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Woodwell Climate announces \$10 million gift from renowned philanthropist MacKenzie Scott

Funding will support the Center's ongoing work of conducting meaningful science across the globe to drive solutions to the climate crisis

Katherine Sele Senior Associate, 90 West

Woodwell Climate Research Center is thrilled to announce the receipt of a \$10 million unrestricted gift from renowned philanthropist MacKenzie Scott. At a time when scientific institutions across the United States are facing unprecedented challenges, this generous gift will support the long-term financial strength of the Center and its critical mission of conducting groundbreaking research to drive science-based solutions to the climate crisis.

Over the past three years, MacKenzie Scott has supported the Center's Permafrost Pathways initiative through the TED Audacious Project. This new gift builds upon that tremendous support and makes it possible for the Center to leverage critical funds throughout the Center's work across the globe.

"In a moment where climate science is under attack, this support strengthens our resolve and bolsters our confidence

to act boldly and pursue our most innovative ideas," said Dr. Max Holmes, President and CEO of Woodwell Climate. "An unrestricted gift of this size is extraordinary, and stands as a ringing endorsement of Woodwell's mission and values from one of the world's most influential philanthropists. We are deeply inspired by and grateful for this act of generosity and the remarkable trust it shows in our vision and impact."

For forty years Woodwell Climate has pursued the critical work of scientific research to help leaders and communities across the country—and around the world—curb climate change and cope with the increasingly damaging impacts. With this key investment, Woodwell will continue and accelerate efforts to find climate solutions, intensify its commitment to the highest standard of science, and aspire to ever greater courage and creativity.

Submitted comment on the Greenhouse Gas Reporting Program

On October 29, Woodwell Climate submitted public comment to the U.S. Environmental Protection Agency's proposed amendments to the Greenhouse Gas Reporting Program (GHGRP).

Woodwell Climate Research Center (Woodwell) strongly opposes the U.S. Environmental Protection Agency's (EPA) proposed rule to remove reporting obligations of 46 source categories for the industrial sector under the Greenhouse Gas Reporting Program (GHGRP).

Woodwell has conducted research on the dangers that greenhouse gases (GHG) pose to human life, property, and the environment since our founding in 1985. In 1986, Dr. George Woodwell, our founder and namesake, testified in the first congressional hearing on climate change. In his testimony, he warned his audience of future dangers of increasing emissions, including biological amplification, or the ways in which increased carbon dioxide in the atmosphere creates a positive feedback system leading to further increases in emissions.

Woodwell values data transparency and recognizes public reporting programs as essential infrastructure for sound scientific practice and informed policy-making. Transparency is not merely a procedural virtue but a foundational principle of good science because it allows for peer review, reproducibility, and the collective advancement of knowledge that occurs when various experts can examine the same information. The GHGRP exemplifies this principle by making facility-level emissions data publicly available. An informed public is better equipped to participate meaningfully in democratic processes, to advocate for their health and safety, and to support policies grounded in empirical reality. By dismantling this reporting infrastructure, the EPA would undermine scientific integrity and diminish American citizens' ability to engage on matters directly related to their health and wellbeing.



Scientific Foundation and EPA's Flawed Rationale for Rescission

Originally established in 2009, the GHGRP, under the Clean Air Act (CAA), required that the largest industrial emitters reported their emissions annually. EPA cited two sections of the CAA that provided authority to create the GHGRP, Sections 114 and 208. Section 114(a)(1) provides the basis for the EPA to require the monitoring and reporting of emissions, and section 208 provides EPA with the authority regarding motor vehicles and their engines.

Since then, the GHGRP has been used for monitoring emissions from 47 source categories, across 8,000 facilities in the United States. Efforts support our understanding of climate change as well as air quality, without such monitoring it will be difficult to track progress, or lack of progress, towards reducing emissions and may worsen health outcomes.

Based on two broad sets of rationales, the EPA proposes to eliminate most of the GHGRP, removing reporting requirements for all source categories except petroleum and natural gas systems (Subpart W), which would be suspended until 2034. Under the proposed rule, EPA argues that Section 114 does not provide authority to collect GHGRP data because the reporting requirements do not serve an underlying statutory purpose under CAA. Specifically, EPA argues that Section 114 requires a greater connection between the continuous regulation obligation and a statutory purpose. Moreover, the agency argues that the elimination of most of the GHGRP will not disrupt its ability to meet provisions under the CAA and will not have any harm

on human health or the environment. Such a claim ignores the substantial and mounting evidence that climate change and associated pollution significantly affect the health and welfare of American communities.

Health and Welfare Consequences

When established, the GHGRP was based upon a strong scientific foundation. Since the establishment of the GHGRP, the science supporting the effects of GHG emissions on public health and welfare has grown stronger, making accurate emissions monitoring more important than ever.

In 2023, the Fifth National Climate Assessment comprehensively assessed the current and future risks to the United States of GHG-induced climate change, including extensive evidence for public health impacts. The authors report existing harm to human health across the U.S. that is only expected to worsen with continued warming. The assessment documents compounding health hazards including: "More severe and frequent extreme events; Wider distribution of infections and vector-borne pathogens; Air quality worsened by smog, wildfire smoke, dust, and increased pollen; and threats to food and water security." Rather than responding to this mounting evidence by strengthening emissions monitoring, the EPA proposes to eliminate the very reporting infrastructure needed to track and address these emission sources.

Threats to public health and welfare are further documented by international scientific assessments. The IPCC, established in 1988 by the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO), reviews existing scientific research on climate change and produces Assessment Reports that synthesize that knowledge. The IPCC's Sixth Assessment Report draws upon peer-reviewed scientific literature to conclude with high confidence that climate change has already resulted in "destruction of homes and infrastructure, and loss of property and income, human health and food security." The report documents observed impacts including "Infectious diseases; Displacement; Mental health; Heat, malnutrition and harm from wildfire" as widespread and substantial consequences of GHG emissions around the world. The IPCC specifically examines North America, finding with very high confidence that rising temperatures are projected to increase heat-related mortality across all emission scenarios this century, and that smoke from intensified wildfire activity is associated with respiratory distress, with impacts persisting long distances from wildfires and beyond initial high-exposure periods, further underscoring the urgency of maintaining comprehensive emissions data.

The strengthened scientific evidence cited above makes clear that the GHGRP serves a vital public health function. Accurate emissions data enables researchers, policymakers, and communities to identify pollution sources, track trends,

and develop targeted interventions to protect public health. Eliminating reporting requirements would create blind spots in our understanding of emissions sources at the same time as the health consequences of GHG emissions are becoming more severe and better documented.

Case Study: Air Quality & Monitoring

Woodwell's research demonstrates the connection between air quality and climate change. Exposure to pollutants, such as ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, and particulate matter (PM), are contributors to a range of health issues. For example, PMs are microscopic particles that can penetrate deep into the body, exacerbating heart and lung disease, cancer, and cognitive problems. Scientists have also found long-term exposure to these pollutants can reduce life expectancy. These pollutants are often produced by the burning of fossil fuels, which also emits GHG emissions that drive climate warming. Climate change worsens pollution exposures by trapping pollutants in the atmosphere for longer periods of time, thereby increasing exposure durations and concentrations.

In September 2025, the EPA released a report that found that intermittent air monitoring has adverse effects. Specifically, when air quality monitoring was offline for certain sites, those same sites saw a significant increase in air pollution levels. This report is consistent with what other scientists have found with intermittent monitoring of environmental standards and is known as the pollution gap. The pollution gap may lead to higher than allowable and unhealthy exposure, putting American communities at risk. The elimination of most of the GHGRP will only increase this threat.

Conclusion

The overwhelming scientific evidence is clear: GHG emissions pose a serious threat to public health and welfare that demands action, monitoring these emissions are essential for such action. Rescinding the GHGRP reporting obligation would be deeply contrary to the robust scientific evidence for the current and future harms to public health and welfare resulting from unfettered GHG emissions. Doing so would abandon America's responsibility to protect its citizens and abdicate our leadership in addressing the defining challenge of our time. We urge the EPA to withdraw this proposed rule and instead strengthen efforts to monitor GHG emissions from all sources, including the industrial sector.

DIG DEEPER

Download the comment pdf with footnotes:
[woodwellclimate.org/
 submitted-comment-on-the-ghgrp](https://woodwellclimate.org/submitted-comment-on-the-ghgrp)



Bringing finance to forests

Tropical Forest Forever Facility represents new funding initiative to protect forests

Ellis Goud Science Writer Intern

From the Amazon to the Congo Basin, the largest remainder of tropical forest lies in Brazil and the Democratic Republic of Congo—taking up nearly 4 million square miles of land. As epicenters of biodiversity and carbon storage, these forests serve as the stabilizers of our climate. Yet many tropical forests around the world are disappearing as climate change and human activity drive deforestation every year.

Despite covering only 6% of the planet, tropical forests play a critical role in climate control. They prevent atmospheric warming by storing carbon, dispersing heat, releasing cooling water into the air, and helping to create clouds. They also help regulate air quality, soil health, and the water cycle. Keeping them standing is one of our best natural climate solutions.

At the 2021 United Nations Climate Change Conference (COP26), over 100 world leaders pledged to halt and reverse forest loss and land degradation by 2030, but deforestation has continued year over year. Under our current economic system, forests are often more valuable cut and cleared than left standing.

But this year, a new solution has appeared on the horizon: a fund to incentivize tropical forest conservation.

The tropical deforestation crisis

In 2024, the tropics lost 6.7 million hectares of primary forest—old forest that has been relatively undisturbed by humans—at a rate of 18 soccer fields per minute. It was a record-breaking year for primary forest loss and the fastest rate of primary forest deforestation on record, with much of the increase driven by wildfire.

Bolivia and the Democratic Republic of the Congo saw some of the highest levels of primary forest loss on record. But Brazil, the world's largest tropical forest nation and home to over half of the Amazon rainforest, took the biggest hit. Over 40% of all

tropical primary forest loss in 2024 occurred in Brazil.

The main forces behind forest loss worldwide are all human activities: agricultural expansion, mining, logging, and infrastructure development. Dr. Ludmila Rattis, Assistant Scientist and General Coordinator of Woodwell's Tanguro Field Station, works on the Brazilian agricultural frontier to understand the impacts of agricultural intensification.

“Today, the number one driver of deforestation in the Amazon and Cerrado is land grabbing,” Rattis says.

Land grabbing refers to the control and clearing of large plots of land by a person or entity without clear rights to do so. In Brazil, land grabbing has been common since colonial times, when legislation restricted access to land. Today, nearly 50 million hectares of public forest in the Brazilian Amazon remains “undesignated”—meaning the land has not been formally designated by the government for a specific purpose—which leaves it highly vulnerable to grabbing.

Brazil is a major producer of agricultural commodities including beef, soybeans, and coffee. Because the country has a large amount of undesignated land with unclear regulations, land grabbing for agricultural production is profitable—and cleared forests are more financially valuable than standing ones. Brazilian law also allows the legal deforestation of some trees on private property, as long as 80% of forests on the property remain standing.

In late 2023, the Brazilian government proposed the Tropical Forest Forever Facility (TFFF) as a new financial solution that would pay tropical countries to keep their forests standing. Designed to generate and distribute \$4 billion USD each year, it would complement other sources of finance by focusing incentives on forest conservation.

How does the TFFF work?

The TFFF is a global investment fund that proposes to use finance and investment strategies to generate annual payments to tropical forest countries that conserve and restore their forests. First introduced at COP28, the fund would provide tropical forest nations with large-scale, predictable payments based on how much forest cover they maintain.

The fund will raise money from both the public and private sectors, starting with \$125 billion—\$25 billion from government sponsors in long-term loans and guarantees and \$100 billion from long-term, low-interest bond sales to private sector investors. The money raised will be invested into bonds with a high rate of return to generate revenue. Part of the revenue will be used to pay down interest on loans from bond-holders and government sponsors, with the remaining earnings being allocated to fund annual payments to tropical forest nations.

Frances Seymour, Senior Policy Advisor at Woodwell, is working on forest finance priorities leading up to COP30 this year.

“The innovative feature is the use of public capital to reduce the risk of non-repayment to private investors,” Seymour says.

The return generated by the fund would be paid out to eligible tropical forest countries at an initial rate of \$4 per hectare of forest. It would be distributed to eligible governments with a deduction applied for every hectare deforested or degraded.

In order to be eligible for the fund, a country must be a developing nation with tropical or subtropical broadleaf moist forests—forests characterized by year-round warmth, high levels of precipitation, and trees with broad, flat leaves. Additionally, the deforestation rate during the year the country adheres to the TFFF must be lower than the previous year.

To track deforestation rates, participating nations would need to use remote sensing technologies such as satellite imagery. For example, Brazil’s National Institute for Space Research (INPE) monitors tree cover loss using satellite-based systems. Countries that do not have the ability to monitor their own forests would be allowed to use approved third-party methods and data.

How many trees make a forest?

Areas eligible for forest payments must also have more than 20% canopy cover, which refers to the percentage of the upper layer of trees in a forest that obscures light passing through. But some people argue that the proposed threshold isn’t high enough.

Scientists at Woodwell Climate, including Associate Scientist Glenn Bush and Research Assistant Patrick Fedor, are pushing for higher canopy cover thresholds for the fund.

“The problem is that most of us who work in tropical forests and know them well would say that a patch of land which only has 20% of forest cover isn’t a forest anymore—it’s a field,” Bush says.

A landscape with a few large trees scattered around may have canopies that register at 20% cover despite no longer functioning as a forest. Scientists recommend increasing the canopy cover threshold to 60% or even 80% to focus on high-value intact tropical forest areas and prevent cleared areas from qualifying for TFFF benefits.

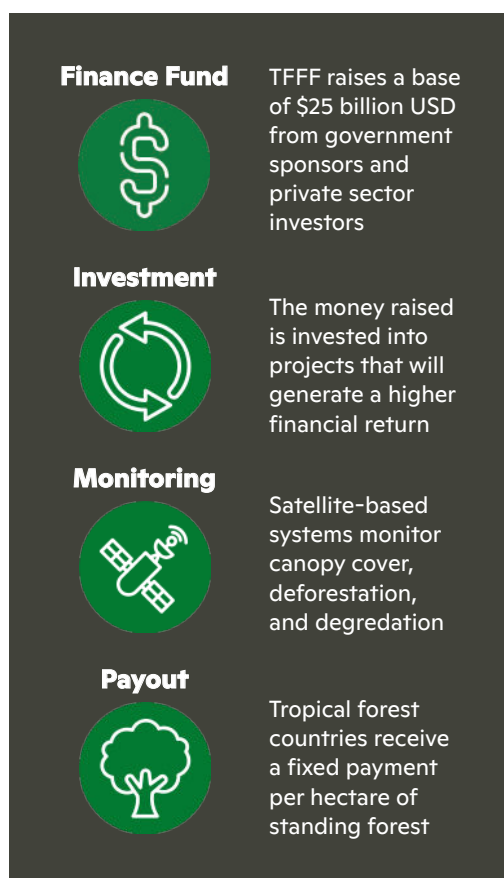
In a memo to TFFF Secretariat Andre Aquino, Bush and Fedor assessed management costs and social benefits of conserving tropical forests in Brazil and the DRC. They found that with raised canopy thresholds and adjusted payments, the TFFF could help protect more biodiverse and climate resilient forests without

increasing the fund’s total budget. The counter argument, however, is that any forests below the increased threshold may face a higher risk of being permanently converted to another use rather than restored if not included in the scheme.

“The biggest thing is to increase canopy cover because we want resilient forests,” Fedor says. “We’re trying to keep forests fully intact.”

COP30 and the future of tropical forests

While the specifics of the fund aren’t fully agreed upon, the general consensus is that the global effort would make a significant positive change for tropical forest nations. By providing a source of predictable budget support for forest conservation and management, tropical forest nations could bring environmental goals to the forefront of government policy and action.



“This is a really long-term commitment to what could be potentially transformational change,” Bush says.

If successful, the model has the potential to apply to other efforts beyond forest conservation. The TFFF model, Seymour says, could be replicated to finance efforts such as girls’ education or eradicating malaria, two areas that are facing pressures from recent reductions in development aid from wealthy countries.

The proposed TFFF model also puts an emphasis on Indigenous communities and their contribution to forest conservation by requiring a minimum of 20% of annual payments to each country—a global amount totalling at least \$800 million annually—to be allocated to Indigenous and local forest communities.

“The focus on Indigenous Peoples and reinforcing land rights is really critical,” Bush says. “That’s the first time a fund of this sort has actually involved Indigenous Peoples groups in its design in such an early stage.”

Research has shown that Indigenous communities are the key to protecting tropical forests. Managing over half of the world’s remaining intact forests, Indigenous tropical forest communities experience more carbon capture, less carbon loss, and less tree cover loss than other lands. When Indigenous land rights are enforced, forests thrive.

“It’s an innovative policy that’s hopefully going to promote good change and good environmental outcomes,” Fedor says. “It changes the economics of a forest’s value.”

During New York Climate Week in September, Brazilian President Luiz Inácio Lula da Silva announced that Brazil itself would invest \$1 billion in sponsor capital, challenging other governments to do their part as well. The Brazilian government plans to formally launch TFFF at COP30 in Belém, Brazil in November. With the world’s biggest climate event hosted in the world’s biggest tropical forest nation, tropical forests will feature heavily on the international agenda. Roughly 45,000 policymakers, government negotiators, scientists, activists, and Indigenous leaders will be descending on the city at the mouth of the Amazon, placing a major spotlight on one of the very regions the TFFF is designed to protect.

“If there were ever a moment when a big idea like this could get the political and financial support that it needs to get off the ground,” Seymour says, “this is it.”

WOODWELL + TED Countdown House @ COP30

Woodwell Climate is proud to join TED Countdown House at COP30 this November in Belém, Brazil. Alongside the official COP30 agenda, this space will bring together visionary thinkers and changemakers working to shape a sustainable future.

On November 12, Woodwell’s Dr. Christina Schädel will participate in a panel discussion, “From satellites to solutions: Using data to hold climate powers accountable.”

Stay tuned for more information on Woodwell Climate’s COP30 engagement on our website: woodwellclimate.org/COP30



Selected news coverage

Dr. Jen Francis responded to Bill Gates’ recent memo about deprioritizing climate philanthropy in an article from CNN, where she argued that investments need to focus both on reducing emissions and “treating the symptoms” of climate change—threats to health and hunger, infrastructure, and ecosystems.

Globo Rural quoted Dr. Ludmila Rattis about the creation of the Agriculture and Climate Intelligence Network (RIAC), a group of Brazilian research centers that aims to foster public policies that promote regenerative tropical agriculture as a solution to the climate crisis.

Dr. Anna Liljedahl was interviewed on the *Michael Dukes Show*, broadcast on the radio, to preview the Community Landslide Hazard Forum in Homer and share information about the dangers of landslides.

Dr. Rich Birdsey was quoted in a story about the future of the land carbon sink, originally from *New Scientist*. The story was syndicated and also got attention from climate skeptic bloggers.

Dr. Marcia Macedo co-authored a comment in *Discover Environment*, calling for an expansion of air quality monitoring of smoke emissions and exposure in Amazonia to safeguard human health.

PBS News Hour interviewed Morris Alexie about Nunapitchuk’s relocation efforts in response to thawing permafrost.

Rhode Island PBS’s *Possibly* podcast interviewed Kathleen Savage about her experience participating in Transom’s storytelling workshop for Woods Hole scientists.

The Northeast Wilderness Trust produced a video on Howland Research Forest, featuring Kathleen Savage.

In an article covering the State of Africa’s Environment 2025 report, *The Reporter* cited flood risk statistics from Woodwell Climate’s risk assessment for Ethiopia, one of the five countries most impacted by weather disasters.

Insurance Journal quoted Dr. Zach Zobel in an article about the risks and challenges of heat domes.

Donations play an important role in securing the future of Woodwell Climate Research Center's work—and help safeguard the health of our planet for generations to come.

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