

Annual
report

2020 2021



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Foreword

As I'm writing this, we are following with horror and disbelief the barbaric and completely unprovoked Russian invasion of Ukraine. Words fail to describe our emotions as we watch cities destroyed, events which I'm sure we were not alone in believing should be forever in Europe's past.

As a Ukrainian delegate at the recent Intergovernmental Panel on Climate Change (IPCC) meeting put it, climate change and this war share a common root cause, fossil fuels. Ending the fossil age as soon as possible will not "just" tackle climate change. It is also one of the most important contributions to peace-building in the 21st century.

We have entered the third year of the global pandemic and are learning to live with the virus thanks to the large rollout of vaccinations. But, as with the impacts of climate change, we see vast inequities between the global north and south in terms of vaccine distribution and access.

As travel restrictions eased in many parts of the world, important global events and multilateral processes such as COP26, G20, and the G7 summits were able to take place again in person in 2021. These events are vital to the effort to push for ambitious climate action at the global level.

The past two years saw many wins for climate action and science: the German constitutional court ordered German legislators to set clear emissions reductions goals beyond 2030, the Dutch court ruled Shell to cut its global CO2 emissions by 45% compared to 2019 levels, the Asian Development Bank declared coal exit in the Asia Pacific region, and the COP26 upheld the science on 1.5 degrees, among many others.

Climate Analytics both directly and indirectly contributed to some of these external processes, events and climate wins. Even under the difficult and restrictive circumstances of the ongoing pandemic, we have achieved many milestones together as an organisation and have helped shape climate discussions globally.

We produced a number of key and timely reports and tools that have played an important role in shaping both national and international processes for raising mitigation ambition. Together with our partner, we have worked on a major update to the Climate Action Tracker (CAT) rating method, the result being a much more comprehensive assessment of whether government targets, policies and climate finance are up to scratch, and the CAT's global temperature update in Glasgow received extensive media coverage. Together with partners, our policy team produced the analyses for

the Climate Transparency Report – a series of climate fact sheets covering all G20 members – and the State of Climate Action, which shows how we're tracking on key decarbonisation transitions. Our modellers and policy analysts developed 1.5°C compatible mitigation pathways for more than 60 countries (see our 1.5 national pathway explorer and our report on 1.5 pathways for Europe), produced an influential analysis – "Closing the Gap" – on the impact that G20 countries could have on achieving the Paris Agreement's 1.5°C temperature goal as well as many other works on coal and gas phase-out that have yielded impressive results.

Our scientists have shaped global impact and adaptation science in a number of areas, including of course by publishing their excellent work through journals such as Nature and Science. Some highlights include a machine-learning based evidence mapping of attributable climate impacts, which was covered in the Washington Post and even referenced by Obama at COP26. We were also involved in a massive stocktake on the current state of adaptation, the Global Adaptation Mapping Initiative, a central part of the IPCC Working Group II report on impacts, adaptation and vulnerability to climate change, released early 2022. Our two IPCC authors were both elevated to "summary for policymakers" drafting authors, again underlining the central role that Climate Analytics is playing in shaping climate impact and adaptation science.

Other highlights include the launch of the Climate Impact Explorer, a go-to resource on climate impact information. Our regional scientists play an increasingly important role in working across the portfolio of Climate Analytics' work, while increasing the regional visibility of our work. The team also continued to contribute to a range of high-level science projects, with a highlight being the start of the PROVIDE project that is led by Climate Analytics scientists. A new area of work, we also produced various scientific reports to support climate litigation cases across the world.

2021 was an important year for implementation of the nationally determined contributions (NDCs) under the Paris Agreement, and for countries to come forward (albeit delayed by a year due to COVID) with new and updated NDCs under the agreement's first 5-yearly ambition cycle. Despite the challenges posed by the pandemic in connecting with stakeholders on the ground, we supported seven countries in drafting their NDCs, raising mitigation ambition and substantially improving transparency. Our implementation experts also supported multiple Green Climate Fund Readiness projects, baseline employment analyses for the Just Transition, and the

completion of multiple smaller capacity-building projects with stakeholders in small island developing states (SIDS) and least developed countries (LDCs). The successful implementation of the Science-based National Adaptation Planning in Sub-Saharan Africa (PAS-PNA) project, the first of its kind in West Africa LDCs, helped build capacity and was key to translating scientific and policy assessment into action on the ground.

While the COP26 climate summit had to be postponed in 2020, the preparatory work to push for an ambitious outcome of the talks continued throughout the gap year and until the event took place in 2021. Our diplomacy team provided instrumental technical and political support to the Chairs of the LDC group and the Alliance of Small Island States (AOSIS), and to various SIDS and LDCs, across a suite of issues and activities in the lead-up to and during COP26. They were also involved in producing reports that provided critical analysis and informed the negotiations, such as the report on global carbon markets (Article 6) produced for the LDC group, and a foundation for work ahead in the form of a report on the Global Stock Take.

Our communications team helped ensure high quality of publications and amplify the impact of our work throughout global media outlets. There were many notable key media moments including the CAT being featured on the cover of the New York Times before COP26 and the front page of the Guardian during COP; an interview with Associated Press on the United Nations Framework Convention on Climate Change (UNFCCC) synthesis report; a Sky News cover on the heat stress paper; a BBC interview on net zero targets; coverage of the Climate Transparency Report in the BBC; and an interview with CNN on Australia's weak targets, to mention but a few.

The project development and partnerships team engaged with key funding organisations to ensure adequate flow of resources to support our work. We partnered with the Climate Emergency Collaboration Group (CECG), IKEA Foundation, Sequoia Climate Fund, Climate Vulnerable Forum (CVF), European Climate Foundation (ECF), German Federal Ministry of Environment, Nature Conservation and Nuclear Safety (BMU), the UK government's Department for Business, Energy and Industrial Strategy (BEIS) and many others. We will continue to strengthen these relationships and expand them in the years ahead.

The establishment of two new offices in Trinidad & Tobago and Nepal was a key strategic milestone for Climate Analytics. These offices are the next step in our commitment to working in the SIDS and LDC regions. They help to open a pipeline for new projects that wouldn't be possible otherwise, like the Open Society Foundation grant gained by the Caribbean office and collaboration with Tribhuvan and Pokhara Universities in Nepal on

climate change courses and materials. An office space was secured for the Perth office and the New York office went through some key transitions, pivoting their relationship with the UN, UN Missions, and US-based organisations, among other focus areas, and continuing to build strong relationships with partner organisations in the Caribbean. Among the achievements in the Lomé office was the successful completion of econometric and scientific analyses guiding countries in prioritising mitigation and adaptation options to inform policy decisions around new NDC implementation in Benin and Burkina Faso.

Over the past two years, Climate Analytics went through important organisational changes, the implementation of which was led by the operations team. Revamped team structures allowed staff members across the board to assume new leadership roles within their teams, and some other staff members transitioned into new roles.

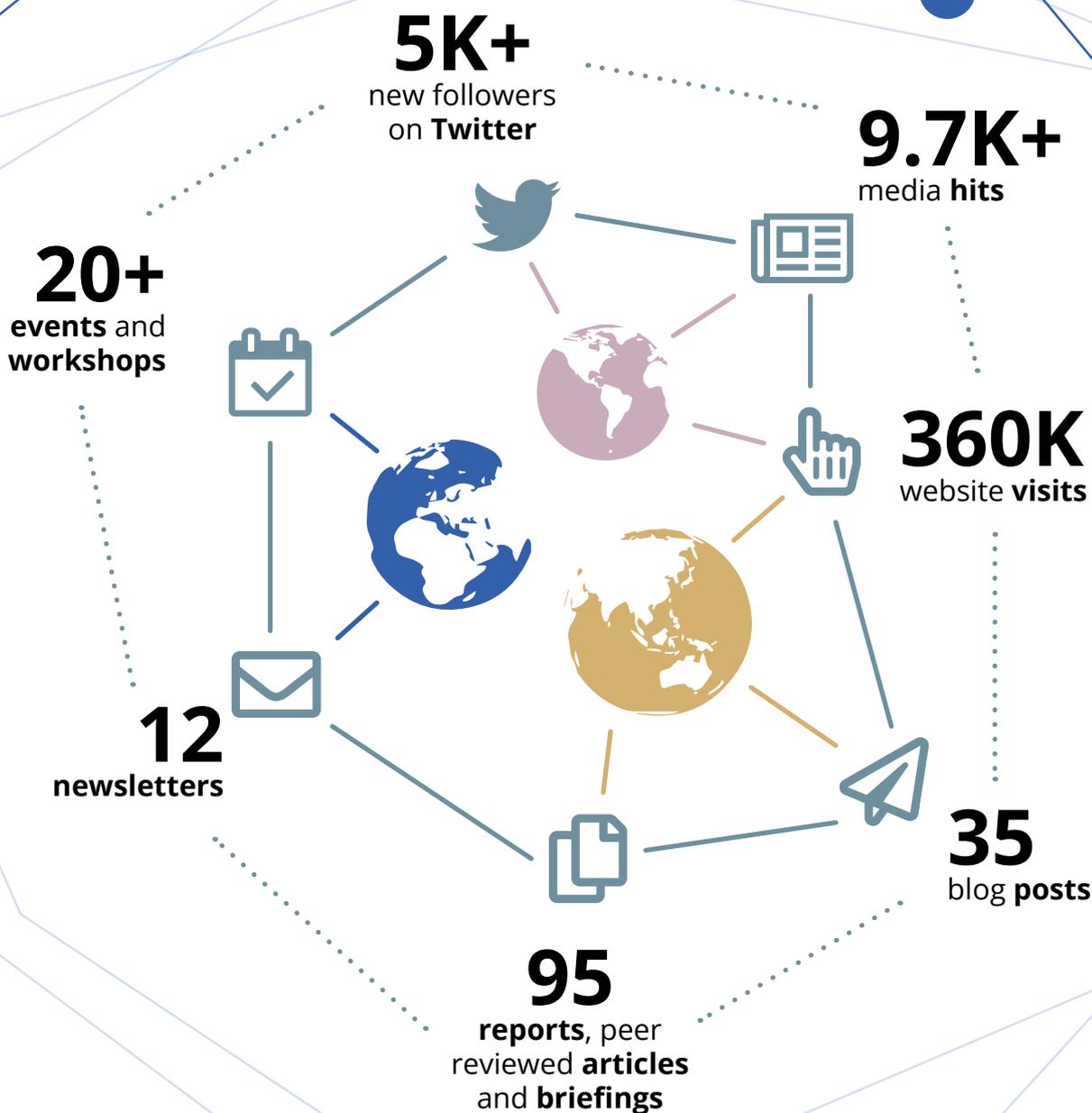
We experienced a very low and difficult moment with the passing of our dear colleague, Holali Ametepe. May her soul continue to rest in peace. We also shared very happy moments together and welcomed many babies: the next generation of climate action leaders.

I would like to thank each and every staff member for their hard work, dedication and tenacity. I look forward to continuing our journey together as we continue to shape the world's response to the biggest challenge of our time.

Bill Hare
CEO, Climate Analytics



In numbers



Leading research on 1.5°C

Climate Analytics contributes extensively to research on the Paris Agreement goal of limiting global temperature rise to 1.5°C, on climate impacts and adaptation.

The Intergovernmental Panel on Climate Change (IPCC) has finalised its Sixth Assessment Report (AR6), prepared in three different “Working Groups”. The Working Group I published its contribution to the overall report in the summer of 2021, covering the physical science underpinning past, present, and future climate change.

The Working Group II report, published in early 2022, covers impacts, adaptation and vulnerability. Two of our colleagues were lead authors in this work, Dr Tabea Lissner on the “Water” chapter and Dr Adelle Thomas on the chapter on “Key risks”. Both were also drafting authors of the Summary for Policymakers (SPM). In addition, several of our colleagues were “contributing” authors, supporting on a specific aspect of a chapter.

The Working Group III report, released in April 2022, focuses on climate change mitigation, outlining actions to reduce greenhouse gas emissions.

Over 2020-2021 our scientists published a number of peer reviewed articles in journals such as Nature and Science, contributed to various reports and policy analyses and provided science support for small island developing states and least developed countries at the COP26 negotiations as well as their national climate planning and implementation.

Our paper **Deadly heat stress to become commonplace across South Asia already at 1.5°C of global warming** found that exposure to potentially lethal temperatures

can be halved for hundreds of millions of people in South Asia if governments succeed in their efforts to limit global warming to 1.5°C.

Similarly, the paper **From Paris To Makkah: Heat stress risks for Muslim pilgrims at 1.5°C and 2°C** established that risks of deadly heat stroke to millions of Hajj and Umrah pilgrims during summer could be 50% lower if global warming is limited to 1.5°C compared with 2°C. This paper was also broadly covered in the media, including by Reuters.

The research paper **Intergenerational inequities in exposure to climate extremes** that our scientists contributed to found that children born in 2020 will inevitably experience unprecedented and unavoidable climate impacts unmatched by those experienced by older generations, particularly in low-income countries. Even if limiting warming to 1.5°C will only reduce the burden to some extent, the impacts under the current climate trajectories are far worse. The piece received massive media coverage and ranked 13th on the list of the most talked-about climate science articles of 2021.

Understanding how human and natural factors affect the climate

Predicting how the climate will change over the next 20 to 50 years, as well as defining the emissions pathways that will set and keep the world on track to meet the Paris Agreement climate goal, requires a better understanding of how several human and natural factors will affect the climate in coming decades.

Climate Analytics is a partner in the EU-funded “Constraining uncertainty of multi-decadal climate projections” (CONSTRAIN) project, which is developing a better understanding of these variables, feeding them into climate models to reduce uncertainties, and creating improved climate projections for the next 20-50 years on regional as well as global scales.

The third ZERO IN report, published during COP26, shows that pursuing stringent mitigation in line with the 1.5°C limit of the Paris Agreement would have clear benefits in the near-term and would reduce the rate of warming by almost half compared to our current trajectory.

Science-based climate litigation

A new area of work, we are increasingly engaging in scientific background work for climate-related lawsuits at regional, national and supranational levels around the world. We provide scientific advice and reports that help lawyers to make a case against a defendant on their misalignment with global effort to reduce emissions. The reports showcase the diverse expertise across Climate Analytics.

Over the past two years we have produced such background reports for 10 different litigation cases in Australia, Italy, Poland, Czech Republic, Germany, Brazil as well as one case at the European Court of Human Rights (ECHR) against a total of 33 governments including all European Union member states, Norway, Russia, Switzerland, Turkey, Ukraine and the United Kingdom. The scientific report to support the ECHR case is available here. For further information, contact Inga.Menke@climateanalytics.org

Selected scientific articles on the science on 1.5°C

-  Harrington, L. J., **Schleussner, C.-F.**, & Otto, F. E. L. (2021). **Quantifying uncertainty in aggregated climate change risk assessments.** *Nature Communications*, 12(1), 7140.
-  Thiery, W., Lange, S., Rogelj, J., **Schleussner, C.-F.**, Gudmundsson, L., Seneviratne, S. I., et al. (2021). **Intergenerational inequities in exposure to climate extremes.** *Science*, 374(6564), 158–160.
-  Dasgupta, S., **van Maanen, N.**, Gosling, S. N., Piontek, F., Otto, C., & **Schleussner, C.** (2021). **Effects of climate change on combined labour productivity and supply: an empirical, multi-model study.** *The Lancet Planetary Health*, 5(7), e455–e465.
-  **Saeed, F., Schleussner, C.,** & Ashfaq, M. (2021). **Deadly Heat Stress to Become Commonplace Across South Asia Already at 1.5°C of Global Warming.** *Geophysical Research Letters*, 48(7).
-  **Saeed, F., Schleussner, C.-F.,** & Almazroui, M. (2021). **From Paris To Makkah: Heat stress risks for Muslim pilgrims at 1.5°C and 2°C.** *Environmental Research Letters*, 51(40), 404001.
-  **Schleussner, C.-F., Pfliederer, P., Andrijevic, M.,** Vogel, M. M., Otto, F. E. L., & Seneviratne, S. I. (2021). **Pathways of climate resilience over the 21st century.** *Environmental Research Letters*, 16(5), 054058.
-  Rosen, D., **Nauels, A.,** Tokarska, K. B., Mckenna, C. M., Rogelj, J., **Schleussner, C.-F.,** & Forster, P. M. (2020). *CONSTRAIN (2020) ZERO IN ON: A new generation of climate models, COVID-19 and the Paris Agreement. T.*
-  **Geiges, A., Nauels, A., Parra, P. Y., Andrijevic, M., Hare, W., Pfliederer, P.,** et al. (2020). **Incremental improvements of 2030 targets insufficient to achieve the Paris Agreement goals.** *Earth System Dynamics*, 11(3), 697–708.
-  **Schleussner, C.-F., & Fyson, C. L.** (2020). **Scenarios science needed in UNFCCC periodic review.** *Nature Climate Change*, 377, 2019.
-  Schleypen, J.R., Mistry, M.N., **Saeed, F.** & Dasgupta, S. (2021) **Sharing the burden: quantifying climate change spillovers in the European Union under the Paris Agreement,** *Spatial Economic Analysis*, 17:1, 67-82,

Adapting to climate impacts



The faster and deeper emissions cuts, the less need there will be for adaptation. The latest science is clear that stringent mitigation brings important immediate climate benefits, not only ones in the far future.

As more and more intense climate impacts are being felt in every corner of the world, and human influence on causing climate change becomes clearer, adaptation is getting increasing global attention.

The article **Machine learning-based evidence and attribution mapping of 100,000 climate impact studies** that we co-authored found that at least 85% of the global population were already impacted by human-caused climate change. The study got very broad coverage and was referenced by Barack Obama during his speech at COP26.

Developing better understanding of future climate impacts

Projections of climate hazards alone are not enough to assess future impacts of climate change. Such an assessment has to fully account for vulnerability and exposure of human and ecosystems. In addition, impact assessments need to include possible adaptation strategies to avoid the impacts of climate change as far as possible.

Under the EmBARK-project, we investigate time scales and possible trajectories of socio-economic transformation processes, and analyse their relevance as potential barriers to adaptation to climate change. An improved understanding of the temporal dynamics of such barriers is key in developing a more realistic understanding of future climate impacts and for scientifically robust assessment of future climate related loss and damage.

Since 2020, we have conducted virtual (due to the pandemic) fieldwork under the EmBARK in the Caribbean. The topics discussed with adaptation experts from the region covered adaptation constraints, limits and transformational adaptation, with the goal to understand where challenges and thresholds lie and how these concepts are experienced in practice. Initial results show that the lack of finance available for adaptation is one of the largest hurdles for Caribbean Small Islands, highlighting the worsening debt situation and the urgent need for more international climate finance.

Our scientists were also involved in the **Global Adaptation Mapping Initiative** that takes stock of where we are in terms of adaptation. This exercise is a central part of the IPCC Working Group II report published early 2022 which assesses the vulnerability of socio-economic

and natural systems to climate change, consequences of climate change and options for adapting to it.

Other published articles include **Global evidence of constraints and limits to human adaptation** and a comment piece **Debt-for-climate swaps for small islands**.

Our regional scientists have been continuing to work closely with governments of SIDS and LDCs across the world.

In the Pacific, for example, we supported national governments and the Secretariat of the Pacific Regional Environment Programme (SPREP) in preparing proposals to the Green Climate Fund to develop national adaptation plans (NAPs) as part of Green Climate Fund (GCF) "Readiness" funding. This includes initial scoping of needs and priorities for developing a comprehensive adaptation planning process at national level. The readiness funding helps build capacity in countries to be able to apply and manage bigger GCF funds. This assistance helped Tuvalu secure USD3mn for its adaptation planning process, while we continued to support the Federated State of Micronesia, Nauru and Niue in finalising their proposals.

Towards the end of 2021, with SPREP and a team of consultants we began to develop a guidance document to support the development of NAPs in the Pacific. This guidance should better reflect the unique circumstances of the region and update current UNFCCC guidance which was developed in 2012.

In 2021, we also held a workshop which helped Pacific governments to consider the implications of the adaptation limits and transformational adaptation in their planning.

Our team in West Africa successfully concluded the Science-based National Adaptation Planning (PAS-PNA) project in French-speaking least developed countries of Sub-Saharan Africa, through its second and final phase.

During the final phase of the project, we concluded feasibility/pre-feasibility studies to accompany the project proposals that Benin, Burkina Faso and Senegal have prepared for submission to the various climate funds.

In Benin, the pre-feasibility studies looked at strengthening the resilience of communities in the Adjohoun, Bonou and Dangbo regions. In Burkina Faso, the focus was on strengthening the resilience of local communities to climate change through the implementation of good practices in sustainable land management using integrated landscape approach in the Tuy and Houet provinces. In Senegal, the feasibility study concerned the project proposal for strengthening the resilience of socio-ecological systems to climate change in the Saloum Delta.



Workshop to launch the development of the implementation plan of the updated NDC of Benin. Cotonou, Benin

Based on this experience, our experts developed a practical guide on conducting pre-feasibility and feasibility studies in French-speaking African LDCs, which draws on lessons learned from the work in Benin, Burkina Faso and Senegal and provides the necessary information and elements for successful (pre)feasibility study of adaptation projects.

Since March 2021, our experts in the region support also the government of Niger in its national adaptation planning process. Our work focuses on estimating the costs and benefits of options in sectors including livestock, forestry, health, transport and wetlands. Particular emphasis is on building the capacity of local actors on methodologies and techniques for economic valuation of adaptation options in particular, and on the NAP process in general.

At the COP26, the Paris Agreement's Global Goal on Adaptation (GGA) took small steps forward. The GGA was established to increase the status of – and financial flows to – countries' adaptation activities. As a follow-up to COP, we published a briefing paper **What next for the Global Goal on Adaptation?**

For developing countries, and small island developing states in particular, it is crucial that the GGA becomes a practical, nationally driven tool with bottom-up approach. Adaptation primarily happens at a local scale. As a result, adaptation capacity, resilience and vulnerability can look very different depending on the local context.



Climate Analytics in Eastern Africa

Climate Analytics is active in Eastern Africa since 2019. Our work in Kenya and the broader Horn of Africa region are primarily focused on “DOWN2EARTH”, a European Union Horizon 2020 project for which Climate Analytics is leading the policy-related work. In 2020-2021, our work focused on the analyses of over 50 climate adaptation and food and water security policies in the Horn of Africa Drylands. We also conducted multiple visits to the project site in Kenya’s Isiolo County, and engaged with Civil society organisations (CSOs), non-governmental organisations (NGOs), national and local government officials, and other stakeholders from across Kenya, Ethiopia, and Somalia/Somaliland.

Beyond DOWN2EARTH, Climate Analytics has been actively involved in climate change discourse and action in Eastern Africa, with our colleague Winnie Khaemba based at the IGAD Climate Applications and Prediction Centre (ICPAC) - one of the region’s biggest climate change-related organisations. We extensively collaborate with ICPAC on activities such as the DOWN2EARTH project, analyses of adaptation priorities in the Eastern African region and a number of presentations of different knowledge products at several Greater Horn of Africa Climate Outlook Forums (GHACOFs). Key climate change tools developed by CA were also presented to, and discussed with the Institute for Climate Change and Adaptation (ICCA) at the University of Nairobi.

We look forward to continuing our engagement in existing projects, undertaking new activities, and furthering our collaboration with stakeholders and partners in the region to further meaningful climate action backed by the latest science.



Selected publications on adaptation and impacts

-  Berrang-Ford, L., Siders, A.R., Lesnikowski, A. et al. (2021) **A systematic global stocktake of evidence on human adaptation to climate change**. *Nature Climate Change* 11, 989–1000
-  **Andrijevic, M.**, Cuaresma, J. C., Muttarak, R., & **Schleussner, C. F.** (2020) **Governance in socioeconomic pathways and its role for future adaptive capacity**. *Nature Sustainability*, 3(1), 35-41. (2020)
-  **Theokritoff, E.** & D’haen, S.A.L., (2021) **How is science making its way into national climate change adaptation policy? Insights from Burkina Faso**, *Climate and Development*,
-  Callaghan, M., **Schleussner, C-F.**, Nath, S., Lejeune, Q., Knutson, T., Reichstein, M., Hansen, G., Theokritoff, E., Andrijevic, M., Brecha, R., Hegarty, M., Jones, C., Lee, K., Lucas, A., **van Maanen, N.**, Menke, I., **Pfleiderer, P.**, **Yesil, B.**, Minx, J. (2021) **Machine learning-based evidence and attribution mapping of 100,000 climate impact studies**, *Nature Climate Change* 11, 966–972
-  **Thomas, A.**, **Theokritoff, E.** (2021) **Debt-for-climate swaps for small islands**. *Nature Climate Change* 11, 889–891.
-  **Andrijevic, M.**, Crespo Cuaresma, J., **Lissner, T.**, **Thomas A.**, **Schleussner, C-F.** (2020) **Overcoming gender inequality for climate resilient development**. *Nature Communications* 11, 6261



Loss and damage – a crunch issue for SIDS and LDCs

“Loss and damage” refers to the harm caused by climate change that cannot be avoided through emissions reductions and adaptation, from major crop failures to homes becoming uninhabitable.

As part of our IMPACT project, we produce scientific outputs and knowledge products to help governments in SIDS and LDCs to develop and implement transformational climate adaptation and mitigation strategies.

Our work in this area in 2021 included the article **Loss and damage implications of sea-level rise on Small Island Developing States**, published in Science Direct.

Securing finance for loss and damage has been a top priority for many developing countries including SIDS and LDCs for years. As climate impacts get more severe, the issue of loss and damage finance is raising its profile. Under the UNFCCC, it has been discussed under the so-called work streams of the Executive Committee of the Warsaw International Mechanism for Loss and Damage (WIM Excom).

Countries at the forefront of climate impacts advocated strongly for a dedicated loss and damage fund at the UN climate summit COP26, but it was ultimately not adopted. Instead, governments agreed to establish the “Glasgow Dialogue” was established to explore ways to fund loss and damage. While this was a huge disappointment for our partners in SIDS and LDCs, it is the first time that the need for dedicated funding for loss and damage was recognised.

Adaptation finance can reduce loss and damage but does not cover all funding needs. Loss and damage finance must also be differently structured. For example, for responding to damage caused by extreme weather events, finance needs to be available at short notice. This is very different from the project-based approach of currently available financial support. Under the Green Climate Fund, for example, it takes around one year from proposal submission to receive the first disbursement of funds.

As climate impacts continue to worsen, the need for a loss and damage finance facility will only become ever more apparent.



Dr Adelle Thomas at COP26 speaking about loss and damage and the challenges small island states face, including the lack of dedicated finance.



Martyr-Koller, R., **Thomas, A.**, Carl-Friedrich **Schleussner, C-F.**, Alexander **Nauels, A.**, **Lissner, T.** (2021) **Loss and damage implications of sea-level rise on Small Island Developing States**, *Environmental Sustainability*, 50, 245-259.

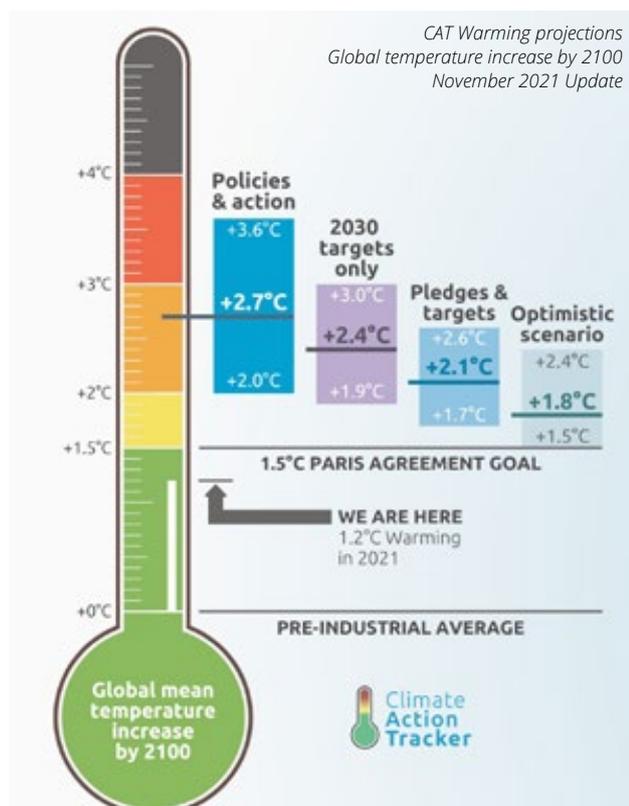
Policy analysis to drive 1.5°C compatible emission reductions

The Climate Analytics climate policy team assesses the effectiveness of international strategies and national climate targets, policies and action in meeting the Paris Agreement goal to limit global warming to 1.5°C and upholding sustainable development goals. They also provide science-based benchmarks and pathways for what different countries and sectors would need to do to align with 1.5°C.

The team once again produced a high number of reports and tools that were well received and widely covered by the media, contributing to the push for climate action in line with science and the 1.5°C goal. Below is a snapshot of that work, all reports are available online [here](#).

Climate Action Tracker

One of Climate Analytics' flagship projects, the Climate Action Tracker assesses governments' climate targets, policies and action. In 2021, the CAT updated its rating system, allowing it to broaden the range of rating elements and provide a more comprehensive assessment. The CAT now assess climate mitigation targets, policies and action, and finance against what a fair share would be as well as what needs to be done within a country's borders.



A growing number of countries are committing to net zero emissions targets. This is encouraging but their targets vary in terms of their quality.

There is a clear need for transparent, comprehensive and robust net zero targets. In 2021, the CAT published a blueprint for this by developing ten key 'good practice' elements that governments setting net zero targets should consider.

The CAT's global update during the COP26 received massive social media and media coverage. The update followed the International Energy Agency's assessment of all net zero targets that argued that those announcements would bring global warming down to 1.8°C. The CAT set the record straight: Without strong near-term 2030 targets and action, we won't make it to net zero by mid-century. Glasgow, CAT argued, had a credibility gap: if all governments achieved their current 2030 targets, the world would be headed to 2.4°C of warming by 2100. If nobody did anything more than what they're doing today, the global temperature rise at the end of the century could be at 2.7°C.



The CAT team at the press conference at COP26. The CAT and its November global update received over 10 000 media hits across the world. From left to right: Prof. Dr. Niklas Höhne, NewClimate Institute, Claire Stockwell, Climate Analytics, Maria Jose de Villafranca, NewClimate Institute

With a number of partners, the CAT also released the annual State of the Climate Action report. The report identifies 40 indicators across key sectors that must transform to address the climate crisis, and assesses how current trends will impact how much work remains to be done by 2030 and 2050 to deliver a zero-carbon world in time.

Pressure on the G20 to take action

In the lead-up to COP26, Climate Analytics co-authored two reports outlining the power and influence of the world's leading economies in setting the world on track to limit warming to 1.5°C.

The annual [Climate Transparency Report](#) reviews G20 countries' climate action and their transition to a net-zero emissions economy.

Developed by experts from 16 partner organisations from the majority of the G20 countries, the report and its 20 country profiles serve as a useful reference for policy makers, civil society organisations, the media, and other stakeholders, stimulating national climate debates.

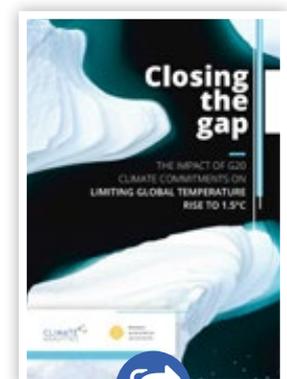
The review is based on 100 indicators for adaptation, mitigation and finance. It highlights good practices and shows where gaps exist.

The 2021 edition warned that despite net zero commitments and updated 2030 targets, the G20's climate action is leaving the world far from meeting the 1.5°C global warming limit.

The report "[Closing the Gap](#)", written together with the World Resources Institute, found that if all G20 countries adopted 2030 targets in line with the 1.5°C goal and net zero targets by 2050, they would take the world three-quarters of the way to limiting global warming to 1.5°C. This report, which highlighted the fundamental role that major economies have to play in limiting warming to 1.5°C, was the most popular publication on our website in 2021.



Climate Analytics experts gave numerous media interviews during COP26. Senior Scientific Advisor Matthew Gidden speaking about the importance of 2030 climate action to reach net-zero emissions by mid-century.



National pathways to limiting global warming to 1.5°C

Current government climate targets put the world on a path to approximately 2.4°C of warming, according to the Climate Action Tracker. Countries will need to put forward more ambitious emission reduction targets to avoid the worst impacts of climate change. For many countries, meeting these domestic targets will require international support.

The IPCC's special report on *Global Warming of 1.5°C* showed not only why governments must act urgently, but also how emissions can be brought to net zero by mid-century for the world to limit global warming to 1.5°C.

One of our flagship projects, "1.5°C national pathway explorer" uses IPCC 1.5°C compatible pathways and more recent lines of scientific evidence to show how a selection of 64 countries across all regions and the development spectrum can align their decarbonisation trajectories with the Paris Agreement.

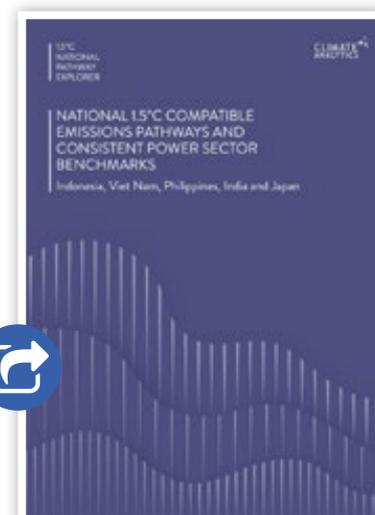
The project was launched in 2020, with an interactive tool going live in 2021 (more about the tool in the "Climate services" section).

Over the course of 2021, we published 38 country profiles outlining economy-wide and power sector pathways. The work was presented at various events such as webinars during the Asia-Pacific regional climate week and the Climate Week New York. Another highlight of the year was a very well attended side event during COP26 that spurred a lively discussion around countries' clean energy transition.

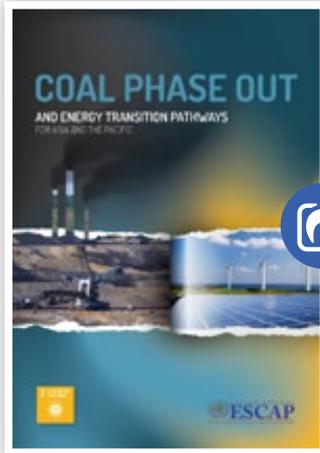


Our COP26 event "Higher, further, faster: co-benefits of an accelerated energy transition in line with 1.5°C" explored national pathways to 1.5°C for selected countries and how reducing emissions could help the world achieve the SDG7 goal. Matthew Gidden (second from the left) and Marie-Camille Attard (second from the right) from Climate Analytics on the panel.

Based on the tool, we also produced the [National 1.5°C Compatible Emissions Pathways and Consistent Power Sector Benchmarks: Indonesia, Viet Nam, Philippines, India and Japan](#) report which was well received by partners in the region.



Decarbonising the Asia-Pacific region



The Asia-Pacific region, more than any other global region, is highly reliant on fossil fuels. How it transitions away from fossil fuels will be a pivotal issue for Asia-Pacific and the world in the coming years, in light of the current and future climate impacts and the sustainable development benefits that an energy transition would bring. Another key report, '[Coal phase out and energy transition pathways for Asia and the Pacific](#)', prepared for the UN Economic and Social Commission for Asia and the Pacific, provides insights into how the Asia and the Pacific region can transition away from coal to a renewable based efficient energy system compatible with the Paris Agreement and Sustainable Development Goals. It found that it is feasible to achieve a Paris Agreement-compatible 50-85% share of renewable energy by 2030 in South and Southeast Asia by 2030, and 100% renewable electricity generation by 2050.

Gas is the new coal

Gas has no place in a 1.5°C world, and its use in primary energy should already have peaked. But instead, the expansion of the industry continues.

Our report '[Why gas is the new coal](#)', published during COP26, looks at the role of natural gas in a 1.5°C compatible global energy mix, and finds it needs to drop by more than 30% below 2020 levels by 2030, and 65% below 2020 levels by 2040.

As 190 nations and organisations agreed to phase down coal at COP26, our report urged them to treat the gas the same way and commit to phasing it out as soon as possible. As the report shows, the gas phase-out can only be a decade or so slower than for coal to limit warming to 1.5°C.



The European Union's "Fit for 55" is not yet fit for 1.5°C

The European Union is currently negotiating its climate and energy law package called "Fit for 55" package.

The report '[1.5°C Pathways for Europe](#)' presents domestic emissions and energy mix pathways required to meet the Paris Agreement's 1.5°C goal for the EU27 and nine of its member states: Denmark, France, Germany, Italy, Poland, Portugal, Romania, Spain, and Sweden.

It assessed whether the current 2030 climate targets are in line with these pathways – and found that neither the national targets nor the legislative proposals under the Fit for 55 package are in line with the Paris Agreement long-term temperature goal.

Yet, the assessment concluded that more ambitious climate action is fully feasible for the EU and its member states, sending a strong message to the legislators to increase Europe's 2030 climate ambition.



Climate Analytics policy analyst Ryan Wilson presenting at the COP26 event "50% Reductions by 2030 for 1.5°C: No Negotiating with the World's Ice" on the current climate commitments of Scotland, UK and Germany and how they align with 1.5°C compatible pathways.

The jobs potential of a renewable energy transition in South Korea

Coal is the single biggest global source of greenhouse gas emissions. To meet the Paris Agreement 1.5°C goal, the world needs to phase out this fossil fuel by 2030 in rich countries and 2040 in the developing world. But closing coal mines and plants have consequences for the communities that depend on jobs in this industry. The phase-out must therefore be carefully planned through an inclusive process that ensures that the livelihoods of those dependent on coal are protected.



Together with our partner, Solutions for Our Climate, we looked at the employment opportunities of a coal-to-renewable transition in South Korea if coal is phased-out before 2030.

Our report [Employment opportunities from a coal-to-renewables transition in South Korea](#) found that overall, South Korea could create more than 62,000 more jobs per year on average in the first half of this decade, and more than 92,000 jobs per year in the second half of the decade, when compared to current policy plans, if it phased out coal by 2029 and replaced it by renewables and storage.

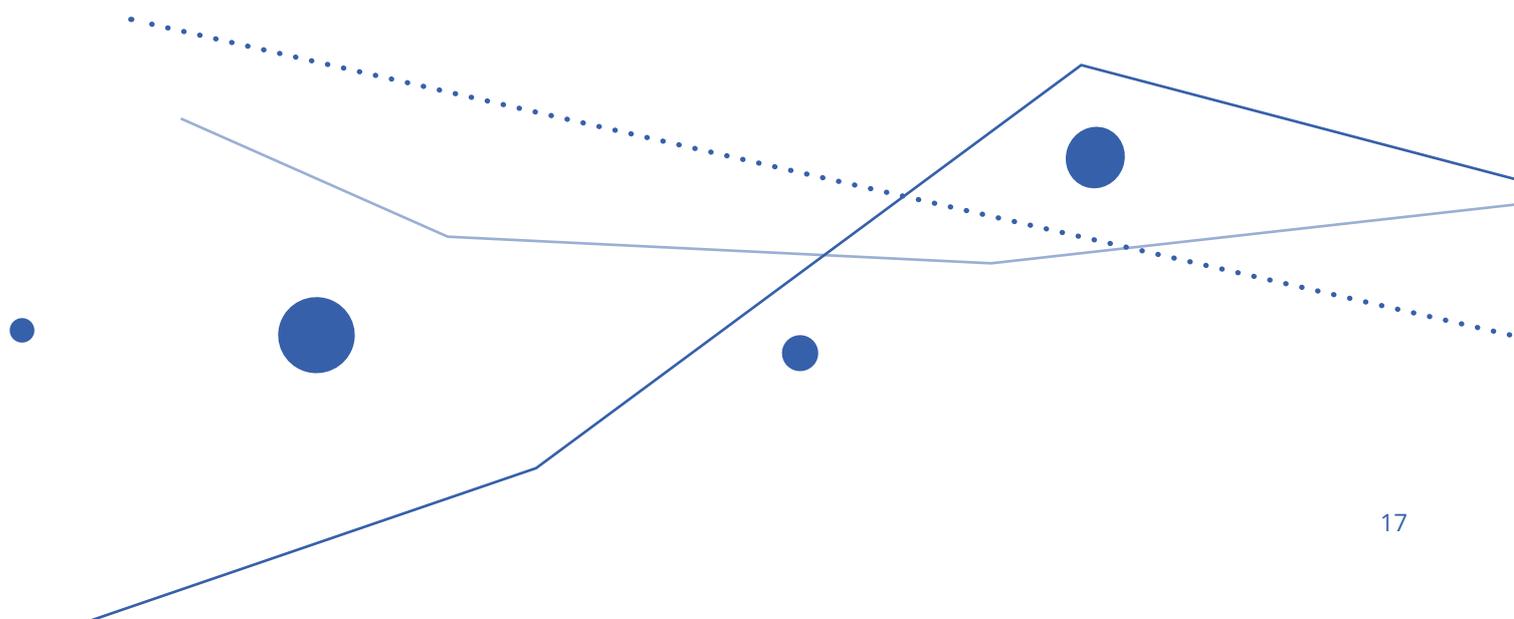
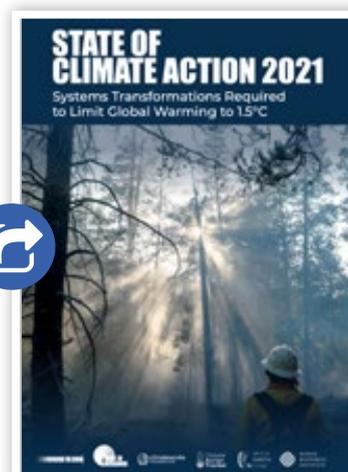
The report was well received internationally and continues to contribute to the national policy debate on transition from fossil fuel-based power system in South Korea.

Far-reaching transformations across sectors needed

The annual “[State of the Climate Action](#)” that our experts contribute to identifies 40 indicators across key sectors that must transform to address the climate crisis. It assesses how current trends will impact the remaining work to be done by 2030 and 2050 and outlines the required shifts in supportive policies, innovations, strong institutions, leadership and social norms to unlock change.

Limiting global warming to 1.5°C requires far reaching transformations across power generation, buildings, industry, transport, land use and agriculture, as well as the scale-up of technological carbon removal and climate finance. This report translates these transitions into 40 targets for 2030 and 2050, with measurable indicators.

The 2021 edition confirmed that the transitions required to avoid the worst climate impacts are not happening fast enough. Of the 40 indicators assessed, none are on track to reach 2030 targets and change was heading in the right direction at a promising but insufficient speed for only eight.



Helping countries to implement the Paris Agreement

Under our implementation strategies work, Climate Analytics experts help small island developing states and least developed countries to establish robust processes to implement mitigation and adaptation actions under the Paris Agreement. Our experts provide technical support, as well as help in capacity building activities.

Despite the continuing challenges posed by the pandemic over the past two years, including a near full halt to travel and in-person meetings, the team supported seven countries in revising their nationally determined contributions (NDCs), raising mitigation ambition and substantially improving transparency.

For example, in Antigua & Barbuda, Grenada, Saint Lucia and Nepal, we modelled the countries' energy systems and assessed the impacts of changes in how energy is produced and consumed.

In Antigua & Barbuda, we also advised the government on achieving a "just transition" – supporting workers and communities in the transition from fossil fuel-based societies to more sustainable systems – and establishing an insurance framework to increase climate resilience and recovery from extreme weather events.

In Grenada, we looked at what the country needed to do to implement the NDC and achieve its national climate target of a 40% reduction of greenhouse gas emissions below 2010 levels by 2030. We analysed the impacts of energy efficiency measures, replacing the diesel-dominated electricity production with renewable energy sources and all sales of internal combustion engine vehicles with electric vehicles by 2030. We also analysed the waste and forestry and other land use sectors to inform the development of the new NDC.

In St Kitts and Nevis, we developed an implementation plan and financing strategy for the updated NDC pledging a 61% reduction of national carbon dioxide emissions.

The plan and strategy map out implementation measures and needs for mitigation, adaptation and loss and damage including the associated funding and capacity building requirements and outlines a strategy and governance structure to implement the measures and actions. The implementation plan and strategy also informed St Kitts and Nevis' NDC Partnership Plan. St Kitts and Nevis launched their NDC at a COP26 NDC-P Pavilion side event in Glasgow.



St Kitts and Nevis launched the updated nationally determined contribution at COP26 in Glasgow. From left to right: Ms. Amanda Mckee, NDC Support Unit; Ms. Sharon Rattan, Permanent Secretary, Ministry of Environment, St Kitts and Nevis; Ambassador, Hon. Eric Evelyn, Minister of Environment, St Kitts and Nevis; Dr. Spencer Thomas, Charles and Associates, Grenada; Dr. Adelle Thomas, Climate Analytics.

In West Africa, Benin and Burkina Faso, under the NDC - Partnership's CAEP mechanism, we advanced work respectively on the NDC revision and implementation. We developed the implementation plan for Benin's new NDC and conducted econometric analyses to assess the costs and benefits of adaptation and mitigation actions/projects to be included in Burkina Faso's new NDC for the energy and agriculture, forestry, and other land uses (AFOLU) sectors. Benin and Burkina Faso submitted their new NDCs to the Convention in October 2021 on the side lines of COP26, with the respective emissions reduction targets of 20.15% and 30.76% based on their respective baselines.

Access to climate finance

For the most vulnerable countries, limiting global warming to 1.5 degrees Celsius above preindustrial levels is a matter of survival. These countries have limited financial, technical, technological and human capacity to cope with increasing and more frequent climate change related disasters.

Finding the financial means to build resilience and reduce vulnerability to the adverse effects of climate change is a major challenge for many countries at the forefront of climate impacts such as extreme weather events that can set back a country's development by years and decades.

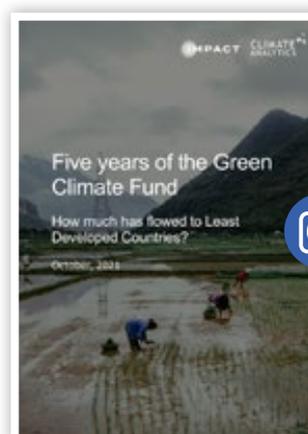
A core component of our work has therefore been and will continue to be supporting access to climate finance to accelerate the implementation of global, regional, and national priorities, that are compatible with the Paris Agreement and sustainable development.

Over 2020-2021, we continued to support countries in enhancing their institutional capacity for climate finance, creating strategic frameworks such as GCF country programmes, project pipelines and financing strategies. At the same time, we have been expanding on our direct work with the Green Climate Fund to enhance their support to governments, facilitating countries' transitions to low-carbon climate-resilience economies.

Since March 2021 we provide support to the government of Niger in its national adaptation planning process. We conducted econometric analyses on the estimated cost and evaluated the benefits of adaptation options considered for the NAP. Specifically, the analyses focus on the key sectors of livestock, forestry, health, transport and wetlands. Particular emphasis has been placed on building the capacity of local actors on methodologies and techniques for economic valuation of adaptation options in particular, and on the NAP process in general.

In the context of our country support, we also organised, at the request of the Chair of the LDC Group, six training sessions on 13 different modules on climate finance. These training sessions were organised in French and English to consider the linguistic realities that can sometimes be a barrier in the commitment of countries. They attracted more than 60 participants from 46 LDCs. These trainings enhanced the technical support we provide to these countries on climate change negotiations and capacity building for research and climate finance mobilisation.

We also produced briefings and knowledge products to guide the preparation of good technical proposals for climate funds. For instance, we conducted an analysis on the landscape of climate finance received by LDC and SIDS from GCF over the last five years, highlighting some of the remaining challenges that those countries still face.



Climate diplomacy support for SIDS and LDCs

Over 2020-2021, Climate Analytics continued to advance its well-established role at the forefront of providing demand-driven capacity building and technical support to small island developing states and least developed countries in the international climate negotiations, related international processes and regional meetings.

The core of our support was provided to the Chairs of both groups – Bhutan for the LDC Group (2020-2021) and Belize (2020)/Antigua Barbuda (2021) for the Alliance of Small Island States. Our work continued to be framed in response to the Chairs' and country representative requests and priorities, and the team provided a broad range of strategic, technical, real-time and capacity building support to ministers, negotiators and high-level officials from both groups.

The support covered UNFCCC and Paris Agreement negotiations, and focused in particular on 1.5°C ambition, completion of the Paris rulebook (e.g. transparency, global carbon markets under Article 6) and other priority issues such as loss and damage. The team also provided technical and policy support on a range of finance issues, including through advising LDC representatives at Board meetings of the Green Climate Fund.

Our work in these areas was carried out principally under the IMPACT project, funded by the German government, and the Climate Ambition Support Alliance (CASA) programme, funded by the UK government (Department for Business, Energy and Industrial Strategy). Funding from the Climate Emergency Collaboration Group) also provided for additional targeted support to be given to Minister Stiell of Grenada in the lead up to and during COP26, with a particular focus on 1.5°C ambition.

Given that in-person meetings are a central part of international climate negotiations, the restrictions on travel and shift to on-line working environments due to

the COVID-19 pandemic created significant challenges for SIDS and LDCs through 2020-2021 – including connectivity and time-zone issues that jeopardised their full participation. Despite these challenges, SIDS and LDCs found innovative ways to continue and even broaden their participation in online meetings. The Climate Analytics team worked closely with LDC and AOSIS Chairs to support these efforts and adopted a range of flexible approaches, as well as increased support for media engagement, to continue our work with partners. Successfully adapting to a mainly virtual-mode of regional and international engagement is a real success story of the past two years.



Climate Analytics team members provided negotiations support for the Chair of the Least Developed Countries (LDC) group at COP26. From left to right: Tasi Pem, LDC Support Team member, Sonam P Wangdi, LDC Chair 2019-2021, Antonio Guterres, UN Secretary-General, Gebru Jember, Former LDC Chair, Ethiopia, Tenzin Wangmo, Climate Analytics, Manjeet Dhakal, Climate Analytics

1.5°C ambition

Having been postponed due to the COVID-19 pandemic in 2020, COP26 in Glasgow convened in November 2021 and was the culmination of almost two years of preparatory work with a clear goal: keeping the Paris Agreement goal to limit global warming to 1.5°C alive.



Grenada's Minister for Climate Resilience, the Environment, Forestry, Fisheries, Disaster Management and Information, Simon Stiell, speaks to media representatives at COP26 in Glasgow.

AOSIS and the LDC Group played key roles throughout 2020-2021 in bringing focus and building political momentum on 1.5°C ambition, leading up to COP26. AOSIS put the issue in the spotlight early in 2020 through its successful on-line convening of the [Placencia Ambition Forum](#) in April. The LDC Group was also vocal on ambition through the year, culminating in the [Thimphu Ambition Summit](#) in December. The Climate Analytics team provided key science, policy and diplomacy support in the development and running of these high-level events and other areas of engagement.

Support activities on ambition issues continued through 2021 with our climate diplomacy team providing technical and real-time support to the Chairs and other high-level representatives of SIDS and LDCs at key events, from the Petersburg Dialogue to the Pre-COP in Italy. Our experts also produced a significant number of technical papers and analyses to the governments of SIDS and LDCs on ambition-related priorities, including on mitigation, finance and loss and damage.

Our work at the highest political level included accompanying and supporting Minister Stiell of Grenada, in his role leading up to and at COP26 as co-facilitator on ambition and keeping the 1.5°C goal alive. This collaboration encompassed scientific, technical, political and communications support, and covered the New York Climate Week, activities of the High Ambition Coalition (HAC), the Pre-COP in Italy, and COP26 in Glasgow. In addition to providing support on climate ambition, we supported Minister Stiell on other priority issues including adaptation, loss and damage and the need to provide climate finance for the most vulnerable countries such as his own.

Cross-cutting team work

Led by our diplomacy team, the negotiations support also involves collaborating closely with our science, policy and implementation experts. These experts provide invaluable research and analysis which underpins much of the support that we provide to SIDS and LDCs.

An example of work across teams and areas of expertise is the briefing "[Long-term strategies in SIDS: blueprints for decarbonised and resilient 1.5°C compatible economies](#)". While long-term strategies are distinct from the 2030 commitments made in countries' NDCs, alignment between a country's long-term vision and its NDC is crucial, and can improve the efficiency and robustness of near- and long-term target setting.

Another example, our Closing the Gap report – which assessed the impact of G20 climate commitments on limiting temperature rise to 1.5°C – proved hugely important for the diplomacy efforts to push for ambitious climate action from the world's largest economies.

Research and analysis underpinning our support

Work undertaken during 2020-2021 also saw the climate diplomacy team deliver a number of other projects and analyses that directly supported LDCs and SIDS, and will more broadly inform the climate negotiations. This included a report published in May 2021 on three priority elements of Article 6: the “share of proceeds” or funding for adaptation, the proposed carry-over of old Kyoto credits to the future carbon market and the delivery of an “overall mitigation of global emissions” to ensure that the operation of Article 6 goes beyond simply offsetting of emissions. This report was commissioned by the LDC Group and was a collaboration between Climate Analytics, NewClimate Institute and Oeko-Institut. The report proved crucially important in arming the LDC Group with robust analysis that helped achieve outcomes on their priority issues under Article 6 at COP26.

The Paris Agreement Global Stocktake will take place in 2023, with technical preparations starting in 2022. Our report, [Using the Global Stocktake to Improve National Climate Policy Ambition and Implementation](#) explored how countries use guidance from the UNFCCC at the national level and what these findings mean for the framing and use of the outcomes from the GST. The report was commissioned by the Independent Global Stocktake (iGST).



Deepening our presence in the regions

In 2021, Climate Analytics set up two new regional offices: in Trinidad and Tobago for the Caribbean and in Nepal to serve the South Asia region. Our presence in these regions is of crucial importance for our continued engagement with and support for SIDS and LDCs, and will open up new opportunities and areas of collaboration with other organisations. It is also a strategically important development that responds to the growing number of requests and opportunities to support governments in these regions to translate negotiated outcomes from the UNFCCC into domestic laws, policies and governance arrangements. Examples of regional projects already underway include our South Asia office’s collaboration with two universities to design climate change courses, and our Caribbean office’s involvement in a multi-year climate governance initiative for the Caribbean being undertaken with the support of the Open Societies Foundation.



Interactive analysis

Climate Analytics produces a number of open access, user-friendly and interactive tools that make climate projections easily available to policy makers and researchers dealing with climate related questions in fields such as agriculture, energy and human health.

In 2020-2021, we launched two tools that have been very well received by stakeholders across the globe.

1.5°C National Pathway Explorer

To help governments better understand what is needed for national decarbonisation pathways in line with the 1.5°C goal, we launched a new tool in 2021 called "1.5°C national pathway explorer".

The tool provides domestic emissions pathways required to keep to the Paris Agreement's 1.5°C temperature goal and their key characteristics for 64 countries.

The analysis is framed around two timelines: the medium term (by 2030), and the long term (by mid-century). In addition to an economy-wide view, it includes 1.5°C compatible benchmarks for the industry, forestry (LULUCF), buildings, transport, waste, and power sectors.

What are 1.5°C national pathways?

We have selected global and regional Paris consistent pathways from the IPCC Special Report on 1.5°C and scaled them down to the national level, based on the interactions across economic sectors, energy consumption and emissions.

Who is the tool for?

The explorer aims to empower national decision makers in setting ambitious emissions reductions targets and help civil society and national interest groups to inform the debate on driving climate action.

Visit the tool here 

Climate Impact Explorer

The Climate Impact Explorer provides projections for future climate impacts at different warming levels and for several policy-relevant greenhouse gas emission scenarios. Several climate or climate impact indicators can be selected.

The tool shows maps and graphs illustrating the projected changes for several global warming levels and how they will play out over time according to these emission scenarios. Graphs and underlying data are available for download.

The objective of the tool is to further advance scientific knowledge and understanding of climate impacts, and linking policy and impact indicator projections on global, regional and national levels.

 [The Climate Impact Explorer is available here](#)

Regional highlights

Headquartered in Berlin, Germany, Climate Analytics has offices in New York, the United States; Lomé, Togo and Perth, Australia as well as newly established offices in Port of Spain, Trinidad and Tobago and Kathmandu, Nepal.

The mission of Climate Analytics Caribbean is to further advance climate science, climate policy research and analysis in the region to address the gap between regional advocacy on climate change at the global level and regional/domestic action in support of climate objectives.

Climate Analytics South Asia provides science-based policy and technical support to South Asian governments in adaptation and mitigation-focused activities and supports capacity building programmes for governments and relevant stakeholders.

Europe



Berlin

Many of the Climate Analytics' science and policy staff are affiliated to our headquarters in Berlin, Germany. We have close working relationships with many European universities and institutes on joint projects.

An example of recent highlights is the research project funded under the EU research funding programme Horizon 2020 entitled **PROVIDE - Paris Agreement overshooting reversibility, climate impacts and adaptation needs**.



A joint Climate Analytics and WWF COP26 side event in Glasgow in November 2021. Matthew Gidden presenting on behalf of Climate Analytics.

The 1.5°C Paris Agreement long-term temperature goal guides global climate action to avoid the most devastating impacts of climate change. However, under current emissions trajectories, overshooting 1.5°C is a distinct possibility. Even temporarily exceeding 1.5°C warming in the near term could lead to crossing climate thresholds, tipping the climate system into a new state, which would severely limit our adaptation options.

Through an online platform, PROVIDE will allow researchers, everyday users, and adaptation practitioners to set risk thresholds for societal impacts caused by geophysical impacts so that they can analyse under which conditions these impacts can be avoided.



[Read more about PROVIDE here](#)

The Berlin team also led on the COP26 side event organised together with WWF. "Keeping 1.5°C alive How can we pull back from the brink?" outlined the latest IPCC science and explored what needs to happen both at global and national level post-COP26 to put the world on track to achieving the Paris Agreement temperature goal.

[Watch the recording of the event here](#) 

North America



New York

Climate Analytics Inc provides scientific, technical, policy and legal support to our stakeholders – small island developing states (SIDS) and least developed countries (LDCs). It works closely with a number of vulnerable country Permanent Missions to the UN, supporting them in global processes at the intersection of climate change and sustainable development.

Our New York office also brings together key audiences to communicate and debate latest analyses and science publications, and break the silos between diverse communities, civil society, financial institutions, diplomats and decision makers to maximise synergies and impact across the different agendas.

Our two New York Climate Week 2021 events discussed the latest IPCC science and its policy implications in the lead-up to COP26 and the just transition to a climate-resilient world.

Change We Want: Just Energy Transitions around the World

The energy transition challenge is global. It needs a fast response in all countries of the world. For it to be climate-friendly, effective and just, countries and their people need to work and learn together. Developing countries face economic and capacity constraints that necessitate cost-effective, results-oriented approaches that affected people can get behind. They can offer industrialised countries innovative options beyond current, often economically challenging and ineffective solutions.

Our event increased the peer exchange and learning between countries, particularly in a South-South context, to (re)think and (re)formulate effective approaches towards a just transition. The event presented the latest findings on socio-economic aspects of energy transitions towards net zero carbon emissions.

The road to Glasgow: What needs to happen by COP26 to keep the 1.5°C goal alive?

The IPCC Working Group I report confirmed that the Earth is hotter than it has ever been in the last 125,000 years. Climate extremes such as heat waves, extreme precipitation, droughts and storms are on the rise and human-driven climate change has made them worse.

However, with strong action in this decade, the 1.5°C long-term temperature goal of the Paris Agreement can stay within reach. Stringent mitigation of greenhouse gas emissions brings immediate benefits and limiting global warming to 1.5°C will dramatically reduce future climate risks.

This event brought together experts and government representatives to unpack and discuss these issues, helping participants understand why urgent action is so important and to show that there is a pathway for countries to take 1.5°C compatible action.



Climate Analytics implementation strategies team at a retreat in Vermont, US, in 2020. From left to right: Rachel Pham, Frances Fuller, Nikita Patel, Eriko Shrestha, Shweta Movalia and Kouassigan Tovivo.

[Watch the recording of the event here](#)



West Africa



Participants at the last PAS-PNA workshop in Senegal in August 2021 with Mahugnon Serge Djohy (third from the left) and Kouassigan Tovivo (on the right) from Climate Analytics West Africa office.

Lomé

Climate Analytics' activities in West and sub-Saharan Africa are led by our Lomé office that focuses on climate science and governance issues relating to least developed countries, 33 of them located in Africa.

Our presence in Lomé, Togo, has enabled us to considerably expand our networks in West and sub-Saharan Africa, creating strong ties to key regional institutions, government ministries and agencies as well as civil society actors in this particularly climate vulnerable region.

In 2020-2021, our colleagues at the Climate Analytics West Africa office implemented the second phase of the PAS-PNA ("Projet d'Appui Scientifique aux processus de Plans Nationaux d'Adaptation dans les pays francophones les moins avancés d'Afrique subsaharienne").

The PAS-PNA was the first ever project to help the francophone Sub-Saharan African Least Developed Countries (LDCs) to develop and/or implement their National Adaptation Plans (NAP).

The PAS-PNA project was successful in increasing these countries' knowledge on translating scientific and policy assessments on climate vulnerability into adaptation action on the ground.

During the second phase that ended in 2021, in the three beneficiary countries (Benin, Burkina-Faso and Senegal), we conducted pre-feasibility and feasibility studies for selected adaptation options being transformed into project proposals for submission to various climate funds.

Australia and Asia-Pacific



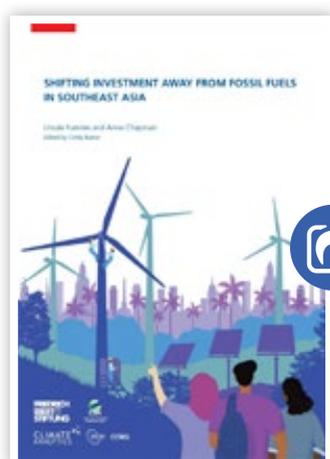
Perth

Our work on developing climate policy and energy transformation strategies in the Asia-Pacific region is mostly led by our office in Perth, Western Australia.

In 2021, the team achieved a wide array of impact including through leading the analysis for the Climate Action Tracker India [report](#) which outlines how a green recovery creates opportunities for India. The report demonstrates the potential to accelerate India's transition to a zero emissions economy through developing scenarios that show the health and employment impacts of early coal asset retirement in context of the Paris Agreement 1.5°C goal and NDC targets.

The team also completed an in-depth study on Woodside Petroleum's proposed Scarborough to Pluto LNG project in Western Australia. The "[Warming Western Australia](#)" is the first study that puts together the total greenhouse gas implications of the entire Scarborough-Pluto project, including its associated and interlinked projects. The results show the emissions are significantly larger than either the company or the state government estimates indicate. The report's findings are clear: the company's arguments – that the project is Paris Agreement consistent – are incorrect and the project therefore represents a bet against the world implementing the Paris Agreement.

Other highlights in the region included the kick-off of the GIZ Sino China NDC cooperation, a multi-year technical partnership involving national, provincial and sector scaled stakeholders working together to support climate ambition. The team also led the production of the landmark report "Why Gas is the new Coal" released during COP26, reaching global media headlines.



A well-attended workshop series around the '[Shifting investment away from fossil fuels in SEA](#)' report attracted regional civil society and academic leaders to discuss the outcomes and common narratives around this important report.

Financial and funders

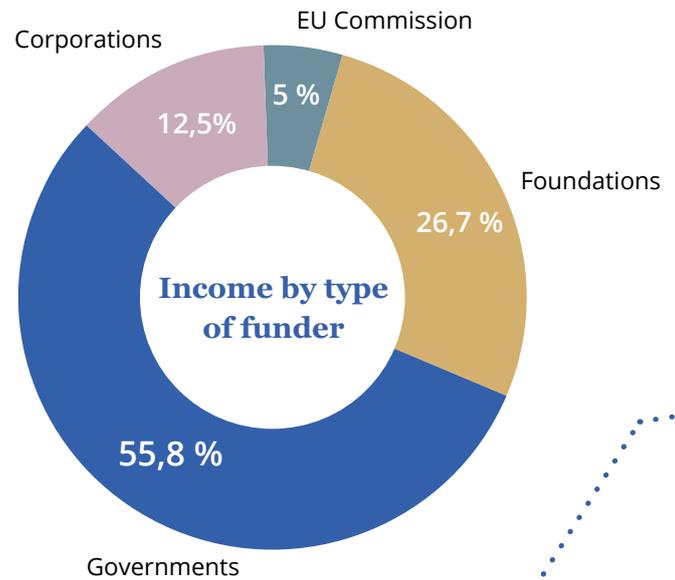
When the pandemic hit in 2020, we, as everyone, were anxious about our future. Looking back at the past two years, we are deeply grateful for our funders' continuous support. It not only allowed us to keep working for the Paris Agreement 1.5°C goal, but also to grow and become stronger as a team.

Between January 1 - December 31, 2021, we raised more than nine million euros from governments and governmental organisations including the European Union, and philanthropies. We would especially like to thank our partners who made the largest financial contributions:

- The German government, especially but not exclusively through supporting our IMPACT project: 1.8 million euros were spent on strengthening the connections between the scientific assessments of climate impacts, vulnerability and adaptation to help enable access to finance and help implement concrete projects in Small Island Developing States (SIDS) and Least Developed Countries (LDCs).
- IKEA Foundation, who allowed us to spend 766,000 euros to develop and disseminate our new tool, the 1.5°C national pathway explorer, which provides domestic emissions pathways required to keep to the Paris Agreement's 1.5°C temperature goal in reach, and their key characteristics for 64 countries.
- UK Department for Business, Energy & Industrial Strategy (BEIS), who made it possible to spend, among others, 290,000 euros to increase the capacity and capability of climate-vulnerable country negotiators to engage in international climate negotiations, helping to preserve and enhance the rules-based international system and increase appetite for higher ambition.

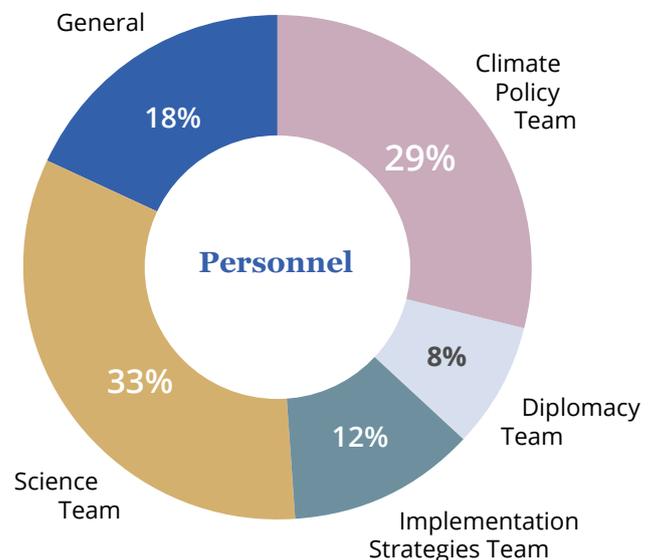
A big thank you also to those partners who funded projects with expenditures over 50,000 euros in the reporting period: C40, ClimateWorks Foundation, European Climate Foundation, GCF Country Programme, World Resources Institute. And to all our partners who supported our work financially or through knowledge in projects, through opening networks, and by providing feedback on our work.

If you would like to support our work, please contact Christina Eisenberg christina.eisenberg@climateanalytics.org



Expenditure

Personnel	6.781.548
Travel and workshops	267.152
Facilities and operations	478.906
External partners	2.140.376
TOTAL	€ 9.667.982



These unaudited numbers for 1 January - 31 December 2021 are status April 2022, subject to change.

Team

as of December 2021

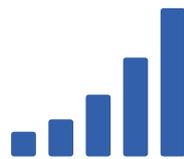


114

Staff overall
(including contractors)

68 ♀ **44** ♂ **2** ×

81 **Research staff,**
including
7 PhD students



37
nationalities

Australia
Bahamas
Bhutan
Brazil
Burkina Faso
Canada
China
Croatia
Finland
France
Germany
Ghana

Great Britain
Hungary
India
Indonesia
Iran
Ireland
Jamaica
Luxemburg
Mexico
Nepal
Netherlands
New Zealand
Nigeria

Pakistan
Philippines
Poland
Romania
South Africa
South Korea
Spain
Togo
Trinidad and Tobago
Turkey
USA
Venezuela



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prevent dangerous climate change
enabling sustainable development

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