



ICAS BLUE CARBON & CLIMATE CHANGE PROGRAM

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ICAS BLUE CARBON & CLIMATE CHANGE PROGRAM

The ICAS Blue Carbon and Climate Change (BCCC) Program explores new policy pathways for sustainably developing the blue carbon economy and combating climate change.

The goal of this program is to establish a platform for academic exchange between experts around the world to produce tangible policy recommendations for countries to follow together. Most prominently, the program endeavors to find new pathways for multilateral engagement and mediation in areas of competition to promote mutually beneficial cooperation on climate change where possible.

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ICAS BLUE CARBON & CLIMATE CHANGE QUARTERLY

October - December 2024

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Theme of the Quarter: Mixed Results in Climate Cooperation

News on Mixed Results in Climate Cooperation

COP29 Is A Step Forward But Still Far From The Finish Line

The 29th Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change concluded in Baku, Azerbaijan on November 24, 2024, marking another important step in global climate negotiations. For over two weeks, representatives from nearly 200 nations wrestled with how to resolve the issues related to climate finance, carbon markets, and fossil fuel reductions. At the heart of COP29 was a landmark agreement to scale up climate finance for developing nations. Developed countries have pledged to lead the effort to mobilize an annual climate finance fund of US\$300 billion by 2035, significantly increasing from the longstanding annual target of US\$100 billion established at COP15 in 2009. The funds specifically aim to help vulnerable countries to both mitigate and adapt to climate impacts.

Delegates also reached consensus on operationalizing carbon markets under Article 6 of the Paris Agreement, allowing nations that have exceeded their emissions reduction targets to sell surplus reductions to others struggling to meet their goals. This mechanism incentivizes cost-effective emissions reductions and encourages private sector participation in climate action. At COP29, delegates finalized technical rules for these markets, ensuring transparency and preventing double-counting of emissions reductions. Experts estimate this could unlock billions of dollars in funding for climate projects, particularly in developing countries, while promoting investments in renewable energy and reforestation. Additionally, the summit extended its focus to new areas, such as gender and climate change, and provided support for the least developed countries (LDCs) to implement national adaptation plans.¹



Nevertheless, despite the agreement's scale, many developing nations voiced strong dissatisfaction. The African Group of Negotiators and representatives from island states called the US\$300 billion pledge "too little, too late," while experts and negotiators from the Global South have stated that at least US\$1.3

¹ COP29 Commonwealth Secretariat Side Event – Indigenous and Local Knowledge in Climate Action/ Building a Resilient Future for All In Collaboration with the Governments of Namibia and Seychelles and the UNFCCC. (Image Source: Photo by Commonwealth Secretariat via Filckr, CC BY-NC 2.0)

trillion per year is necessary to fund climate mitigation, adaptation, and loss-and-damage measures. Critics argue that the deal fails to address the disproportionate burden borne by poorer nations, many of which contribute minimally to global emissions but face the brunt of climate impacts. In addition, several domestic level affairs further complicated the negotiations. Azerbaijan, as COP29 host, faced criticism for its reliance on fossil fuels and allegations of greenwashing, while the re-election of Donald Trump in the United States raised concerns over potential disruptions to international climate commitments.

COP29 itself also received some direct criticism. One of COP29's most glaring shortcomings was its failure to make meaningful progress on phasing out fossil fuels. Most notably, proposals to include explicit language on reducing fossil fuel production and consumption were blocked by a coalition of oil-producing nations. These countries argued that such measures would unfairly target their economies, which remain heavily reliant on oil exports. This obstruction frustrated many delegations, particularly from climate-vulnerable nations and progressive blocs like the European Union, which had advocated for stronger commitments to phase out fossil fuels entirely. Environmental groups and climate activists also decried the influence of petrostates in shaping the negotiations to their favor. Former UN Secretary-General Ban Ki-moon even called for a review of the COP host selection process to avoid having future conferences in countries heavily dependent on fossil fuels. In several ways, the failure to address fossil fuels overshadowed other achievements as it makes the Paris Agreement's 1.5°C warming target become increasingly unattainable.

A general sense of distrust among negotiators also surfaced as a major barrier during COP29. In particular, the rushed passage of the US\$300 billion climate finance agreement—argued and finalized in two days after the original target date—drew sharp criticism from developing countries, who argued that it lacked transparency and genuine collaboration. Delegates from developing countries condemned the process and accused the summit's leadership of sidelining their voices and prioritizing the interests of wealthier nations, and many negotiators felt their concerns about insufficient funding and inadequate mechanisms for disbursement were ignored.

As COP29 concluded, attention shifted to COP30, which is set to take place in Belém, Brazil, in November 2025. The Amazon rainforest's ecological importance is expected to put issues like deforestation and biodiversity at the forefront of the agenda. Delegates also hope to build on COP29's outcomes by securing firmer commitments on emissions reductions and bridging the finance gap. The success of future negotiations will hinge on bridging divides between developed and developing nations, strengthening trust, and ensuring that commitments translate into tangible progress. COP29 has laid a foundation, but its limitations underscore the need for bold, unified efforts to confront the escalating climate crisis.

Main Relevant Sources:

[Climate Summit Host Faces Backlash Over Support For Fossil Fuels. Crackdown On Dissent](#), *The Washington Post*, November 18, 2024

[With Talks Teetering, Climate Negotiators Struck a Controversial \\$300 Billion Deal](#), *npr*, November 23, 2024

[COP29 Climate Talks End With \\$300 Billion Annual Pledge. Guterres Calls Deal a 'Base to Build On'](#), United Nations,

November 23, 2024

[Developing Nations Say \\$300 Billion COP29 Deal Not Enough After Agreement](#), Al Jazeera, November 23, 2024

[Huge COP29 Climate Deal Too Little Too Late, Poorer Nations Say](#), BBC, November 24, 2024

[Developing Nations Blast \\$300 Billion COP29 Climate Deal as Insufficient](#), Reuters, November 24, 2024

[COP29 Ends in \\$300 Billion Deal, Widespread Dismay — and Eyes Toward COP30](#), Mongabay, November 25, 2024

[Climate Finance, Carbon Markets and More: 4 Key Takeaways From COP29](#), World Economic Forum, November 26, 2024

[COP29: Five Critical Issues Still Left Hanging After an Underwhelming UN Climate Summit in Azerbaijan](#), The Conversation, November 25, 2024

[Post-COP29: The Key Forces Shaping The Future Of Climate Action](#), Forbes, December 13, 2024

Progress Has Been Made In Global Biodiversity Conservation, But Challenges Remain

The 16th Conference of the Parties (COP16) to the Convention on Biological Diversity (CBD) concluded in Cali, Colombia, on November 2, 2024. This two-week summit aimed to accelerate progress on the Kunming-Montreal Global Biodiversity Framework (KMGBF) adopted in 2022. While achieving critical breakthroughs, COP16 also faced significant challenges and left key issues unresolved, raising questions about the path forward for global biodiversity efforts.



COP16 delivered landmark successes in advancing biodiversity governance. One of the most celebrated outcomes was the creation of a Permanent Subsidiary Body under Article 8(j), granting Indigenous Peoples and Local Communities (IPLCs) a formal voice in biodiversity decision-making. This development recognizes IPLCs as stewards of approximately 80% of the world's remaining biodiversity. Another significant achievement was the establishment of the "Cali Fund," a mechanism to share financial benefits from the use of Digital Sequencing Information (DSI) derived from natural genetic resources. The fund is designed to channel resources back to the countries and communities where these resources originate, with 50% of its proceeds earmarked for IPLCs. Moreover, the conference also laid the groundwork for ocean conservation by adopting a standardized global methodology to identify ecologically significant marine areas.²

Nevertheless, COP16 exposed persistent challenges that undermine the KMGBF's ambitious targets. Developing countries reiterated their demand for a dedicated global biodiversity fund to close the estimated US\$700 billion annual financing gap needed to halt biodiversity loss. However, developed

² David Cooper (2nd L), Executive Secretary of the COP 16, Astrid Schoemaker, Executive Secretary of CBD (L) and Indian Secretary of National Biodiversity Badfinarayanan Baladi (R) talk during the last plenary session of the COP16 Summit in Cali, Colombia on November 2, 2024. (Image Source: Photo by Joaquin Sarmiento/AFP via Getty Images)

countries resisted the proposal, arguing that existing frameworks could suffice, leading Global South representatives frustrated. The interim funding mechanism, the Global Biodiversity Framework Fund (GBFF), secured only US\$407 million, far below the required amount. In terms of implementation, only 45 out of 196 countries submitted updated National Biodiversity Strategies and Action Plans (NBSAPs), and many of those plans lacked specificity or actionable steps. These delays threaten the credibility of the KMGBF, which aims to protect 30% of the world's land and oceans by 2030.

Logistical issues and political tensions also further complicated the conference. Many delegates from developing countries were forced to leave early due to budget constraints, which disrupted the decision-making process. Although the United States sent a delegation to the conference, it has never been a part of the CBD—largely due to boycotts within the Republican Party. The long absence of the United States has greatly reduced the global influence and leadership of the conference. Environmental groups also criticized some other major economies such as the European Union, Canada, and China for not pushing for more ambitious goals.

Looking ahead, the path to halting biodiversity loss by 2030 requires bold actions and sustained commitment from all stakeholders. As COP16 ended with many unresolved issues, scholars are already looking forward to the next conference to address challenges such as establishing more robust monitoring frameworks and securing additional biodiversity financing.

Main Relevant Sources:

- [COP16 at a Glance: The Big Issues That Will Define Talks at Colombia's UN Summit](#), *The Guardian*, October 21, 2024
- [Every Country Is Negotiating a Plan to Save Nature. Except the US](#), *Vox*, October 30, 2024
- [At UN Summit, Historic Agreement to Give Indigenous Groups Voice on Nature Conservation Decisions](#), *AP News*, November 2, 2024
- [COP16: Successes and Challenges for Nature Protection](#), *Greenpeace*, November 2, 2024
- [Global Summit on Nature Adopts a Novel Way to Pay for Conservation](#), *The New York Times*, November 2, 2024
- [COP16 Ends in Disarray and Indecision Despite Biodiversity Breakthroughs](#), *The Guardian*, November 3, 2024
- [COP16's Chaotic End: What It Means for the Future of Biodiversity](#), *Forbes*, November 4, 2024
- [COP16: What happened at the 2024 UN Biodiversity Conference?](#), *The Nature Conservancy*, November 4, 2024
- [What Was Achieved, and Not, for Indigenous and Local Leaders at COP16](#), *Mongabay*, November 6, 2024
- [Successes but Also Disappointments at COP16](#), *World Wildlife Fund*, November 6, 2024

Government Statements & Actions on Mixed Results in Climate Cooperation

Multinational organizations at COP29 displayed diverse leadership and priorities, reflecting a collective push toward equitable climate action and finance while addressing the unique concerns of their own groups. From calls for gender equality and transformative climate finance to opposition against trade-restrictive measures and demands for fair financial obligations, these organizations underscored the importance of pushing for multilateralism and inclusivity. Their statements revealed a unified desire to enhance global cooperation while respecting principles of equity and differentiation.

- On November 12, UN Secretary-General António Guterres addressed the World Leaders Climate Action Summit at COP29, urging decisive action to limit global temperature rise to 1.5°C. Guterres emphasized scaling up adaptation finance to US\$40 billion annually by 2025 and fully funding the Loss and Damage Fund. He called for a new, ambitious climate finance goal, leveraging innovative sources like levies on shipping and fossil fuels, to support developing countries.
- On November 12, the European Union and its 27 member states issued a statement at COP29, reaffirming their commitment to advancing gender equality in climate action. The EU emphasized the need for a new, ambitious Work Programme and Gender Action Plan under the UNFCCC to integrate gender-responsive and transformative considerations into all aspects of climate policies and actions.
- On November 5, China, on behalf of the BASIC Group, submitted a request to the UNFCCC emphasizing concerns over unilateral trade-restrictive measures linked to climate objectives. The group highlighted that such measures disproportionately impact developing countries, undermine multilateral cooperation, and contradict principles of equity and “common but differentiated responsibilities.” They called for cooperative solutions to support sustainable goods production and global trade while opposing unilateral actions like carbon border adjustments.
- On November 22, the Arab Group delivered a statement at the High-Level Ministerial Dialogue on the New Collective Quantified Goal (NCQG) on Climate Finance at COP29. The Arab Group rejected any delays or attempts to dilute developed countries’ financial obligations under the UNFCCC and Paris Agreement. The group proposed mobilizing US\$1.1 trillion annually for developing countries from 2025 to 2029. They also urged Parties to respect differentiation principles and deliver a robust NCQG to enable equitable, non-concessional support covering mitigation, adaptation, and loss and damage for developing countries.

Developed countries at international climate conferences showcased varied attitudes toward global climate action. Countries like the United Kingdom (UK) emphasized leadership through ambitious targets and significant financial pledges, while some other European countries were more focused on multilateralism and climate justice. The U.S. pushed for a more dual-focused approach as it balanced global cooperation with promoting domestic benefits. These statements reveal a mix of collaborative leadership and self-interest, underscoring both progress and fragmentation among developed countries in global climate governance.

- On November 12, UK Prime Minister Keir Starmer delivered remarks at COP29. He highlighted the UK’s ambitious 2035 target to cut emissions by at least 81% from 1990 levels and the launch of the Global Clean Power Alliance to accelerate the clean energy transition globally. Starmer also announced investments in green hydrogen, carbon capture, and offshore wind, alongside initiatives like the CIF Capital Market Mechanism to mobilize US\$75 billion for developing countries, reinforcing Britain’s role as a global climate leader.
- On November 16, U.S. President Joe Biden issued a statement on the conclusion of COP29, celebrating what he called a historic agreement on a 2035 international climate finance goal. He mentioned that

the agreement will mobilize critical financial support for developing nations to transition to sustainable economies while expanding markets for American clean energy products. He also reaffirmed the United States' commitment to climate action, emphasizing the importance of domestic initiatives like the Inflation Reduction Act.

- On November 22, Germany, aligning with the European Union, emphasized the importance of multilateralism and climate justice at COP29. Germany announced support for a new chapter in climate finance as it underscores the inseparability of climate finance and mitigation. The statement celebrated progress despite resistance and stressed continued efforts toward climate justice and equality.
- On November 24, Sweden pledged SEK 8 billion to the Green Climate Fund and additional contributions to adaptation and loss and damage initiatives. Sweden also announced its support for the operationalization of Article 6 emissions trading and joined global initiatives like the Hydrogen Declaration and the No New Coal pledge.

Developing countries did not always agree with each other. Some emphasized cooperation and bridging global efforts. Others emphasized the principle of “common but differentiated responsibilities,” urging developed nations to address the core concerns of developing countries. Nevertheless, there was also evident frustration over insufficient global commitment to issues like climate financing, with calls for greater accountability from high-emission countries.

- On November 12, Azerbaijan's President Ilham Aliyev delivered remarks at the opening ceremony of the World Leaders Climate Action Summit at COP29 in Baku. He welcomed all participating countries by highlighting Azerbaijan's unique position as a bridge between East and West, emphasizing its role in fostering cooperation on climate change. He mentioned Azerbaijan's commitment to reducing greenhouse gas emissions and transitioning to renewable energy. He also criticized Western media and non-government organizations (NGOs) for labeling Azerbaijan as a “petrostate,” emphasizing that the country's share of global oil production is only 0.7%, with minimal contributions to global emissions.
- On November 6, China's Ministry of Ecology and Environment released its 2024 annual report on climate policies and actions, which included an outline of the country's basic positions and propositions for COP29. China emphasized that the conference should focus on improving implementation mechanisms, addressing the core concerns of developing countries, and fostering international cooperation while upholding the principles of equity and “common but differentiated responsibilities.”
- On November 12, Papua New Guinea's Prime Minister James Marape announced his decision not to attend COP29, citing insufficient global commitment to rainforest conservation and financing. Marape criticized high-emission countries for their inaction on the Paris Agreement, and described Papua New Guinea's protests as a representation of its commitment to prioritising impactful climate strategies and holding global stakeholders accountable.

Main Relevant Sources:

[Secretary-General's Remarks to World Leaders Climate Action Summit at COP29 \[as delivered\]](#), The United Nations, November 12, 2024

[Statement at COP29 on the Importance of an Ambitious Outcome on Gender and Climate Change](#), European Union, November 12, 2024

[Speech by Ilham Aliyev at the Opening Ceremony of World Leaders Climate Action Summit at COP29](#), President of the Republic of Azerbaijan, November 12, 2024

[中方阐明COP29基本立场和主张 \(China Clarifies Its Basic Position and Propositions at COP29\)](#), China Meteorological Administration, November 12, 2024

[Prime Minister Marape Declines COP29 Participation, Calls for Greater Commitment to Rainforest Conservation](#),

Department of Prime Minister and National Executive Council, November 12, 2024

[PM Remarks at COP29: 12 November 2024](#), Prime Minister's Office of the United Kingdom, November 12, 2024

[Statement by Foreign Minister Baerbock during the Final Plenary Segment of the 29th World Climate Conference](#),

Federal Foreign Office of Germany, November 24, 2024

[Statement from President Joe Biden on Conclusion of COP29 Conference in Baku, Azerbaijan](#), The White House, November 23, 2024

[New Climate Finance Goal Adopted at COP29](#), Government Offices of Sweden, December 3, 2024

Third-Party Analyses & Data on Mixed Results in Climate Cooperation

The analyses and opinions on COP29 and COP16 highlight a recurring challenge in global climate governance: the persistent gap in climate finance. From discussions on integrating biodiversity into climate policies to debates on the role of private versus public funding, financial commitments remain inconsistent and implementation unclear. While COP16 stressed Indigenous-led conservation and set the stage for future biodiversity goals, its financial shortfalls mirrored the broader criticisms of COP29. Focuses on Latin America, the Caribbean, and the European Union highlighted potential regional market solutions and accountability, but they also faced obstacles from rising climate nationalism, such as carbon border taxes.

- An op-ed in *Eurasia Review* critiques COP16 for its failure to secure substantial financial commitments for the Kunming-Montreal Framework. While there were minor advancements, such as the creation of an indigenous representative body, the outcomes largely fell short of the author's expectations. Moving forward, there is a need for bottom-up democratic processes and greater youth involvement to drive meaningful progress in global biodiversity frameworks.
- An analysis by *Forbes reviewing the implications of COP16 for COP29* suggests that biodiversity and climate resilience are increasingly interconnected. COP16 emphasized Indigenous-led conservation, the importance of resource mobilization, and the establishment of biodiversity targets, but it faces challenges in funding. These outcomes lay the groundwork for COP29, which aims to integrate biodiversity into climate policies, address loss and damage, and most importantly, secure climate financing.
- An analysis by the London School of Economics underscores the intensification of "climate nationalism" as a defining feature of COP29 and global climate politics. It critiques protectionist policies like the U.S. Inflation Reduction Act and carbon border taxes for prioritizing national sovereignty and economic advantage, thereby undermining the spirit of international cooperation. It ultimately proposes leveraging smaller coalitions, climate clubs, and sector-specific agreements as practical alternatives within this new era of climate nationalism.
- An article released by the Atlantic Council emphasizes the urgency of biodiversity conservation in Latin America and the Caribbean (LAC) and explores the potential of biodiversity credits to address biodiversity loss. While biodiversity credits focus on net-positive environmental impacts, their market remains underdeveloped, and the major challenges include limited demand and regulatory support. The author believes that LAC nations are positioned to lead this market and integrate conservation with sustainable economic growth.

- An analysis published in *Arabian Gulf Business Insight* by Frank Kane highlights that COP29 in Baku, dubbed the “finance COP,” achieved significant outcomes despite global challenges and criticism. The conference, Kane explains, concluded with the largest-ever financial commitment of US\$300 billion annually to developing countries by 2035, advancements in global carbon markets, and measures for climate adaptation.
- An analysis released by Council on Foreign Relations critiques COP29 in Azerbaijan for its lackluster outcomes, including unmet expectations on climate finance and greenhouse gas emission cuts. While minor climate finance commitments were made, the article questions the effectiveness of the COP process in addressing global warming trends.
- An opinion piece in *South China Morning Post* argues that although COP29 achieved progress in addressing climate change through financial commitments, the conference lacks clarity on climate finance implementation and equity. Especially regarding the debates surrounding public versus private financing and the distribution of resources between developed and developing nations.
- A commentary from Centre for European Policy Studies critiques COP29 for falling short of expectations and highlights the European Union’s roles and challenges in global climate financing. It critiques the EU for struggling to balance its internal climate commitments, with its global responsibility to support developing nations. The EU’s advocacy for more stringent accountability mechanisms in climate financing, it notes, also sets it apart in the global dialogue, and more transparency and results-driven approaches are needed.

Relevant Sources:

[COP16: A Disappointment, As Expected – OpEd](#), *Eurasia Review*, November 7, 2024

[COP16 Vs. COP29 — Climate Goals Lead To A Global Funding Fight](#), *Forbes*, November 7, 2024

[COP29 And The Rise of Climate Nationalism](#), London School of Economics, November 14, 2024

[Following COP16, Can Latin America and the Caribbean Lead the Creation of Biodiversity Markets?](#), Atlantic Council, November 15, 2024

[Baku’s COP29 Makes the Best of a Bad Hand](#), *Arabian Gulf Business Insight*, November 25, 2024

[Was COP29 in Azerbaijan a Failure?](#), Council on Foreign Relations, November 25, 2024

[Did COP29 Make Any Meaningful Progress on Climate Change?](#), *South China Morning Post*, December 1, 2024

[Yes, COP29 Was Too Little, Too Late, but It’s a Reality We Must Accept – at Least for Now](#), Centre for European Policy Studies, December 10, 2024

ICAS Commentary

Why Multilateral Development Banks Hold the Future of Climate Finance

By Zhangchen Wang

January 6, 2025

Climate finance refers to financial resources that are used to address the challenges posed by climate change. Climate financing supports three main objectives: mitigation, adaptation, and resilience-building. Mitigation focuses on reducing greenhouse gas emissions through efforts like developing renewable energy projects and enhancing energy efficiency. Adaptation brings about initiatives such as constructing disaster-resilient infrastructure and implementing agricultural practices that help communities adjust to the

effects of climate change. Resilience-building enhances the capacity of systems and societies to withstand and recover from climate-related shocks to ensure long-term sustainability in the face of climate risks.

Generally speaking, climate finance is delivered through several key channels: multilateral and bilateral climate funds and aid, multilateral development banks (MDBs), and private sector investments. Multilateral and bilateral climate funds aim to provide philanthropic grants or concessional financing to support mitigation and adaptation efforts. MDBs leverage their mandate and financial instruments to bridge funding gaps, combining public and private resources to finance large-scale climate initiatives. Private sector investments play a critical role in driving innovation and scaling renewable energy, though their focus often skews towards projects with clear and quick market returns.³



The global demand for climate finance is immense. Estimates suggesting up to [\\$9 trillion](#) will be needed annually by 2030. Yet, despite annual flows already surpassing [\\$1 trillion as of 2022](#), most of the money moves within developed countries and no more than 18% of this funding benefits the vast developing and least developed countries. This disparity stems to a large extent from two factors: the inherent limitations of philanthropic financing, which, despite its moral appeal, lacks the scale and consistency to meet long-term climate adaptation and mitigation demands, and the common nature of private sector investments, which are deterred by high risks and uncertain returns in developing nations. As a result, MDBs, with their designated mandate and objectives when investing and unique ability to mitigate risks, are well-positioned to fill this critical gap and ensure equitable support for the most vulnerable countries.

At the 29th United Nations Climate Change Conference (COP29), held from November 11-22, 2024, developed countries tripled the previous \$100 billion commitment and pledged to provide a fund of at least [\\$300 billion annually by 2035](#) to support developing countries in addressing climate change. However, skepticism remains despite the elevated target. Past experiences show that even the original \$100 billion goal, set in 2009, was difficult to achieve. Without enforceable mechanisms, simply raising the target does little to inspire confidence. According to a 2024 [report](#), it took developed countries until 2022—two years later than promised—to finally meet the original \$100 billion target. Despite their rhetoric, [many developed countries](#) struggle to meet these commitments due to domestic political constraints and economic priorities. Moreover, only 28% of these funds collected in 2022 were grants and most are loans, far from the target

³ Image Source: (Getty Images, Royalty-Free)

expected by developing countries during COP29. The contribution of the private sector also remains far below expectations. These factors not only highlight the difficulty of achieving targets but also question whether such financing frameworks are sufficient or sustainable in addressing the immense needs of developing countries and, ultimately, the world's climate.

Relying on altruistic donors to finance climate initiatives has proven to be an insufficient solution. Climate finance is usually framed as a moral imperative—"for the future of humanity." Indeed, the European Union and its 27 member states contributed [\\$30 billion](#) in public climate finance in 2022. However, the contributions of many other developed countries, including the United States and Canada, have fallen far short of global expectations. Although President Biden pledged [\\$11.4 billion](#) annually by 2024 to fulfill America's social responsibility, ultimately, the U.S. Congress approved only [\\$1 billion](#) in climate aid. Even if Biden's target was met, it would still fall short of the proportional contribution expected from the world's largest historical emitter, not to mention that Donald Trump's reelection means that the U.S. could once again withdraw from the Paris Agreement.

Similarly, the private sector faces significant challenges in raising sufficient funds for developing countries. High risks and uncertain returns deter private investors from supporting climate projects in vulnerable regions. For example, Nigeria's ambitious plans for solar energy development have [largely stalled](#) because the government has been unwilling to provide necessary guarantees for developers. A [report](#) by the World Bank further points out that private investment in climate adaptation and resilience remains minimal due to perceived low financial returns.

Therefore, MDBs present a viable and scalable solution to the climate finance dilemma. MDBs' strength derives from their structural advantages. Firstly, their foundational mission is to support member states and underdeveloped regions in achieving economic growth, poverty reduction, and sustainable development with a strong emphasis on environmental protection and climate change mitigation through renewable energy and climate resilience adaptation projects, a mission that inherently aligns with the goals of climate finance. This focus makes MDBs uniquely positioned to address financial challenges when market mechanisms fail.

For example, the Asian Infrastructure Investment Bank (AIIB) has [committed](#) to allocating at least 50% of its annual financing approvals as climate finance by 2025, which is clearly not market-driven. Meanwhile, although MDBs may act like philanthropic grants that are insensitive to investment returns, they still conduct thorough analyses of the economic, social and environmental impacts of projects to ensure feasibility and sustainability, just as private institutions do. In another example, the New Development Bank (NDB) has financed [renewable energy projects in South Africa](#), contributing to the diversification of the country's energy sustainability and security. MDBs ensure that the problem of inadequate use of resources that many developed countries are distressed over is effectively alleviated. Additionally, MDBs are also more efficient in coordinating resources and aligning them with global goals compared to bilateral climate financing efforts. A

notable example is the African Development Bank's [Desert to Power initiative](#), which aims to mobilize resources from multiple countries to transform the Sahel into a solar energy hub.

In addition to their operational strengths, MDBs have significant potential to become even more effective in blending resources. Backed by sovereign states, MDBs provide a theoretically attractive platform for developed countries to contribute grants and concessional financing, offering donor states greater participation in project design and implementation. However, the current level of contributions from developed countries remains insufficient. While institutions like the World Bank's International Development Association (IDA) delivered [\\$13.6 billion](#) for climate projects in fiscal year 2024, this is far from the scale needed to meet the climate finance demands of developing nations. Nevertheless, richer countries like the United Kingdom have already [pledged](#) extra funds to the institute, gradually reinforcing confidence in MDBs' role as a trusted and effective channel for climate finance. Similarly, MDBs also benefit from high credit ratings that theoretically allow them to attract private investors, but they also have not yet reached their full potential. Private capital often hesitates to engage with MDB-led projects due to concerns over low returns. However, MDBs hold a distinct advantage in offering more stable returns and robust guarantees, backed by sovereign states, which make them a safer investment option even during economic downturns. By leveraging these strengths, MDBs have the potential to attract greater private investment, particularly in periods of economic uncertainty.

Climate finance is indispensable for addressing the challenges of climate change, but the current mechanisms being prioritized face significant limitations. Among others, these limitations include insufficient contributions from developed countries, the hesitance of private capital, and the inefficiencies of bilateral aid. Multilateral development banks, with their unique strengths and untapped potential, offer the most effective means of balancing the interests of developed and developing countries while ensuring that financial resources are directed to the communities and regions that need them the most. Strengthening and optimizing the role of MDBs will be critical to achieving sustainable and equitable outcomes in global climate finance.

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This season's Theme of Mixed Results in Climate Cooperation was primarily researched and written by Zhangchen Wang, Part-Time Research Assistant at the Institute for China-America Studies.

This Season's Global Climate Affairs

Issues & Updates on Blue Carbon

Bipartisan Bill Looks To Study, Restore Coastal Ecosystems To Help Address Climate Impacts

Tuesday, October 8

Source: [Fox 17](#)

[The United States]

A bipartisan bill, the Coastal Restoration Act (H.R. 9912), was introduced by U.S. Representative Suzanne Bonamici to establish a blue carbon research initiative and enhance conservation of coastal blue carbon ecosystems. Prompted by the devastation caused by Hurricane Helene and the looming threat of Hurricane Milton, the bill highlights the urgency of protecting these vital habitats that are increasingly threatened by climate change impacts such as sea level rise and intensified storms.

Thailand's Budding Mangrove Restoration Plans Spark Both Hope And Concern

Thursday, October 17

Source: [Mongabay](#)

[Thailand]

Thailand is shifting from unsustainable mass tree-planting mangrove restoration efforts to approaches focused on ecological sustainability and community engagement. The Thailand Mangrove Alliance, a collaborative public-private program, aims to manage 30% of the nation's mangroves by 2030. It is also trying to foster natural mangrove growth by more localized initiatives such as constructing bamboo fencing that protects coastlines from erosion.

Two New Studies Call For Clear Frameworks For Coastal CO₂ Sequestration

Wednesday, October 23

Source: [Phys.org](#)

[Germany]

Two new studies by German Helmholtz-Zentrum Hereon researchers emphasize the need for clear international frameworks for CO₂ sequestration in coastal areas. The studies highlight the potential of blue carbon ecosystems like seagrasses and mangroves to combat climate change but stress that their effectiveness, risks, and governance require further research and stronger links between science, business, and international policy.

BRIN Encourages Optimization Of Mangrove Use For Carbon Trading

Monday, October 28

Source: [Antara](#)

[Indonesia]

Indonesia, home to the world's largest mangrove coverage, is leveraging its mangroves' carbon sequestration capacity to bolster its carbon trading potential. According to the Indonesian Engineer of the Climate and Atmospheric Research Center of the National Research and Innovation Agency (BRIN), targeted rehabilitation and restoration programs could transform this ecosystem into a significant revenue source while reinforcing Indonesia's position as a leader in the global carbon market.

Tasmanian Seaweed Company To Help Tackle African Farming Emissions

Wednesday, November 6

Source: [The Fish Site](#)

[International]

Sea Forest, a Tasmanian company specializing in seaweed-based climate solutions, has partnered with East Africa's Noa's Herd to introduce SeaFeed, a methane-reducing animal feed supplement, to 30,000 cattle across 15 farms in Uganda and Kenya starting in 2025. This initiative is projected to cut agricultural emissions by over 60,000 tonnes while providing farmers with financial benefits through carbon credits .

NASA's BlueFlux Campaign Supports Blue Carbon Management In South Florida

Tuesday, November 12

Source: [U.S. National Aeronautics and Space Administration](#)

[The United States]

NASA's BlueFlux Campaign has advanced the understanding of blue carbon and methane fluxes in Florida's wetlands by integrating ground, airborne, and satellite data. The project emphasizes the role of blue carbon, particularly mangroves, as vital carbon sinks, while highlighting threats such as sea-level rise and hurricanes to these ecosystems. It aims to inform policies and restoration efforts to safeguard blue carbon in Florida and across the world.

Mapping 'gloop And Mud' Sheds Light On Seabed Carbon Storage

Thursday, November 14

Source: [Mongabay](#)

[Canada & The United Kingdom]

Two new reports by Canada and the United Kingdom identify seabed sediments as a potential new form of blue carbon, potentially extending the concept of blue carbon to include marine sediment as a vital carbon sink. The reports also underscore the need for seabed protection against disturbances like bottom trawling, offering policymakers fresh evidence to expand blue carbon conservation efforts and address climate change.

The Government Wants To Count Blue Carbon Towards Climate Targets. But Ocean Carbon Could Cut Both Ways

Monday, November 18

Source: [Radio New Zealand](#)

[New Zealand]

New Zealand's government aims to include blue carbon in its climate strategy under the 2026-2030 Emissions Reduction Plan. But before blue carbon can officially qualify for payments under New Zealand's emissions trading system, researchers still need to conduct more research to understand how much additional carbon is absorbed by growing blue carbon.

Protecting Ecosystems: Seychelles Finalising Pioneering Blue Carbon Policy

Thursday, December 5

Source: [Seychelles News Agency](#)

[Seychelles]

Seychelles is finalizing its blue carbon policy framework to align national laws with international commitments and integrate the benefits of mangroves and seagrass ecosystems. Following extensive consultations since July, the finalized policy aims to support the country's pledges to protect 50% of these habitats by 2025 and 100% by 2030 while laying the groundwork for future carbon credit initiatives.

OceanX To Help Philippines Understand Fishery Sector, Apply For Blue Carbon Credits

Sunday, December 8

Source: [Business World](#)

[The Philippines]

U.S.-based nonprofit OceanX will collaborate with Philippine scientists and government agencies to assess fisheries and explore blue carbon potential using their advanced research vessel, OceanXplorer. The initiative aims to provide data for fisheries management, biodiversity conservation, and carbon credit applications, aligning with the Philippines' legislative efforts to formalize its carbon credit system.

Seagrass Bed Restoration Work Spreading In Japan's Miyagi

Monday, December 16

Source: [Nippon](#)

[Japan]

In Miyagi, Japan, efforts are underway to restore seagrass beds in Matsushima Bay, which were reduced to a tenth of their original size by the 2011 earthquake and tsunami. These seagrass beds are being rehabilitated with hopes of leveraging blue carbon potential to combat climate change, despite challenges like rising sea temperatures.

Multilateral Affairs & Climate Diplomacy

Significant Progress Is Made In The Combat Against Deforestation But More Needs to Be Done

The Short Story: Deforestation in the Amazon has decreased significantly in 2024, and more progress has also been made in other parts of the world, but persistent challenges remain across the globe.

Why It Matters: Brazil's achievements in reducing Amazon forest loss by 31% and the European Union's new Deforestation Regulation signal meaningful progress in global efforts to combat deforestation. However, unresolved issues such as illegal deforestation and supply chain transparency in Brazil's beef industry suggest many challenges are still unresolved.

The Full Feature Story: In 2024, deforestation in the Brazilian Amazon reached its lowest level since 2015, dropping by 31%. According to data from Brazil's National Institute for Space Research (INPE), the area of forest loss fell to 6,288 square kilometers, marking a dramatic reduction from the over 9,000 square kilometers lost in 2023. This respectful improvement can be largely attributed to the policies implemented under President Luiz Inácio Lula da Silva. Upon taking office in January 2023, Lula reversed many of the environmentally damaging policies of his predecessor, Jair Bolsonaro. Lula's key initiatives included reinstating environmental protections, ramping up enforcement against illegal logging and land grabbing, and prioritizing the rights of Indigenous communities. Lula has also made a bold pledge earlier this year to end deforestation entirely by 2030 to further bolster Brazil's international climate reputation, especially at the time when Brazil is preparing to host COP30 in 2025.

Several recent anti-deforestation initiatives in the Amazons have attracted much attention. For example, a crackdown on illegal logging along the borders of Paraguay, Brazil, and Argentina led to the arrest of 26 individuals involved in timber trafficking. Additionally, Brazil announced plans to establish new protected reserves near contested Amazon roads, aiming to shield millions of hectares from land grabbing and illegal clearing.

Across the Atlantic, the European Union's Deforestation Regulation (EUDR), adopted in 2023 and set to take effect in late 2025, has raised global standards for commodities linked to forest loss. The system will require businesses to demonstrate that their products are not associated with deforestation, aiming to curb the environmental impact of global trade. This regulation applies to major commodities such as soy, beef, palm oil, coffee, and cocoa, requiring companies to submit geolocation data and due diligence statements verifying that their supply chains are deforestation-free. To facilitate compliance, the European Commission launched the EUDR Information System in December 2024, offering businesses a platform to test and submit compliance documentation before the regulation's full implementation.

Despite these gains, persistent challenges loom large. Brazil's beef industry remains a significant driver of deforestation, as indirect suppliers often obscure the origin of cattle grazing on deforested lands.

Meanwhile, the Peruvian Amazon faces continued deforestation around Mennonite agricultural colonies, with satellite imagery revealing extensive tree loss due to illegal clearing. Furthermore, ecological consequences like increased malaria transmission in the Brazilian Amazon highlight the ripple effects of forest destruction on human health and biodiversity. Lastly, in terms of the new European Union's regulation, it has drawn criticism for potentially burdening smaller producers in regions like Southeast Asia.

Sources:

[Malaria Transmission May Increase With Deforestation In The Brazilian Amazon](#), Harvard School Of Public Health, October 25, 2024

[Changes May Ease Burdens Of European Deforestation Regulation On Small Palm Farms. But Not The Confusion](#), Inside Climate News, November 3, 2024

[Commission Launches EUDR Information System As Important Step In Preparation For Application Of Law](#), European Commission, November 6, 2024

[Deforestation In Brazil's Amazon Rainforest Falls To Lowest Since 2015](#), Reuters, November 6, 2024

[Deforestation In Brazil's Amazon Drops By Nearly 31% Compared To Previous Year](#), AP News, November 7, 2024

[Deforestation Around Mennonite Colonies Continues In Peruvian Amazon: Report](#), Mongabay, November 22, 2024

[Brazil Beef Industry Still Struggling With Deforestation From Indirect Suppliers, Survey Finds](#), Mongabay, November 26, 2024

[Brazil Plans New Reserves To Curb Deforestation Near Contested Amazon Roads](#), Mongabay, November 28, 2024

[26 People Arrested In Crackdown On Illegal Deforestation Along Paraguay, Brazil, And Argentina Border](#), AP News, December 16, 2024

China's Green Partnerships Are Driving Sustainable Development Worldwide

The Short Story: China's array of green partnerships with countries from different parts of the world reflect its leadership in advancing global green development and fostering economic cooperation.

Why It Matters: By leveraging its expertise in green innovation, China is not only enhancing bilateral relations but also contributing to global efforts to combat climate change, build resilient infrastructure, and support sustainable economic development for both itself and its partner countries.

The Full Feature Story: After several years of developing expertise domestically, China has now emerged as a clear global leader in green development through its strategic partnerships with countries across the world. These collaborations highlight a shared vision of combating climate change and fostering sustainable growth while advancing economic developments. These three major types of partnerships are the main themes of China's overseas green projects in the past quarter: renewable energy projects, green technology development, and innovative solutions for sustainable infrastructure.

China has been instrumental to the development of renewable energy infrastructure in many nations. In October, Azerbaijan and China deepened their collaboration in renewable energy, with agreements focusing on wind and solar power, energy storage systems, and green hydrogen production. This partnership aims to support Azerbaijan's ambitious goal of producing 22 gigawatts of renewable energy,

with work already underway on several key projects. Similarly, during the same month, Chinese and Brazilian media jointly celebrated the smooth operation of the Panati photovoltaic (commonly known as solar) power station over the previous six months, which provides clean energy to over 350,000 households in Ceará, Brazil. Additionally, in November, Indonesia and China signed US\$10 billion in agreements during the Indonesia-China Business Forum in Beijing. These deals included investments in lithium battery production, photovoltaics, and renewable energy infrastructure. This partnership showcases both countries' commitment to supporting the global energy transition while ensuring economic growth.

China's ambition for environmental innovation and mutual benefits in green development is evident in its partnerships with countries like Japan, Australia, and Saudi Arabia. Japan and China announced new agreements at the 17th Comprehensive Forum on Energy Conservation and Environmental Protection in Tokyo, focusing on waste-to-energy projects and decarbonization of industrial parks in November.

Australia and China reaffirmed their commitment to green cooperation as early as August 2024. Although this is not a recent event and the cooperation is not fully welcomed by many of Australia's allies, the bilateral green cooperation was still reinforced by the continued growth in green trade between the two nations through November and December. Electric vehicles imported from China and Chinese renewable energy technologies are both playing a vital role in Australia's green transition, emphasizing mutual economic and environmental benefits. Meanwhile, Saudi Arabia is also continuously benefiting from China's expertise in clean technologies like batteries, solar panels, and wind turbines, with greenfield investments surpassing those from traditional Western partners.

The development of sustainable industrial parks serves as a cornerstone of China's green initiatives. In November, Singapore and China continued their collaboration on the Suzhou Industrial Park, expanding the project into a global benchmark for sustainable industrial zones. This collaboration integrates economic development with decarbonization solutions, creating a blueprint for future sustainable infrastructure projects. Finland, too, collaborates with China on clean energy and carbon-neutral technologies. Finland's President Alexander Stubb visited China in late October, when the two nations signed a joint action plan to foster low-carbon development and expand cooperation in clean energy and green technology. This visit reinforced Finland's strengths in clean energy and China's role as a market leader in sustainable innovations.

Sources:

[China's Australia Trade Sees More Evs. Green Tech Even As Eu. Us Tariffs Fly](#), *South China Morning Post*, October 16, 2024

[Azerbaijan And China Make Green Cooperation A Priority](#), *China Daily*, October 24, 2024

[Finnish President's China Visit To Promote Cooperation Between Enterprises And Innovation Institutions: Business Council](#), *Global Times*, October 30, 2024

[China, Japan Call For Enhancing Collaboration In Energy Conservation And Environmental Protection](#), *China Daily*, November 9, 2024

[China, Indonesia Seal \\$10 Billion In Deals Focused On Green Energy And Tech](#), *Reuters*, November 10, 2024

[China-Brazil Green Cooperation Sends Clean Energy To Numerous Brazilian Households](#), PR Newswire, November 18, 2024

[Mvqx And Green Partnership Of Industrial Parks In China \(Gpipc\) Forge Global Blueprint For Sustainable Industrial Parks](#), PR Newswire, November 27, 2024

[Saudi Arabia Presents Promising Market For Chinese Green Tech](#), Caixin Global, December 11, 2024

More on Multilateral Affairs & Climate Diplomacy:

- Scientists found that plant cover on the Antarctic peninsula has surged over tenfold since 1986, growing from less than 1 km² to nearly 12 km² by 2021, driven by global warming. This greening raises concerns about potential invasive species disrupting the pristine Antarctic ecosystem. ([The Guardian](#), October 4)
- The World Wildlife Fund's (WWF's) Living Planet Index shows a 73% average wildlife decline over the next 50 years, with Latin America facing a 95% drop due to habitat loss from food production. WWF calls for systemic changes in food, energy, and finance, alongside individual and governmental action to protect biodiversity. ([The Washington Post](#), October 9)
- Southeast Asia must quintuple clean energy investments to US\$190 billion annually by 2035 to meet climate goals, according to the International Energy Agency. While wind, solar, and geothermal are expected to account for a third of the region's energy growth, carbon dioxide emissions are projected to rise by 35% by mid-century due to needs to modernize power grids and growing electricity demand of 4%, annually. ([Reuters](#), October 21)
- According to the World Weather Attribution network, Human-driven climate change has intensified the rainy season in Africa's Niger and Lake Chad basins, worsening 2024's downpours by 5-20% and contributing to deadly floods. ([Al Jazeera](#), October 23)
- Commonwealth leaders gathered in Samoa for the Commonwealth Heads of Government Meeting (CHOGM), with climate change and reparations for Britain's role in transatlantic slavery central to discussions. Island nations like Tuvalu urged action on limiting global warming to 1.5°C. During the same meeting, Australia and the United Kingdom launched a climate and energy Partnership to accelerate renewable energy development as part of their shared net-zero commitment. ([Reuters](#), October 23) ([AP News](#), October 24)
- China's Trina Solar Co. has agreed to sell its U.S. solar manufacturing operations to Georgia-based Freyr Battery for US\$340 million amid growing American scrutiny of Chinese companies benefiting from the Inflation Reduction Act's clean energy tax incentives. The deal includes Trina's newly operational 5-gigawatt solar panel assembly plant in Wilmer, Texas, with Freyr planning additional solar cell manufacturing facilities while forming a partnership with Trina. ([Bloomberg](#), November 6)
- The European Commission has decided to streamline three major environmental laws, including the Corporate Sustainability Reporting Directive, to reduce regulatory burdens on businesses and bolster Europe's competitiveness against faster-growing economies. This shift reflects concerns over the economic impact of EU green regulations. ([Politico](#), November 25)

- According to studies by the Internal Displacement Monitoring Centre, wars and climate disasters have tripled internal displacement in Africa over 15 years, with 35 million displaced as of 2023 compared to 11.6 million in 2009. Conflict, especially in countries like Democratic Republic of the Congo and Somalia, accounts for 32.5 million cases, while climate-related disasters like floods drove 6.3 million displacements last year, a sixfold increase since 2009. ([The Guardian](#), November 26)
- Official negotiations among 170 countries in Busan, South Korea to establish a treaty to curb global plastic pollution ended without agreement, with disputes over capping plastic production and regulating hazardous chemicals delaying progress on the international agreement until next year. While over 100 nations supported a resolution to limit new plastic production, oil-producing countries and petrochemical groups pushed for waste management-focused solutions. ([UPI](#), December 2) ([Reuters](#), December 2)
- A UN report revealed that over three-quarters of Earth's land has become persistently drier in recent decades due to industrial emissions, posing severe risks such as desertification, wildfires, and water shortages. The report suggests that nearly one in three people now live in arid regions and warming temperatures are making them more vulnerable. ([The New York Times](#), December 9)
- For two weeks, the International Court of Justice conducted hearings for a landmark climate case led by Pacific Island nations seeking an advisory opinion on states' legal duties to protect the climate and the consequences for those causing harm. Major emitters like the U.S. stress the importance of following existing agreements like the Paris Agreement, while vulnerable nations demand more fairness and accountability. ([Deutsche Welle](#), December 13)
- In 2024, the planet experienced its hottest decade on record, with extreme weather events driven by climate change causing catastrophic impacts globally. The World Meteorological Organization highlighted unprecedented rainfall, deadly floods, heatwaves surpassing 50°C, and devastating wildfires, emphasizing that 41 days of dangerous heat were added this year alone. ([UN News](#), December 30)

Domestic Activity & Climate Affairs

The Setbacks And Silver Linings Of Trump Administration's Climate Policy Shift

Country/Region: The United States

The Short Story: The incoming Trump administration's climate policy stance signals potential setbacks for U.S. and global climate efforts with many key programs at risk. Concerns are also raised surrounding President-elect Donald Trump's appointment of Lee Zeldin as chief of the Environmental Protection Agency.

Why It Matters: President-elect Donald Trump's re-election is expected to trigger significant rollbacks in climate policy, including a likely withdrawal from the Paris Agreement, cuts to renewable energy subsidies, and a deregulation of emission controls. Nevertheless, some of the more optimistic experts believe that ongoing momentum in the clean energy sector, supported by state and private initiatives, could mitigate some impacts.

The Full Feature Story: Donald Trump's return to the White House marks a critical juncture for climate policy in the U.S. and beyond. Internationally, the Trump administration is planning to withdraw from the Paris Agreement once again. During Trump's first term, the U.S. withdrawal disrupted international climate negotiations, casting doubt on the commitment of the world's second-largest emitter to reducing greenhouse gas emissions. Analysts warn that a repeat withdrawal could embolden other nations, to deprioritize or abandon their commitments. Additionally, the Trump administration's potential withdrawal from international climate finance commitments could leave developing nations without critical resources to combat climate change and transition to renewable energy. Without U.S. leadership, progress toward the critical 1.5°C global warming target could slow.

Domestically, the dismantling of cornerstone legislation like the Inflation Reduction Act is expected, threatening its transformative impact on reducing emissions through clean energy tax credits, electric vehicle incentives, and industrial decarbonization projects. For example, with the transportation sector as currently the largest source of emissions in the U.S., the progress of emission reduction in this major source could be significantly weakened with the changes in electric vehicle incentives and vehicle efficiency standards. The administration has also signaled plans to expand oil and gas drilling on federal lands, including the Arctic National Wildlife Refuge, and reduce oversight of methane emissions from the energy sector. Additionally, power plant emissions standards, which have been instrumental in cutting carbon pollution, are also expected to face significant rollbacks. The administration's focus on promoting fossil fuels could lead to the revival of coal plants and new investments in natural gas infrastructure. Analysts warn that these measures could collectively increase U.S. greenhouse gas emissions by billions of tons over the next decade.

Further, the expected reduction in support for climate-focused corporate transparency could weaken accountability for business emissions. The Securities and Exchange Commission's climate disclosure rules, which aim to enhance corporate accountability for environmental impacts, may be scaled back or eliminated altogether. This move would significantly hinder efforts to track and reduce industrial emissions, particularly in energy-intensive sectors. Federal funding for renewable energy research and advanced technologies, such as carbon capture and storage, is also likely to be curtailed, slowing innovation and the competitiveness of the U.S. in the global green economy.

Despite these setbacks, some of the optimistic analysts believe that pockets of resilience still remain. States like California and New York are expected to maintain stringent environmental regulations and continue supporting renewable energy adoption. The private sector, influenced by international markets and public demand, is likely to sustain investment in clean energy and emissions reductions. During Trump's first term, renewable energy investments thrived with declining costs and bipartisan economic incentives at the state level despite federal resistance.

Adding complexity to this landscape is Lee Zeldin, Trump's choice for Environmental Protection Agency (EPA) chief. A former congressman from New York, Zeldin presents a mixed and moderate image. He has supported water pollution protections, particularly for Long Island's coasts, reflecting a willingness to engage on certain environmental issues. However, his alignment with Trump's deregulatory agenda and opposition to greenhouse gas reduction measures cast doubt on his broader commitment to combating climate change. While Zeldin has advocated for bipartisan cooperation in the past, his current position suggests he will focus on advancing Trump's fossil fuel-centric policies, raising concerns about the future direction of the EPA.

Sources:

- ['A Wrecking Ball': Experts Warn Trump's Win Sets Back Global Climate Action](#), *The Guardian*, November 6, 2024
- [Trump's Victory Promises to Shake Up U.S. Energy and Climate Policy. Analysts and Activists Say](#), *npr*, November 6, 2024
- [U.S. Policy Experts Confident of Future Climate Action Despite Trump Election](#), *Mongabay*, November 8, 2024
- [3 Major Climate Consequences Of Trump's Election](#), *Forbes*, November 8, 2024
- [In New Term, Trump Set to Go After Measures That Are Doing the Most to Fight Climate Change](#), *AP News*, November 11, 2024
- [What Does Donald Trump's Victory Mean for the Climate?](#), *Deutsche Welle*, November 11, 2024
- [Lee Zeldin, Trump's EPA Pick, Brings a Moderate Face to a Radical Game Plan](#), *Inside Climate News*, November 13, 2024
- [12 Big Changes Trump Could Make to Climate and Environment Policy](#), *The Washington Post*, November 19, 2024

The Ambitious UK Clean Power 2030 Action Plan, Explained

Country/Region: The United Kingdom

The Short Story: The UK Clean Power 2030 Action Plan aims to achieve 95% clean electricity by 2030 through massive renewable energy expansion, grid reform, and supplemental policies.

Why It Matters: As one of the most ambitious energy transition plans globally, the UK's Clean Power 2030 Action Plan seeks to address the climate crisis while ensuring energy security. By prioritizing offshore wind, onshore wind, and solar power, alongside a robust battery storage network, the plan promises to reduce the UK's reliance on volatile fossil fuel markets.

The Full Feature Story: The UK Clean Power 2030 Action Plan, unveiled by Energy Secretary Ed Miliband in December 2024, sets out a bold vision for achieving 95% clean electricity by the end of the decade. Central to the plan is the rapid expansion of renewable energy, with offshore wind capacity tripling to 50GW, onshore wind doubling, and solar energy tripling. By 2030, renewables are expected to generate over 80% of the UK's electricity, transforming the nation into a green energy superpower.

To support this transition, the government has pledged major grid reforms, including prioritizing ready-to-launch projects and addressing the queue of speculative proposals. This approach aims to reduce wait times for grid connections and attract £40 billion in annual private investment. Moreover, a fivefold expansion of battery storage capacity is planned to ensure flexibility and reliability as renewable energy sources, such as wind and solar, produce intermittent power. This storage capacity will allow surplus energy generated during peak production to be stored and distributed during periods of high demand, stabilizing the grid. Gas plants will remain on standby, but their contribution to electricity generation is expected to drop to less than 5% by 2030, reducing reliance on fossil fuels.

Supplementary policies under the Planning and Infrastructure Bill aim to streamline approvals for large-scale renewable projects by giving the government greater oversight of the permitting process. This change is expected to accelerate the deployment of offshore wind farms and large solar arrays. Key ongoing projects—like the Teesside Carbon Capture initiative, designed to sequester millions of tons of CO₂ annually, and the Hornsea 3 Offshore Wind Farm, one of the world's largest—are already showcasing the UK's leadership in clean energy innovation. Solar power is also exceeding expectations, driven by residential installations and technological innovations such as solar car canopies.

Despite these achievements, challenges loom large. The Office for Budget Responsibility estimates that renewable energy levies will rise from £12 billion to £14.8 billion annually by 2030, sparking concerns about energy affordability. Building over 3,400 miles of new transmission lines to accommodate the surge in renewables may face public resistance and logistical hurdles. Ensuring the grid's reliability during this transition from fossil fuels to renewables also requires meticulous planning.

Looking ahead, the UK Clean Power 2030 Action Plan represents a transformative shift in the nation's energy landscape. By reducing dependence on volatile fossil fuel markets and accelerating green energy adoption, the plan positions the UK as a leader in global climate action.

Sources:

[What Will the UK's Plan for Clean Energy by 2030 Mean for the Industry and Public?](#), *The Guardian*, November 5, 2024

[Clean Power by 2030 Is Challenging but Achievable, Says UK's NESO](#), *Renewables Now*, November 5, 2024

[Government Unveils New Powers to Approve Onshore Wind Farms](#), *BBC*, December 13, 2024

[UK Unveils Historic Clean Power Plan to Secure Energy Independence by 2030](#), *ESG News*, December 13, 2024

[UK Government Launches Clean Power Action Plan](#), *E3G*, December 13, 2024

[Government Sets Out Plan for New Era of Clean Electricity](#), Department for Energy Security and Net Zero, December 13, 2024

[Solar Energy UK Expects Installed Solar to Exceed UK Government Clean Power Plan Targets](#), *Renewable Energy Magazine*, December 17, 2024

More on Domestic Activity & Climate Affairs:

- **China:** According to an International Energy Agency report, China has emerged as a leader in low-emission hydrogen production, accounting for over 40% of the approved global electrolyser capacity. Currently, the gap between government goals for hydrogen production and demand is one of the biggest challenges, and the report suggests policymakers look for tools that create more demand. ([South China Morning Post](#), October 2)
- **The United Kingdom:** The UK government has pledged nearly £22 billion over 25 years to fund carbon capture and storage projects, aiming to reduce industrial emissions and support clean energy job creation. ([The Guardian](#), October 3)
- **China:** China has unveiled the world's most powerful floating offshore wind turbine. Developed by CRRC Corporation, it is capable of generating 20 megawatts of electricity annually, enough to power 37,000 households while saving 25,000 tonnes of coal and cutting 62,000 tonnes of CO₂ emissions. ([Xinhua News](#), October 13)
- **Germany:** Germany announced plans to provide state guarantees for wind energy production, expanding a KfW state bank program to support the wind industry's growth and reduce reliance on China for critical components like permanent magnets. ([Reuters](#), October 17)
- **Saudi Arabia:** Saudi Arabia reaffirmed its commitment to maintaining crude oil production capacity at 12.3 million barrels per day while simultaneously advancing emission reduction goals. Energy Minister Prince Abdulaziz bin Salman also announced plans to refresh the country's Paris Agreement climate pledge next year with higher targets. ([Argaam](#), October 29)
- **The United States:** On October 30, the University of Chicago launched a new institute, the Institute for Climate and Sustainable Growth, which is dedicated to addressing the needed balance between confronting climate change and expanding economic growth. ([The University of Chicago](#), October 30)
- **Russia:** The Russian Geographical Society reported the total disappearance of a small ice formation known as Mesechev Island, part of the Franz Josef Land archipelago in the Arctic Ocean, attributing the cause of the disappearance to global warming. ([The Jerusalem Post](#), November 3)
- **India:** Authorities in New Delhi have enforced strict measures, including school closures, a ban on non-essential trucks, and halted construction, as hazardous air pollution driven by seasonal smog from

farm fires, emissions, and trapped pollutants reached its worst levels this season, with particulate matter over 50 times the WHO's safe limit. ([Al Jazeera](#), November 18)

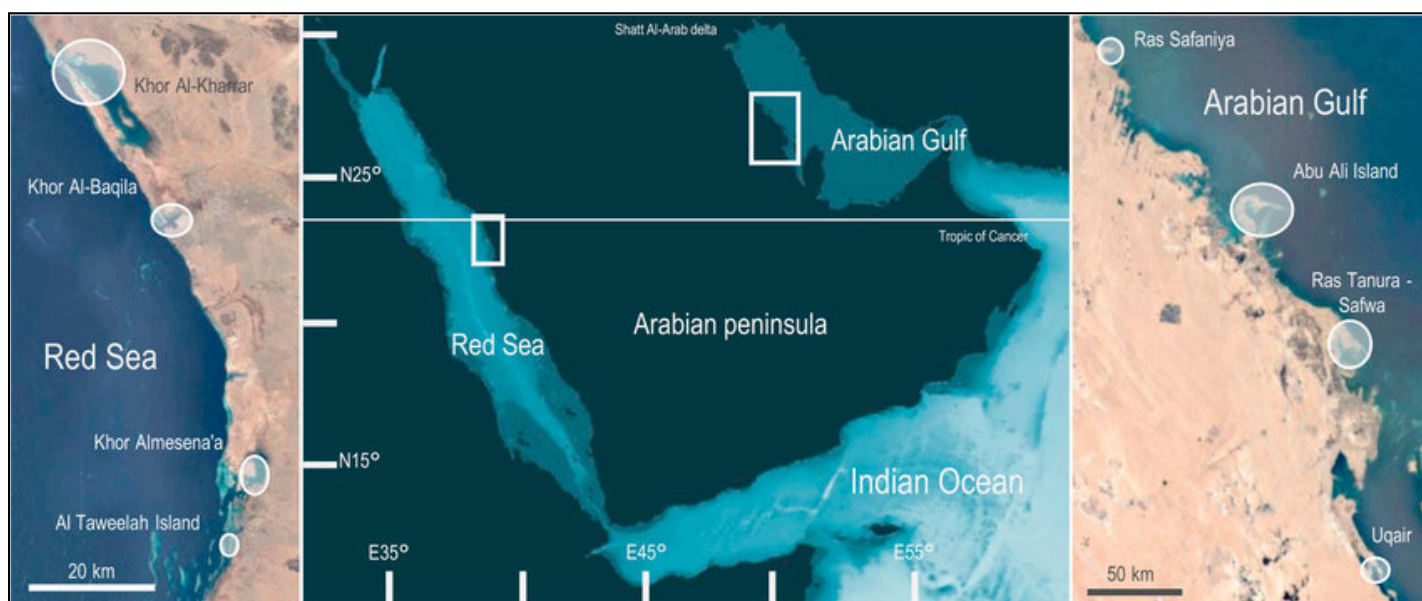
- **Mexico:** Mexico has committed to achieving a net-zero economy by 2050 under its new president, Claudia Sheinbaum. This move makes Mexico one of the world's largest emitters to set such a target, leaving Iran as the only major emitter without a net-zero commitment. ([Bloomberg](#), November 21)
- **Indonesia:** Indonesian President Prabowo Subianto announced plans to retire all coal and fossil fuel power plants within 15 years while increasing renewable energy capacity by over 75 gigawatts, aiming for net zero emissions by 2050. Experts welcomed the move but expressed caution. ([AP News](#), November 22)
- **Japan:** Japan is considering following the IPCC's recommendation and raising its greenhouse gas reduction target to 60% by fiscal 2035 from 2013 levels, up from the current 46% by 2030, as part of its plan to achieve net-zero emissions by 2050. ([Kyodo News](#), November 26)
- **China:** On the southern edge of the Taklamakan Desert, Xinjiang, the final section of the 3,046-kilometer-long green sand prevention belt was completed. The protective barrier has fully encircled the Taklamakan Desert, marking a significant achievement in combating desertification. ([Xinhua News](#), November 28)
- **Norway:** Norway has postponed its first licensing round for deep-sea mining in the Arctic until at least September 2025. The decision halts plans to explore 106,000 square kilometers of the Norwegian Sea amid concerns about the environmental and ecological impacts on the largely unexplored deep-sea ecosystems. ([Mongabay](#), December 3)
- **Brazil:** Coffee farming in Brazil is facing devastating droughts and crop losses due to extreme weather induced by climate change. As global temperatures rise, suitable coffee-growing regions are projected to shrink by half by 2050, threatening farmers' livelihoods and driving coffee prices higher. ([Inside Climate News](#), December 3)
- **Canada:** Canada announced a new climate target to cut greenhouse gas emissions by 45–50% below 2005 levels by 2035, building on its 2030 goal of a 40–45% reduction. While some groups viewed the target as achievable, others criticized it as still insufficient to address the climate crisis. ([Reuters](#), December 12)

Blue Carbon Country Profile: Saudi Arabia

A. Potential of Saudi Arabia in Blue Carbon Affairs

As a nation characterized by vast deserts and extensive coastlines along the Red Sea and the Arabian Gulf, Saudi Arabia views the protection and restoration of blue carbon ecosystems as critical not only for achieving carbon reduction targets but also for enhancing biodiversity and coastal resilience. Despite challenges such as habitat loss and environmental pressures, Saudi Arabia has implemented ambitious blue carbon strategies, including large-scale mangrove plantations and habitat restoration projects that are deeply integrated into its national climate goals and the framework of the Saudi Green Initiative (SGI). These efforts, coupled with increasing public awareness and private sector engagement, aim to restore and expand blue carbon ecosystems, ensuring that their contributions to carbon sequestration, biodiversity enhancement, coastal resilience, and coastal tourism are maximized.

- Amount of mangroves: 165.5 km² (2018)
- Amount of seagrass: 370 km² (2018)
- Key institutions of study on blue carbon: King Abdullah University of Science and Technology (KAUST)
- Key regions of interest: Farasan Islands; Al-Kharrar Lagoon; Jizan Region



4

In the field of blue carbon, Saudi Arabia stands out for its strong governmental focus and exceptional private sector engagement in blue carbon initiatives. For almost a decade, the government has made blue carbon an important component of its environmental strategies under Vision 2030, announced in April 2016, and the Saudi Green Initiative (SGI), launched in 2021, implementing measures such as national

⁴ Locations of the blue carbon ecosystems sampled along the Saudi coasts in the Central Red Sea (left) and Arabian Gulf (right). Image Source: "Role of vegetated coastal ecosystems as nitrogen and phosphorous filters and sinks in the coasts of Saudi Arabia", Environmental Research Letters, March 2020.

mangrove restoration projects, coastal protection programs, and the establishment of eco-parks. At the same time, the private sector has emerged as a leader, with companies like Saudi Aramco and NetZero contributing to large-scale mangrove planting and conservation efforts. Saudi Arabia's private sector arguably attaches more importance to the protection of blue carbon ecosystems than most other major countries' private sectors do as a collective.

Nevertheless, despite Saudi Arabia's notable achievements in blue carbon initiatives, there are some drawbacks that limit its potential impact. The country lacks a robust network of non-government organizations (NGOs) dedicated to blue carbon, resulting in a gap that reduces opportunities for community-driven projects, grassroots advocacy, and international collaboration. This absence may stem from a centralized approach, where the government and private sector dominate environmental efforts, leaving limited space for non-governmental organizations to contribute. Additionally, Saudi Arabia's engagement in international blue carbon initiatives is minimal, with few cross-border projects or partnerships aimed at sharing expertise or expanding impact beyond its own coasts. Given the country's wealth and research capabilities, the lack of external collaboration could mean a missed opportunity to lead global efforts in blue carbon conservation.

B. Domestic Government Actions and Activities on Blue Carbon in Saudi Arabia

National Legislations

As of now, there is no dedicated national legislation directly and exclusively addressing blue carbon in Saudi Arabia. However, the country does have laws and government agencies that indirectly include blue carbon ecosystems under broader environmental and coastal management categories. The agencies responsible for specific management have also proposed some executive regulations specific to blue carbon governance.

- **Executive Regulation for Sustainable Management of the Marine and Coastal Environment:** Issued by the Ministry of Environment, Water, and Agriculture, this regulation establishes a comprehensive framework to protect and sustainably manage Saudi Arabia's marine and coastal environments. The regulation highlights mangroves and seagrass as critical components of coastal ecosystems. Specific provisions on blue carbon ecosystems include licensing requirements for planting mangroves and conducting scientific research. It also designates mangroves and seagrass habitats as "areas of high environmental importance," implementing strict controls on activities like anchoring and fishing in these zones.
- **Executive Regulation for Vegetation Cover Development and Combating Desertification:** This regulation emphasizes the conservation and development of vegetation cover, including mangroves along coastal regions. Administered by the National Center for Vegetation Cover and Combating Desertification, it mandates the inventory and classification of different vegetation, including coastal mangrove forests, and promotes their restoration. The regulation enforces measures to rehabilitate degraded areas and prevent overgrazing and other harmful activities. It supports reforestation using native species and integrates sustainable practices like rainwater harvesting.

National Agencies and Government Actions

Saudi Arabia's blue carbon strategy is embedded in its broader climate goals and environmental initiatives, with a strong focus on integrating blue carbon ecosystems into national efforts to achieve carbon neutrality and enhance biodiversity. Various government agencies play critical roles in implementing, managing, and regulating blue carbon projects, reflecting an effective coordinated and structured approach.

- **Ministry of Environment, Water, and Agriculture (MEWA):** MEWA is the primary authority overseeing environmental and agricultural policies in Saudi Arabia, including the protection and sustainable management of blue carbon ecosystems. This ministry enforces the Executive Regulation for Sustainable Management of the Marine and Coastal Environment, which designates mangroves and seagrass habitats as areas of high environmental importance and implements strict controls on activities like anchoring and fishing. MEWA is also responsible for issuing licenses for mangrove planting and conducting scientific research to support coastal ecosystem conservation. Under the Saudi Green Initiative (SGI), MEWA leads efforts to plant 100 million mangroves by 2030, with 13 million already planted along the Red Sea and Arabian Gulf.
 - **National Center for Vegetation Cover Development and Combating Desertification (NCVC):** The NCVC operates under MEWA and focuses on the restoration and protection of vegetation cover, including coastal mangroves. The center implements large-scale rehabilitation projects to restore degraded coastal areas and combat activities like overgrazing, which harm vegetation. It also conducts inventories and classifications of vegetation cover, promotes the use of native species in reforestation, and integrates sustainable practices such as rainwater harvesting.
- **Saudi Green Initiative (SGI):** Although not a standalone government agency, the SGI drives large-scale environmental initiatives, including blue carbon restoration projects, as part of Saudi Arabia's Vision 2030. Launched on March 27, 2021, the SGI has a goal of planting 600 million trees by 2030, with a focus on coastal mangrove forests, and placing 30% of Saudi Arabia's land and sea under protection.

Local Government Actions

Currently, Saudi Arabia's blue carbon initiatives appear to be largely centralized, with specific local government actions targeting blue carbon ecosystems not being extensively documented. Relying on national leadership and coordination to achieve climate and conservation goals ensures uniformity and large-scale coordination. Nevertheless, the absence of direct local government actions limits the potential for region-specific solutions and community engagement, especially in the areas near the Red Sea.

C. Private, Commercial Third-Party Research & Projects

Private Corporations and Investment Groups

In Saudi Arabia, private corporations and investment groups play a significant role in supporting blue carbon initiatives, reflecting a unique phenomenon compared to many other countries where private sector engagement in such projects is minimal. These entities, involved in activities such as mangrove restoration, eco-tourism development, and creating carbon offset opportunities, exemplify the benefits of a strong private sector presence in blue carbon affairs. Government-led frameworks, such as public-private partnerships and voluntary carbon markets, provide financial incentives and policy support for private investment in blue carbon projects. Additionally, Saudi Arabia's extensive coastal ecosystems and its focus on high-profile projects naturally align with business interests, such as eco-tourism and coastal infrastructure development. Furthermore, the private sector's contributions align with Saudi Arabia's Vision 2030, emphasizing the objective of advancing sustainability and environmental protection while creating economic value.

- **Saudi Aramco** has been a pioneer in mangrove restoration and conservation as part of its broader sustainability efforts. Until 2017, the company has planted over 2 million mangrove seedlings along Saudi Arabia's coastlines, with initiatives focused on enhancing carbon sequestration, supporting biodiversity, and combating desertification. In addition to restoration efforts, Aramco established the Mangrove Eco-Park near Ras Tanura, the first facility of its kind in the Kingdom of Saudi Arabia dedicated to mangrove preservation. This eco-park, which opened to the public in January 2022, serves as a hub for environmental education, eco-tourism, and scientific research.
- The **Public Investment Fund (PIF)** is Saudi Arabia's sovereign wealth fund, playing a pivotal role in driving the Kingdom's economic diversification and sustainability goals under Vision 2030. The PIF invests across various sectors, including energy, infrastructure, and technology, while also prioritizing environmental initiatives like renewable energy and ecosystem restoration. Through its subsidiaries and partnerships, the PIF supports large-scale environmental projects—including mangrove restoration, carbon markets, and eco-tourism development—to align with Saudi Arabia's climate and sustainability objectives.
 - As a subsidiary of the PIF, **Red Sea Global (RSG)** focuses on developing sustainable tourism along Saudi Arabia's Red Sea coast. In July 2023, RSG signed agreements to plant 50 million mangrove trees along the Red Sea coast as part of its efforts to enhance biodiversity and mitigate climate change. These mangrove plantations are integral to RSG's commitment to achieving net-zero emissions and preserving coastal ecosystems while creating eco-tourism opportunities.
 - PIF, in partnership with other stakeholders, launched the **Regional Voluntary Carbon Market Company**, aimed at establishing a robust carbon trading platform for the Middle East and North Africa (MENA) region. This initiative facilitates the trading of high-quality carbon credits, including those potentially derived from blue carbon projects.
 - In a broader effort to support blue carbon ecosystems, the PIF has also facilitated partnerships for mangrove restoration along Saudi Arabia's coastlines. In collaboration with government and

private entities, the PIF aims to create natural carbon sinks while enhancing coastal resilience and biodiversity by planting 200 million mangroves by 2030.

- **Netzero**, a Saudi environmental startup, is at the forefront of mangrove restoration projects in the Kingdom. In partnership with Blue Forest, a United Arab Emirates-based reforestation specialist, Netzero has launched a large-scale initiative to restore 5,000 hectares of mangroves, aiming to plant 50 million trees over the next few years.

Universities and Research Institutes

In Saudi Arabia, universities and research institutes have made notable contributions to the study and conservation of blue carbon ecosystems, though much of the work is concentrated within a few key institutions. This focused approach has allowed for significant advancements in research and practical initiatives. However, the limited distribution of blue carbon research across a broader range of academic institutions suggests that awareness and expertise in this field may not yet be widely disseminated. While this concentration of effort enables impactful results, expanding involvement to more universities could foster greater innovation and broader efficiency for Saudi Arabia's environmental and climate goals.

- **King Abdullah University of Science and Technology (KAUST)**: KAUST is at the forefront of blue carbon research in Saudi Arabia. The university's Red Sea Research Center focuses on how mangroves sequester carbon dioxide, improve water quality, and support adjacent ecosystems like coral reefs. Notably, Professor Carlos M. Duarte, a leading marine scientist at KAUST, has conducted extensive research on the role of blue carbon ecosystems in climate change mitigation.
- **King Fahd University of Petroleum and Minerals (KFUPM)**: KFUPM contributes to blue carbon research by leveraging advanced remote sensing and GIS (geographic information system) techniques to study and monitor mangrove ecosystems in Saudi Arabia. For instance, a recent study mapped the extent of mangroves found along the Saudi Arabian Gulf coast from 2018 to 2022, revealing an increase in mangrove coverage.

NGOs and Non-Profit Organizations

Saudi Arabia does not currently have any NGOs explicitly dedicated to blue carbon ecosystems. Programs like the Saudi Green Initiative and Vision 2030, which focus heavily on environmental restoration and sustainability, are centralized under government leadership, leaving limited space for independent NGOs to take the lead. Saudi Arabia's civil society framework has also historically emphasized government oversight and centralized control, limiting the development of independent organizations dedicated to niche environmental areas like blue carbon. Instead, existing NGOs tend to address broader environmental issues, which align more closely with national priorities.

D. Public, Governmental International Engagements on Blue Carbon

Treaties & Agreements

- Saudi Arabia actively participates in the **Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA)**, established under the 1982 Jeddah Convention. PERSGA emphasizes the conservation and sustainable use of marine and coastal environments along the Red Sea and the Gulf of Aden. The organization has conducted extensive mangrove surveys regarding ecological importance of mangroves for coastal protection, biodiversity, and as carbon sinks. According to PERSGA, Saudi Arabia's eastern Red Sea coast features notable mangrove species such as *Avicennia marina* and *Rhizophora mucronata*, and play a vital role in supporting marine life and mitigating environmental threats like erosion and pollution.

Statements at International Conferences

- At the International Atomic Energy Agency's COP27 event in 2022, Professor Carlos M. Duarte from Saudi Arabia's King Abdullah University of Science and Technology highlighted the effectiveness of blue carbon ecosystems in carbon removal, emphasizing their cost efficiency, safety, and additional benefits that aid community adaptation.

Cross-Border Joint Projects & Partnerships

- Through its Regional Voluntary Carbon Market Company (RVCMC), Saudi Arabia has started a partnership with the International Islamic Trade Finance Corporation (ITFC) in May 2024 to support the Maldives in achieving sustainability goals with blue carbon ecosystems. This collaboration focuses on assessing the feasibility of generating "Blue Carbon Credits" from the Maldives' coastal ecosystems and facilitating their sale in carbon markets. This collaboration highlights Saudi Arabia's commitment to international cooperation on blue carbon initiatives.

E. Keeping An Eye On...

One of the most significant expectations for Saudi Arabia's blue carbon strategy lies in expanding its international engagement. Despite its strong domestic initiatives, the Kingdom has yet to position itself as a global player in blue carbon conservation. Saudi Arabia is already well-placed to take on a leadership role by participating in international forums, signing treaties, and forming partnerships with other nations or organizations, which would bring short- and long-term positive returns to the Kingdom. These efforts could be aligned with multiple objectives—such as advancing global emission reduction goals under the Paris Agreement, creating profitable ventures through carbon credit markets, or simply enhancing Saudi Arabia's global image as an environmental steward. Given the Kingdom's economic foundation and preparedness, the costs of increased international collaboration would likely be outweighed by the tangible benefits in terms of global influence, environmental impact, and economic opportunities.

In addition to assisting countries in need of blue carbon protection, Saudi Arabia could also pursue collaborations with major powers that possess advanced blue carbon expertise and alternative applications. Engaging in joint research initiatives, technical exchanges, and skill development partnerships with countries like Australia, known for its pioneering work in blue carbon science, or China, which has vast experience in large-scale ecological post-damage restoration and rehabilitation, would allow the Kingdom to refine its methodologies, adopt cutting-edge technologies, and strengthen its holistic capabilities in the field. Given Saudi Arabia's financial resources, it is well-positioned to actively fund and lead such partnerships, not only as a beneficiary, but also as an equal contributor seeking to enhance its expertise and global standing in blue carbon conservation.

Building on these opportunities for international engagement, Saudi Arabia also faces the task of ensuring that its blue carbon efforts align with its broader vision for sustainable development. Indeed, as a major fossil fuel producer, the Kingdom has both the environmental imperative to address its carbon footprint and the financial resources to invest heavily in nature-based solutions like blue carbon. However, the accelerating transition to renewable energy presents a potential challenge: To remain realistically feasible, Saudi Arabia must ensure that its blue carbon initiatives achieve both high commercial and environmental value to support its long-term development. Only by treating blue carbon as a foundational element of its energy transition—rather than a superficial greenwashing effort—can the Kingdom develop more sustainable blue carbon development models that integrate carbon sequestration, biodiversity conservation, and financial returns. Leveraging this phase to maximize blue carbon's potential will be critical for ensuring both environmental credibility and economic resilience in the decades to come.

Main Sources & Expanded Reading

- [Mangrove Blue Carbon Ecosystems in Saudi Arabia](#), Springer Nature Link, October 15, 2024
- [Carbon Stocks and Accumulation Rates in Red Sea Seagrass Meadows](#), nature scientific reports, October 9, 2018
- [Role of Vegetated Coastal Ecosystems as Nitrogen and Phosphorous Filters and Sinks in the Coasts of Saudi Arabia](#), Environmental Research Letters, March 2020
- [Executive Regulation For Sustainable Management of the Marine and Coastal Environment](#), Ministry of Environment Water & Agriculture, Kingdom of Saudi Arabia, July 10, 2020
- [Executive Regulation For Vegetation Cover Development and Combating Desertification](#), Ministry of Environment Water & Agriculture, Kingdom of Saudi Arabia, July 10, 2020
- [Saudi Arabia Empowering Communities and Ecosystems for Sustainable Mangrove Conservation and Management](#), United Nations Saudi Arabia, July 26, 2024
- [SGI Initiatives](#), Saudi & Middle East Green Initiatives, last visited on December 30, 2024
- [2 Million Mangroves Added to the Carbon Front Line](#), Saudi Aramco, December 9, 2020
- [Aramco Board of Directors Visits Mangrove Eco-Park in Ras Tanura](#), Aramco Life, December 21, 2022
- [Mangrove Initiatives](#), Saudi Aramco, last visited on December 30, 2024
- [Deals Signed to Plant Mangrove Trees in Saudi Arabia](#), Red Sea Global, July 26, 2022
- [Blue Forest and Net Zero Join Forces to Revitalize Mangroves in KSA](#), netzero, last visited on December 30, 2024
- [Saudi Arabia to Plant 200m Mangrove Trees by 2030](#), Arab News, December 4, 2023
- [Saudi Arabia Launches Project to Plant 50 mln Mangrove Trees by 2030](#), Xinhua, July 28, 2023
- [Blue Carbon—Harbingers of Hope](#), King Abdullah University of Science and Technology, November 5, 2020

[Status of Mangroves in the Red Sea and Gulf of Aden](#), The Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA), November 5, 2004
[IAEA COP27 Event Focuses on Blue Carbon as a Nature-Based Climate Solution](#), International Atomic Energy Agency, November 9, 2022
[ITFC and RVCMC Sign MOU for 'The Blue Carbon Generation Project'](#), International Islamic Trade Finance Corporation, May 13, 2024

This season's Blue Carbon Country Profile on Saudi Arabia was primarily researched and written by Zhangchen Wang, Part-Time Research Assistant at the Institute for China-America Studies.

Scientific Research and Beyond

Scientific Research Results & Releases

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- Journal Article: [Warming and disturbances affect Arctic-boreal vegetation resilience across northwestern North America](#), *Nature Ecology & Evolution*, Vol. 8, pp. 2265-2276
- Journal Article: [Climate justice beliefs related to climate action and policy support around the world](#), *Nature Climate Change*, Vol. 14, pp. 1144-1150
- Journal Article: [A global assessment of mangrove soil organic carbon sources and implications for blue carbon credit](#), *Nature Communications*, Vol. 15, No. 8894
- Report: [A grazing crab drives saltmarsh carbon storage and recovery](#), *The Ecological Society of America*, Vol. 105, No. 9
- Research Article: [Global rise in forest fire emissions linked to climate change in the extratropics](#), *Science*, Vol. 386, No. 6719
- Journal Article: [Enhanced ocean CO2 uptake due to near-surface temperature gradients](#), *Nature Geoscience*, Vol. 17, pp. 1135-1140
- Journal Article: [Addressing companies' low-carbon transition challenges requires diversified investments in environmental initiatives](#), *Springer Nature Link*, Vol. 177, No. 161

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- Journal Article: [Emergence of a climate oscillation in the Arctic Ocean due to global warming](#), *Nature Climate Change*, Vol. 14, pp. 1268-1274
- Journal Article: [Increasing aerosol emissions from boreal biomass burning exacerbate Arctic warming](#), *Nature Climate Change*, Vol. 14, pp. 1275-1281
- Report: [Sea-level rise and extreme Indian Ocean Dipole explain mangrove dieback in the Maldives](#), *Nature Scientific Report*, Vol. 14, No. 27012
- Journal Article: [Legal pathways for China's blue carbon conservation: a perspective of synergizing ocean and climate rule of law](#), *Frontiers*, Vol. 11
- Research Analysis: [Projections of multiple climate-related coastal hazards for the US Southeast Atlantic](#), *Nature Climate Change*, 2024
- Research Article: [Recent emergence of Arctic atlantification dominated by climate warming](#), *Science Advance*, Vol. 10, No. 48
- Brief Communication: [Potential increase of neurotoxic mercury risk in global blue carbon nature-based solutions](#), *Nature Sustainability*, Vol. 7 pp. 1592-1595

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- Special Report: [The 2024 state of the climate report: Perilous times on planet Earth](#), *BioScience*, Vol. 74, No. 12
- Journal Article: [The ICJ's Advisory Opinion on Climate Change: A Data Analysis of Participants' Submissions](#), *American Society of International Law Insights*, Vol. 28, No. 10
- Journal Article: [The dual role of coastal mangroves: Sinks and sources of microplastics in rapidly urbanizing areas](#), *Journal of Hazardous Materials*, Vol. 480
- Journal Article: [Diversifying climate policy advice: Research agenda on the expertise of national climate councils](#), *Earth System Governance*, Vol. 22

- Research Article: [Cretaceous coastal mountain building and potential impacts on climate change in East Asia](#), *Science Advance*, Vol. 10, No. 50
- Research Analysis: [Climate change impact on the architecture and built environment dwellers' well-being in Niger Delta Region: a systematic review](#), *Frontiers in Climate*, Vol. 6
- Research Paper: [Development of climate indices relevant for agriculture in Africa under different climate change scenarios based on GCM and RCM ensembles](#), *IOP Science, Environmental Research: Climate*, Vol. 3, No. 4
- Journal Article: [The Impact of the EU's CBAM on China's Carbon Emission Policy](#), *Climate*, Vol. 13, No. 1
- Journal Article: [Climate change, migration, and health: perspectives from Latin America and the Caribbean](#), *The Lancet Regional Health*, Vol. 40, No. 100926

Major Government Statements & Actions

Key Government Speeches on Climate Issues

- October 7, U.S. Department of Defense: ["Climate Change Resiliency a High DOD Priority"](#)
- October 10, Scottish Acting Cabinet Secretary for Net Zero and Energy Gillian Martin: ["Climate Change \(Emissions Reduction Targets\) \(Scotland\) Bill: Cabinet Secretary's statement"](#)
- October 10, Canadian Minister of Environment and Climate Change Steven Guilbeault: ["Speech for the Honourable Steven Guilbeault, Minister of Environment and Climate Change, at the Canadian Climate Institute and Net-Zero Advisory Body's Fourth Annual Climate Conference"](#)
- October 15, European Union External Action: ["Key Note Speech at Conference on Climate Change and Human Rights"](#)
- October 30, World Health Organization: ["Speech by Dr Angela Pratt at International Scientific Conference on Climate Change and Health & 6th Asia-Pacific Green Healthcare System Conference"](#)
- October 30, Australian Minister for Climate Change and Energy The Hon Chris Bowen: ["Speech to the Australasian Emissions Reduction Summit, Melbourne"](#)
- November 8, Australian Department of Climate Change, Energy, the Environment and Water: ["Speech to the Investor Group on Climate Change, Melbourne"](#)
- December 2, Chief Justice of the Supreme Court of Singapore Sundaresh Menon: ["A New Perspective on Climate Disputes: Lessons from Therapeutic Justice"](#)
- December 6, President of the Eurogroup Paschal Donohoe: ["Opening remarks: Coalition for Capacity on Climate Action \(CA3\) Symposium, Paris by Paschal Donohoe, President of the Eurogroup"](#)
- December 12, UNDP Deputy Resident Representative in China James George: ["Opening Remarks by Mr James George on Government Leadership Day at the 2024 Climate Resilience Exchange Week"](#)
- December 18, U.S. Agency for International Development: ["Administrator Samantha Power on Biodiversity Policy"](#)

Government Reports & Regulations on Climate Issues

- On October 2, the U.S. Department of Defense [released](#) the 2024-2027 Climate Adaptation Plan. The plan focuses on enhancing resilience to climate change impacts, ensuring operational readiness, and integrating climate considerations into infrastructure, training, and policies. It also included strategies for emission reduction, sustainable supply chains, and partnerships to address climate challenges.
- On October 10, the UK Government [published](#) the *International Climate Finance Results 2024*, a report that showcased its progress in supporting developing countries through climate adaptation and mitigation efforts. The report detailed key performance indicators since 2011, including renewable

energy, resilience-building, and biodiversity protection. The funding aligns with the Paris Agreement and emphasizes the importance of sustainable development.

- On October 22, the U.S. National Science Foundation [announced](#) the Organismal Response to Climate Change program to enhance understanding of how organisms respond to climate change. This initiative focuses on mechanistic studies and integrates research on resilience, adaptation, and ecological impacts, aiming to improve predictions and inform strategies for biodiversity conservation.
- On November 6, China's Ministry of Ecology and Environment [released](#) the 2024 Policy and Action Report on Climate Change. The report outlines China's progress toward carbon neutrality by 2060, updates on carbon markets, and initiatives for green energy infrastructure. It also presents China's key positions for COP29, emphasizing multilateralism, equitable climate financing, and strengthened international cooperation.
- On November 19, China's Foreign Ministry Spokesperson Lin Jian [addressed](#) questions about the G20 Rio de Janeiro Leaders' Declaration and its impact on COP29 during a regular press conference. He emphasized the importance of climate finance in supporting emission reduction and adaptation efforts, particularly for developing countries facing funding shortages in implementing their climate objectives. He urged developed countries to fulfill their historic responsibilities by ensuring adequate, predictable, and sustainable financial support to foster a just transition and build confidence in global climate action.
- On December 11, Seychelles [reaffirmed](#) its commitment to addressing climate accountability by advocating for a strong advisory opinion from the International Court of Justice on the legal obligations of states to combat climate change. This initiative aims to strengthen international climate law and promote equitable action to protect vulnerable nations and communities.
- On December 30, Finland [ratified](#) amendments to the Act on Environmental Protection in Maritime Transport, aligning with European Union and International Maritime Organization regulations. The amendments introduce phased prohibitions on discharges in the areas including sulphur scrubber waters and greywater. They also adopt international conventions on ship recycling and carbon intensity.

Cross-National Meetings & Engagements on Climate Issues

- On October 15, at the Hamburg Sustainability Conference, international stakeholders [launched](#) the Hamburg Sustainability Platform (HSP) to scale private investment in sustainable development for emerging markets and developing economies. The initiative focuses on standardizing financial products to simplify investment processes and enhance efficiency. The HSP aims to bridge the gap between public and private investments to accelerate progress on climate and development goals.
- On October 25, Australia and the United Kingdom [announced](#) a new climate and energy partnership to accelerate their clean energy transitions and meet net zero goals by 2050. The partnership will focus on renewable energy technology fields such as green hydrogen and offshore wind. Both countries also reaffirmed commitments to existing frameworks, including international climate action and the Australia-UK Renewable Hydrogen Innovation Partnership Program.
- On October 30, officials from the United Arab Emirates and the U.S. [met](#) in Washington to reaffirm their commitment to the Partnership for Accelerating Clean Energy (PACE). The meeting reaffirmed projects including renewable energy investments in Africa, low-carbon hydrogen initiatives in Texas, and renewable energy collaborations in the U.S. PACE aims to catalyze US\$100 billion in financing and deploy 100 gigawatts of clean energy globally by 2035, emphasizing support for clean energy transition, climate finance, and sustainable development.
- On November 8, Chile and the U.S. [issued](#) a joint communiqué following the Environmental Affairs Council and Joint Commission for Environmental Cooperation meetings in Santiago. The discussions

reviewed progress under the Environment Chapter of the Free Trade Agreement and the Environmental Cooperation Agreement. The two sides also signed the 2025-2028 Work Program for Environmental Cooperation.

- On November 19, President Luiz Inácio Lula da Silva of Brazil and President Joe Biden of the U.S. [announced](#) a new bilateral partnership to accelerate the energy transition while fostering economic growth and job creation. The partnership focuses on three pillars—clean energy production, clean technology supply chains, and green industrialization—and aims to expand renewable energy deployment, boost innovation in clean energy technologies like hydrogen and sustainable aviation fuel, and decarbonize manufacturing.

Third-Party Analyses & Commentaries

Governments are talking as the movement for climate justice takes new steps.

- [Reprioritizing Climate Action Through Human Rights Law](#) (International Institute for Democracy and Electoral Assistance, October 23)
- [Taking Climate To The World's Highest Court](#) (*Dev Policy Blog*, November 5)
- [Let African Communities Manage Their Climate Adaptation Plans](#) (*The Scientific American*, November 8)
- [Why Is A Petrostate Holding This Year's Climate Talks?](#) (*The New York Times*, November 11)
- [The Journey to The Hague: Youth-led Campaign for Climate Justice at the ICJ](#) (International Institute for Sustainable Development, November 27)
- [What Are States' Legal Obligations In Relation To Climate Change?](#) (Vinson & Elkins, December 11)
- ['World's Highest Court Must Hold States Accountable On Climate Change': ICJ Hearings](#) (Greenpeace, December 13)
- [5 Facts To Know About The International Court's Climate Change Hearings](#) (*Forbes*, December 16)
- [A Closer Look at South Africa's Approach to Climate Change and the G20](#) (South African Institute of International Affairs, November 29)
- [Why Japan Is Wary Of Teaming Up With China To Decarbonize Asia](#) (*Nikkei Asia*, December 29)

The realities of achieving established climate goals are being reassessed.

- [Opinion: Helene destroyed my hometown. I don't want climate change stories of false hope](#) (*Los Angeles Times*, October 4)
- [China's Climate Targets Could Make Or Break The Paris Agreement](#) (*Foreign Policy*, October 11)
- [Lula And Petro Have The Chance Of A Lifetime To Save The Amazon. Can They Unite Idealism And Realpolitik To Pull It Off?](#) (*The Guardian*, October 16)
- [Russia's Warming Arctic Is A Climate Threat. War Has Shut Scientists Out Of It.](#) (*The New York Times*, October 22)
- [Would Abandoning False Hope Help Us To Tackle The Climate Crisis?](#) (*The Guardian*, October 24)
- [The World's Best Hope To Beat Climate Change Is Vanishing](#) (*Bloomberg*, November 11)
- [What Polls Say About Climate Change – And What It Means For COP29](#) (International Institute for Democracy and Electoral Assistance, November 12)
- [Global Solidarity Badly Needed In Fight Against Climate Change](#) (*China Daily*, November 15)

Barriers to simultaneously achieving both pro-climate and pro-economy outcomes are in discussion.

- [In Depth: Why Making Green Hydrogen Is Keeping Producers In The Red](#) (*Caixin Global*, October 10)
- [American Views On Linking Trade Policy With Climate Performance](#) (Brookings, November 14)
- [5 Ways To Go Green: How Countries Can Prioritize Both Equity And Climate Action](#) (World Economic Forum, November 15)

- [How Americans View Climate Change And Policies To Address The Issue](#) (Pew Research Center, December 9)
- [Sorry, But This Is The Future Of Food](#) (*The New York Times*, December 13)
- [Here's Why I'm Optimistic About Climate Financing](#) (*Bloomberg*, December 31)
- [The Climate Crisis Is Also An Inflation Crisis](#) (*Eco-Business*, December 31)

Positive thoughts on climate solutions, while minimal, linger in the background.

- [Pan-Arctic Methane: Current Monitoring Capabilities, Approaches For Improvement, And Implications For Global Mitigation Targets](#) (Wilson Center, October 7)
- [How Funding Open Source Data Can Help Save The Ocean And Mitigate Climate Change](#) (*Triple Pundit*, October 7)
- [Opinion | Why You Won't Hear The Military Arguing About Climate Change](#) (*Politico*, October 10)
- [Commentary: Brazil And China Could Lead The Way On South-South Climate Cooperation](#) (*Caixin Global*, October 16)
- [What Are Natural Climate Solutions?](#) (McKinsey & Company, November 6)
- [For Hope On Climate Change, Look To The 'other Washington'](#) (*MSNBC*, November 15)
- [Year in Review: 8 Hopeful Climate Stories of 2024](#) (Earth.org, December 30)

Scientists look at how ocean-based solutions could open up new ways to address climate challenges.

- [Maritime Security In Peril: How Climate Change Impact Sri Lanka And Island States](#) (*Sri Lanka Guardian*, October 13)
- [A Tipping Point For Mangrove Restoration And Shrimp Farming In Indonesia](#) (Wilson Center, October 17)
- [Slowing Ocean Current Could Ease Arctic Warming — A Little](#) (*Eurasia Review*, October 26)
- [The \\$10,000 Cruise That Recently Became Possible — And Might Not Last For Long](#) (*The Washington Post*, October 27)
- [Could Seaweed Be The Ultimate Carbon Capture Solution?](#) (*New Scientist*, November 6)
- [China's Marine Conservation Efforts Prioritise Symbolism Over Substance](#) (*South China Morning Post*, November 12)
- [Unlocking Ocean Innovation: A Pathway To Sustainable Development Goals](#) (Observer Research Foundation, November 18)
- [Why Ocean Acidification Is Called Climate Change's Evil Twin](#) (*Nation*, December 18)

The impacts of extreme weather events retain the attention of many, with a focus on event escalation.

- [The People Fleeing Climate Disasters Are Going To Transform The American South](#) (*The New York Times*, October 2)
- [What Hurricane Milton's Damage Says About Climate Preparedness](#) (Council on Foreign Relations, October 16)
- [Mapped: How Climate Change Affects Extreme Weather Around The World](#) (*Carbon Brief*, November 18)
- [Cyclone Chido Probably Boosted By Very High Temperatures In The Indian Ocean](#) (*Le Monde*, December 21)
- ['We Need To Be Prepared': China Adapts To Era Of Extreme Flooding](#) (*The Guardian*, December 24)
- [When Risks Become Reality: Extreme Weather In 2024](#) (World Weather Attribution, December 27)
- [A Year Of Extreme Weather That Challenged Billions](#) (*BBC*, December 28)
- [Wanted: An Early-Warning System For The End Of The World](#) (*Politico*, December 30)

Observers debate the expected changes to climate policy amidst shifts in political leadership and policy.

- [Where Does Shigeru Ishiba Stand On The Climate Issue?](#) (*The Japan Times*, October 13)

- [Trump's Win Is A Tragic Loss For Climate Progress](#) (*MIT Technology Review*, November 6)
- [Trump 2.0 Could Make Even The Most Optimistic Climate Observers Cynical – But It's Not The Whole Story](#) (*The Guardian*, November 11)
- [12 Big Changes Trump Could Make To Climate And Environment Policy](#) (*The Washington Post*, November 19)
- [Canada's Arctic Foreign Policy: A Strategic Framework For Navigating Geopolitical Challenges And Environmental Change – Analysis](#) (*Eurasia Review*, December 8)
- [Trump's Return Gives China A Shot At Being The Next Weather Superpower](#) (*Bloomberg*, December 11)
- [Can America Decarbonize Without Regulations? Under Trump, It Will Have To.](#) (*The Hill*, December 23)
- [Will Trump Cut Short The Biden Clean-Energy Boom? Investors Are Nervous.](#) (*The New York Times*, December 25)

New innovations and advances in climate technology could reshape the landscape of climate solutions.

- [A Holistic Approach To Investigate Climate Change And Marine Neurobiology](#) (*Technology Networks*, October 14)
- [What Happens To The World If Forests Stop Absorbing Carbon? Ask Finland](#) (*The Guardian*, October 15)
- [What Is Teal Carbon?](#) (*Mongabay*, October 21)
- [Norwegian Oil Giant's Plan To Capture UK's Carbon Is Fraught With Risks](#) (*Desmog*, October 31)
- [Tycoon Drives India's Push Against China's Solar-Energy Dominance](#) (*The Wall Street Journal*, November 8)
- [China's Complicated Role In Climate Change](#) (*MIT Technology Review*, November 21)
- [Powering The Future: Latin America's Geopolitical Role In The Global Energy Transition](#) (*E-International Relations*, November 28)
- [Guyana's Low-Carbon Model For Resource-Led Development](#) (*Atlantic Council*, December 16)
- [The New Climate Gold Rush: Scrubbing Carbon From The Sky](#) (*The New York Times*, December 22)

Intrigue on the possibilities of U.S. and China climate engagements remains popular.

- [Where Are The US And China On Addressing Climate Change?](#) (*Brookings*, October 24)
- [How American Tax Breaks Brought A Chinese Solar Energy Giant To Ohio](#) (*Bloomberg*, October 31)
- [What Trump Got Wrong On China, Coal And Climate](#) (*Climate Home News*, November 3)
- [Trump's Return Gives China A Second Chance At Climate Leadership](#) (*Bloomberg*, November 7)
- [Trump's Climate Denial Gives China Its Moment To Lead. At Cop29, It'll Seize The Opportunity](#) (*The Print*, November 13)
- [Trump's Anti-Climate Agenda Could Boost China's Global Power](#) (*Scientific American*, November 20)
- [China Will Step Up If The US Falls Behind On Climate Action](#) (*S. Rajaratnam School of International Studies*, November 29)
- [Green Tech And U.S.-China Rivalry: Two Sides Of The Same Coin](#) (*The Japan Times*, December 16)
- [US Will Leave A Void In Climate Leadership. Can China Fill It?](#) (*Channel News Asia*, December 26)

Albeit diminished, observers are still expressing concerns over long-term, negative climate changes.

- [Hurricane Milton Might Have Been A Category 2 Storm Without Climate Change](#) (*Bloomberg*, October 9)
- [Inside Japan's 100-Year Project To Monitor Its Deteriorating Biodiversity](#) (*The Japan Times*, November 2)
- [It's Already Been A Grim Month For The Planet](#) (*Carnegie Endowment For International Peace*, November 12)
- [We Study Climate Change. We Can't Explain What We're Seeing.](#) (*The New York Times*, November 13)
- [Why A Two-Year Surge In Global Warmth Is Worrying Scientists](#) (*The Washington Post*, December 6)
- [Arctic Tundra Changes Are A Dire Warning For Us All](#) (*The Guardian*, December 22)

Images of the Month



October 2024

A sample of the destruction in the U.S. State of Florida left in the wake of Hurricane Milton, another hurricane in a long string of extreme weather events.

Behind the Image: Scientists attribute the increased frequency and severity of hurricanes to rising sea surface temperatures and shifting atmospheric patterns. Warmer oceans not only strengthen storm systems but also intensify their rainfall, resulting in catastrophic flooding and widespread damage to infrastructure.

Source: [Photo by Patrick Moore, Federal Emergency Management Agency \(Public Domain\)](#)

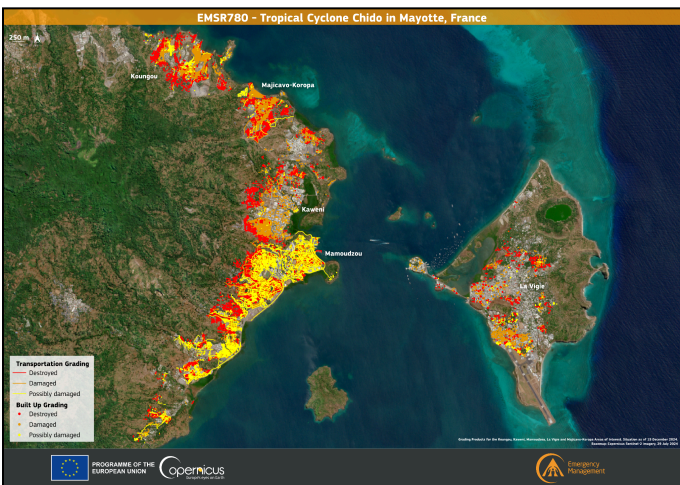


November 2024

A group of activists in support of the global South expressing their dissatisfaction as final COP29 negotiations were coming to a close on November 23.

Behind the Image: A key issue at COP29 was the climate finance target. Many Global South countries demanded US\$1.3 trillion annually by 2035 to effectively tackle climate challenges. However, the final agreement only set the goal at US\$300 billion per year.

Source: [UN Climate Change - Kiara Worth via Flickr \(CC BY-NC-SA 2.0\)](#)



December 2024

A satellite image of Mayotte, a French archipelago, showing the extent of damaged and destroyed transportation infrastructure following Cyclone Chido.

Behind the Image: Chido was the strongest storm to affect the islands in over 90 years, destroying buildings and key infrastructure, including roads and electrical grids. Its impact once again proves that extreme weather exacerbated by climate change disproportionately affects the most vulnerable countries and communities first.

Source: [European Union, Copernicus Sentinel-2 imagery \(Public Domain\)](#)

Climate-Focused Quotes of the Quarter

“The New Collective Quantified Goal – or NCQG – is an opportunity to reimagine your economies, climate finance, restore trust, build solidarity, and catalyze ambition.”

- Amina J. Mohammed, Deputy Secretary-General of the United Nations, [remarking](#) at the Opening of the Preparatory Meeting of the COP29 (Pre-Cop29) on October 10, 2024

“One of Colombia’s objectives is that this (COP16) is recognised globally as the Cop of the people, where citizens, afro-descendant and campesino communities, Indigenous peoples, scientists, social actors and all sectors are heard and have a broad participation in the discussions.”

- Susana Muhamad, Environment Minister of Colombia, [speaking](#) about her vision for 2024 United Nations Biodiversity Conference (CBD COP16) on October 20, 2024

“The Global Biodiversity Framework promises to reset relations with Earth and its ecosystems. But we are not on track.”

- António Guterres, Secretary-General of the United Nations, [said](#) in his video message for the opening ceremony of the 2024 United Nations Biodiversity Conference (CBD COP16) on October 20, 2024

“It is fitting that our first ocean declaration is adopted in the Blue Pacific continent given climate change has been recognised as the single greatest threat to the security and well-being of our people. The ocean makes up 96 per cent of our region; and where we are amongst the first to most immediately suffer the impacts of climate change.”

- The Hon. Fiame Naomi Mata’afa, Prime Minister of Samoa, [welcoming](#) the Apia Commonwealth Ocean Declaration for One Resilient Common Future on October 26, 2024

“Not a single country followed the United States in withdrawing from the [2015] Paris Agreement, which is what the Trump administration did, and says it intends to do again. I don’t think anyone else will follow suit at this point either.”

- Jonathan Pershing, Program Director of Environment at the William and Flora Hewlett Foundation, [speaking](#) in a virtual press conference organized by the World Resources Institute on November 7, 2024

“The only way to keep the British people secure today is by making Britain a clean-energy superpower, and the only way we protect future generations is by working with other countries to deliver climate action. This government is committed to accelerating climate action precisely because it is by doing this that we protect our country, with energy security, lower bills, and good jobs.”

- Edward Miliband, Secretary of State for Energy and Climate Change of the United Kingdom, [said](#) in an interview with *The Observer* regarding the UK’s climate leadership on November 9, 2024

“After this process (just energy transition) is launched, it will be difficult for a large number of developing countries to achieve their own transformation if they do not receive external financial support due to difficulties in funding, technology, etc.” (Translated from Chinese)

- Liu Zhenmin, China's special envoy for climate change, [talking](#) about just energy transition in an interview with *The Paper* on November 18, 2024

“Developed countries have been shamefully unwilling to listen to the science and commit to a needs-based climate finance goal. They have refused to talk openly about what they are willing to provide, jeopardising the Paris Agreement in order to avoid taking responsibility and paying their fair share.”

- Matilde Angeltveit, Climate Policy Adviser at Norwegian Church Aid, [criticizing](#) developed countries for failing to provide adequate climate finance support on November 25, 2024

“Not a single person on this planet wants to witness plastic litter in green spaces, on their streets or washing up on their shores. Not a single person wants chemical-laced plastic particles in their bloodstreams or organs or their unborn babies. The people who depend on sifting through plastic waste for a living would rather do so under decent, safe and well-paid conditions.”

- Inger Andersen, Under-Secretary-General of the United Nations, [speaking](#) about plastic pollution at the opening Plenary of the fifth session of the Intergovernmental Negotiating Committee on November 25, 2024

“In the next 10 years, there will be a big leap in our actions on emission reduction and energy transformation.”

- Liu Zhenmin, China's special climate envoy, [talking](#) about China's updated climate change targets on November 29, 2024

“As long as we are continuing to warm the atmosphere, the atmosphere basically demands more water.”

- Dr. Narcisa Pricope, a land systems scientist at Mississippi State University, [warning](#) that the Earth is becoming drier due to global warming on December 9, 2024

“For the global South, climate justice introduced a significant shift in jurisprudence. It demanded a more sophisticated and inclusive approach, one that accounts for multidimensional impacts of climate change across multiple sectors.”

- Syed Mansoor Ali Shah, Judge of the Supreme Court of Pakistan, [addressing](#) on the urgency of climate action on December 16, 2024

“Our investments under this administration are durable and will continue to pay dividends for our economy and our climate for years to come, allowing us to set an ambitious and achievable 2035 target.”

- John Podesta, Senior Advisor to the President for International Climate Policy, [speaking](#) about the climate change policies of President Biden on December 19, 2024

Climate-Focused Conferences & Events

Multinational Conferences & Global Forums

2024 UN Climate Change Conference (COP29)

United Nations Framework Convention on Climate Change (UNFCCC)

November 11-22

Baku, Azerbaijan

- From the Organizer: “To put it simply, the COP is where the world comes together to agree on the actions to address the climate crisis, such as limiting the global temperature rise to 1.5 degrees Celsius, helping vulnerable communities adapt to the effects of climate change, and achieving net-zero emissions by 2050. COP 29 will bring together world leaders and negotiators from the member states (or Parties) of the UN Framework Convention on Climate Change (UNFCCC) to further global progress, with business leaders, young people, climate scientists, Indigenous Peoples, and civil society sharing insights and best practices to strengthen global, collective and inclusive climate action. Among the key priorities of COP 29 are securing a new goal on climate finance, ensuring every country has the means to take much stronger climate action, slashing greenhouse gas emissions and building resilient communities. ”
- Primary Objectives:
 - Review global climate commitments: Assess the progress of countries' Nationally Determined Contributions (NDCs) and enhance targets to align with the 1.5°C goal.
 - Strengthen climate finance mechanisms: Secure commitments to deliver the \$100 billion annual funding target and explore long-term climate finance strategies.
 - Focus on mitigation and adaptation: Prioritize initiatives to reduce greenhouse gas emissions and enhance resilience to climate impacts, particularly in vulnerable nations.
 - Operationalize loss-and-damage funding: Finalize details on the newly established loss-and-damage fund to support developing nations.

2024 United Nations Biodiversity Conference (CBD COP16)

UN Convention to Combat Desertification (UNCCD)

October 21 - November 1

Cali, Colombia

- From the Organizer: “Peace with Nature, the message that will be sent from Colombia to the world, is based on the recognition of the current unequal relationships, extractive activities that overexploit the capacities of nature and that raise the need to improve the relationship between humans and ecosystems. Legal and illegal extractive economies, particularly those associated with fossil fuel economies such as mineral or hydrocarbon extraction, generate degrading practices that violate human rights and increase the contexts of conflict and violence. It is in this scenario that the world must begin to make ‘Peace with Nature’. ”
- Primary Objectives:
 - Monitor progress on biodiversity goals: Evaluate countries' achievements in meeting the targets of the Global Biodiversity Framework, particularly the goal of protecting 30% of global land and oceans by 2030 ("30x30").
 - Strengthen financing for biodiversity: Explore funding mechanisms to support conservation efforts, including commitments from governments, international organizations, and the private sector.
 - Integrate biodiversity with climate action: Promote ecosystem-based approaches to mitigate climate change and adapt to its impacts.

- Enhance international cooperation: Build partnerships to address cross-border biodiversity challenges, such as deforestation, habitat loss, and invasive species.

2024 Arctic Circle Assembly

Arctic Circle

October 17-19

Reykjavik, Iceland

- From the Organizer: “The Arctic Circle Assembly is the largest annual international gathering on the Arctic, attended by more than 2000 participants from over 60 countries. The Assembly is held every October in Harpa Concert Hall and Conference Center and the Reykjavik EDITION, Iceland. Over 2500 participants took part in the Assembly, the newly launched Arctic Circle Business Forum and Polar Dialogue.”
- [Relevant Sessions](#): “The Growing Significance of Arctic Methane Emissions”; “Preserving Arctic Ice Memory: A Race Against Time for Climate Change Research”; “Remote Sensing for Climate Change Studies in the Arctic”; “Singapore and the Arctic: A Shared Future - Melting Ice and Rising Sea Levels”; “Climate vs. Security: Fear or Cooperation as a Driving Force in Global and Arctic Politics”; “Protecting The Arctic – The Ccg Marine Environmental & Hazards Response Program”
- [2024 Polar Dialogue](#): “Key focus is on science and research cooperation on the Arctic, Antarctic and the Himalaya - Third Pole region, as well as other ice covered areas of the world. High-level political leaders participated and committed to the Polar Dialogue for the purpose of enhancing a constructive dialogue with the scientific community.”

IUCN Leaders Forum

International Union for Conservation of Nature

October 8-10

Geneva, Switzerland

- From the Organizer: “The IUCN Leaders Forum gathers leaders and changemakers from around the world, in-person, to discuss innovative solutions to critical global challenges, make bold commitments, build partnerships and catalyse action for impactful change in nature conservation and sustainability.”
- Primary Themes: Encouraging cutting-edge technologies, approaches, and strategies to address pressing environmental challenges, and building partnerships across governments, businesses, academia, and civil society to promote sustainable solutions.

Public Events & Panel Discussions

-Upcoming Events-

Fractured Extraction: Shifts in China’s Rare Earths Policy – A Green Tea Chat with Cory Combs and Jessica DiCarlo

Event by Wilson Center | January 16

Clean Industrial Deal: a Conversation with EVP Teresa Ribera

Event by bruegel | January 16

Grantham Institute Climate Research Showcase 2025

Event by Imperial College London | January 22

Disentangling Climate and Development Finance

Event by The Salata Institute for Climate and Sustainability at Harvard University | January 30

Our Climate Futures Conference 2025

Event by University of Minnesota Duluth | February 3-4

Colloquium on the Environment

Event by Institute of the Energy and the Environment at Penn State University | February 5

Climate change: A closer look at the challenges and solutions

Event by The Royal Society of Medicine | February 20

LSE Executive Education Courses - Climate Change: Economics and Governance

Event by London School of Economics | February 24-28

Climate and Energy Summit 2025

Event by Chatham House | March 18-19

-Past Events-**The Story Behind Climate Security and What it Means for US Foreign Policy**

Event by Wilson Center | October 1

Helping Communities Prepare for Climate Risks

Panel Discussion by Brookings | October 18

Forum on Advancing Inclusive Climate Action in Foreign Policy and Development

Event by Wilson Center | October 18

International Climate Action Day – E3 researchers to outline how we can make global impact

Panel Discussion by Trinity College Dublin | October 21

Bigger and Better in Baku: Scaling Up Climate Finance for Developing Nations

Webinar by World Resource Institute | October 23

Powering Progress: Deploying U.S. Clean Technologies in Emerging Economies

Event by Center for Strategic and International Studies | October 24

Investing in Global Climate Change Adaptation: The Emerging Resilience Economy

Event by Center for Strategic and International Studies | October 24

Cornell-OFR Conference on Global Climate Finance and Risks

Virtual Conference by Cornell University & the Office of Financial Research | October 25

Can Latin America's Copper Be the Key to a Low-Carbon Future?

Event by Center for Strategic and International Studies | November 13

Leveraging Climate Finance to Strengthen Urban Resilience: Cities Leading the Change

Event by Wilson Center | November 14

Driving Climate and Environmental Sustainability through Cross-Sector Collaboration

Event by Atlantic Council | November 18

UK-EU Cooperation on Energy and Climate: Opportunities and Practical Solutions

Event by bruegel | November 18

Coupled Physical, Economic, and Financial Impact Modelling Workshop

Workshop by World Climate Research Programme | November 20

Leveraging artificial intelligence to tackle climate change

Event by Brookings Institute & Duke University | December 3

Climate Obligations on Trial: Australia's Testimony at the International Court of Justice Explained

Event by Australian Institute | December 3

Former U.S. Climate Envoy Todd Stern on the Paris Agreement & the Future of Climate Progress

Event by Columbia University | December 3

China's Role in Indonesia's Clean Energy Transition

Event by Wilson Center | December 5

When AI and Space Converge: Transforming Sustainability on Earth and in Space

Virtual Event by S. Rajaratnam School of International Studies | December 6

The Future of Climate Diplomacy

Hybrid Event by East-West Center | December 9

Powering the Commanding Heights: Towards an American Strategy For Electric Demand Growth

Event by Center for Strategic and International Studies | December 11

North Africa's Renewable Energy Landscape: A Comparative Analysis

Event by Middle East Institute | December 16

Mangrove and Blue Carbon Business Model for Climate Benefits and Empowering Communities

Event by CIFOR-ICRAF | December 17

ICAS & BCCC Program Updates

ICAS 2024 Annual Conference & ICAS 10th Anniversary

Trump 2.0: Will U.S.-China Relations Prosper, Suffer or Muddle Through?

December 12, 2024
9:00am - 4:20pm EST



On December 12, 2024, the Institute for China-America Studies (ICAS) held its Annual Conference, as well as the 10th anniversary of ICAS' founding. The conference featured opening remarks by Dr. Hong Nong, ICAS Executive Director, and Dr. Wu Shicun, Chairman of ICAS' Advisory Board, who emphasized the necessity for pragmatism and shared responsibility in the U.S.-China relations, especially in addressing global challenges like climate change and economic stability. The keynote address was delivered by Minister Qiu Wenxing from the Chinese Embassy in the U.S., who highlighted the importance of mutual respect and peaceful coexistence between the two nations. The event included four

expert panels discussing geopolitics and security, science and technology, people-to-people exchange and third parties' views on U.S.-China relations, providing a comprehensive analysis of the future trajectory of the U.S.-China relations amid the evolving political landscape...

[View Full Summary, Speaker List & More](https://chinaus-icas.org/events-2/annual-conferences/2024-annual-conference/): <https://chinaus-icas.org/events-2/annual-conferences/2024-annual-conference/>
[Watch the Full Conference](https://www.youtube.com/playlist?list=PLs4oA4vJ3iF4fywe96EaSkfagn2gN2Zap): <https://www.youtube.com/playlist?list=PLs4oA4vJ3iF4fywe96EaSkfagn2gN2Zap>

MAP Report

Navigating the Arctic Shifts: The Evolving Impacts of Economic Sanctions on Russia

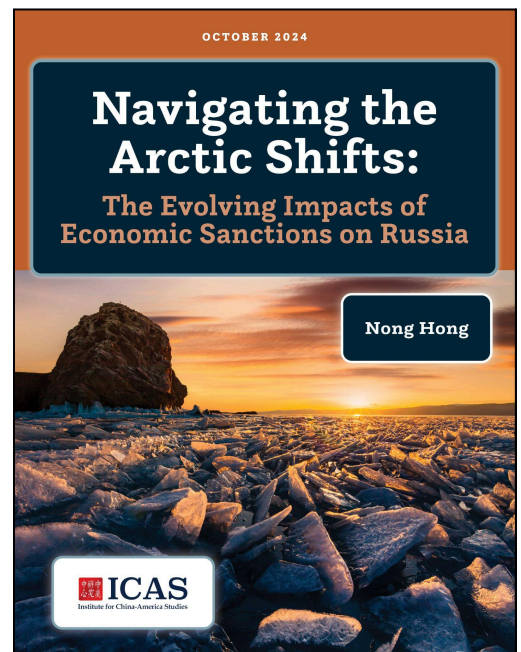
By Nong Hong
October 8, 2024

Executive Summary:

Following Russia's annexation of Crimea in 2014 and crisis starting in Ukraine in 2022, the United States, European Union, and other Western imposed stringent sanctions on key sectors of Russia's economy, particularly the energy sector. This report analyzes the effects of these sanctions on Russia's economy, geopolitics, and security, with a focus on their impact on Russia's Arctic liquefied natural gas (LNG) projects, such as Yamal LNG and Arctic LNG 2, both critical to the country's energy export strategy.

Key Findings:

- **Economic Impact:** Sanctions have caused significant disruptions in project timelines, financing, and partnerships, leading to delays, reduced production, and economic losses. As Western companies withdraw,



Russia has turned to China and India for support, reshaping global LNG markets and supply chains.

- **Local and Regional Impact:** Sanctions have hurt Arctic local economies reliant on LNG-related activities. Employment has decreased, infrastructure development has slowed, and regional economic stability has weakened, particularly in remote communities.
- **Geopolitical and Security Concerns:** Sanctions have led Russia to increase its military presence in the Arctic, using its natural resources to maintain influence. Rising competition among Arctic nations has heightened geopolitical stakes.
- **International Responses:** Arctic Council member states, including the United States, Canada, Denmark, Norway, Sweden, Finland, and Iceland, as well as observer states like China, Japan, South Korea, India, the United Kingdom, Germany, and France, have had varied reactions to the sanctions. China and India have strengthened energy ties with Russia, while others have scaled back their involvement in Arctic LNG projects. Organizations like the European Union and NATO have played key roles in shaping collective responses to Russia's Arctic ambitions.

In the future, sanctions are likely to reshape Arctic geopolitics, energy markets, and regional governance. As Russia seeks alternative markets and adjusts its Arctic strategy, global energy dynamics will remain in flux. The Arctic is set to become a more contested region, with increased competition and the potential for new alliances and confrontations. At this stage, the relevant policymakers should prioritize two goals in the Arctic: mitigating economic disruptions and balancing environmental and security concerns. Policymakers should diversify Arctic regional economies by promoting renewable energy, tourism, and other sustainable industries to reduce dependency on LNG projects. Simultaneously, as the Arctic is ecologically fragile, maintaining strict environmental standards and safety regulations is crucial. Enhanced international cooperation is needed to avoid weakened safety protocols due to sanctions.

In conclusion, this report highlights the complex impact of Western sanctions on Russia's Arctic LNG projects and underscores the need for coordinated international responses to manage the economic, political, and environmental challenges in this strategically vital region.

[Read the Report:](https://chinaus-icas.org/research/navigating-the-arctic-shifts/) <https://chinaus-icas.org/research/navigating-the-arctic-shifts/>

MAP Commentary

How the West can navigate Sino-Russian cooperation in the Arctic

By Nong Hong

November 26, 2024

The China-Russia partnership has reached unprecedented levels, propelled by mutual strategic interests in Arctic governance and a shared objective of countering Western influence. This partnership is reflected in recent joint military activities, enhanced maritime cooperation and increasingly integrated Arctic policies...

...As climate change accelerates resource accessibility and amplifies geopolitical interest in the Arctic, the stakes remain high for all stakeholders. By pursuing collaborative approaches and maintaining open channels of communication, the West can effectively navigate these challenges, promoting an inclusive framework for Arctic governance that considers the interests of all regional players, including China and Russia.

[Continue Reading:](https://chinaus-icas.org/research/how-the-west-can-navigate-sino-russian-cooperation-in-the-arctic/) <https://chinaus-icas.org/research/how-the-west-can-navigate-sino-russian-cooperation-in-the-arctic/>

MAP Commentary

Reflection from the 2024 Arctic Circle Assembly: Charting the Future of Arctic Governance

By Nong Hong
October 22, 2024

The Arctic Circle Assembly, held from October 17-19, 2024, in Reykjavík, Iceland, attracted over 2,500 participants, including government leaders, academics, indigenous representatives, and business figures, solidifying its status as the world's largest annual event dedicated to Arctic affairs. The 2024 edition expanded its scope with new initiatives, such as the Arctic Circle Business Forum, and took a more integrated approach to scientific and cultural cooperation. These additions built upon the foundations laid in 2023 while addressing evolving geopolitical and environmental challenges. The Assembly emphasized key issues such as Arctic governance, climate change, and economic opportunities, featuring more than 700 speakers across 250 sessions.



Continue Reading:

<https://chinaus-icas.org/research/reflection-from-the-2024-arctic-circle-assembly-charting-the-future-of-arctic-governance/>

MAP Spotlight

MAP Spotlight: Port of Chancay

By Jessica Martin
November 26, 2024

The Port of Chancay (Puerto de Chancay) is a multipurpose, deep-water megaport located in the city of Chancay, Peru that opened in November 2024 following a five-year, \$1.3 billion renovation as part of China's Belt and Road Initiative...Its construction has received occasional attention by the global observers and, while its benefits were regularly lauded, suspicions and concerns were also regularly discussed. For instance, there were occasional reports of pushback from locals being mistreated or endangered, shoddy workmanship, and social and environmental impacts being left unaddressed...

...Public opinions on the port will likely remain divided, with some observers continuing to describe it as evidence of "a concerted Chinese strategy to extend its maritime trade and logistics footprint to all of the key maritime points on the globe." For bulk speculation to cede in a timely manner, COSCO, along with the Peruvian government and other invested parties, will need to address the several issues that have come up during its construction—legal, environmental, geopolitical and social. Without—at the very least—open attempts to address and resolve these issues, the Port of Chancay is, more likely than not, destined to remain yet another point of contention and distrust between China and much of the rest of the world in the long-term; an outcome which favors no party.

Continue Reading: <https://chinaus-icas.org/research/map-spotlight-port-of-chancay/>

ICAS Holiday Announcement

Happy Holidays



ICAS

Institute for China-America Studies



From the Team at ICAS!

As we celebrate our 10th Anniversary, we thank you for your support throughout 2024 and wish you a joyful holiday season and a productive, inspiring 2025. We look forward to continuing this meaningful journey together in the new year!



ICAS

Institute for China-America Studies

The Institute for China-America Studies (ICAS) is an independent think tank in Washington D.C. ICAS focuses on the evolving dynamics in the U.S.-China relationship to promote greater collaboration and mutual understanding through sincere exchanges of fresh ideas, objective policy-oriented research, and fair assessments of this critical bilateral relationship.

We aim to provide a window into the worldviews of both the United States and China, and thereby serve as a vehicle to promote greater understanding between these two countries and societies.

ICAS is a 501(c)3 nonprofit organization

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