-term net zero target.

Our work in Pacific Island countries remained focused on supporting them to strengthen resilience to climate-related loss and damage – particularly non-economic losses.

The Caribbean

In 2024, Climate Analytics Caribbean expanded its mission of empowering the region to drive transformative climate action.

The team reviewed the last 30 years of loss and damage in the Caribbean, in part to provide baseline analysis to help secure future financial flows. Among other findings, the review noted that while countries focus on economic impacts, other climate hazards considered important by small island developing states (SIDS) tend to go unreported, as do the impacts of slow onset events such as drought, sea level rise, sargassum blooms or coral bleaching.

The review was previewed to a select group of key Caribbean climate and sustainability stakeholders at the SIDS4 Conference in May. Our experts were also featured as presenters at several SIDS4 events and participated in key meetings with civil society, the private sector, and government officials to further collaboration on regional climate action.

The review was formally launched in June on the margins of the Bonn Climate Change Conference and communicated to the public through a webinar. The analysis was advanced on the international stage at COP29, when Climate Analytics Caribbean hosted an interactive dialogue discussing SIDS-led solutions for enhanced loss and damage responses.

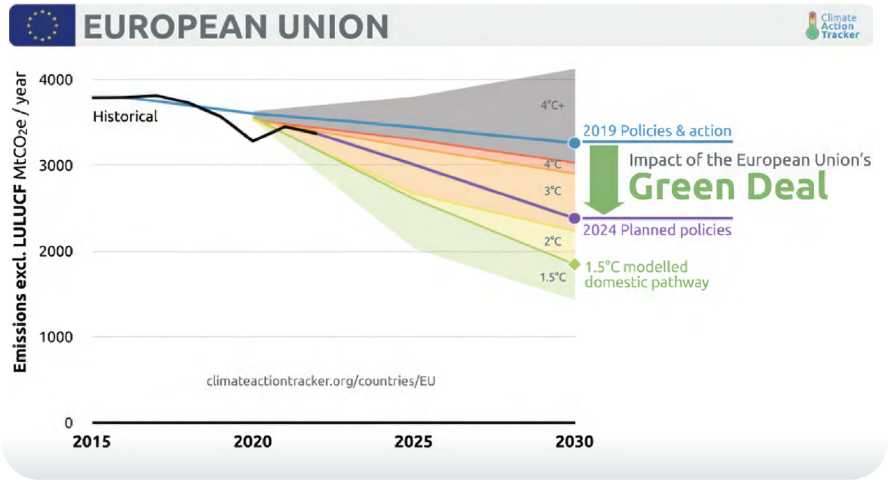
A new report drove the critical issue of just transition to the fore of the Caribbean conversation, which was expanded upon in a webinar. Just Transition was also high on the agenda at Climate Analytics Caribbean's events, gearing up the region for COP29 and reporting back what happened after COP. At these events, our experts shared the outcomes of UNFCCC negotiations and highlighted the urgent priorities of SIDS as vulnerable countries on the frontlines of the most devastating climate change impacts.

Additionally, Climate Analytics Caribbean continued to champion the significance of the Global Stocktake with the regional premiere of our film, "Island Action, Global Goals: Can the Global Stocktake change the Caribbean's climate future?" The film was screened at the Green Screen Festival as well as to an audience hosted by the National Trust of Trinidad and Tobago, and had its grand television premiere on the major Trinidad and Tobago television station, CNC3. An especially proud moment for the office was having the film recognised as an official selection for the Caribbean Biodiversity Fund's Environmental Film and Arts Festival.

Europe

Our European work had a strong policy focus in 2024, alongside work drilling into local climate impacts.

Ahead of the EU elections in June, the Climate Action Tracker released an analysis showing the Green Deal has put the EU on a path consistent with scenarios that limit global temperature increase to a little above 2°C.



This is a more than 1°C improvement on the emissions pathway estimated by the Climate Action Tracker before the 2019 elections (and before the Green Deal).

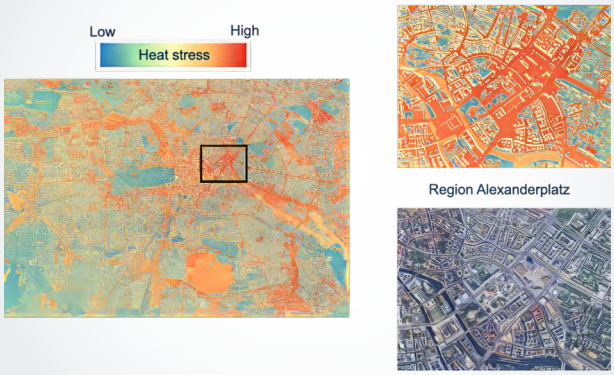
In early April, we were in Albania, Bosnia & Herzegovina, and Serbia to discuss possible emissions pathways and how to align national climate strategies with 1.5°C. The workshops were part of our project on reducing emissions in power and emissions-intensive sectors in the Balkans. The team presented decarbonisation pathways aligned with 1.5°C for each country's national circumstances and heard from stakeholders on the importance of fair share based on historical accountability and the development of local solutions to tackle climate change.

Following the UK election in July, our analysts reviewed the climate opportunity for the new UK Government on a sectoral basis based on the Climate Action Tracker's 2023 analysis. We found that if implemented, the climate policies named in the incoming government's election manifesto would send a positive signal that the UK can, and is, acting to address the climate crisis.

The PROVIDE project also explored the implications of temporary overshoot of 1.5°C and what this would mean for sea level rise, extreme heat, extreme weather events, flooding and their impacts locally or for whole regions – with a particular focus on Europe.

Our report on the impacts of climate change on the Berlin-Brandenburg metropolitan region drew on the expertise of our researchers from their development of the Climate Risk Dashboard. The report examined the effects of heat stress and how different adaptation strategies can pare back the worst effects – making green spaces in the city up to 3°C cooler in a heatwave.

Heat stress in Berlin during a heatwave in July 2019



North America

With the next round of NDC submissions due in 2025, Climate Analytics North America continued to prioritise support to countries in setting ambitious targets and moving from planning to implementation.

Based in New York City and with an expanding network in Washington, DC, the office plays a growing role in aligning country-level support with global policy and finance agendas.

At the national level, our North American office provided technical and policy support to five countries – Antigua and Barbuda, Belize, Jamaica, Grenada, and Saint Lucia – as part of the NDC 3.0 process. Working with the NDC Partnership, this work includes assisting with developing and updating NDCs, aligning NDCs with LT-LEDS, producing recommendations

for 1.5°C aligned decarbonisation pathways, and reflecting socio-economic trends and relevant policy interventions. The team continued to support countries in integrating climate finance into national planning.
This included developing financing strategies, investment plans, and tools to support access to international funding.

In Saint Kitts and Nevis, our North America office launched a new project focused on strengthening climate policy and legal frameworks, which includes developing a National Loss and Damage Strategy – the first from the Caribbean region. At the NDCs 3.0 Regional Forum for Latin America and the Caribbean, we contributed technical inputs on how outcomes from COP28, especially the Global Stocktake, can shape ambitious and implementable national climate strategies.

2024 also marked the main research year of our project examining the lived experiences of voluntary and involuntary immobility in the context of climate change. The research aims to empower communities and inform policy frameworks to address losses and damages, while highlighting immobility as a potential mechanism of adaptation.

At the global level, Climate Analytics was appointed to the Strategic Advisory Group of the Debt Sustainability Support Service for SIDS, co-chaired by the Prime Minister of Antigua and Barbuda and President of the Maldives. We participated in the launch of the Debt Sustainability Support Service at the Fourth International SIDS Conference in May 2024 and contributed to early discussions on its operationalisation.
UN engagement remained central to the work of our North America office. The office co-hosted a dialogue with AOSIS (the Alliance of Small Island States) and OHRLLS (the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States) on financing to address loss and damage for AOSIS Permanent Missions to the UN. As part of this work, we provided deep-dive presentations and facilitated discussions on the scientific evidence underscoring the urgency of financing climate-related loss and damage. We also provided updates on the Fund for Responding to Loss and Damage and its implications for SIDS.

In a major milestone, we were granted consultative status with the United Nations Economic and Social Council, enabling more direct engagement with UN processes and member states. This is an important step heading into major multilateral milestones in 2025, such as the 2025 UN Ocean Conference.

New York Climate Week continues to be a key event in our calendar. At our evening reception we launched new work on 1.5°C-aligned wind and solar targets for the new NDCs. As part of the Global Renewables Sumit, our CEO Bill Hare was an expert in a dialogue on advancing 1.5°C-aligned, investable NDCs. He also spoke at Lethal Humidity Global Council event highlighting the growing threat to humanity posed by rising humidity and heat due to climate change.

South Asia

In 2024, our South Asia office produced notable research on climate impacts and risks, spotlighted just transitions in the region, advised governments on their NDCs and contributed to our work in moving loss and damage discussions forward.

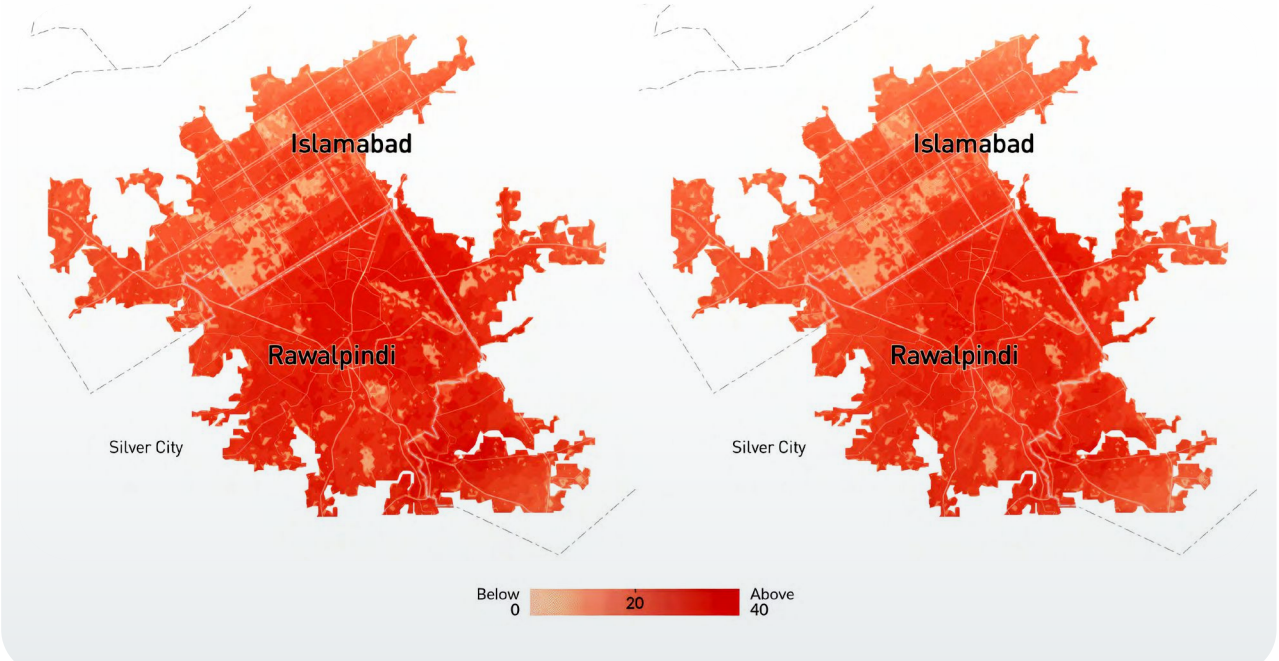
Our scientific researchers modelled water flows in climate sensitive Upper Indus water catchments in Pakistan, publishing the results in a scientific journal and published another paper investigating the 2022 Indo-Pakistani heatwave, determining it was both more likely to occur and more intense due to increasing global warming.

May saw high temperatures scorch the region, with Pakistan's southern province of Sindh sweltering under 52°C heat. Our scientists wrote for Climate Home News about why this heatwave was so dangerous. They explained that during the heatwave, the wet-bulb temperature – a more accurate indicator of risk to human health that accounts for heat and humidity – passed a key danger threshold of 30°C in the region.

The urban heat risks in south Asia – including health and adaptation challenges – were discussed in a webinar showcasing how tools like the Climate Risk Dashboard can provide data for those working to combat these issues. The webinar dove into the dashboard's Islamabad case study explaining how different policy scenarios will impact key measures like the number of heatwave days per year and days reaching dangerous wet-bulb globe temperatures over the decades to come.

Ensuring that the energy transition is just and leaves no one behind is crucial for the most vulnerable countries and those with limited capacity. Our webinar on how to ensure a just transition for Least Developed Countries drew together prominent speakers from Senegal, Nepal, Bangladesh and Panama to contextualise just transition pathways and priorities for Least Developed Countries in a way that better represents their interests internationally and nationally.

Data from the Climate Risk Dashboard showing heatwave days per year in Islamabad

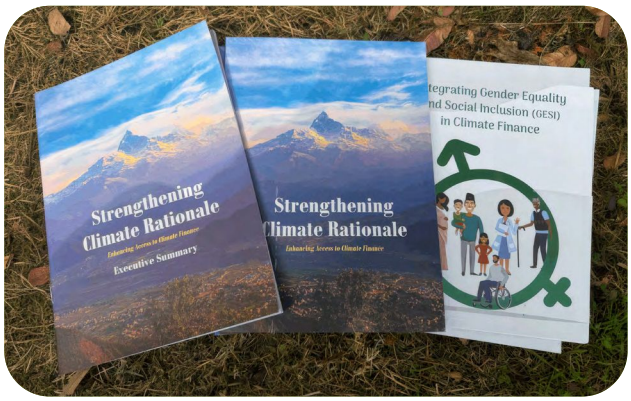


Our team in South Asia remains actively engaged with stakeholders and regional institutions throughout the year, providing expert insights on the regional energy transition, risk assessments, resilience building, and addressing loss and damage.

Team members have contributed to comment pieces unpacking the outcomes of COP28 from a regional perspective, particularly in the context of mountains, and analysed the financial needs of respective South Asian countries ahead of COP29 climate finance discussions.

Our team in Nepal provided technical support to the government in the development of the country's third NDC, particularly on areas covering the energy transition, greenhouse gas emissions, loss and damage, just transition, and climate finance. They also co-facilitated a series of stakeholder consultations and technical workshops to gather feedback and expert inputs on the NDC.

The South Asia office also supported the setup of a climate finance think tank in the School of Environmental Science and Management, an institution affiliated with Pokhara University in Nepal. Members of the office provided mentorship and advisory and editorial support for the development of resource books on strengthening climate rationale to access climate finance and on integrating gender equity and social inclusion in climate finance.



CLIMATE ANALYTICS

OUR TOOLS

Our tools

Climate Action Tracker

The Climate Action Tracker (CAT) is the world's leading independent analysis of national climate action, holding governments accountable for delivering on the Paris Agreement.

Established in 2009 in collaboration with NewClimate Institute, with an ongoing collaboration with the Institute for Essential Services Reform (IESR) since 2023, the CAT has become gold standard for evaluating and interpreting government climate action.

Climate Action Tracker

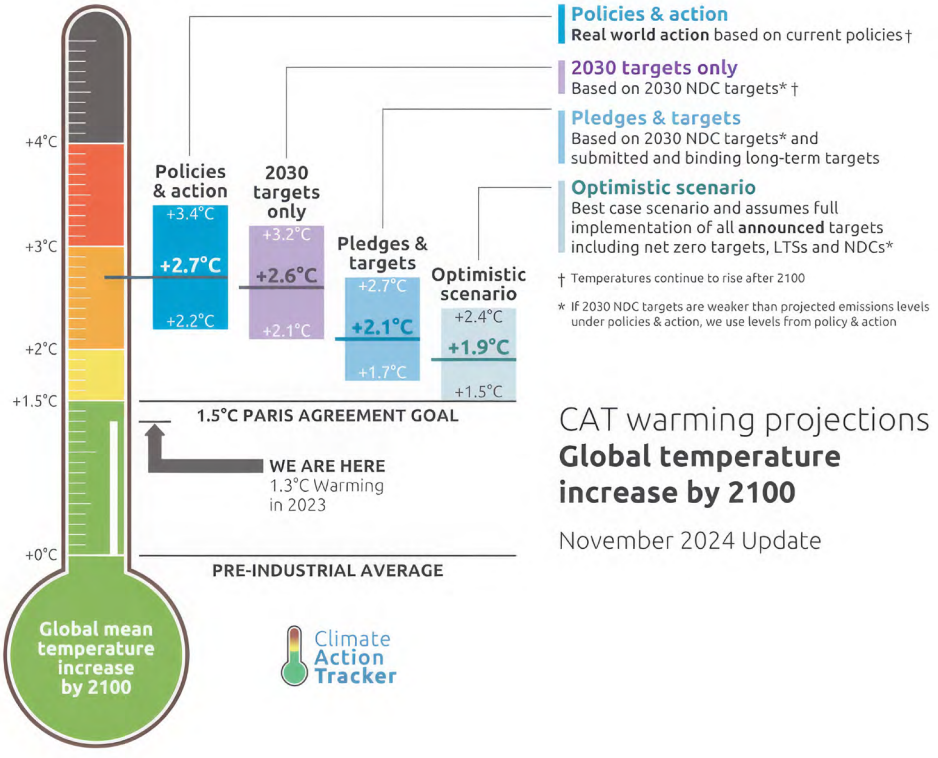
Impact:

Governments have used the analyses to inform their domestic emission reduction targets and climate strategies in recent years (including **South Africa, Canada, Chile,** the **UAE,** the **UK** and **South Korea**)

Five key court cases in **Germany**, **Switzerland**, the **Russian Federation**, **The Netherlands** and Belgium have been informed by CAT analysis in recent years.

The CAT is a trusted media resource, with over 3,500 media mentions in 2024

Reports and initiatives, such as the UNEP Emissions Gap Report, Climate Change Performance Index and IPCC assessment reports rely on data from the CAT.



1.5°C national pathway explorer

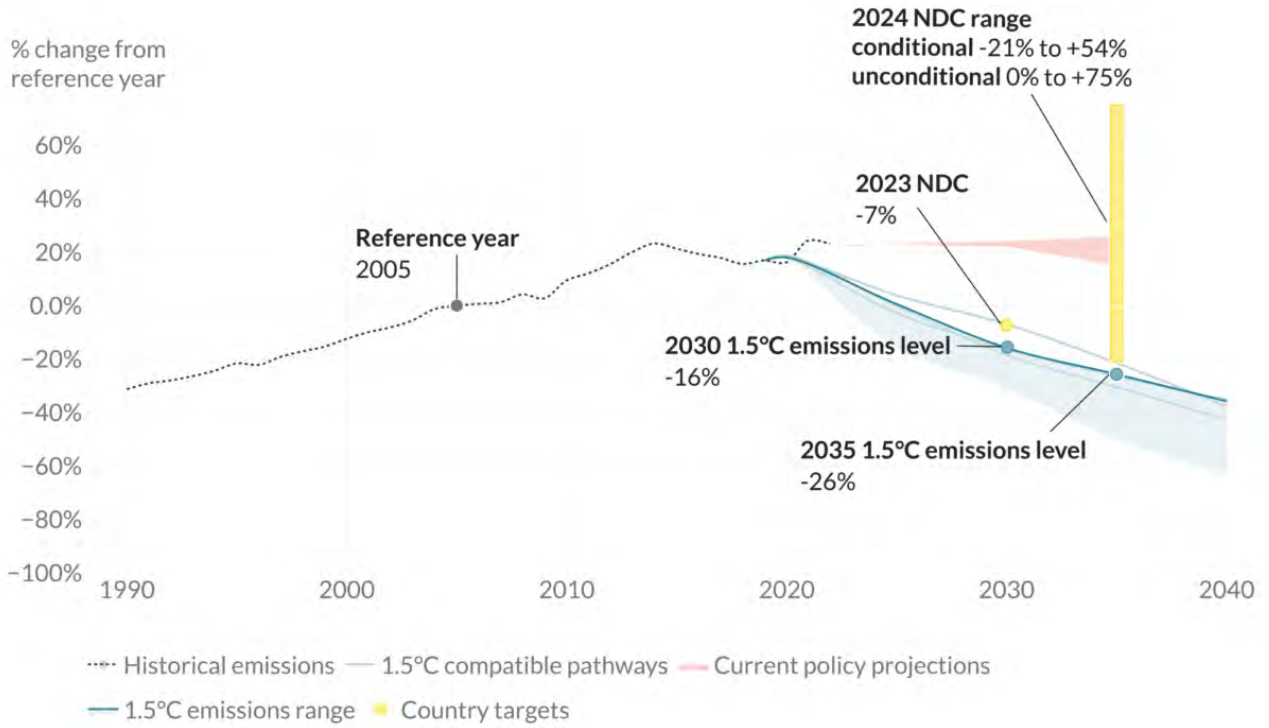
For the world to stay within the safer 1.5°C limit set down in the Paris Agreement, governments must raise the ambition of their national emissions reduction plans.

For the world to stay within the safer 1.5°C limit set down in the Paris Agreement, governments must raise the ambition of their national emissions reduction plans.

To support this, we developed the **1.5°C national pathway explorer** in collaboration with the IKEA Foundation. This interactive web tool uses global and regional IPCC models and other scientific evidence to map national and sectoral decarbonisation pathways.

In 2024, we updated 20 of the 64 countries in the tool and added net pathways including land sector emissions, and power sector capacity investments.

The tool attracted 10,000 visits and drew media coverage of South Africa and China profile updates, and an NRDC blog highlighting the 2035 targets.



Climate Risk Dashboard

The Climate Risk Dashboard helps users explore future impacts from climate change as the world warms.

Users can select a location, choose one or more warming scenarios, and examine associated impacts. The tool also allows users to identify strategies for avoiding severe climate risks, particularly in urban environments.

Dashboard coverage:

170+ countries

140 cities

55 climate indicators

Breakdown of indicators:

10 terrestrial climate

1 macroeconomic

4 biodiversity

3 glacier

4 marine

5 global carbon cycle

26 urban heat stress indicators

Featured case study cities:

Nassau (The Bahamas)

Islamabad (Pakistan)

Lisbon (Portugal)

> "This is a very useful tool for local and regional governments, because it really talks to all different departments in the municipality in a very easy language, so it allows for inter-departmental collaboration."
>
> **Luca Arbau, Senior Expert, ICLEI (Local Governments for Sustainability)**

Global Mitigation Potential Atlas

The Global Mitigation Potential Atlas helps users to easily identify transformative emissions-reduction opportunities, and the key levers needed to realise them.

What sets it apart is its ability to quantify the potential for cross-border mitigation action, demonstrating how international cooperation can enhance climate action in specific regions. Selecting a country, users can see investment costs and technology mixes that lead to cost-optimal emission reductions for that country. Users can subsequently add other countries and see how coupling energy systems between countries can change the technology mix and affect overall costs. Different constellations of international collaboration will have different economic benefits.

Originally piloted for 10 countries in Southeast Asia, in 2024 the tool expanded to include four countries in South America, and five in Africa. This expansion to 19 countries was launched during an event held with project partners at the Singapore Pavillion at COP29.

"We have all the instruments we need to cut global emissions in half. But we don't use them. This project has the potential to make sure those instruments are applied."

Bastiaan Hassing, Netherlands Chief Negotiator for Climate Change


CLIMATE
ANALYTICS
2024
FINANCIALS

Financials

REVENUE

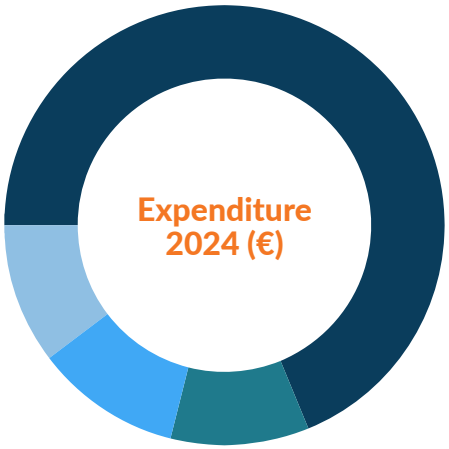
Governments	54.5%
Foundations	34.2%
International Organisations	10.8%
Other	0.5%

PERSONNEL

Climate Policy	38%
Science	25.9%
Implementation Strategies	9.9%
Diplomacy	11.9%
Global Operations	14.3%

EXPENDITURE

Personnel	€7,414,496
Travel and workshops	€1,097,811
External partners	€1,155,114
Facilities and operations	€1,109,763



TOTAL EXPENDITURE 2024

€10,777,184

Thank you

In collaboration with our partners, we achieved a great deal in 2024. We would like to thank everyone who lent their time, expertise and support to further our mission to accelerate climate action for a climate safe, sustainable and just future for all.

The **UK Government** and the **Climate Ambition Support Alliance (CASA)** supported us in working with climate-vulnerable countries to build their capacity to engage in international climate negotiations.

We collaborated with the **German Government** on a range of impactful initiatives, from enhancing our flagship tool, the Climate Action Tracker (CAT), to supporting Caribbean countries with implementing their NDCs, to working with sectoral partners in advancement of research for climate action.

In partnership with the **European Union**, we updated the PROVIDE Climate Risk Dashboard, developed recommendations for EU policymakers, and assessed the economic risks climate change poses to Europe.

Continued support from the **ClimateWorks Foundation** enabled us to strengthen our ability to assess and communicate national sectoral progress, providing stakeholders with clear analysis to drive informed policy engagement and greater climate ambition. This support also enabled us to amplify awareness among audiences most impacted by climate change, further empowering stakeholders and fostering inclusive regional engagement with the global climate process.

The **IKEA Foundation** continued to play a key role in strengthening our organisational capacity, and in particular supported us in updating analysis available on the 1.5°C national pathway explorer – a critical resource for developing ambitious national climate targets.

Through our partnership with the **Children's Investment Fund Foundation (CIFF)**, we maintained and expanded the core pillars of the Climate Action Tracker (CAT) in 2024, publishing 19 comprehensive country assessments, advancing a new rating methodology, and hosting a two-day consortium meeting to foster collaboration and innovation.

In partnership with the **Climate Emergency Collaboration Group (CECG)**, we advanced 1.5°C-aligned climate goals through strategic support, including seven country factsheets featuring NDC benchmarks, and provided targeted science, policy, and negotiation support to SIDS and LDC ministers. We also offered technical assistance on the Global Goal on Adaptation indicators, adaptation mapping, and equity.

We also enjoyed fruitful collaborations with **Energy Transition Fund (ETF), European Climate Initiative (EUKI), Pooled fund on international energy, NDC Partnership, Open Society Foundations, Tara Foundation, UNEP, UNDP,** and the **Global Methane Hub.**

CLIMATE ANALYTICS

Delivering cutting-edge **science, analysis and support** to accelerate climate action and **keep warming below 1.5°C**

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