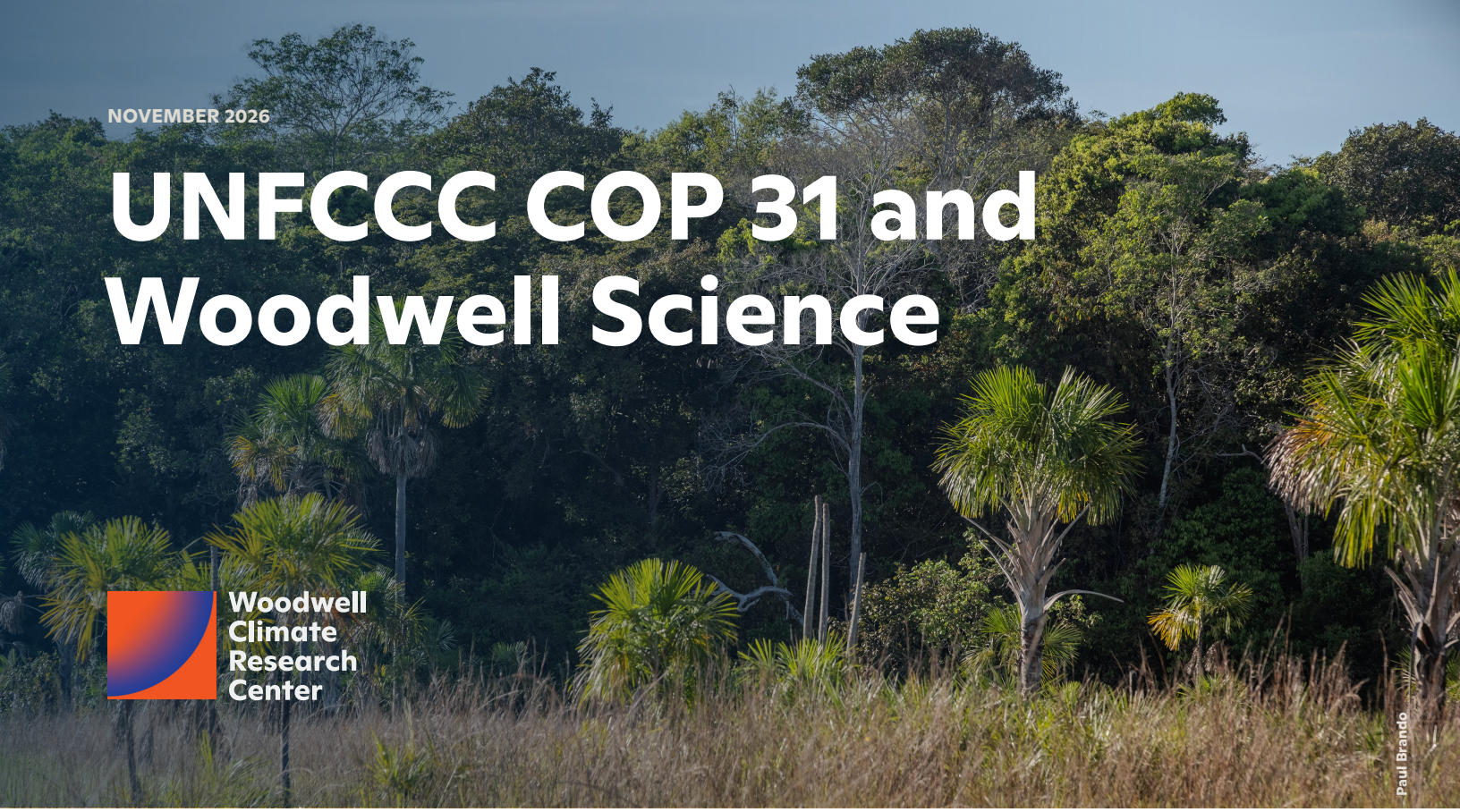

NOVEMBER 2026

UNFCCC COP 31 and Woodwell Science

Woodwell Climate Research Center

On 9-20 November 2026, governments will meet in Antalya, Türkiye, for the 31st Conference of the Parties (COP 31) to the UN Framework Convention on Climate Change (UNFCCC). COP 31, named the "COP of the Future," aims to:

- Align the ambition of the global climate effort with the Paris temperature goals;
- Find ways to manage an overshoot of the +1.5 degrees C warming limit;
- Mobilize climate finance towards the global goal of 1.3 trillion USD per year by 2035; and
- Launch the second Paris assessment of progress (the global stocktake, or GST).

Governments will also develop methods for measuring global climate resilience and a mechanism to limit the socioeconomic impacts of the ongoing low-carbon transition.

COP 31 is also a platform for advancing several initiatives, which include:

- The Brazil COP 30 Presidency (1) Roadmaps to end deforestation and transition away from fossil fuels; (2) operationalization of the Tropical Forests Forever Facility (TFFF);
- The Action Agenda, spearheaded by the Türkiye, to agree to 2035 global targets for electrification, municipal waste generation, and energy intensity of buildings; and
- The COP 30 Call to Action on Wildfire Resilience.

Woodwell Climate Research Center (Woodwell) experts will be in Antalya to demonstrate how science can answer the questions the world will ask at COP 31, in particular to ensure that:

- Emissions from warming ecosystems are considered in efforts to align the global climate effort with the Paris temperature goals and to manage a likely overshoot;
- The Forest Roadmap and forest financing decisions reflect the best and latest science;
- Key energy-sector initiatives (such as the TAFF roadmap and the 35-by-35 electrification target) do not have negative impacts on forests, ecosystems and food security;
- The best integrated fire management (IFM) practices and indigenous expertise are part of the growing actions to address wildfires globally; and
- Efforts to manage climate risk at national and community levels and in the financial sector are based on the best and latest available climate science.

Emissions from warming ecosystems must be quantified for alignment with Paris temperature goals and overshoot management

Success at COP 31 means incorporating all the emissions entering the atmosphere in the efforts to enhance global and national climate ambition. The Paris Agreement aims to limit global warming to 1.5 or below 2°C, and governments now aim to align their climate targets—known as nationally determined contributions (NDCs)—with the +1.5°C limit. However, the current NDCs put the world on a trajectory to ca. 2.8°C warming. COP 31 thus aims to continue efforts to enhance national ambition and international cooperation towards this alignment through several workstreams:

- The Global Implementation Accelerator (GIA), an initiative led by Brazil and Türkiye to keep the 1.5°C limit in reach and support NDCs;
- Belém Mission to 1.5, an effort led by Azerbaijan, Brazil, and Türkiye to mobilize cooperation and investments for the NDCs; and
- Launch of the second GST.

While COP 30 in Belém launched work to align efforts with the Paris limits, it also called for efforts to minimize an overshoot of the +1.5°C limit.

Both the efforts to enhance ambition and manage the overshoot depend on accurate assessments of how much GHGs the world can emit before the Paris limits are breached. The global carbon budget for this is reduced not only by direct anthropogenic emissions, but also by warming-induced emissions (WIEs) from ecosystems such as thawing permafrost, warming wetlands, and burning forests. While the dynamics of these emissions are understood, they are not reflected in national emission reports, monitoring networks, or the GST.

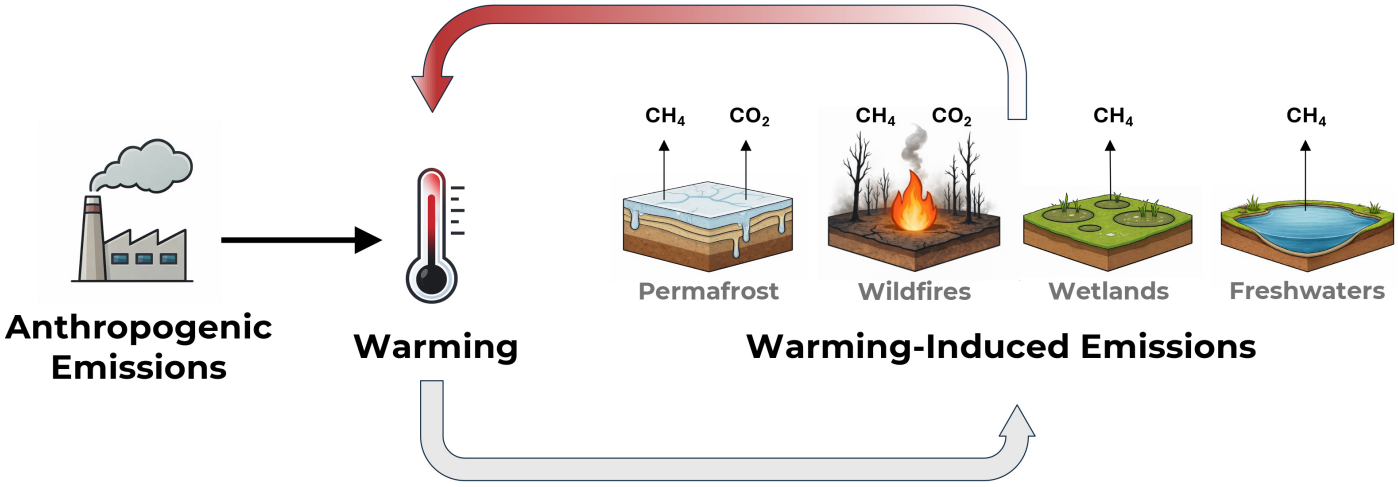

Figure 1. Relationships between anthropogenic emissions, warming and warming-induced emissions. (Abernethy et al. 2026)

Woodwell's research has quantified how warming increases WIEs and how they reduce the remaining carbon budget, the viability of Paris limits, and overshoot trajectories.[1] **Solutions to Paris alignment and overshoot must consider how WIEs reduce the carbon budget to identify adequate levels of global emission reductions required**. COP 31 should launch specific work to enhance the consideration of WIEs. In particular:

- Governments and organizations should convene a coalition to start quantifying these emissions;
- The second GST should consider WIEs as part of its overall assessment and encourage Parties and to voluntarily quantify WIEs are explore ways to reflect WIEs in reporting;
- Monitoring and reporting frameworks, including those defined by the IPCC, must be enhanced to ensure adequate consideration of WIEs; and
- Open access and data sharing of information on GHGs and landscape changes should be enhanced, in particular across the Arctic.

[1] See, for example, Abernethy et al. 2026 (https://doi.org/10.1088/1748-9326/ae9e24), Schädel et al. 2026 (https://doi.org/10.1038/s43247-026-03189-5) and Buma et al. 2026 (https://doi.org/10.1016/j.oneear.2025.101571). An overview of this research is also reflected in Woodwell's recent submission for the COP 31 Earth Information Day, available at: https://tinyurl.com/4nb4shys.

Advancing a robust Forest Roadmap and financing for forest action

The high-level attention to forests at COP 30 in Belém will continue at COP 31. Brazil will publish the Forest Roadmap and focus on the operationalization and capitalization of the TFFF. Forests are also key factors in alignment of actions with the Paris limits, managing the overshoot, and the design of methodologies for nature-based solutions under the Paris Agreement Crediting Mechanism. The global aspiration to halt and reverse deforestation and forest degradation by 2030 was formalized in the first GST outcome in 2023. Now, the second GST needs to consider progress towards that aspiration and define next steps.

COP 31 **must put in place a robust and science-based Forest Roadmap, advance the capitalization of the TFFF**, and ensure that **forests are integrated in overshoot conversations**. Woodwell has submitted extensive technical commentary for the **Forest Roadmap**.[2] Figure 2 below reflects components needed for a successful Roadmap.

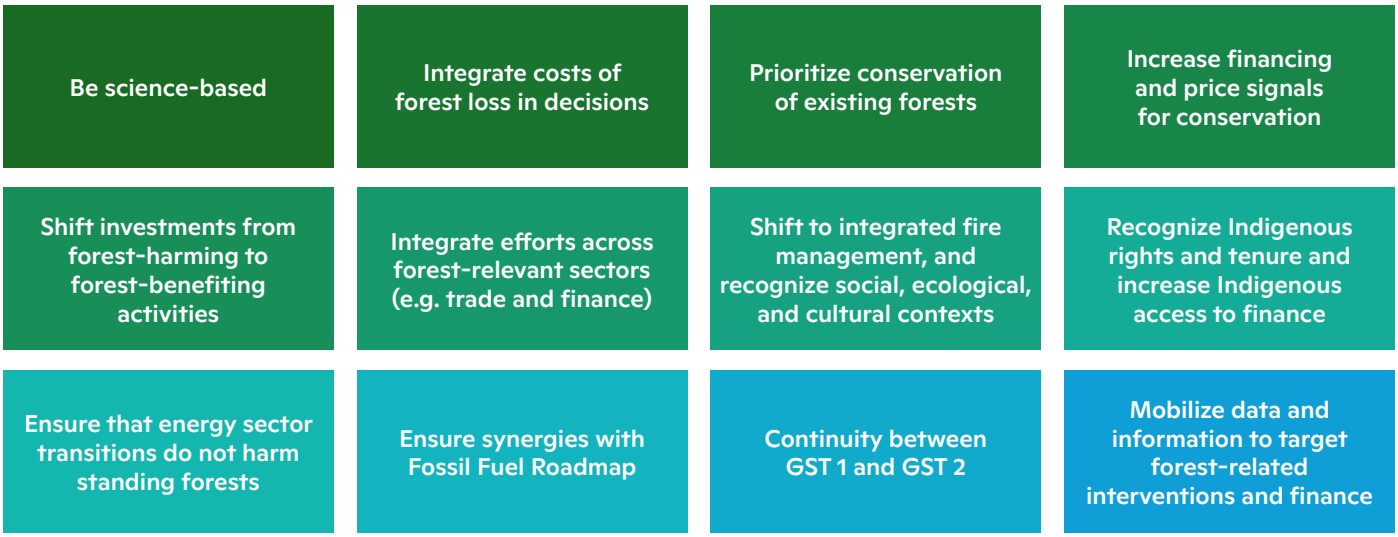

Figure 2. Considerations for a successful Forest Roadmap.

Woodwell looks forward to the draft Roadmap of Brazilian Presidency prior to COP 31 and to engaging on its substance and implementation. On November 10th, Woodwell, IPAM and Solutions for Our Forests will host an official side event—*From Recognition to Implementation: A Roadmap for Forests as Global Infrastructure*—to reflect how the roadmap can draw on the best and latest science and strengthen financing, governance, and accountability.

The **capitalization and design of the TFFF** has made promising advances throughout 2026. Woodwell experts support this by helping understand and quantify the systemic risks created by deforestation as reasons for investing the TFFF, by providing input to the criteria for measuring and monitoring eligibility, by analyzing strategies for tropical forest countries to the most effective use of TFFF payments, and by working to ensure that the modalities of the TFFF consider the synergies with other forest frameworks, including JREDD-plus.

As the international community considers how to manage the overshoot, it needs to **build in the key role of forests in overshoot response and return**. Forests are essential for minimizing the magnitude and duration of the overshoot. They will be impacted by an overshoot, but they are also a key tool for returning to Paris levels. By generating several non-carbon climate benefits, such as moderation of rainfall and local temperatures, forests provide an essential basis for adapting to climate impacts associated with an overshoot. Woodwell's research can support overshoot management in tropical forest and agricultural contexts by quantifying local impacts under global warming scenarios and by identifying effective adaptation measures.

[2] See Woodwell's submission: https://unfccc.int/sites/default/files/resource/Woodwell_COP.pdf.

Strengthening science-based action towards IFM and quantification of wildfire emissions

While fires do not currently feature on the official COP 31 agenda, awareness and attention is growing with the severity of fires. At COP 30, Brazilian President Lula launched a Call to Action on IFM, endorsed by 67 countries and four international organizations. Woodwell is part of a Food and Agriculture Organization (FAO)-led coalition to prepare a Plan to Accelerate Solutions to enhance the visibility of wildfires and to identify specific steps to move the Call towards global collaboration.

COP 31 host Türkiye has proposed establishing a regional forest fire preparedness and technology mechanism under the International Arrangement on Forests, reported on its national initiative on fire preparedness and technologies, and invited delegates to join discussions on IFM at COP 31. Türkiye also operates an international fire management facility in Antalya.

At COP 31, Woodwell will highlight the **importance of quantifying growing emissions from wildfires to align the global climate effort with the +1.5 limit and to manage the overshoot** and **how best practices in IFM and indigenous fire fighting tools can help take the Call to Action on Wildfire Resilience to the next level**. To demonstrate the power of co-production in wildfire responses, Woodwell experts will travel to Antalya with a group of five Indigenous women from the Pataxibas Brigade to present co-developed frameworks for identifying, mapping, and monitoring wildfire threats to the Roraima community in the Brazilian Amazon.

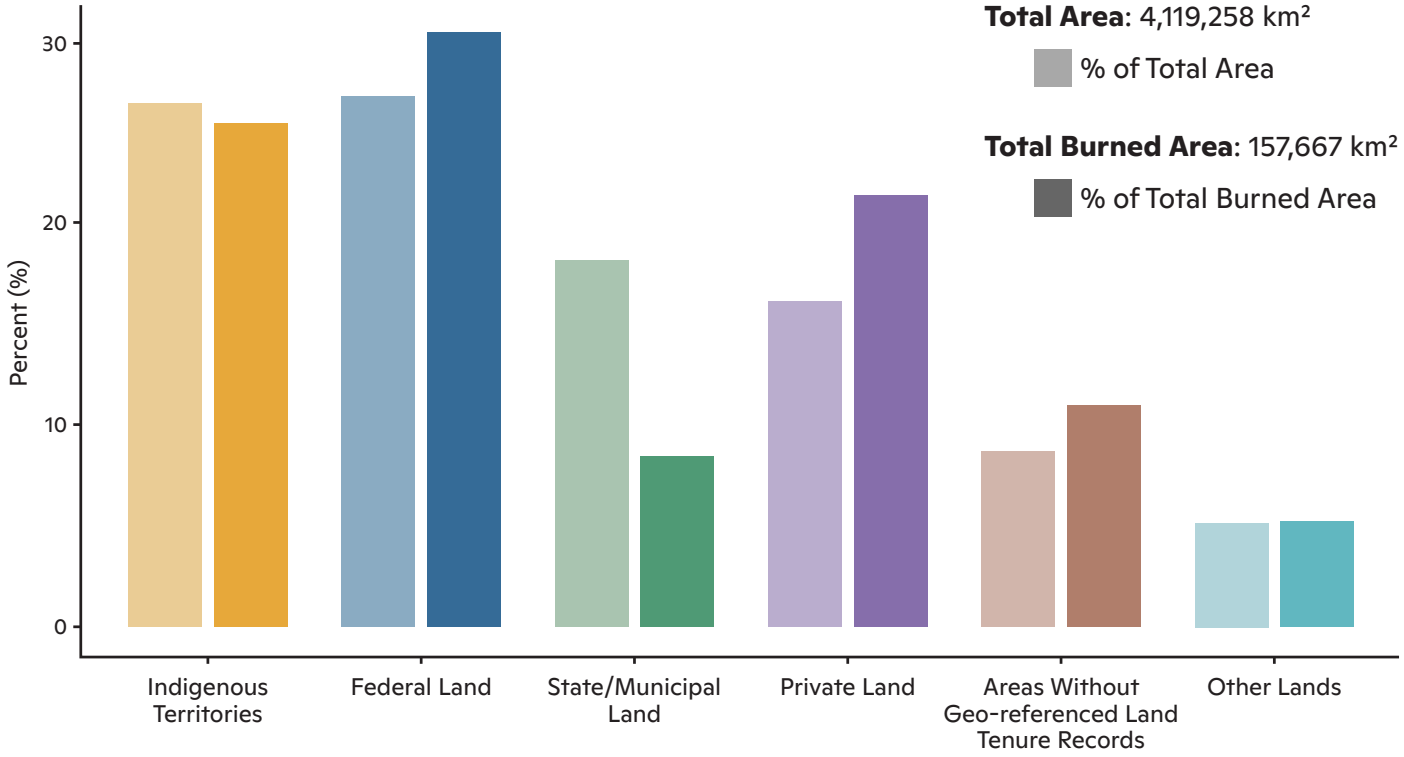

Figure 3. Comparing the % of total burned area to % of land category in the Brazilian Amazon. If the % of total burned area (bar 2) is greater than the % of total area (bar 1), the land category experienced more fire impacts proportional to its size. In 2024, over 157,000 km2 of land area burned in the Amazon, accounting for almost 4% of the biome.

COP 31 is a key opportunity to integrate fires across other UNFCCC workstreams, including:

- The second GST, which will consider how the "state of GHG emissions by sources and removals" will benefit from robust accounting of emissions from fires;
- The Local Communities and Indigenous Peoples Platform, a place to exchange best practices and traditional ecological knowledge, should focus on fire prevention and resilience tools of Indigenous communities; and
- Paris Agreement Crediting Mechanism is considering methodologies for Savannah fire management solutions, and should consider other fire management solutions.

Managing Complex Climate Risks Through Just Transition Approaches in Local Adaptation and Finance Sector Collaboration

Efforts to respond to climate risks and to enhance resilience must recognize the reality of the near-inevitable overshoot and develop modalities for adapting to that reality.

COP 31 faces an intense climate risk agenda: the first High-Level Dialogue on Adaptation will focus on adaptation policy. Developing countries want to triple adaptation finance by 2035 and mobilize adaptation finance as part of the $1.3 trillion USD global finance target. Risk and resilience are also folded into the ambition discussions: the new platforms launched at COP 30—the Global Implementation Accelerator and Belém Mission to 1.5—should advance national adaptation plans (NAPs), the main UNFCCC instrument for adaptation.

COP 31 also aims to launch a technical task force to put into action the Belém Adaptation Indicators—59 measurement points to assess the global state of climate resilience. Adaptation and resilience are also part of the Just Transition Mechanism. Finally, the COP 31 Action Agenda will focus on climate-resilient cities and food security, as well as resilience-related issues such as tourism/cultural heritage, oceans, digitalization, and climate finance.

Woodwell brings to COP 31 **best practices for a just transition to climate-resilient societies through our Just Access program**,[3] our latest **research on the nexus of climate risk and food security**, and experience on **how science and the financial sector can collaborate towards stronger standards and risk integration**. The Just Access program offers cost-free science-based risk assessments for communities and governments with resource constraints. The program has supported 80 communities across 14 countries and provides a case study for enhancing just transition considerations in responding to climate risk. At COP 31, Woodwell experts will present lessons from the project, introducing best practices for defining just transition pathways in NAPs.

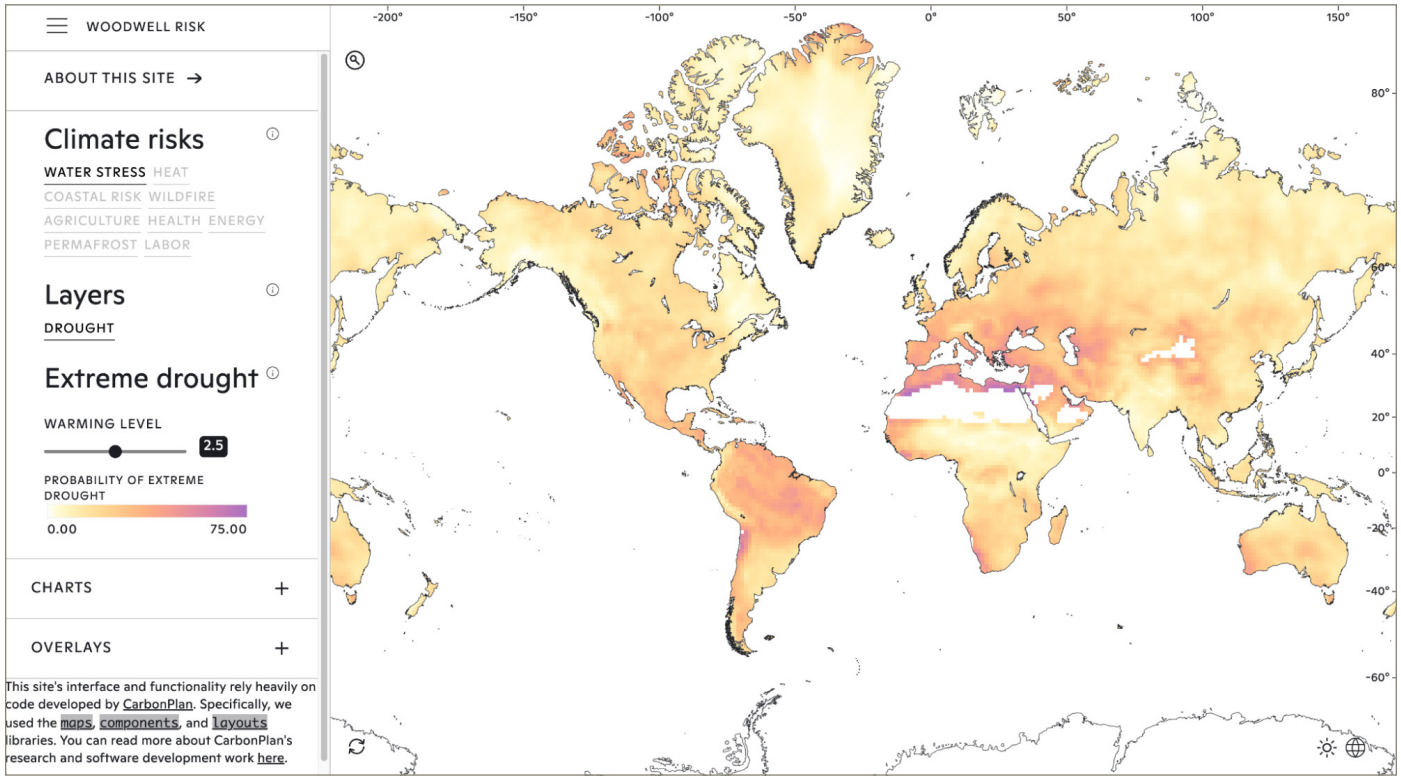

Figure 4. Climate Risk Viewer is Woodwell's cost-free online tool to visualize climate impacts.

[3] https://woodwellclimate.org/just-access

Woodwell will also share our latest work to on transboundary and security-related climate risks, reflected in the study: *Feeding Resilience: Global Breadbaskets Food System Resilience as a Strategic Imperative*.[4]

Additionally, Woodwell brings to COP 31 lessons from our collaboration with the private sector on integrating climate risk into asset management and financial markets and helping align investments with the Paris resilience goals. Our expertise can help integrate the financial sector and climate risk into the Action Agenda, embed climate risk into financial action, and showcase how to apply climate risk intelligence in financial decisions while maintaining strong fiduciary relationships, and helping advance standards for climate risk disclosure towards risk metrics that are comparable across sectors, geographies, and time horizons.

For more information about Woodwell's upcoming engagement at COP 31, please visit https://woodwellclimate.org/woodwell-climate-cop31 or contact events@woodwellclimate.org.

[4] https://woodwellclimate.org/feeding-resilience-global-breadbaskets

WOODWELL CLIMATE RESEARCH CENTER works at the intersection of science and decision-making. We partner with communities, businesses, and policymakers to protect life and livelihoods from the devastating impact of climate change. We bring together hands-on experience and over 40 years of policy impact to find societal-scale solutions that can be put into immediate action.

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