



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

July - September 2023

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Theme of the Quarter: The Rise of Carbon Crediting

News on the Rise of Carbon Crediting

Carbon Credit Trade is Receiving Unprecedented Attention

The third quarter of 2023 has proven to be a groundbreaking period for carbon credit trading as it serves as a feasible solution for countries to fulfill their net zero emissions by the middle of the century. Despite the term “carbon credits” has been around for more than 25 years, during the past few months, many countries and regions have planned to start their first-ever carbon credit trading platform that is regulated by the government and endorsed by government credit. In July, Taiwan opened the Taiwan Carbon Solution Exchange with NT\$1.5 billion (US\$47.33 million) of capital in Kaohsiung as the nation aims to achieve net zero emissions by 2050. The exchange will start carbon credit trading businesses once Taiwan’s Environmental Protection Administration (EPA) works out the carbon pricing and trading rules that fulfill the regulations and policies stipulated by the Climate Change Response Act. At the beginning of September, Kenya published a new law that would allow them to start carbon credit trading. Similarly, Indonesia opened its first carbon exchange on September 26, aiming to offer companies and financial institutions a mechanism to offset their emissions while providing funding for carbon reduction projects. Currently, coal power plants are required to realize carbon neutrality through carbon trading in Indonesia. As one of the countries with the richest reserves of blue carbon and other carbon-sequestering natural resources in the world, the extra funds gained from carbon credit trading is expected to provide the local natural resource protection efforts with more resources and assistance to a great extent. In addition, nearby Japan is another country that has announced that it will soon start the country’s first carbon credit trading programs. The Tokyo Stock Exchange will start carbon credit trading on October 11 in an attempt to encourage companies and cities to curb emissions and achieve its goal of carbon neutrality by 2050. As the Tokyo Stock Exchange now offers carbon credit trading in Japan with a much more convenient and transparent system than it did in the past, the Japanese government hopes to encourage organizations and companies to support and even establish more energy-saving devices and manage forests.¹



A particular concept repeatedly mentioned in the above reports is how one of the most important functions of carbon credit trading is that it provides carbon reduction projects with extra funds to strengthen their power and influence on carbon offsetting and carbon neutrality. Indeed, carbon credit trading is already an unexpectedly large market with unprecedented, expanding potential. Occasionally, some financial institutions will evaluate the value of the carbon credit trading market. Recent valuations believe that the carbon credit trading market will maintain a compound annual growth rate (CAGR) of around 20% in the near future. Although the growth rate is far from rapid, it is steady and predictable when properly conducted. In fact, the pioneers of carbon credit trading are already enjoying the fruits of this climate change mitigation methodology. According to an official announcement in August, the Zimbabwe government took 30% of carbon credit revenue as an environmental levy over the past decade. Even with

¹ Image: Taiwan President Tsai Ing-wen and guests holding “golden kettles” at the Opening Ceremony of the Taiwan Carbon Rights Exchange in Kaohsiung on August 7, 2023. (Source: Office of the President, Republic of China (Taiwan), Public Domain)

such regulations, carbon credit providers still make considerable profits from the 70% of the revenues that they are allowed to keep. Zimbabwe's carbon credit trading system has, thus, created a win-win environment for government and private institutions. Tanzania presents an even better option for making profits from carbon credit trading. Tanzania reveals that it will receive more than \$20 billion in investment in carbon credit projects from private investors. After establishing a carbon credit trading mechanism, businesses are becoming more willing to invest in carbon credit related environmental protection projects to reduce their net greenhouse gas emission. In fact, observers are talking readily about how carbon credit trading will create more benefits for a large number of less developed countries—especially sub-Saharan African countries like Tanzania and Zimbabwe—in the future.

Main Relevant Sources:

- [Malawi Government Orders Review of Carbon Credit Programs](#), Bloomberg, July 7, 2023
- [Taiwan carbon exchange opens in Kaohsiung](#), Taipei Times, July 7, 2023
- [Tanzania Carbon Credit Projects Attract \\$20B from Companies](#), Carbon Credits, July 17, 2023
- [Carbon Credit Trading Platform Market Worth USD 317 Million by 2027, Growing at a CAGR of 24.4%: Report by MarketsandMarkets™](#), Markets and Materts Research, July 20, 2023
- [Standard Chartered accelerates sustainable development of carbon market in Việt Nam](#), Viet Nam News, July 22, 2023
- [Global standards launched to grow \\$2 billion voluntary carbon market](#), Reuters, July 27, 2023
- [Zimbabwe to take 30% of carbon credit revenue](#), Reuters, August 18, 2023
- [Carbon Credit Trading Platform Market to Reach \\$556.8 million, Globally, by 2032 at 17.4% CAGR: Allied Market Research](#), Allied Market Research, August 18, 2023
- [Kenya's new law to allow carbon credit trading shortly](#), Zawya, September 4, 2023
- [Suriname aims to be first to sell Paris Agreement carbon credits, adviser says](#), Reuters, September 14, 2023
- [Indonesia plans first carbon trade next week](#), Reuters, September 18, 2023
- [Tokyo Stock Exchange to start carbon credit trading on Oct. 11](#), Reuters, September 22, 2023

Carbon Credits Facing Questions and Challenges Worldwide

Although carbon credits have already been hailed as an effective solution to mitigating climate change without slowing down the pace of world development, doubts have appeared ceaselessly in recent months, leading to concerns about the legitimate effectiveness of carbon credits. Firstly, critics argue that carbon credits might not be worth as much as they suggest because, based on a report published in August, the methodologies for calculating carbon credits can be arbitrary and lack a standardized and trackable approach, leading to uncertainties in the amount of emissions reductions actually achieved. An August article in the UK-based *The Guardian* mentioned research conducted by their own team, which suggests that about 94% of the carbon credits from the certificated projects do not represent real reductions in carbon emissions. These researchers further argue that 78% of the emission offsetting projects are “likely junk” because they have fundamental failures that undermine their promised emission cuts, and there are also 16% problematic ones with only one failing. An article published by *Mongabay*, a nonprofit environmental science and conservation news platform, recognized the credibility of *The Guardian*'s research. These articles also pointed out that the carbon sequestration capabilities claimed by carbon credit are basically the producers' one-sided claims of their own products, and therefore the data themselves are likely to not be completely accurate. In fact, the problems of credibility and accuracy are particularly salient among the voluntary carbon market programs. According to a response of the report published by the *Los Angeles Times*, in contrast to the regulated compliance market, the voluntary carbon market operates without strict oversight, often resulting in discrepancies where the assurances provided by sellers do not always hold true.



In addition, recent reports also pointed out that these doubts and concerns about carbon credits may also have a negative impact on the future development of carbon credits; similar to how easily corporate stock markets can be impacted by new announcements or social stories. Indeed, the carbon credits market encountered a price collapse during the third quarter of 2023. For example, the market price of carbon credits at the European Compliance Carbon Credit Market dropped by more than 10% since July, reaching almost the lowest point of the year. Moreover, the price of carbon credits in almost all carbon credits markets has been

declining recently, with reports claiming that the limited actual benefits of carbon credits had a direct impact on the price drop. For the market, the dropping prices will inevitably negatively affect investors' expectations for carbon credits, thereby affecting the progress of some environmental protection and climate change mitigation projects. As a result, not only may this US\$2 billion market not continue to grow, it may even suffer a loss in value. In this case, it is hard to determine whether the negative reports helped to cool down the immature market or prevented the rapid growth of a market solution of climate change mitigation.²

Besides the issue of credibility, critics have also been arguing that carbon credits potentially allow companies and individuals in developed nations to continue emitting greenhouse gasses instead of making substantial efforts to reduce their carbon footprint without any concern. Another recent study suggests that the carbon credit market is actually offering the giant companies a solution to be 'carbon neutral' without actually reducing their carbon emission at all.

Lastly, a September *Financial Times* report mentioned allegations of human rights abuse facing some carbon credits projects. Companies such as McKinsey, Air France and Bayer have been buying carbon credits from Southern Cardamom, one of Cambodia's largest nature restoration projects, through protecting the local rainforests, grasslands, lakes and coastal mangroves. However, that carbon credit project was recently suspended because it was reportedly unable to balance the needs of ensuring the normal life of local residents and instead developing more carbon sinks.

Main Relevant Sources:

- [Drop carbon offsetting-based environmental claims, companies urged](#), *The Guardian*, July 10, 2023
- [Carbon-credit traders find their CO2 offsets may be worth nothing](#), *Los Angeles Times*, August 22, 2023
- [Carbon credit speculators could lose billions as offsets deemed 'worthless'](#), *The Guardian*, August 24, 2023
- [REDD+ projects falling far short of claimed carbon cuts, study finds](#), *Mongabay*, August 25, 2023
- [Rainforest carbon credit schemes misleading and ineffective, finds report](#), *The Guardian*, September 15, 2023
- [Revealed: top carbon offset projects may not cut planet-heating emissions](#), *The Guardian*, September 19, 2023
- [The death of carbon neutrality?](#), *Financial Times*, September 25, 2023
- [One-Quarter of Carbon Offset Projects Globally Deemed Unsuitable for CO2 Reduction, Study Finds](#), *Earth Org*, September 25, 2023

² Image: A landscape of dead trees amidst a section of renewed forest in Yellowstone National Park in the U.S. (Source: Getty Images, Royalty-Free)

Government Statements & Actions on the Rise of Carbon Crediting

Over the third quarter of 2023, government officials around the world appear to have generally supported the development of the domestic carbon credits market. More political leaders are beginning to realize that carbon credits trading is a realm with huge potential in terms of both financial values and environmental protection. The attention that political leaders pay on carbon crediting will surely contribute to the expansion of—or lack of progress—in this market in the future.

- During the second convening on voluntary carbon markets on July 19, Commissioner Christy Goldsmith Romero made an opening statement underscoring the role of the U.S. Commodity Futures Trading Commission (CFTC) in this market. He suggested that the CFTC will work with exchanges and market participants to ensure the integrity of derivatives markets and promote responsible innovation in environmental products.
- Taiwan launched the Taiwan Carbon Solution Exchange on August 7, and Tsai Ing-wen said in her address during the opening ceremony that the exchange will facilitate carbon credit trading and create incentives for businesses to reduce carbon emissions.
- Ghana's Lands and Natural Resources Minister Samuel Jinapor told the press on September 8 that Ghana is working on legislation to regulate the production of carbon credits in the country.

Some governments have shown strong interest in carbon crediting, and corresponding government agencies have also provided both policy and financial support to related industries and projects. It is expected that in the coming months more companies and individuals will be encouraged to participate in this subject, and receive considerable returns while contributing to climate change mitigation. Meanwhile, governments also set new regulations on the potential and already exposed problems that need to be addressed to make the carbon credits market successful.

- The United Kingdom emissions trading scheme (ETS) announced on July 3 that it will be reformed in 2024 to impose stricter limits on carbon dioxide emissions and will expand in 2026 to encompass additional sectors. The ETS was initiated in 2021 to replace the country's involvement in the European Union's ETS and incentivize emission reductions within various industries.
- As a significant step in Brazilian President Lula da Silva's environmental initiatives, Brazil announced on August 17 that it plans to establish a regulated carbon market with emissions caps for large firms and protection for indigenous communities in carbon-offset endeavors.
- The U.S. government announced in August that it is opening up US\$150 million in grants to assist small forest landowners to participate in the carbon credit market and work with big companies that are seeking carbon offsets, aiming to enhance climate change efforts through forest protection.

The recent attitude of international organizations on the issue of carbon crediting is very positive. Not only are they encouraging the development of carbon crediting, some are even taking the initiative to help some underdeveloped countries in establishing markets and relevant systems. International organizations also serve as a platform to facilitate transnational cooperations on carbon crediting.

- In July, United Nations agencies announced that they will fund and oversee Somalia's first carbon credits program for reforestation. The plan was confirmed by Iroko Analytics, the project's initiator, and the UN's International Organization for Migration will support the program financially.
- During the inaugural African Climate Summit in September, investors from the United Arab Emirates (UAE) confirmed that they will buy US\$450 million of carbon credits from the Africa Carbon Markets Initiative (ACMI). It is believed that similar large orders will boost Africa's carbon credit production.
- In September, President of the European Commission Ursula von der Leyen emphasized the importance of "trustworthy carbon credits" during her keynote speech at the Global Citizen NOW climate session.

Main Relevant sources:

[UK to tighten emissions trading scheme from 2024](#), Reuters, July 3, 2023

[First Somali Reforestation Carbon-Credit Plan Supported by UN](#), Bloomberg, July 5, 2023

[Opening Statement of Commissioner Christy Goldsmith Romero: The CFTC's Role with Voluntary Carbon Credit Markets](#), Commodity Futures Trading Commission, July 19, 2023

[President Tsai launches Taiwan Carbon Solution Exchange](#), Taiwan Today, August 8, 2023

[Brazil government eyes emissions cap, indigenous protections in new carbon market](#), Reuters, August 17, 2023

[A \\$150M Boost: Allowing Small Forest Owners to Profit from Carbon Credits](#), Carbon Credits, August 24, 2023

[Hundreds of millions of dollars pledged for African carbon credits at climate summit](#), Reuters, September 5, 2023

[Ghana Plans to Regulate Carbon Credits Industry, Minister Says](#), Bloomberg, September 8, 2023

[Keynote speech by President von der Leyen at the Global Citizen NOW climate session](#), European Commission, September 21, 2023

Third-Party Analyses & Data on the Rise of Carbon Crediting

Experts, observers, and journalists have also expressed their praises, doubts, concerns, and future suggestions related to carbon credits. Many have recognized the positive role being played by carbon credit trade as a solution to achieve carbon neutrality and praised the efforts of all parties involved. Some have explained concerns about the existing problems of carbon credit trade while attempting to present potential solutions. Meanwhile, others expressed outright opposition to the concept of carbon credits for various reasons.

- An analysis published in *The Wall Street Journal* warns that the US\$2 billion voluntary carbon-offset market is facing credibility challenges as many credits do not deliver the emissions cuts that they promise, prompting regulatory scrutiny, market exits, and the publishing of new guidelines. The article subsequently argues that only a small fraction of companies are likely to comply with the new standards.
- In an issue brief posted on *International Investment*, Executive Chairman and CEO of Genesis Fund Services Limited Antoine Bastain lays out an argument detailing The Bahamas' road to capitalizing on its "carbon wealth," which he says is a "value north of 50 billion" following the country's recent passing of its *Carbon Credit Trading Act, 2022*.
- Writing for *China Dialogue*, Catherine Early calls for the introduction of new carbon credits accounting guidance and techniques in order to deal with the persistent reputation problem it faces.
- Activist and investor Kimmeridge tells *Reuters* that there should be a rating system for carbon credits, akin to bonds, to instill buyer confidence that their purchases will effectively contribute to curbing emissions.
- In writing for *The Washington Post*, Lara Williams points out the problem of trading carbon credits as commodities: the market price of voluntary carbon credits dropped 60% since the start of the year due to economic challenges and increased scrutiny.
- Occidental Petroleum is set to acquire Carbon Engineering Ltd. for US\$1.1 billion, furthering their efforts in direct air capture (DAC) technologies to capture carbon dioxide from the air as a carbon offsetting solution.
- In an opinion piece for *Power Technology*, Annabel Cossins-Smith listed the challenges and scandals of carbon crediting due to lax regulation and analyzed the feasibility of tighter regulations in this market.
- In a report with *Al Arabiya News*, Jennifer Bell tells the readers that Saudi Arabia's Regional Voluntary Carbon Market Company (RVCMC), supported by the Public Investment Fund (PIF), is playing a pivotal role in promoting the concept of carbon credits.
- Researcher You Xiaoying wrote a *China Dialogue* commentary on China's national emissions trading scheme (ETS), suggesting that ETS has achieved its initial goals of building market awareness and setting up trading

mechanisms but still faces challenges like data integrity and lack of effective legislation.

- Writing for *Reuters*, Susanna Twidale and Sarah Mcfarlane argue that voluntary carbon markets are contracting for the first time in at least seven years because big companies reduced buying, and studies also found several forest protection projects fail to meet their emissions reduction promises.
- Opinion writer David Wallace-Wells wrote in his article published in *The New York Times* that Canada's forests have become a significant source of carbon emissions due to the wildfire because they released more carbon dioxide than they absorb since 2001.
- In a commentary published in *Bloomberg*, Ben Elgin suggests that forest projects within California's cap-and-trade system offer minimal extra advantages for the climate according to a recent study, despite its leadership in emission reduction efforts.
- In an in-depth interview published by *Carbon Credit*, several journalists and scientists explain what carbon offset is, how it is used by businesses and nations, and why it can be a problematic climate solution.

Relevant sources:

- [Rebuilding Trust in Carbon Offsets Faces Uphill Battle](#), *The Wall Street Journal*, July 12, 2023
- [Beyond Natural Beauty: The Carbon Credits Market & The Bahamas](#), *International Investment*, July 20, 2023
- [Can new tech make carbon offsets trustworthy?](#), *China Dialogue*, August 2, 2023
- [Activist investor proposes rating carbon credits like bonds](#), *Reuters*, August 10, 2023
- [Why All Carbon Credits Aren't Created Equal](#), *The Washington Post*, August 14, 2023
- [Occidental Petroleum to Acquire Carbon Capture Technology Supplier for \\$1.1 Billion](#), *Investopedia*, August 16, 2023
- [The voluntary carbon market: can tightening regulations combat corporate greenwashing?](#), *Power Technology*, August 17, 2023
- [Saudi Arabia's robust push for carbon credit trading paves the way for climate action](#), *Al Arabiya News*, August 29, 2023
- [As China's carbon market turns two, how has it performed?](#), *China Dialogue*, August 31, 2023
- [Carbon credit market confidence ebbs as big names retreat](#), *Reuters*, September 1, 2023
- [Forests Are No Longer Our Climate Friends](#), *The New York Times*, September 6, 2023
- [Carbon Offsets Undercut California's Climate Progress, Researchers Find](#), *Bloomberg*, September 21, 2023
- [Report: majority of carbon offset projects globally are "likely junk"](#), *Power Technology*, September 22, 2023
- [In-depth Q&A: Can 'carbon offsets' help to tackle climate change?](#), *Carbon Brief*, September 24, 2023

ICAS Commentary

Carbon credits are a useful tool in combating climate change

By Zhangchen Wang
September 29, 2023

"Climate change has reached an extremely dangerous stage in which it is necessary to take all feasible measures without discrimination to combat it." This sentence, while certainly true, is also becoming a platitude. Carbon credits have always been one of the more controversial options to address climate change, but it will undoubtedly have a positive impact on a variety of aspects if used correctly. Carbon credits refer to the quantifiable greenhouse gas reductions or removals achieved through projects or activities such as renewable energy initiatives and reforestation efforts. By assigning a financial value to reductions in greenhouse gas (GHG) emissions and making them tradable credits, carbon credits incentivize sustainable practices such as reduction in carbon emissions, sustainable investment, and international green cooperation. Nevertheless, it is also true that the [criticisms](#) of carbon credits have never ended. It is, therefore, important to acknowledge these concerns and provide thoughtful responses to address them effectively in order to make full use of carbon credits in combating climate change.

The carbon credit market functions on the principle of supply and demand. At present, there are mainly [two types](#) of carbon credit market: the regulatory compliance market and the voluntary market. The [compliance market](#) is established and regulated by governments, trading credits according to the enforced emission reduction targets. In contrast, the [voluntary market](#) is driven by individual initiatives to offset emissions voluntarily; usually used as a way to convey a positive attitude toward environmental responsibility. The entities that seek to offset their GHG emissions—both voluntary and regulatory—can purchase from those entities that earned carbon credits.

As previously mentioned, carbon crediting offers a multitude of benefits, making it an effective tool in the fight against climate change. One of the biggest—and most evident—benefits of carbon credit is that it is very helpful in reducing carbon emissions. From the perspective of those on the demand side the emission reduction target provides entities, or those on the supply side, with a tangible economic incentive to cut down GHG emissions as their costs will rise due to additional emissions. For example, the European Union Emission Trading Scheme (EU-ETS) is one of the first carbon credit cap-and-trade systems in the world, and it sets a cap on overall emissions and allocates emission allowances accordingly. Based on the current market price of carbon credits, for the carbon-emitting entities, each additional metric ton GHG generated will lead to a cost increase of [US\\$40-80](#) per metric ton. Companies involved in the EU-ETS would therefore have a higher incentive to reduce emissions and trade their unused allowances for extra revenues.³



The carbon market is currently worth [US\\$2 billion](#), and this is set to grow to US\$250 billion by 2050. The prospect of making profits from selling carbon credits also incentivizes the supplier to keep investing in carbon reduction activities such as [afforestation](#) projects. For example, Indonesia's [Rimba Raya Biodiversity Reserve](#) is one of the tropical lowland peat swamp forests protection zones in the world. It was among the first REDD+ projects validated under the Verified Carbon Standard (VCS), and it is expected to generate approximately 2.7 million carbon credits per annum until 2073. There are [protected areas](#) around the world where commercial motivations for establishing them outweighed the environmental motivations, but these reserves are still home to countless species of flora and fauna and animal species, significantly contributing to biodiversity. It is also worth mentioning that blue carbon ecosystems—mangroves, seagrasses, and tidal marshes—are also significant contributors to carbon credits since blue carbon can sequester up to [10 times more](#) carbon than “green carbon” forests. In this regard, research programs dedicated to [blue carbon research](#) are compatible with high development opportunities from a commercial perspective as a nature-based climate change solution.

³ Image: An artistic depiction of capturing GHG emissions through natural-based solutions to mitigate climate change. (Source: Getty Images, Royalty-free)

While being a valuable tool in the fight against climate change, [criticisms](#) against carbon credits have never ceased to exist. The criticisms mainly focus on the additionality, permanence, and credibility of carbon credits, as well as the potential of enabling businesses to engage in [‘greenwashing’](#). It has to be admitted that these accusations about carbon credits are not groundless. In terms of [additionality](#), critics argue that the emissions reductions claimed by some carbon offset projects would have occurred anyway even without the offset project. For example, no one can claim the carbon sinks produced by forests that have existed on the earth for thousands of years without taking any measures. “Permanence” is a problem that is usually mentioned together with additionality. It refers to the situation in which people are concerned about the long-term permanence of emission reduction projects since the trees planted for additionality might be lost again and release the previously captured carbon back into the atmosphere.

However, as long as a long-term, stable environmental protection policy can be maintained, these two issues will not have a significant negative impact on the effectiveness of carbon credits. The first thing that all carbon credits projects must agree on is that the revenue gained from carbon credits must be used primarily to combat climate change. It is important to ensure that the revenue of carbon credits is used for new carbon offsetting projects such as reforestation to ensure that additionality can be guaranteed. After that, it is necessary to ensure that reforestation is not a temporary project to prevent continuing deforestation during reforestation to guarantee permanence. All in all, it is necessary to set up a globally acknowledged mechanism to monitor, verify, record, and regulate the carbon credits claimed by countries and organizations. In other words, all the current questions and concerns about carbon credits are caused by the lack of a recognized management mechanism. International organizations and major countries—especially those leading in the field of environmental protection—should take the initiative to assume the responsibility of organizing and setting international carbon credit standards. In this case, there will also be corresponding regulations to ensure the credibility of carbon credits.

Lastly, critics also worry that carbon credits will entice businesses to engage in greenwashing by purchasing offsets and not making genuine efforts to reduce their GHG emissions. For now, it is necessary to admit that greenwashing is indeed the motivation for some carbon emitters to buy carbon credits. However, at least they are still engaging in this carbon reduction initiative and providing the [carbon sequestration projects](#) with financial support. Also, due to the need to balance environmental protection and economic development, the current requirements for carbon offsetting for most entities are not very strict. With the gradual implementation of increasingly stringent emission caps in the future, greenwashing will also gradually become infeasible in terms of costs.

Carbon credits provide a mechanism to quantify and incentivize emission reductions at a time when the world is trying to mobilize all the forces to fight climate change. It represents a crucial step towards a more sustainable future, and it encourages the adoption of more methods to reduce GHG emissions. Additionally, considering the fact that almost all of the criticisms facing carbon credits are due to the lack of a well-established management mechanism, more standardized frameworks formed through multilateral cooperation will definitely help it to maximize its potential.

This commentary was [originally released](#) on the ICAS website on September 29, 2023 as part of the ICAS Blue Carbon & Climate Change (BCCC) Program.

This season’s Theme of the Quarter on The Rise of Carbon Crediting was primarily researched and written by Zhangchen Wang, BCCC Program Part-time Research Assistant Intern at the Institute for China-America Studies.

This Season's Global Climate Affairs

Issues & Updates on Blue Carbon

HC appointed panel takes concrete steps for mangrove protection

Monday, September 18

Source: [Hindustan Times](#)

[India]

India's Konkan Divisional Commissioner Kalyankar has ordered immediate action to counter mangrove destruction. The committee agreed to install CCTV cameras to monitor mangroves for protection, and the feasibility of methods like transferring mangroves areas to the forest department was also discussed.

Seychelles Aims to Fully Protect Seagrass to Curb Climate Change

Wednesday, September 13

Source: [Bloomberg](#)

[The Seychelles]

The Seychelles government aims to protect its seagrass by 100% by 2030 from 87% this year to safeguard its natural blue carbon sinks. Seychelles Conservation and Climate Adaptation Trust Chief Executive Officer Marie-May Jeremie said that protection measures include preventing erosion of the coastline and preserving marine habitats.

Red Sea Global launches mangrove project to grow 50 million trees

Thursday, August 17

Source: [Arab News](#)

[Saudi Arabia]

Saudi Arabia's state-owned Red Sea Global (RSG) launched a nursery project that aims to grow 50 million mangrove trees in Saudi Arabia by 2030. The mangrove project is a part of the country's plan to promote sustainability and biodiversity in Saudi Arabia.

Mangrove Project to be Implemented in Balanga, Bataan

Saturday, August 12

Source: [Department of Environment and Natural Resources; Republic of the Philippines](#)

[The Philippines]

The Philippines Department of Environment and Natural Resources signed the *Memorandum of Agreement for the Balanga Mangrove Adoption and Protection Project* with the government of Bataan, aiming to establish an 8-hectare area suitable for mangrove plantation to protect Bataan from the influx of extra flooding during typhoons.

Investing In Marine Ecosystems And Blue Carbon Capture

Thursday, August 9

Source: [Mirage News](#)

[Australia]

The Labor Government of Victoria, Australia announced a AU\$1.2 million grant for the Western Port Biosphere Reserve Foundation and Bunurong Land Council for the restoration projects at the reserve. The investment aims to improve the reserve's potential as a major site for blue carbon capture.

In Baltic Sea, citizen divers restore seagrass to fight climate change

Wednesday, July 26

Source: [Reuters](#)

[Germany]

In the waters of the Baltic Sea, north of Germany, citizen divers are working to replant seagrass to counter climate change involving the movement of carefully dug up seagrass shoots from dense meadows into barren areas.

New study reveals seaweed's hidden climate benefits

Tuesday, July 18

Source: [Conservation International](#)

[Global]

New research shows that seaweed forests can absorb as much carbon as the Amazon rainforest. Seaweed forests from polar regions are more effective at absorbing carbon due to cooler and nutrient-rich waters. Protecting and restoring seaweed forests worldwide, the new research also found, could significantly contribute to carbon sequestration and marine conservation efforts.

From soup stock to supercrop: Japan shows off its seaweed savvy

Saturday, July 16

Source: [The Japan Times](#)

[Japan]

In Japan, research on seaweed is flourishing as groups explore new applications for the plant such as "farming it from an environmental or ecological point of view" instead of just as a food crop. Newfound uses range from fisheries selling "blue carbon" credits to wild seaweed forest restoration and potential uses as organic fertilizer.

Caribbean seagrasses provide services worth \$255B annually, including vast carbon storage, study shows

Monday, July 10

Source: [University of Michigan School for Environment and Sustainability](#)

[The Caribbean]

According to a study using new satellite data, researchers estimate that the Caribbean holds up to half the world's seagrass meadows by surface area and contains about one-third of the carbon stored in seagrasses worldwide.

Multilateral Affairs & Climate Diplomacy

Combatting the Hottest Summer on Record

The Short Story: According to the data collected by multiple research institutes and organizations from different countries, the summer of 2023 was the hottest summer since the global record began more than two centuries ago.

Why It Matters: These extreme levels of heat have once again shown that the impacts of the human-induced climate crisis on planet Earth are becoming increasingly stronger. In the Northern Hemisphere, the heat waves caused drought, triggered wildfire, and increased health risks. In the ocean, abnormal temperatures disrupted marine lives and facilitated the generation of extreme weather conditions. Moreover, this trend is unlikely to slow down unless more measures are adopted to combat climate change.

The Full Feature Story: According to data from the European Union Climate Change Service, the average temperature in Summer 2023 across the Europea was 16.8°C (62.2°F), which was 0.66°C above average. June, July and August of 2023 were also the hottest yet, with September heat levels close behind, , which further indicates that the heating summer is not an accident but an indicator of the worrying trend of global warming. The data for September is yet to be published but many suspect the unprecedented heat to break records for that month as well. Some scientists even argued that the planet has not been so warm for 120,000 years. Without a doubt, human-induced climate change is the single most important driver of extraordinary heat, as data shows that global temperature is directly proportional to greenhouse gas levels in the atmosphere. In addition, the untimely arrival of the cyclical El Niño, which warms parts of the Pacific and temporarily changes global weather patterns, was a contributing factor to the high temperature.

Extreme heating has multiple negative impacts on human society. One of the most direct impacts of heating is that it poses a risk on health, both directly and indirectly. Besides heat-related illnesses such as heat cramps, heat exhaustion, and heat stroke, heat also increases the risk of having heart, lung, and kidney problems—especially among vulnerable populations. Furthermore, global increases in heat often interfere in global food and water supplies, as access to freshwater drops and crops are less fruitful during droughts.

The impact of high temperatures on the environment is even more serious by significantly increasing the risk and destructive power of natural disasters or even phenomena. For example, abnormal temperatures made this year's dry season of Hawaii unusually drier, which significantly increased the risk of wildfire. When wildfire hit Maui, it was able to spread rapidly and eventually claimed more than a hundred lives. Comparatively less destructive, wildfires also hit Canada, Spain, Greece, and many other places over the summer in large enough blazes for neighboring regions to see and taste the smog in the air. Although fire did not hit everywhere, drought still posed a serious challenge to multiple regions. The heat waves disrupted food production in the Mediterranean region. In just a few examples, the wheat crop yields of Spain were expected to be 38% lower than its five-year average, and the honey production in Italy was 70% lower than last year. Farmers in Greece and Algeria are also considering switching to hardier crops to cope with the heating summer that might persist for years.

The ocean is also heating up this summer, leading to multiple catastrophic events worldwide. Firstly, marine species and coral reefs require a specific range of water temperatures to survive, and rising water temperatures are already showing signs of serious consequences such as marine habitat destruction and coral bleaching. Additionally, ocean temperature has a direct influence on weather phenomena such as cyclones and hurricanes (also known as Typhoons in the Northwest Pacific Ocean). For instance, unusually high temperatures in the Sea of Japan in July significantly contributed to the formation of several strong typhoons—Typhoon Doksuri and Typhoon Khanun—which caused serious damage in coastal cities in East Asian countries. The heavy rain, strong winds, and urban waterlogging caused by the back-to-back disasters have caused disruption in various coastal cities, some of which amount to immeasurable economic losses and casualties.

In addressing the warming trend, long-term solutions are of the essence. It is important to enhance the development of renewable and sustainable energy to reduce carbon emissions and promote afforestation and reforestation of both green and blue carbon to absorb greenhouse gases from the atmosphere. While there might not be a quick-fix solution to the warning trend, immediate actions and policies are necessary to set the stage for a long-term transformation to reduce carbon emissions to mitigate and even eliminate the adverse effects of global warming. Whether or not such policies would be genuinely fruitful and lasting is up to those in charge.

Sources:

[This July 4 was hot. Earth's hottest day on record, in fact.](#), *The Washington Post*, July 5, 2023

[Explainer: How El Nino is helping drive heatwaves and extreme weather](#), *Reuters*, July 19, 2023

[Where Heat Waves Lead, Food Inflation Will Follow](#), *The Wall Street Journal*, July 21, 2023

[Heat waves in US and Europe would have been 'virtually impossible' without climate change, new report finds](#), *CNN*, July 25, 2023

[This month is the planet's hottest on record by far – and hottest in around 120,000 years, scientists say](#), *CNN*, July 27, 2023

[Ocean temperatures are off the charts. Here's where they're highest.](#), *The Washington Post*, July 28, 2023

[Maui Fires: How Weather Fanned Them Into A Deadly Catastrophe](#), *The Weather Channel*, August 11, 2023

[Extreme Heat, Floods, Fire: Was Summer 2023 the New Normal?](#), *The Wall Street Journal*, August 23, 2023

[Summer 2023 was hottest on record, scientists say](#), *Reuter*, September 7, 2023

[Spain records its third hottest summer since records began as a drought drags on](#), *ABC News*, September 14, 2023

Global Cooperation and Competition on Critical Mineral Supplies

The Short Story: More countries are starting to regard critical minerals as strategic resources to ensure energy security in the next era, and cooperation and competition in this field is becoming increasingly frequent.

Why It Matters: As important raw materials for the development of clean energy, the world's demand for critical minerals—such as cobalt, nickel, lithium, and rare earth elements—continues to grow more aggressive. Analyses showed that the global energy transition will be slowed down and face a shortage in critical mineral supply due to malignant competition and demand surge. From the perspective of addressing climate change, countries should strengthen international cooperation to ensure the development of renewable energy. Nevertheless, competition between countries seems to have a reasonable explanation if critical minerals are regarded as a strategic material for energy development in the new era of renewable and clean energy.

The Full Feature Story: There are several recently published reports and analyses arguing that the supply of lithium and other minerals at the current level is insufficient to meet the world's energy transition demand by 2030, and the strategic competitions in relevant fields will only make the situation even more challenging for everyone. More specifically, according to an article published in the *Financial Times*, the world is going to need 330 more critical mines—including 59 new lithium mines—to avoid critical mineral shortage in the near future. Clearly, it is impossible for any country to develop that many new mines in a short period of time. Various reasons such as technical deficiencies, shortage of funds, and insufficient resources may prevent a country from developing new critical mineral mines. Therefore, countries have begun to make full use of their own advantages to promote cooperation in the field of critical mineral development. For example, the United Kingdom (UK) signed a new clean energy cooperation deal with Zambia in August. The British public and private sector promised to invest at least 3 billion pounds in total in Zambia's renewable energy sectors, and a large proportion of the fund will be invested in Zambia's critical minerals mining industry. Zambia has proven deposits of critical minerals such as cobalt, manganese, and nickel, while the investment will help the UK to secure a more stable and diversified supply of critical minerals. Separately, Japan joined the UK's cooperation framework in September, with the two countries agreeing to jointly search for and invest in critical mineral mines in Africa. Countries like Congo, Mali, and Ghana all have abundant undeveloped critical mineral mines, and the UK and Japan seek to make full use of the potential of these countries. The UK has also simultaneously agreed to strengthen cooperation on critical minerals with South Africa.

Similar corporations are also happening in the Persian Gulf region, which is a traditional supplier of fossil fuels. Towards the end of August, Turkey and Saudi Arabia agreed to advance cooperation on critical minerals mining. Turkey will receive investments from the Gulf oil giant by offering more advanced mining technologies. Turkey is also planning on cooperating with the UAE and Qatar in similar ways.

Despite the fact that China was not heavily involved in critical mineral international cooperation in the past few months, China is still arguably the biggest supplier of critical mineral resources. China is not only the biggest supplier of rare earth raw materials and the third largest supplier of lithium but also the main processor of almost all kinds of critical minerals. As the relationship between most countries and China gradually turns to confrontation, it is also difficult for them to reach cooperation in the field of critical minerals. For example, at the end of September, the European Union signed new partnerships with the Democratic Republic of Congo and Zambia to boost local industries in critical materials processing, aiming to diversify suppliers of key resources and to counter China's dominance in critical mineral processing. However, confrontation will do no good for the global green energy transition. A recent report published by *Nature* pointed out that this kind of confrontation will only increase trade barriers and technological blockades on critical minerals, resulting in an overall increase in the price of green energy. Clearly, an increase in price will only make the green energy transition become even harder to achieve, ultimately assisting the detriment of the world at large.

Sources:

- [No country can solve critical mineral shortages alone](#), *Financial Times*, July 7, 2023
- [IEA says critical minerals supply could pull close to demand by 2030](#), *Reuters*, July 11, 2023
- [The global fight for critical minerals is costly and damaging](#), *nature*, July 19, 2023
- [Britain agrees deals on clean energy, critical minerals with Zambia](#), *Reuters*, August 2, 2023
- [Turkey, Saudi Arabia ink critical mineral cooperation deal](#), *Al Monitor*, August 28, 2023
- [Japan and U.K. to jointly invest in critical minerals in Africa](#), *Nikkei Asia*, September 4, 2023
- [Indonesia proposes critical minerals trade deal with US](#), *Reuters*, September 7, 2023
- [Europe Lines Up African Minerals Pacts to Ease Reliance on China](#), *Bloomberg*, September 27, 2023

More on Multilateral Affairs & Climate Diplomacy:

- China and the European Union held their fourth High-level Environment and Climate Dialogue and agreed to deepen cooperation and play a leading role in global environmental and climate governance together. ([CGTN](#), July 6)
- U.S. President Joe Biden and King Charles III convened at Windsor Castle alongside 23 prominent philanthropists and financiers, aiming to mobilize funds for assisting emerging markets and developing nations in addressing the climate crisis. ([The White House](#), July 10)
- During his visit to Beijing, the United States' special presidential envoy for climate John Kerry told Chinese foreign minister Wang Yi that U.S.-China climate cooperation will help to redefine their troubled diplomatic relationship. ([AlJazeera](#), July 18)
- The COP28 Presidency and UNFCCC signed the Host Country Agreement, setting the legal framework for the upcoming UN Climate Summit and strengthening their joint commitment to inclusivity and transparency. ([PR Newswire](#), Aug 1)
- After a two-day summit in Belem, Brazil, leaders from eight South American Amazonian nations agreed to work towards a unified environmental agenda to combat rainforest destruction and bolster regional cooperation. ([AlJazeera](#), Aug 9)
- An International Monetary Fund report shows that climate change is likely to worsen conflicts in fragile and war-torn states, and lead to even higher death rates and lower GDP growth. ([Reuters](#), August 30)
- The Kenyan president declared during the first African Climate Summit that Africa is suffering unfairly from climate change and it is necessary to talk about a carbon tax on polluters. ([AP News](#), September 5)
- The United States' special presidential envoy for climate John Kerry urged China and other "large economies" to contribute more to help poor countries fighting the impacts of climate change. ([Bloomberg](#), September 7)
- G20 leaders agreed to triple renewable energy and try to increase climate change-related disaster funds but have, so far, made no progress on phasing out fossil fuels. ([AP News](#), September 9)
- A group of small island nations threatened by frequent storms and rising seas are appealing to an international court, seeking a declaration that excessive greenhouse gasses violate international law as pollutants. ([The New York Times](#), September 11)

Domestic Activity & Climate Affairs

Controversy Over the Release of Treated Water from the Fukushima No. 1 Power Plant

Country/Region: Japan

The Short Story: Following months and years of checks and permissions, Japan began discharging treated nuclear contaminated water generated in response to the 2011 Fukushima nuclear meltdown into the sea on August 24, bringing controversy and opposition both domestically and internationally, especially from its neighbors.

Why It Matters: Although the Japanese government began to demonstrate at an international level the safety of the treated nuclear contaminated water long before it officially began discharging the wastewater into the sea, their decision still attracted fierce opposition, especially from neighboring countries. Opponents question whether the treatment is able to remove radioactive pollutants completely, and argue that discharging radioactive water into the sea will cause irreversible damage to the marine environment.

The Full Feature Story: In 2011, the Fukushima earthquake and tsunami damaged the reactor and cooling system of the nearby Fukushima Daiichi nuclear power plant. Since then, in order to prevent a disastrous explosion like the accident of Chernobyl, Japan had to continually inject fresh water directly into the damaged reactor to cool it down, therefore producing a large amount of nuclear-contaminated water over the past decade. Before considering releasing the wastewater, Japan built a large amount of giant containers to store the contaminated water. However, the area is now running out of space for more containers while Japan also needs to free up space to safely decommission the plant over the next several decades. Japan has carried out more than two years of preliminary preparations before starting to discharge the contaminated water into the ocean in August. In July, the Japanese government received endorsement from the International Atomic Energy Agency (IAEA) after a safety assessment conducted by the IAEA affirmed that Japan's plan to release treated wastewater from the Fukushima Daiichi nuclear power station into the sea aligns with IAEA Safety Standards. The largest criticism of this plan is that, currently, there is no effective means to remove radioactive tritium from contaminated water, and some researchers express concern that the radioactive water, even when diluted, may not only pose a threat to marine life but could accumulate within the already vulnerable ecosystem. However, the Japanese government believes that since tritium naturally exists in the environment, concerns in this regard are unnecessary. The IAEA's report also concurs with this view.

As of September 11, the first round of wastewater discharge plan has been completed. In 17 days, 7,800 tons of wastewater had been discharged into the sea from 10 tanks. To place that into context, there are over 1,000 tanks in Fukushima that are full of nuclear contaminated water. In the days and weeks following the release of the treated nuclear contaminated water, Japan ran regular, numerous water sample tests of the surrounding area. The wastewater that has been discharged so far has not caused any obvious damage to the environment, which seems to confirm Japan's view. Prime Minister Fumio Kishida also stressed again the safety and transparency of the release to win international support during the G20 summit, but outcries remain vocal. In fact, even in Japan, there are many opponents of the discharge plan. In addition to concerns about the marine environment, many people are also worried that even treated nuclear contaminated water will eventually harm their own health. Even those who are completely

reassured about the safety of the plan are still worried that this plan will damage the reputation of Japan—especially the reputation of Japanese seafood, which was immediately placed under warnings or bans by several surrounding nations upon the initial release of the wastewater.

International Reactions: International reactions to the plan are divided, with support from some countries and strong opposition and criticism from others. The U.S. has backed Japan, and the Taiwanese also agreed that the negative impact of tritium being released should be “minimal.” On the other hand, different groups and authorities in China, South Korea, and the Pacific Island States have openly expressed strong opposition to Japan’s plan. South Korea’s largest opposition party and various civic groups across the nation protested against Japan’s plan to discharge water. Opposition Democratic Party leader Lee Jae-myung criticized the Conservative President Yoon Suk Yeol’s government for “failing to do its duties as the ruling party” after the Yoon’s government refused to criticize Japan’s plan. According to one research conducted by the media, 62% of Korean people said they would cut back or stop consuming seafood once the discharge goes ahead. The Chinese government had an even stronger reaction as it branded the water release as “extremely selfish and irresponsible” during a press conference by the Ministry of Foreign Affairs. China even decided to completely suspend the import of aquatic products originating in Japan in order to prevent the risk of radioactive contamination of food safety.

Sources:

[IAEA Finds Japan’s Plans to Release Treated Water into the Sea at Fukushima Consistent with International Safety Standards](#), International Atomic Energy Agency, July 4, 2023

[Backlash builds as Japan prepares to release wastewater from Fukushima nuclear plant](#), NPR, July 9, 2023

[Japan will start releasing treated radioactive water this week. Here’s what we know](#), CNN, August 22, 2023

[Protests mount in South Korea over Japan’s plan to release Fukushima water](#), Reuters, August 23, 2023

[China bans Japanese seafood after Fukushima wastewater release](#), *The Guardian*, August 24, 2023

[Fukushima nuclear plant operator says first round of wastewater release is complete](#), ABC News, September 11, 2023

[IAEA Sampling of Second Batch of ALPS Treated Water Corroborates Japan’s Measurements](#), International Atomic Energy Agency, September 22, 2023

[Fukushima Daiichi ALPS Treated Water Discharge](#), International Atomic Energy Agency, accessed September 30, 2023

More on Domestic Activity & Climate Affairs:

- **Cambodia:** King Norodom Sihamoni of Cambodia emphasized the significance of forests, underscoring their value as a precious natural resource for both human beings and animals on Earth on Cambodia’s National Arbor Day. ([Xinhua](#), July 9)
- **Germany:** The European Union Commission has granted approval for Germany to allocate €3 billion in state funds to support the transition of companies towards a climate-neutral economy. ([Die Zeit](#), July 21)
- **China:** China experienced substantial growth in installed capacity during the first half of 2023, with the installed capacity of renewable energy reaching about 1.32 billion kilowatts, marking an 18.2 percent increase from the same period in the previous year. ([CGTN](#), July 21)
- **Germany:** The SeaStore Seagrass Restoration Project in Kiel, run by the GEOMAR Helmholtz Centre for Ocean Research, has been training local citizens to restore seagrass meadows in the Baltic Sea off the northern coast of Kiel in the name of autonomous climate restoration. ([Reuters](#), July 26)

- **The United States:** The Biden administration is showing great confidence in carbon capture projects, allocating US\$1.2 billion to the industry with the ultimate aim of sucking carbon dioxide out of the air to reduce levels of greenhouse gasses. ([Financial Times](#), August 11)
- **China:** China is planning to establish a recycling mechanism for old wind turbines and solar panels to address the increasing waste produced by the renewable industry as older projects are replaced and decommissioned. ([Reuters](#), August 17)
- **Ecuador:** 59% of Ecuadorian voters opposed oil extraction in Yasuni National Park, a vital biodiversity area in the Amazon rainforest and habitat for indigenous communities, marking a historic decision to preserve the Amazon rainforest. ([Climate Home News](#), August 21)
- **Indonesia:** According to the Meteorology, Climatology and Geophysics Agency (BMKG), the glaciers of the Puncak Jaya summit in Papua's central highlands are melting faster than expected due to rising global temperatures and this year's El Niño. ([The Jakarta Post](#), August 24)
- **The United Kingdom:** The government will announce measures designed to streamline the planning process for onshore wind turbines in England, aiming at preventing local authorities from impeding new wind power developments on land. ([The Guardian](#), September 4)
- **The United States:** The Biden-Harris Administration announced to invest up to US\$150 million to advance domestic critical material supply chains in support of the Investing in America agenda. ([U.S. Department of Energy](#), September 6)
- **China:** Beijing issues warnings to planning officials in four provinces for inadequate oversight of energy-saving objectives, emphasizing the necessity of achieving energy efficiency goals. ([South China Morning Post](#), September 11)
- **Libya:** The huge Mediterranean Storm Daniel hit Libya and caused serious floods that burst dams and wiped out as much as a quarter of the eastern coastal city of Derna. More than 11,000 people were killed and a further 10,100 remain missing. ([Reuters](#), September 12)
- **The United States:** A federal program will allocate over US\$1 billion to fund tree planting and maintenance across the U.S., aiming at mitigating extreme heat, promoting health, and enhancing access to nature. ([The Guardian](#), September 14)
- **The United Kingdom:** Prime Minister Rishi Sunak plans weakening key environmental pledges by delaying a ban on the sale of new gas- and diesel-only cars and lowering targets for replacing gas boilers. His new decisions sparked division nationwide. ([The New York Time](#), September 20)

Blue Carbon Country Profile: Pacific Island Countries and Territories (PICTs)

A. Potential of Pacific Island Countries and Territories (PICTs) in Blue Carbon Affairs

The term “Pacific Island Countries and Territories” refers to a diverse group of 22 sovereign states and dependent territories situated in the Pacific Ocean, including: **American Samoa, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Guam, Kiribati, Mariana Islands, Marshall Islands, Nauru, New Caledonia, Niue, Palau, Papua New Guinea, Pitcairn Islands, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, and Wallis and Futuna.** The total land area of PICTs is approximately 550,000 km², with Papua New Guinea making up approximately 85%. Although the current number of blue carbon ecosystems is rather limited among those islands, blue carbon still plays an important role in ensuring and improving local life and safeguarding these islands from climate change; one of the PICTs’ greatest adversaries right now. As arguably one of the most underprivileged regions in the world that is highly susceptible to environmental degradation, a healthy blue carbon ecosystem will help these vulnerable islands with very limited resources to better cope with the dual threats of climate change and economic constraints.

- Amount of seagrass: 1446 km² (2021)
- Amount of mangroves: 3427 km² (2023)
- Key Institutions of Study on Blue Carbon: Solomon Islands Ministry of Environment, Climate Change, Disaster Management and Meteorology; Kiribati Ministry of Environment, Lands & Agricultural Development
- Key Regions of Interest: Viti Levu Bay (Fiji), Fagatele Bay National Marine Sanctuary (American Samoa), Phoenix Islands Protected Area (Kiribati), Namdrik Atoll (Marshall Islands)



⁴ Image: A map of the PICTs. (Source: Graphic Guide—Oceania Maps, (2009), Map of Oceania—Pacific Islands www.geographicguide.com/oceania-map.htm.)

Despite their relatively limited access to scientific resources, there is considerable scientific data already available and released on this country's accessibility and potential to work on blue carbon affairs. The countries and territories of the Pacific Islands' blue carbon ecosystems are facing similar degradation issues to those in every other country in the world. There are multiple existing barriers that prevent these countries' blue carbon ecosystems from realizing their full potential in mitigating climate change, creating economic value, and protecting coastal areas. Additionally, compared to much of the rest of the world the PICTs are relatively economically and technologically weak. Thus, international cooperation will be vital to the success of PICTs in blue carbon-related studies. What makes PICTs unique from many other larger governments already researching blue carbon is that these PICTs will not seek to influence foreign blue carbon development through international cooperation. Instead, they would be much more likely to focus on finding the early starters in the field of blue carbon to help the development of their own abundant, domestic waters.

It is also worth noticing that the PICTs will be among the first nation-states in the world to be directly—and negatively—affected by climate change. For those big countries, the biggest impact of climate change so far is still no more than a strong hurricane or a period of high temperatures; many of these events being temporary or limited to one region of their nation. However, problems like hurricanes and rising sea levels are already devastating for the PICTs and will continue to bring lasting impacts, should current trends continue. It is important to convey to the world that the PICTs are putting efforts into mitigating climate change through every possible means, including nature-based solutions, even though their access and impact is easily considered as very limited. Meanwhile, besides the symbolic means and necessity of preserving their environments, blue carbon also has the potential to become an important source of income for these countries and a barrier against natural disasters. For instance, PICTs could use blue carbon to develop fishery and tourism, or look into trading blue carbon-based carbon credits.

B. Domestic Government Actions and Activities on Blue Carbon in PICTs

National Legislations

Each PICT has a different level of development and economic status, so their attitudes towards blue carbon also vary. In fact, not every PICT has a noteworthy blue carbon ecosystem, leading to many governments not yet noticing the value of blue carbon and the significance of blue carbon protection. Realistically and understandably, many PICT governments seem to be prioritizing more short-term economic and political growth, in several cases becoming too busy to deeply commit to new and untested concepts. Nevertheless, there are still some countries and territories within the Pacific Islands region that have already enacted blue carbon-related legislation at the national level, or at least recognized their importance.

- **Fiji's** Parliament passed the groundbreaking *Climate Change Act 2021* on September 23, 2021 in an attempt to reduce emissions and remove carbon.
 - Section 43 of the Act mentioned that Fiji will enhance environmental protection of land and ocean carbon sinks, with “mangrove protection” being one of the many covered areas.
 - Section 85 of the Act provides the Minister with the additional power to make regulations, policies and implement measures to enhance the mitigation potential of oceans-related climate issues including: “enhancing blue carbon.”

- According to H.R. 2750 (a bill “to establish an Interagency Working Group on Coastal Blue Carbon, and for other purposes”) first introduced to the U.S. House of Representatives in April 2021, or the *Blue Carbon for Our Planet Act*, the United States would establish an interagency working group to oversee blue carbon mapping, protection, restoration, data preservation, and other studies in the United States. As U.S. overseas territories, **American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands** are all covered by this bill.
- **Kiribati** introduced the *Environment (Amendment) Act 2007* in which protection for mangroves, seagrass, and coral reef was given provisions.
 - Section 23 of the Act mentioned that harming coral reefs, mangroves, and seagrass beds can result in up to two years imprisonment.

National Agencies and Government Actions

Although not many countries have formed legislation on blue carbon related issues at this point, there are still many countries that already pay attention to blue carbon and recognize the benefits of protecting their coastal regions which they acknowledge are already in danger. For example, the following countries have all mentioned blue carbon in their environmental protection government plans.

- The Samoa Ocean Strategy (SOS) published by the **Ministry of Natural Resources the Environment of Samoa** emphasizes the important role that mangroves and seagrasses play in carbon sequestration and storage as well as the threats they face due to human activities. The Strategy plans to facilitate the protection of blue carbon and other marine ecosystems through data collection, policy implementation, and also direct assistance. It ultimately aims to effectively protect Samoa’s blue carbon ecosystems by 2030.
 - p.18-19: “Mangroves provide many positive benefits to Samoan communities, including firewood, dyes, fish breeding grounds, coastal pollution control and protection from storm surges. The current total area of mangroves in Upolu and Savai’i is 374 hectares...Samoa contains three large mangrove areas, and the nation’s largest stand is in the eastern coast, close to the capital, Apia. This is also the most threatened mangrove area, mainly from coastal development and waste. The other two large mangrove areas are located on the south of Upolu Island in Sataoa/Sa’anapu and Le Asaga Bay. These are in better condition than Apia’s mangroves. *Halophila ovalis*, *H. ovalis ssp. bullosa*, and *Syringodium isoetifolium* are the only seagrass taxa recorded from Samoa albeit more research is needed to document their locations and distribution. These ecosystems are home to many coastal marine species. Many direct threats are impacting these ecosystems and species such as pollution (originating from land and vessels), overfishing, other forms of unsustainable harvesting, sand mining, land reclamation and erosion. They are also threatened by climate change, including acidification and warming/rising seas. Mangroves in Samoa are not included in a specific policy to enhance current efforts in their management.”
- The “National Biodiversity Strategies and Action Plan 2016-2020” introduced by the **Environment and Conservation Division (ECD) and members of the National Biodiversity Planning Committee of Kiribati** made detailed plans for blue carbon protection of the country after identifying “gaps that need to be addressed” in its *Environment (Amendment) Act 2007*.
 - p. 8: “Kiribati has developed legislations and policies to ensure the country’s environment is protected and that there is conservation and sustainable use of natural resources...However, it is noted that not all biodiversity issues are addressed in the Act and there are gaps that need to be addressed. For example, although protection for sea-grass, mangroves and coral reef was provisioned for under the Act, it did not provide detailed information on how these could be

protected from any activity which is not categorized or recognized under the Act as an Environmentally Significant Activity (ESA).”

- p. 13: “Mangrove planting which is viewed as one of the success activities in Kiribati has produced a total of 33,611 mangroves planted to date in 14 islands in the Gilbert group and the number will continue to grow as this planting is an ongoing activity. Community participation in this mangrove planting activity is successful as many local communities, primary schools, church youths and women, parliamentarians, visiting VIPs and other groups from outside Kiribati, to name a few have participated.”
- p. 13 “Mangroves are vital for our coastal protection and marine resources enhancement and at the same time, they are also crucial in their contribution to the carbon sequestration.”
- With the assistance from the United States, **Palau** promulgated The Palau Mangrove Management Plan as early as 2000 to guide the domestic mangrove protection works, and it is still repeatedly mentioned now in Palau’s National Biodiversity Strategy and Action Plan.

Local Government Actions

Considering the fact that all of the PICTs are very limited in size, there is no clear division between national and regional government actions among these countries in terms of blue carbon related policies. Therefore, “Local Government Actions” will not be considered individually in this report.

C. Private, Commercial Third-Party Research & Projects

Private Corporations and Investment Groups

As of September 2023, there are no notable private corporations or investment groups yet reported as being involved in blue carbon-related projects in the Pacific Islands states.

Universities and Research Institutes

Since all of the island countries are very small with limited qualified personnel and resources, the only qualified public university in the entire Pacific region is the University of South Pacific—a university jointly founded by twelve island countries. This university has indeed conducted blue carbon-related research, but it has not yet made any major academic achievements in this regard. At present there is also very little international cooperation between higher education institutes on blue carbon worldwide, and the only university that has expressed interest in blue carbon in PICTs is a Taiwanese school.

- In July 2023, scientists from the Sun Yat-sen University of Taiwan cruised around Palau’s territorial waters and identified the blue carbon capacity of **Palau**. The cruise concluded with the signing of a memorandum of agreement between the Palau International Coral Reef Center and the Sun Yat-sen University as they agreed to enhance collaboration in the future.
- In October 2018, the University of the South Pacific’s Institute of Applied Sciences was awarded a contract aimed at piloting the utilization of Blue Carbon for local ocean acidification mitigation in **Fiji**. The contract was funded by The Ocean Foundation as a component of their blue carbon restoration initiative in the Pacific Islands.

NGOs and Non-Profit Organizations

NGOs and non-profit organizations have played the longest and most active external role in promoting the protection and development of blue carbon ecosystems in PICTs, with such connections tracing back at least a decade. Their influences range from projects in a specific country to activities across the entire region.

- The WorldFish Center, a member of the CGIAR, published the *Mangrove Ecosystem Services and Payments for Blue Carbon in Solomon Islands* in 2012 and explored the value of mangroves to coastal populations, the feasibility of a blue carbon market in the **Solomon Islands**, and the carbon sequestration capability of mangroves in Solomon Islands in the policy brief.
- At the COP27 Summit on November 14, 2022, Amazon Inc. and Conservation International announced the establishment of the International Blue Carbon Institute. House in Singapore, this Institute aims to “help mitigate climate change and protect coastal communities by supporting the restoration and protection of coastal blue carbon ecosystems,” and will focus on “supporting Southeast Asia and the Pacific Islands in realizing their immense blue carbon potential.”
- C3 Fiji is an organization that focuses on building awareness, capacity, and inspiration for environmental stewardship. C3 has been involved in seagrass and mangrove research and conservation for a long time, and it cooperates with many organizations worldwide to facilitate blue carbon protection and restoration.

D. Public, Governmental International Engagements on Blue Carbon

Treaties & Agreements

- As of September 2023, there are no clear signs of treaties or agreements signed by self-governed PICTs that directly mention blue carbon.
- The closest display of formal, international promise that PICTs have displayed on the issue of coastal protection—especially as they relate to blue carbon—come in the form of formally submitted plans and statements to international organizations such as the United Nations.
 - For example, under the Paris Agreement, the United Nations Development Programme Climate Promise program has been helping over 120 countries and territories to “reduce their greenhouse gas emissions and meet the challenges of climate change.” As of September 2023, **Cook Islands, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Samoa, Tonga, and Vanuatu** are all listed as individual participants in the UN Climate Promise.
 - Related, the above listed PICTs in addition to **Marshall Islands, Micronesia, Fiji, Solomon Islands, and Tuvalu** have submitted their first updated Nationally Determined Contributions (NDCs) detailing their national efforts and displaying a strong commitment to playing their part in addressing modern climate issues, all with a special emphasis on coastal protection. These NDCs also provide a clear and concise snapshot of what these PICTs are concentrating on in their climate efforts and both their progress so far and their goals for the coming years on climate.
 - The following have submitted at least one updated NDC, displaying a continued attention:
 - **Kiribati** (March 2023); **Tuvalu** (November 2022); **Micronesia** (October 2022); **Vanuatu** (August 2022); **Nauru** (October 2021); **Solomon Islands** (July 2021); **Samoa** (July 2021); **Fiji** (December 2020); **Marshall Islands** (December 2020); **Papua New Guinea** (December 2020); **Tonga** (December 2020)
 - Notably, one of the primary goals of **Samoa’s** Enhanced NDC is to “expand mangrove forests by 5%, expand agroforestry an additional 5% and increase the total forest cover by 2%,” **Tuvalu’s** specifically says they “could initiate ocean-based carbon sequestrations

activities especially for nearshore ecosystems such as blue carbon” as a mitigation strategy, and **Vanuatu**’s mentions a “Blue Carbon Project [that] will focus on protecting and enhancing management of coastal habitats including coral reefs and mangroves and other adaptation-mitigation initiatives.”

Statements at International Conferences

- In the Pacific Island Forum Leaders Ocean Statement 2021, leaders of the Pacific island countries called for increased investment to better develop blue carbon protection and restoration initiatives for climate mitigation and adaptation.

Cross-Border Joint Projects & Partnerships

- The **Government of Papua New Guinea** and Australia agreed to work together to advance effective actions on climate change. As an important part of the cooperation, Australia and PNG will cooperate through Australia’s regional Pacific Blue Carbon Initiative to establish the building blocks for mapping, measuring and accounting for blue carbon and to stimulate investment.
- The German Federal Ministry for the Environment has initiated a project to protect coastal ecosystems in **Fiji, Papua New Guinea, Solomon Islands, and Vanuatu** from 2018 to 2025. The objective is to enable those countries to be able to conserve and manage seagrass and mangrove ecosystems to safeguard associated ecosystem services.
- In particular, the United States has been taking steps to assist with blue carbon issues in Pacific Island States, partly because three overseas U.S. territories—**American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands**—lie within the region.
 - The USAID announced it would offer additional investment in Pacific Island Countries to help them build resilience against the climate crisis, economic shocks, and health challenges. A portion of the investment will be spent in blue carbon research and analysis.
- The Commonwealth Secretariat conducted research and studied the potential of blue carbon sinks in **Vanuatu** in 2013. They acknowledged both the short-term and long-term benefits of blue carbon to Vanuatu, and provided 12 policy recommendations.

E. Keeping An Eye On...

It is not easy to accurately conclude the development and prospects of blue carbon in the PICTs into one or two paragraphs because, while they hold similarities, each country remains a unique case. Some of these countries, such as Fiji, Kiribati, and Samoa, have an accurate understanding and positioning of the role and significance of blue carbon and have taken effective actions to protect and develop them on both the governmental and civil level. They have not only regulated and planned blue carbon related works in terms of policies on the national level, but also carried out blue carbon research, studies, and capability building in higher education institutions and NGOs. They have even participated in international cooperation on blue carbon. Several PICTs have made repeated, detailed pledges on the international stage involving coastal habitats but have yet to implement policies or turn them into action. Others, yet, appear to have not carried out any work related to blue carbon and have minimal public recognition of what ‘blue carbon’ is or could offer, potentially out of a feeling of necessity to prioritize other matters. Indeed, some of them do not own a noticeable amount of the blue carbon ecosystem, but the majority of them still need to do a lot more in this regard.

For those PICTs countries that possess blue carbon resources but do not know how to use them, they should welcome foreign investors with capital and technology—public and private sector—to partner with and mutually benefit from. For example, both the Chinese and Australian government have expressed their willingness to carry out blue carbon cooperation with other countries. There is already cooperation on blue carbon mapping and accounting between Australia and Papua New Guinea, and other PICTs should welcome this kind of international cooperations to be carried out in their own countries. In the case of China, it has the corresponding funds and technology needed for blue carbon, but its blue carbon resources are inherently insufficient. The United States is in a similar situation, possessing the funds and technology but lacking in blue carbon resources. So, PICTs can invite states like China to engage in scientific cooperation aimed at investing their excess productivities in the PICTs blue carbon ecosystem. History has proven many times that successful scientific cooperation is feasible even amidst geopolitical competition. It is essential to acknowledge that despite the PICTs' best efforts, it will still be extremely difficult for them to face the challenge of protecting and developing blue carbon alone in the face of climate change due to their minimal capabilities and resources. Thus, the PICTs will surely benefit from the resources, funding, and knowledge coming from international cooperation. Also, in addition to the cooperation between governments, the PICTs should also encourage private enterprises to enter this market. Currently, Amazon is the only major investor that has blue carbon related projects in the PICTs. The PICTs need to attract more capital, especially the carbon credits obtained through blue carbon development projects and other economic benefits brought by blue carbon, including tourism and fishery, will also greatly increase the private investors' willingness to invest.

The other feature of many blue carbon related projects in PICTs is that they are usually a part of a larger, environment-related development plan, and when it is mentioned, it is typically in the form of 'mangroves' or 'coastal ecosystems' instead of the term 'blue carbon'. In fact, this phenomenon actually displays a feasible future blue carbon development model for the PICTs. Unlike the bigger countries like the U.S. and China, the PICTs are relatively small and lack additional funds and resources to establish projects that specialize in blue carbon protection and development. As one of the first countries to be directly affected by climate change, the PICTs are bearing increasing costs related to climate change issues. For them, treating blue carbon protection as an integral part of the broader efforts to combat climate change is already able to yield substantial positive results. Therefore, encouraging more PICTs—especially the ones that have not been paying much attention to blue carbon—to incorporate blue carbon related projects as a part of their grand strategy to climate change mitigation will still be extremely beneficial to both themselves and the bigger area.

Main Sources & Expanded Reading

[Pacific Islands](#), *Britannica*, last visited on September 11, 2023

[Pacific Island Mangroves in a Changing Climate and Rising Sea UNEP Regional Seas Reports and Studies No. 179](#), United Nations Environment Programme, 2006

[A global map of saltmarshes](#), National Library of Medicine, March 21, 2017

[Seagrass ecosystems of the Pacific Island Countries and Territories: A global bright spot](#), *Marine Pollution Bulletin*, March 16, 2021

[Seagrasses and seagrass habitats in Pacific small island developing states: Potential loss of benefits via human disturbance and climate change](#), *Mar Pollut Bull*, September 9, 2020

[Blue carbon restoration and ocean acidification in Fiji: a case study from Viti Levu Bay](#), Ocean Acidification International Coordination Centre, October 21, 2021

[Mangrove ecosystems of Kiribati](#), United Nations Educational, Scientific and Cultural Organization, 2022

[To establish an Interagency Working Group on Coastal Blue Carbon, and for other purposes. H.R. 2750](#), 117th Congress of the United States, April 22, 2021

[Mangrove ecosystem services and payments for blue carbon in Solomon Islands](#), The World Fish Center, 2012

[Namdrik Atoll \(Marshall Islands\)](#), Pacific Islands Protected Area Portal, last visited on September 11, 2023

[Fiji's Climate Change Act, 2021 - Fiji's whole of government approach to reduce emissions and remove carbon](#), Siwatibau & Sloan, September 29, 2021

[Samoa Ocean Strategy \(2020-2030\)](#), Government of Samoa (2020), last visited on September 11, 2023

[National Biodiversity Strategies and Action Plan](#), Government of Kiribati, last visited on September 11, 2023

[Mangrove Management Plan](#), United States Department of Agriculture – Forest Service, September 29, 2000

[Government of Tuvalu Updated Nationally Determined Contribution \(NDC\)](#), Government of Tuvalu, November 2022

[Scientists list blue carbon as a priority for Palau's ocean research](#), *Pacific Island Times*, August 8, 2023

[IAS Leads Local Mitigation of Ocean Acidification Project in Fiji](#), University of the South Pacific, December 14, 2018

[Mangrove Ecosystem Services and Payments for Blue Carbon in Solomon Islands](#), The World Fish Center, Solomon Islands, 2012

[Amazon and Conservation International Establish International Blue Carbon Institute](#), Conservation International, November 14, 2022

[Nationally Determined Contributions Registry](#), United Nations Climate Change, last visited on September 30, 2023

[Pacific Islands Forum Leaders Ocean Statement 2021](#), Pacific Islands Forum, March 2021

[Blue Carbon: Seagrass and Mangrove Research and Conservation](#), C3 Fiji, last visited on September 25, 2023

[Papua New Guinea – Australia Climate Change Action Plan](#), Government of Australia, Department of Foreign Affairs and Trade, last visited on September 11, 2023

[Protecting coastal ecosystems in Pacific Island Countries](#), German Society for International Cooperation, last updated in June, 2023

[Administrator Samantha Power Announces Additional Investments In Pacific Island Countries While Visiting Fiji](#), United States Agency for International Development, August 14, 2023

[The Management of Coastal Carbon Sinks in Vanuatu: Realising the Potential](#), The Commonwealth Secretariat, 2013

This season's Blue Carbon Country Profile on the United States was primarily researched and written by Zhangchen Wang, BCCC Program Part-time Research Assistant Intern at the Institute for China-America Studies.

Scientific Research and Beyond

Scientific Research Results & Releases

July 2023

- Research Article: [Climate change will accelerate the high-end risk of compound drought and heatwave events](#), *Proceedings of the National Academy of Sciences*, Vol. 120, No. 28 (July 3, 2023)
- Journal Article: [Security risks from climate change and environmental degradation: implications for sustainable land use transformation in the Global South](#), *Science Direct* Vol. 63 (July 4, 2023)
- Journal Article: [Global forest fragmentation change from 2000 to 2020](#), *Nature Communications*, Vol. 14, No. 3752 (July 11, 2023)
- Journal Article: [Global climate-change trends detected in indicators of ocean ecology](#), *Nature* 619, p.551-554 (July 12, 2023)
- Journal Article: [Carbon sequestration and climate change mitigation using macroalgae: a state of knowledge review](#), *Biological Reviews* (July 12, 2023)
- Journal Article: [Declining resistance of vegetation productivity to droughts across global biomes](#), *Science Direct* Vol. 340 (July 14, 2023)
- Research Article: [Threatened North African seagrass meadows have supported green turtle populations for millennia](#), *Proceedings of the National Academy of Sciences*, Vol. 120, No. 30 (July 17, 2023)
- Research Letter: [Growing Threats From Swings Between Hot and Wet Extremes in a Warmer World](#), *Advancing Earth and Space Sciences*, Vol. 50, Issue 14 (July 18, 2023)
- Journal Article: [Spatial database of planted forests in East Asia](#), *Scientific Data* Vol 10, No. 480 (July 22, 2023)
- Journal Article: [Climate change impacts on planned supply–demand match in global wind and solar energy systems](#), *Nature Energy* 8, p.870-880 (July 24 2023)
- Journal Article: [Increased occurrences of consecutive La Niña events under global warming](#), *Nature* 619, p.774-781 (July 26, 2023)
- Special Report: [The Blue Carbon Handbook](#), The Ocean Panel (July 2023)

August 2023

- Journal Article: [Fennoscandian tree-ring anatomy shows a warmer modern than medieval climate](#), *Nature* 620, p.97-103 (August 2, 2023)
- Research Letter: [How Unusual Is the 2022 European Compound Drought and Heatwave Event?](#), *Advancing Earth and Space Sciences*, Vol. 50, Issue 15 (August 8, 2023)
- Journal Article: [Coral reefs benefit from reduced land–sea impacts under ocean warming](#), *Nature* 621, p.536-542 (August 9, 2023)
- Journal Article: [How can pacific island countries meet their nationally determined contributions?](#) *npj Climate Action* Vol. 2, No. 23 (August 22, 2023)
- Journal Article: [Adjusting 1.5 degree C climate change mitigation pathways in light of adverse new information](#), *Nature Communications*, Vol. 14, No. 5117 (August 23, 2023)
- Research Letter: [The Global Drivers of Chronic Coastal Flood Hazards Under Sea-Level Rise](#), *Advancing Earth and Space Sciences*, Vol. 11, Issue 8 (August 26, 2023)

September 2023

- Journal Article: [Increased risk of flash droughts with raised concurrent hot and dry extremes under global warming](#), *npj Climate and Atmospheric Science*, Vol. 6, No. 134 (September 7, 2023)

- Journal Article: [Assessing the remaining carbon budget through the lens of policy-driven acidification and temperature targets](#), *Climatic Change*, Vol. 176, No. 128 (September 11, 2023)
- Research Report: [Sea of Opportunity: Ocean-based mitigation to support Indonesia's climate ambition](#), Climateworks Centre (September 13, 2023)
- Journal Article: [Widespread deoxygenation in warming rivers](#), *Nature Climate Change* (September 14, 2023)
- Journal Article: [Soil heat extremes can outpace air temperature extremes](#), *Nature Climate Change* (September 21, 2023)
- Research Article: [Prevalence and predictors of wind energy opposition in North America](#), *Proceedings of the National Academy of Sciences (PNAS)*, Vol. 120 No. 40 (September 25, 2023)

Major Government Statements & Actions

Key Government Speeches & Statements on Climate Issues

- July 12, Ministry of Ecology and Environment of the People's Republic of China: [US special presidential envoy for climate issues John Kerry will visit China](#)
- July 14, The White House: [Remarks by Vice President Harris on Combating Climate Change and Building a Clean Energy Economy](#)
- July 14, U.S. National Oceanic and Atmospheric Administration: [The ongoing marine heat waves in U.S. waters. explained](#)
- July 18, Treasurer of Australia, The Hon Dr Jim Chalmers MP: [Address to Clean Energy Council](#)
- July 20, The White House: [Remarks by President Biden on Actions to Tackle the Climate Crisis](#)
- July 22, Prime Minister of India, Narendra Modi: [PM addresses G20 Energy Ministers' Meet](#)
- August 8, Government of Yukon and Government of Canada: [Joint statement on investment from Government of Canada to support the Yukon's climate action and greenhouse gas reduction](#)
- August 15, The State Council of the People's Republic of China: [Xi makes instructions on China's first National Ecology Day](#)
- August 24, Treasurer of Australia, The Hon Dr Jim Chalmers MP: [Address to the National Press Club, Canberra: We can own the future](#)
- August 25, Spokesperson of the U.S. Department of State, Matthew Miller: [Japan's Release of Treated Water](#)
- August 31, Government of the United Kingdom: [Claire Coutinho was appointed Secretary of State for Energy Security and Net Zero](#)
- September 4, Member of the Executive Board of the European Central Bank and Vice-Chair of the Supervisory Board of the European Central Bank, Frank Elderson: ["Come hell or high water": addressing the risks of climate and environment-related litigation for the banking sector](#)
- September 5, President of the African Development Bank Group, Dr. Akinwumi A. Adesina: [Presidential Opening of the African Climate Summit](#)
- September 12, Welsh Ministry for Climate Change: [Written Statement: Publication of the Climate Change Committee's Report on Climate Change Adaptation in Wales](#)
- September 18, Scottish First Minister Humza Yousaf: [Financing the green economy](#)
- September 19, U.S. Department of Treasury, Secretary of the Treasury Janet L. Yellen: [New York on Treasury's Principles for Net-Zero Financing & Investment](#)
- September 20, Government of the United Kingdom, Prime Minister Rishi Sunak: [Speech on Net Zero](#)
- September 20, The White House: [Biden-Harris Administration Launches American Climate Corps to Train Young People in Clean Energy, Conservation, and Climate Resilience Skills, Create Good-Paying Jobs and Tackle the Climate Crisis](#)

- September 21, Office of Governor Gavin Newsom of California: [Governor Newsom Highlights California's Climate Action on World Stage at Climate Week](#)
- September 22, Department of Environment and Natural Resources of the Philippines: [DENR Statement On West Philippines Sea](#)

Government Meetings, Reports & Regulations Released on Climate Issues

- On July 5, the Department for Environment Food & Rural Affairs of the United Kingdom [published](#) a policy paper on the topic of “Highly Protected Marine Areas: Allonby Bay,” outlining why Allonby Bay has been designated as a Highly Protected Marine Area (HPMA).
- On July 17, President of the People’s Republic of China, Xi Jinping, [spoke](#) at the China Environmental Protection Conference: Promoting the comprehensive construction of a beautiful China and accelerating the modernization of harmonious coexistence between humans and nature.
- On August 15, the U.S. Environmental Protection Agency [released](#) a report that maps blue carbon reservoirs along the northeastern coast, from Maine to Long Island NY. “The goal of this effort was to produce a baseline database and map of both vegetated blue carbon habitat acreage and sequestered carbon,” though data limitations make the estimate represent “a mere fraction of the actual quantity of accumulated carbon in these habitats.”
- On August 18, the U.S. Department of Commerce [issued](#) the Final Determination of Circumvention Inquiries of Solar Cells and Modules from China, affirming the preliminary findings in most respects and underscores the importance of rigorously enforcing trade law.
- On August 22, the Secretary for Environment and Ecology of the Hong Kong Special Administrative Region, Mr Tse Chin-wan, [met](#) with the media on the discharge plan of the Fukushima nuclear power station of Japan at the Central Government Offices.

Cross-National Meetings & Engagements on Climate Issues

- On July 10, UK Energy Security Secretary Grant Shapps and U.S. Special Presidential Envoy on Climate John Kerry [convened](#) the Climate Finance Mobilization Forum in Windsor, in order to rally efforts to help developing nations tackle climate change.
- On July 10, U.S. President Joe Biden and King Charles III [met](#) with leading philanthropists and financiers to catalyze climate finance.
- On July 21, the U.S. Embassy’s American Spaces Philippines and The Spark Project [concluded](#) the Green Impact Accelerator (GIA) bootcamp; a five-month program that supported the growth and commercial viability of green startups through mentorship, networking, and crowdfunding matching.
- On August 1, the President-Designate, Dr. Sultan Al Jaber, of the United Arab Emirates and UN Climate Change Executive Secretary Simon Stiell [made](#) a joint statement at the conclusion of the signing of the Host Country Agreement for COP28 to call for an inclusive COP28.
- On September 6, the first African Climate Summit ended with a [call](#) for world leaders to support a global carbon tax on fossil fuels, aviation and maritime transport.
- On September 19, COP28 President-Designate Sultan Al Jaber and UN Special Envoy Michael R. Bloomberg [announced](#) the first COP-hosted Local Climate Action Summit to drive climate advancements across various government levels.
- On September 19, President Luiz Inácio Lula da Silva of Brazil [called](#) for global union against inequality, hunger and climate change at the UN General Assembly.
- On September 21, the Committee of the African Heads of State and Government on Climate Change (CAHOSCC) [met](#) on the margins of the UNGA78 in New York.

Third-Party Analyses & Commentaries

Looking Forward with Progressions in Green Energy

- Podcast: [Ramesh Subramaniam: Climate Financing and ASEAN's Clean Energy Transition](#) (*Asia Unscripted*, August 4, 2023)
- Opinion: [Climate politics has entered a new phase](#) by Pilata Clark (*Financial Times*, August 9, 2023)
- Opinion: [The Clean Energy Future Is Arriving Faster Than You Think](#) by David Gelles, Brad Plumer, Jim Tankersley, Jack Ewing (*The New York Times*, August 17, 2023)
- Opinion: [Can US and EU unseat China as the dominant supplier of green energy tech globally? Highly unlikely, experts say](#) by Yujie Xue (*South China Morning Post*, August 17, 2023)
- Opinion: [Tired of feeling hopeless about climate change? Take a look at these charts.](#) by Amanda Shendruk (*The Washington Post*, September 6, 2023)
- Analysis: [China leads the world in green energy, but it just can't stop emitting greenhouse gasses](#) by Joe Webster (*The China Project*, September 14, 2023)
- Opinion: [Making a Green Sweep](#) by Bhupender Yadav (*The Economic Times*, September 15, 2023)
- Interactive Report: [How to Cool Down a City](#) by Pablo Robles, Josh Holder and Jeremy White (*The New York Times*, September 18, 2023)
- Opinion: [The Shift Towards Renewable Energy: Goldman Sachs' Picks for a Green Energy Revolution](#) by Howard Rhodes (*Energy Portal*, September 29, 2023)

Gearing Up for Offshore Green Energy Projects

- Opinion: [China's wind power companies are giants, but they aren't going to take over the world — yet](#) by Barry van Wyk (*The China Project*, July 25, 2023)
- Analysis: [Sailing Toward Sustainability](#) by Mikko Nikkanen (*Sea Technology*, August 2023)
- Analysis: [UK's net zero ambitions at risk after 'disastrous' offshore wind auction](#) by Michael Savage (*The Guardian*, September 10, 2023)
- Opinion: [Most of the world's wind is over deep water. Floating machines can harvest it.](#) by William Booth (*The Washington Post*, September 26, 2023)

Arguing for Progression in Blue Carbon Studies

- Commentary: [Blue carbon deserves a green light for the climate fight](#) by Steve Trent (*Mongabay*, July 3, 2023)
- Analysis: [Mangroves and seagrasses: Mitigating climate change through blue carbon](#) (*Manila Bulletin*, July 21, 2023)
- Analysis: [Study shows how to maximize mangroves as climate and community solution](#) by Sílvia Lisboa and Maurício Brum (*Mongabay*, August 8, 2023)
- Podcast: [What Corals Tell Us About the Health of the Ocean and Scuba Diving Stories](#) by Dr Sara Fowell and Dr Zoe Jacobs (*NOC Into the Blue*, August 30, 2023)
- Analysis: [South Korea turns to blue carbon to help mitigate climate crisis](#) by Robert Finlayson (*Foreign News*, September 4, 2023)
- Opinion: [Six ways the ocean could \(potentially\) mop up CO2 emissions](#) by David Adam (*China Dialogue Ocean*, September 21, 2023)

Addressing the Presence of Geopolitics in Climate Issues

- Analysis: ['Green nationalism' endangers the global energy transition](#) by Myles McCormick, Amanda Chu and Miguel Johnson (*Financial Times*, July 6, 2023)
- Opinion: [Ambitious clean energy goals hinge on global support](#) (*Argus Media*, August 11, 2023)

- Opinion: [Climate Cooperation by Other Means](#) by Edmund Downie (*The Wire China*, August 20, 2023)
- Analysis: [The Science Behind Japan's Plan to Empty Nuclear Wastewater Into Pacific](#) by Shoko Oda (*Bloomberg*, August 21, 2023)
- Analysis: [How Geopolitics Is Complicating the Move to Clean Energy](#) by Peter S. Goodman (*The New York Times*, August 21, 2023)
- Opinion: [What is the world's first 'global stocktake' on climate change?](#) by Kate Abnett (*Reuters*, September 8, 2023)
- Opinion: [Climate fault lines in clear sight at U.N. General Assembly](#) by Zahra Hirji (*The Japan Times*, September 20, 2023)
- Opinion: [The Hidden Threat to US Energy Security](#) by Alex Webb (*Bloomberg*, September 21, 2023)
- Commentary: [How the United Kingdom Can Demonstrate Climate Leadership in a Changing World](#) by Quill Robinson and Joseph Majkut (Center for Strategic & International Studies, September 26, 2023)
- Opinion: [Europe can go green and rely less on China at the same time](#) by Luke Patey (*Nikkei Asia*, September 28, 2023)
- Report: [Sustainable and Reliable: Securing Resources for the Clean Energy Future](#) by Nicole Gentile, Anne Griffin, and Robert Benson (Center for American Progress, September 28, 2023)

Questioning the Rate of Climate Progress in Developing States

- Analysis: [Ecotourism could be key to protecting Pakistan's mountains](#) by Hazma Butt (*The Third Pole*, July 14, 2023) [In Urdu]
- Analysis: [What carbon tariffs mean for Thailand](#) by Yuthana Praiswan, Lamphet Apistniran and Phusadee Arunmas (*Bangkok Post*, July 26, 2023)
- Opinion: [The Taliban Aren't Equipped for Climate Adaptation](#) by Michael Kugelman (*Foreign Policy*, July 26, 2023)
- Analysis: [Can India Become a Green Superpower? The Stakes of the World's Most Important Energy Transition](#) by Arunabha Ghosh (*Foreign Affairs* July/August 2023)
- Brief: [The Unique Promise of Environmental Cooperation in the Gulf](#) by Will Todman, Lubna Yousef, and Mennah Abdelwahab (Center for Strategic & International Studies, July 11, 2023)
- Opinion: [G7 climate diplomacy — sweet words, but just debt and delays for the Global South](#) by Corbus von Staden (*The China Project*, August 1, 2023)
- Analysis: [Kazakhstan's new coal projects bring economic and climate risks](#) by Jelena Babajeva (*The Third Pole*, August 2, 2023)
- Opinion: [Clean Energy Projects Are Booming Everywhere. Except in Poor Nations.](#) by Max Bearak (*The New York Times*, September 4, 2023)
- Commentary: [Climate action for sustainable development in Latin America: the need for multilateral approaches](#) by Irene Mia and Juan Pablo Bickel (International Institute for Strategic Studies, August 9, 2023)
- Analysis: [Climate change adds workplace costs and hazards](#) by Mark John (*Reuters*, September 7, 2023)

Debating the Connections Between the U.S. and China on Climate Change

- Opinion: [It takes more than climate envoy to change climate of China-U.S. ties](#) (*Xinhua*, July 16, 2023)
- Opinion: [America Can't Build a Green Economy Without China](#) by Robinson Meyer (*The New York Times*, July 17, 2023)
- Opinion: [China-US climate progress could hinge on curbing of methane](#) by Valerie Volcovici and David Stanway (*Reuters*, July 17, 2023)
- Analysis: [U.S. and China on Climate: How the World's Two Largest Polluters Stack Up](#) by Lisa Friedman (*The New York Times*, July 19, 2023)

- Editorial: [Restarting climate cooperation relies on overall atmosphere of China-US relations](#) (*Global Times*, July 19, 2023) [[In Chinese](#)]
- Opinion: [The Right Way for America and China to Cooperate on Climate: How the Two Powers Can Jointly Aid Poorer Countries](#) by Kelly Sims Gallagher (*Foreign Affairs*, August 3, 2023)
- Analysis: [GOP presidential candidates blame China, not U.S., for climate change](#) by Maxine Joselow (*The Washington Post*, August 24, 2023)
- Analysis: [Can the U.S. and China Cooperate on Green Technology Again?](#) by Lili Pike (*Foreign Policy*, September 21, 2023)
- Opinion: [Environment: Rich countries must do more to advance Africa's economic and climate transition](#) by Peter Sainsbury (*Pearls and Irritations*, September 24, 2023)
- Opinion: [The Significance of President Biden's Inflation Reduction Act for Climate and Energy Policy](#) by Terence West (*Energy Portal*, September 29, 2023)

Understanding the Importance of Minerals in the Energy Transition

- Analysis: [The U.S.-China rare earths battle](#) by Yifan Yu (*Nikkei Asia*, July 5, 2023)
- Opinion: [China Controls Minerals That Run the World—and It Just Fired a Warning Shot at U.S.](#) by Jon Emont (*The Wall Street Journal*, July 7, 2023)
- Opinion: [Examining China's Impact on Mining in Africa: Critiques and Credible Responses](#) by Lauren Herzer Risi & Claire Doyle (*Wilson Center*, July 18, 2023)
- Analysis: [The Energy Transition Will Require Cobalt. America's Only Mine Can't Get Off the Ground.](#) by David Uberti and Rhiannon Hoyle (*The Wall Street Journal*, July 22, 2023)
- Analysis: [The Importance of Seabed Critical Minerals for Great Power Competition](#) (Center for Maritime Strategy, September 5, 2023)

Zeroing in on China on the Issue of Climate Change

- Analysis: [Will China's experiment to promote low-carbon living to its 1.4 billion people work?](#) by Yujie Xue (*South China Morning Post*, July 1, 2023)
- Analysis: [Can EVs and Solar Panels Save China's Economy?](#) by Nathaniel Taplin (*The Wall Street Journal*, July 17, 2023)
- Opinion: [Why Climate Change Is Missing From China's Sci-Fi Boom](#) by Feng Zhang (*The Sixth Tone*, August 4, 2023)
- Analysis: [China's Graphite Grip](#) by Eliot Chen (*The Wire China*, August 6, 2023)
- Analysis: [How China cornered the market for clean tech](#) by Edward White (*Financial Times*, August 9, 2023)
- Analysis: [China's Updated Green Power Market Guidelines Set to Drive Interprovincial Trading](#) by You Xiaoying and Zhao Xuan (*Caixin Global*, August 17, 2023)
- Opinion: [China Must Pay a Price for Climate Inaction](#) by Thom Woodroffe (*Foreign Policy*, August 18, 2023)
- Opinion: [The US and China must unite to fight the climate crisis, not each other](#) by Bernie Sanders (*The Guardian*, August 21, 2023)
- Commentary: [Unpacking China's climate priorities](#) by Mallie Prytherch, Kenneth G. Lieberthal, and Ryan Hass (*Brookings*, August 23, 2023)
- Opinion: [How China's Downturn Could Save the World](#) by David Fickling (*Bloomberg*, August 27, 2023)

Analyzing Problems in Sustainability Transitions

- Opinion: [Inconvenient truths about the green transition](#) by Rana Foroohar (*Financial Times*, August 7, 2023)
- Opinion: [As paradise burned, DeSantis fiddled with climate-change education](#) by Kathleen Parker (*The Washington Post*, August 11, 2023)
- Analysis: [Carbon Offsets to Reduce Deforestation Are Significantly Overestimating Their Impact, a New Study Finds](#) by Keerti Gopal (*Inside Climate News*, August 24, 2023)
- Analysis: [World struggles to break coal habit despite looming climate risk](#) by Hiroki Sakuragi (*Nikkei Asia*, August 26, 2023)
- Commentary: [The IPCC's Lack of Geographically Diverse Expertise May Be Stymieing Climate Efforts](#) by Alexander Csanadi (Carnegie Endowment for International Peace, September 5, 2023)
- Opinion: [What happened when a scientist denounced his own climate change research](#) by Shannon Osaka (*The Washington Post*, September 11, 2023)
- Opinion: [Peak fossil fuel demand will happen this decade](#) by Fatih Birol (*Financial Times*, September 12, 2023)
- Analysis: [Meet the Oil Man in Charge of Leading the World Away From Oil](#) by Max Bearak (*The New York Times*, September 15, 2023)

Contemplating the Intersection of Climate and Technology

- Opinion: [New Tree Tech: AI, drones, satellites and sensors give reforestation a boost](#) by Claire Asher (*Mongabay*, July 10, 2023)
- Podcast: [The Climate Briefing: US and EU green industrial policy](#) (Chatham House, July 14, 2023)
- Analysis: [How tech is helping conserve China's seas by You Xiaoying](#) (China Dialogue Ocean, August 1, 2023) [[In Chinese](#)]
- Argument: [No Water, No Workers, No Chips](#) by Michael Ferrari and Parag Khanna (*Foreign Policy*, August 4, 2023)
- Opinion: [Why the electric vehicle battery race needs a recycling revolution](#) by Christian Davies, Harry Dempsey and Claire Bushey (*Financial Times*, September 4, 2023)
- Opinion: [Green Tech Needed to Reduce Dependence on Fossil Fuels](#) (*The Economic Times*, September 4, 2023)
- Opinion: [Working from home now has another powerful benefit](#) by Allyson Chiu (*The Washington Post*, September 18, 2023)

Discussing the Elective Vehicle Craze

- Analysis: [Has the West lost the electric vehicle race to China?](#) (The China Project, July 17, 2023)
- Analysis: [In China, It's Already Cheaper to Buy EVs Than Gasoline Cars](#) by David Fickling (*Bloomberg*, August 8, 2023)
- Opinion: [How China Shifted Gears on Electric Vehicles—and Why It Matters](#) by Marina Yue Zhang (*National Interest*, August 14, 2023)
- Opinion: [The Electric-Vehicle Bubble Starts to Deflate](#) (*The Wall Street Journal*, August 21, 2023)
- Commentary: [Why Can't Americans Buy Cheap Chinese EVs?](#) by Kyle Stock (*Bloomberg*, September 22, 2023)

Dissecting the Atypical Uptick in Global Extreme Weather

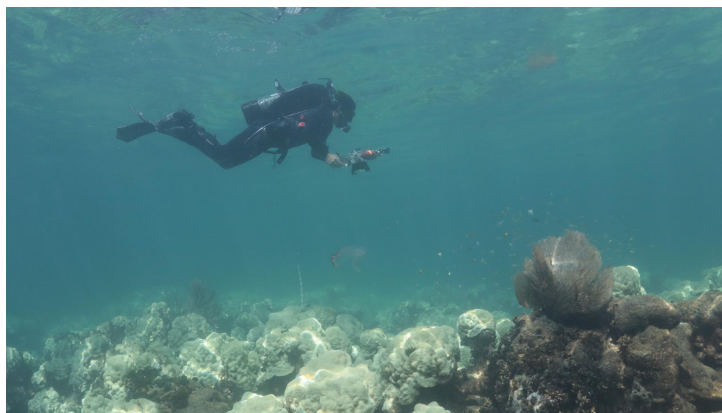
- Analysis: [June Extremes Suggest Parts of the Climate System Are Reaching Tipping Points](#) by Bob Berwyn (*Inside Climate News*, July 4, 2023)

- Analysis: [For the third time this week, Earth sets an unofficial heat record. What's behind those big numbers?](#) by Seth Borenstein (*AP*, July 7, 2023)
- Opinion: [The Earth Is Dancing Too Close to a Temperature Tipping Point](#) by E.D. Flam (*Bloomberg*, July 19, 2023)
- Analysis: [Heat waves in U.S., Europe 'virtually impossible' without climate change, study finds](#) by Brady Dennis (*The Washington Post*, July 25, 2023)
- Analysis: [Wildfires Are Exploding in Unexpected Places Due to Climate Change. Is Hawaii the Latest Example?](#) by Kristoffer Tigue (*Inside Climate News*, August 11, 2023)
- Analysis: [Rising Temperatures Are Wreaking Havoc Year-Round](#) by Zahra Hirji, Rachael Dottle and Denise Lu (*Bloomberg*, August 14, 2023)
- Opinion: [Climate change came for Maui. The rest of us are next.](#) by Eugene Robinson (*The Washington Post*, August 14, 2023)
- Commentary: [Why knowing how climate change contributes to extreme weather is key](#) by Friederike Otto (*New Scientist*, August 16, 2023)
- Analysis: [Here's where water is running out in the world — and why](#) by Veronica Penney and John Muyskens (*The Washington Post*, August 16, 2023)
- Analysis: [El Niño Is Coming—and It's Going to Be Bad](#) by Cullen Hendrix (*Foreign Policy*, August 18, 2023)
- Analysis: ['Risk Blindness' Is Making the Climate Crisis Worse](#) by Alec Webb (*Bloomberg*, August 24, 2023)
- Analysis: [China's summer of climate destruction](#) by Stephen McDonnell (*BBC*, August 28, 2023)
- Opinion: [Why Adapting to Climate Change Has Become a Necessity](#) by Wang Shuo (*Caixin Global*, September 3, 2023)
- Opinion: [Mother Nature Is Staging a Climate Intervention](#) by Timothy L. O'Brien (*Bloomberg*, September 5, 2023)

Providing the Basics for Understanding Climate Terminology

- Analysis: [Carbon Sequestration 101: Everything You Need to Know](#) by Cisten Hemingway Jaynes (*EcoWatch*, July 4, 2023)
- Analysis: [While carbon 'capture' climate tech is booming, it can also be confusing](#) by Marlowe Hood (*The Japan Times*, July 5, 2023)
- Analysis: [How do 'marine heatwaves' affect the ocean – and what can be done?](#) by Emma Bryce (*China Dialogue Ocean*, July 13, 2023)
- Analysis: [Climate change glossary: the terms you need to understand, explained](#) by Shalinee Kumari (*The Third Pole*, September 1, 2023) [\[In Hindi\]](#) [\[In Bangla\]](#) [\[In Nepali\]](#) [\[In Urdu\]](#)
- Analysis: [From Heat Domes to Wet Bulbs, a New Glossary for Talking About Extreme Heat](#) by Brian Kahn, Eric Roston, Zahra Hirji, and Coco Liu (*Bloomberg*, September 12, 2023)

Images of the Month



July 2023

A researcher observes the widespread bleaching of Cheeca Rocks, an inshore reef within the Florida Keys National Marine Sanctuary on July 31, 2023.

Behind the Image: The ongoing marine heat wave has brought normal ocean temperatures above average levels for months, leaving vital coral reefs across the world bleached and sick at unprecedented levels.

Source: [U.S. National Oceanic and Atmospheric Administration \(NOAA\)](#)



August 2023

Flames from a wildfire are seen behind the Parthenon Temple atop the Acropolis hill in Athens, Greece, on August 23, 2023.

Behind the Image: Following weeks of searing heat, Greece fought dozens of record-breaking, relentless wildfires across its territory, either destroying or endangering homes, forests, and landmarks.

Source: [Photo by Andrea Bonetti/SOOC/AFP via Getty Images \(Rights Obtained by ICAS\)](#)



September 2023

A wide shot of the Plenary 1 session of the inaugural Africa Climate Summit, taken on September 6, 2023.

Behind the Image: From September 4-6, 2023, the Kenyan government hosted the Africa Climate Summit, which focused on “Driving Green Growth & Climate Finance Solutions for Africa and the World” and was considered a success by many.

Source: [Climate Centre via Flickr, CC BY-NC 2.0 DEED](#)

Climate-Focused Quotes of the Quarter

“We've just heard... an oil major saying that cutting production would be a dangerous thing - that is neither true, but it is also an irresponsible statement at this time within the broader context of what we are trying to achieve.”

- *Simon Stiell, the U.N. Framework Convention on Climate Change (UNFCCC) Executive Secretary, [speaking](#) at an OPEC conference on July 4, 2023*

“Our planet has just endured a season of simmering – the hottest summer on record...We can still avoid the worst of climate chaos – and we don't have a moment to lose.”

- *António Guterres, UN secretary general, [commenting](#) on the hottest summer and calling for global cooperation after the world's hottest week on July 7, 2023*

“China remained unwaveringly committed to its stated goal of reaching peak carbon emissions by 2030...The pathway and means for reaching this goal, and the tempo and intensity, should be and must be determined by ourselves, and never under the sway of others.”

- *Xi Jinping, President of China, explaining China would phase out carbon dioxide pollution at its own pace and in its own way amidst an [exchange](#) of remarks with U.S. Climate Envoy John Kerry in mid-July 2023*

“Energy impacts developments at all levels, from individuals to nations...For decarbonising India, we are working on a mission mode on green hydrogen as an alternative...The aim is to make India a global hub for the production, use, and export of green hydrogen and its derivatives... India achieved its non-fossil installed electric capacity target nine years in advance...”

- *Narendra Modi, Prime Minister of India, virtually [addressing](#) the G20 Energy Ministers Meet in Goa on July 22, 2023*

“Extreme natural phenomena are destroying the ecosystem and threatening our daily life, our way of life...All Mediterranean countries must coordinate and react, engage in a collective effort to halt and reverse the effects of the climate crisis.”

- *Excerpts from a statement [signed](#) by the presidents of Italy, Greece, Croatia, Slovenia, Malta and Portugal, demanding urgent moves to tackle the climate crisis after scorching heatwaves, wildfires and flooding, on August 3, 2023*

“If we can't save the 13 dolphins off Shantou, will the 50 off Xiamen be next? And then the 100 at Qinzhou, and ultimately the biggest population at the mouth of the Pearl River?”

- *Zheng Ruiqiang, ChinaBlue Sustainability Institute's science chief, [talking](#) to China Dialogue Ocean about the importance of studying and protecting a seemingly doomed dolphin population, in early August 2023*

“Corals and other associated ecosystems actually are now recognised to be worth hundreds of millions of dollars a year in avoided damages...just in a normal year, not even in a storm year.”

- *Andrew Baker, marine biology and ecology professor at the University of Miami, [speaking](#) to The Guardian about coral reefs rescue activities in Florida in early August 2023*

“We must see in green growth, not just a climate imperative but also a fountain of multi-billion dollar economic opportunities that Africa and the world is primed to capitalise.”

- William Ruto, President of Kenya, [speaking](#) after investors from the United Arab Emirates (UAE) committed to buying \$450 million of carbon credits from the Africa Carbon Markets Initiative (ACMI) on September 4, 2023

“I very much hope that in the COP28 coming through, US and China, two largest emitters, would leave aside their tensions – geopolitical and economic.”

- Fatih Birol, executive director of the International Energy Agency (IEA), [speaking](#) at the Kenyatta International Convention Centre in Nairobi, Kenya on September 4, 2023

“We believe there is a need to move away from a purely restrictive attitude of what should not be done, to a more constructive attitude focusing on what can be done to fight climate change.”

- Narendra Modi, Prime Minister of India, [warning](#) Western nations against imposing restrictive climate change policies on the developing world before the G20 summit on September 7, 2023

“It’s high time for rich nations in this group to lead by example, turn their promises into actions, and help forge a greener, more equitable future for all.”

- Harjeet Singh, global expert on the issues of climate impacts, migration and adaptation, [calling on](#) developed countries to fulfill their energy transition promises during the G20 summit on September 9, 2023

“The whole world has always talked about the Amazon. Now the Amazon is speaking for itself.”

- Luiz Inacio Lula da Silva, President of Brazil, [urging](#) rich countries to complete their clean energy and international climate funding goals during the annual UN General Debate on September 19, 2023

“Nature-based solutions must be applied wherever they can. Mangrove ecosystems and wetland recharge projects can build nature-based buffers to flooding.”

- Sherry Rehman, former climate change and environmental coordination minister of Pakistan, [speaking](#) during an exclusive interview with The Third Pole on September 19, 2023

“Together, our potential is limitless... That’s why we must cherish and take care of our entente cordiale. For future generations, so it becomes an entente for sustainability to tackle more efficiently the global urgency in terms of climate and diversity.”

- King Charles III, Monarch of the United Kingdom, [speaking](#) in a speech to the upper house of the French parliament on September 21, 2023

“Governments need to separate climate from geopolitics, given the scale of the challenge at hand.”

- Fatih Birol, executive director of the International Energy Agency (IEA), [commenting](#) on the International Energy Agency (IEA) pathway to net zero, on September 26, 2023

“Maritime transport needs to decarbonize as soon as possible, while ensuring economic growth.”

- Rebeca Grynspan, UNCTAD Secretary-General, [calling for](#) the decarbonization of global shipping on September 26, 2023

Climate-Focused Conferences & Events

Multinational Conferences & Global Forums

Climate Change and Youth International Forum

Youth Empowerment In Climate Action Platform

August 21

Virtual Forum

- From the Organizer: “The Youth Empowerment in Climate Action Platform (YECAP) was established by UNDP in Asia and the Pacific in collaboration with UNFCCC, RCC Bangkok, UNICEF East Asia and the Pacific, UNICEF South Asia, YOUNGO, Movers Programme and 2030 Youth Force in response to young people across the region calling for urgent action on the climate agenda. Youth in all their diverse identities and experiences advance their climate journeys with the support from YECAP to meaningfully engage in action, advocacy, and acceleration of the movement towards a just climate future.”
- Event Objectives:
 - Build youth skills, capacity, knowledge, and networks, particularly in the country, to engage in climate processes.
 - Ensure that youth views and proposals are fully integrated into global climate policymaking and dialogues.
 - Provide a model for the COP process on youth inclusion.

African Climate Summit

Africa Climate Summit & Africa Climate Week

September 4-6

Nairobi, Kenya

- From the Organizer: “The inaugural Africa Climate Summit, championed by HE President Ruto, aims to address the increasing exposure to climate change and its associated costs, both globally and particularly in Africa. With the expectation of escalating climate crises in terms of frequency and intensity, urgent action is required to mitigate these challenges.”
- Event Summary: The summit aims to shift the narrative away from a division between the Global North and the Global South in addressing the climate crisis and advocate for collaboration and collective action among all nations to combat climate change effectively. The summit has four themes and focus areas, which are:
 - Climate Action Financing
 - Green Growth Agenda for Africa
 - Climate Action and Economic Development
 - Global Capital Optimization
- Side Event: [Africa Youth Assembly for Climate Action](#)

Climate Ambition Summit

Climate Ambition Summit 2023

September 20

UN Headquarter, New York, The United State

- From the Organizer: “Against the backdrop of the worsening climate crisis, the UN Secretary-General’s Climate Ambition Summit aimed to showcase “first mover and doer” leaders from government, business, finance, local authorities, and civil society who came with credible actions, policies and plans – and not

just pledges – to accelerate the decarbonization of the global economy and deliver climate justice in line with his Acceleration Agenda.”

- Event Summary: The design and outcomes of the Summit will be delivered on three distinct but interrelated acceleration tracks, which are:
 - Ambition: Government leaders (especially major emitters) will be expected to present updated emission reduction objectives
 - Credibility: Leaders of businesses, cities, regions and financial institutions will be expected to present transition plans aligned with the UN-backed credibility standard
 - Implementation: Leaders of governments, international and regional organizations and financial institutions, the private sector and civil society will present existing or emerging implementation partnerships addressing challenges and opportunities related to decarbonization and climate justice
- Relevant Event: [United Nations General Assembly](#)

Public Events & Panel Discussions

Upcoming Events

Murky and Pristine Blue Pacific Waters

Event by Columbia Climate School

October 2, 2023 - In-Person, New York City, USA

Good News in a Climate Crisis

Event by Carnegie Endowment for International Peace

October 3, 2023 - Online

Transatlantic Collaboration on the Energy Transition

Event by Center for Strategic & International Studies

October 3, 2023 - Online

Climate Change, Disasters, and the Dynamics of Armed Conflicts

Event by Columbia Climate School & Saltzman Institute of War and Peace Studies

October 4, 2023 - In-Person, New York City, USA

Scaling & commercializing innovation for climate action

Event by Columbia Climate School

October 10, 2023 - Online

Climate and Clean Energy Policy in the Post-inflation Reduction Act

Event by Columbia Climate School

October 10, 2023 - In-Person, New York City, USA

WSJ Pro Sustainable Business Forum

Event by The Wall Street Journal

October 12, 2023 - Hybrid

Connecting Green Hydrogen Japan 2023

Event by Leader Associates

October 17-18, 2023 - In-Person, Tokyo, Japan

China's Critical Mineral Investments in Africa

Event by Wilson Center, Center for Transitional Environment Accountability
October 31, 2023 - Hybrid

Climate change 2023

Event by Chatham House
November 1-2, 2023 - Hybrid

NAMEPA 2023 Annual Conference & Awards Dinner

Event by North American Marine Environment Protection Association (NAMEPA)
November 2, 2023 - In-Person, New York City, USA

Climate LIVE K12: Young People's Role in Climate Activism

Event by Columbia Climate School
November 8, 2023 - Online

The International Eelgrass and Blue Carbon Workshop

Event co-hosted by Ocean Policy Research Institute of the Sasakawa Peace Foundation, et al.
November 17-19, 2023 - Hybrid

Past Events**The Developments in Climate and Trade Policy**

Event by Center for Strategic & International Studies
September 29, 2023 - Online ([Event Recording Available](#))

Webinar: How can carbon offsets be reformed?

Event by Carbon Brief
September 29, 2023 - Online ([Event Recording Available](#))

Climate Change Vulnerability in the Arab World

Event by Carnegie Endowment for International Peace
September 27, 2023 - Online ([Event Recording Available](#))

Advancing Climate Finance

Event by Center for Strategic & International Studies
September 25, 2023 - Hybrid ([Event Recording Available](#))

Climate Forward

Event by The New York Times
September 21, 2023 - In-Person

FP Energy Forum @ UNGA 78

Event by Foreign Policy, AngloAmerican, Chemonics, Florida International University, General Motors
September 21, 2023 - Hybrid ([Event Recording Available](#))

Time To Adapt

Event by Foreign Policy, Foundation S, and Africa-Europe Foundation
September 20, 2023 - Hybrid ([Event Recording Available](#))

The sustainability roadmap: Tech strategies to tackle climate goals

Event by The Trust (The Wall Street Journal), IBM

September 20, 2023 - In-Person, New York, USA

Unlocking Climate Finance in Latin America and the Caribbean

Event by Wilson Center

September 19, 2023 - In-Person, New York, USA

Combating Green Corruption: Fighting Financial Crime as a Driver of Environmental Degradation

Event by Wilson Center

September 19, 2023 - Hybrid ([Event Recording Available](#))

This is Climate: Women Leading the Charge

Event by The Washington Post

September 18, 2023 - Hybrid ([Event Recording Available](#))

China's Clean Energy Partnerships in the Global South

Event by Wilson Center, Heinrich Böll Foundation

September 14, 2023 - Hybrid ([Event Recording Available](#))

2023's Summer of Climate Shocks

Event by Center for Strategic & International Studies

September 11, 2023 - In-Person, Washington, DC, USA ([Event Recording Available](#))

Summit: Accelerating US-emerging market clean energy partnerships

Event by Atlantic Council

September 8, 2023 - Hybrid ([Event Recording Available](#))

China's Methane Mitigation in the Era of Climate Boiling: A Green Tea Chat with Dr. Hu Tao

Event by Wilson Center

August 29, 2023 - Online

Environmental Governance in Vietnam: A Citizens' Perspective

Event by East-West Center

August 16, 2023 - Online ([Event Recording Available](#))

Leveraging offshore wind to decarbonize East Asia

Event by Atlantic Council

August 7, 2023 - Online ([Event Recording Available](#))

Monthly overview of IRI's Global Seasonal Climate Forecasts and ENSO status and forecast.

Event by Columbia Climate School

July 20, 2023 - Online

Harvard Climate Forum

Event by Harvard University Center for the Environment

July 14, 2023 - In-Person, Cambridge, USA

No Water, No Food – Glacier Loss Threats to US and Chinese Agriculture

Event by Wilson Center

July 13, 2023 - Online ([Audio Recording Available](#))

Cutting Methane Emissions from Oil and Gas: U.S. and EU Cooperation

Event by Center for Strategic & International Studies

July 12, 2023 - Online ([Event Recording Available](#))

Climate Change Challenges to Nuclear Weapons

Event by Carnegie Endowment for International Peace

July 12, 2023 - In-Person, Washington, DC

Engaging youth in curriculum design for climate action

Event by Columbia Climate School

July 10, 2023 - Online

Low-Carbon Hydrogen: Tax Credits & Emissions Intensity

Event by Center for Strategic & International Security

July 6, 2023 - Online ([Event Recording Available](#))

United Kingdom Coastal Research Conference

Event by National Oceanography Centre

July 4, 2023 - In-Person, Southampton, United Kingdom

ICAS BCCC Program Updates

ICAS Upcoming Annual Conference

Stopping “Gray Rhinos”, Handling “Black Swans” and Removing “Tigers Blocking the Way”:
Assessing Challenges and Exploring Prospects for U.S.-China Relations in 2024

Tuesday, October 17, 2023

9:00am-2:00pm EDT (UTC-4)

Georgetown Marriott Hotel, Washington, D.C.



ICAS
Institute for China-America Studies

Tuesday, October 17, 2023
9am-2pm (EDT) (GMT -4)
Georgetown Marriott Hotel, Washington, D.C.

Stopping “Gray Rhinos”, Handling “Black Swans” and Removing “Tigers Blocking the Way”:
Assessing Challenges and Exploring Prospects for U.S.-China Relations in 2024

Keynote Dialogue

XU Xueyuan
Deputy Chief of Mission & Minister
Embassy of the People's Republic of China
in the United States

David LAMPTON
Professor Emeritus of China
Studies & Senior Research Fellow
Johns Hopkins University

Moderated by

Gordon HOULDEN
Director Emeritus,
China Institute
University of Alberta

**Panel I: Cooperation, Competition and Rivalry in
U.S.-China Relations**

Michael SWAINE Victor GAO
Dennis WILDER XIN Qiang

**Panel II: Taking Stock of Selective Decoupling in
U.S.-China Economic Relations**

Paul TRIOLO Yukon HUANG
William Alan REINSCH ZHOU Mi
Denis SIMON

Moderators: LIU Yawei Sourabh GUPTA

Opening Remarks

WU Shicun
Chairman of the Advisory Board
Institute for China-America Studies

Luncheon Speech

Amy P. CELICO
Partner
Albright Stonebridge Group

WANG Sheng
President
National Institute for
South China Sea Studies

Introduction

HONG Nong
Executive Director
Institute for China-America Studies

In Collaboration With:

THE CENTER FOR STRATEGIC STUDIES
NHS CS
CHINA INSTITUTE
UNIVERSITY OF ALBERTA

For media and other inquiries, email Jessica Martin at jessicamartin@chinaus-icas.org

RSVP: <http://chinaus-icas.org/events-2/annual-conferences/2023-annual-conference/>

ICAS is excited to hold this year's ICAS Annual Conference in-person at the Georgetown Marriott Hotel in Washington, D.C. on October 17, 2023!

Four months after a wayward surveillance blew his impending visit off course, U.S. Secretary of State Antony Blinken visited Beijing to set about erecting the 'guardrails' that U.S. President Joe Biden and Chinese President Xi Jinping had envisaged in Bali in November 2022. Secretary Blinken was followed in quick succession by Treasury Secretary Janet Yellen, Special Climate Envoy John Kerry, and Commerce Secretary Gina Raimondo. Reciprocally, Beijing's new Ambassador to the U.S. Xie Feng continues to adjust to his new role, appointed in March, and Foreign Minister Wang Yi is expected in Washington before year-end. With this revival and uptick of in-person visits, the United States and China appear to be inching closer to stabilizing their rocky relationship, a goal that both nations have emphasized this year.

As the two sides return to their Bali agenda, a critical next step will be to translate their mutual intentions into real actions. Is that possible at this late hour in the Biden administration's term in office? Can the two

sides take specific steps to resolutely stop “gray rhinos”, properly handle “black swans” and thoroughly remove “tigers blocking the way”, and thus create conditions and remove disruptions for stabilizing U.S.-China relations? Or with election season looming, is the exchange of good intentions about the best that can be expected from the two sides? Will the window to stabilize ties shut tight by the end of the year as election polemics kick-in and China is used as a beating stick by the Biden administration's political opponents? What does 2024 portend for U.S.-China relations, both politically and on the economic decoupling front?

Reserve Your Seat & Learn More: <https://chinaus-icas.org/events-2/annual-conferences/2023-annual-conference/>

Explore the Program: <https://chinaus-icas.org/wp-content/uploads/2023/10/ICAS-2023-Annual-Conference-Program-Agenda.pdf>

Share the Poster: <https://chinaus-icas.org/wp-content/uploads/2023/10/ICAS-2023-Annual-Conference-Main-Poster-Final-LQ.jpg>

ICAS Academic Engagement

On Thursday, September 14, 2023, ICAS Executive Director and Senior Fellow Dr. Nong Hong spoke on an event panel hosted by Stimson Center Environmental Security Program and Ocean Security and Sustainable Fisheries Project.

Learn More & Watch the Event:

<https://chinaus-icas.org/event/executive-director-dr-nong-hong-speaks-at-stimson-center-event-on-charting-a-blue-future-for-cooperation-between-west-africa-and-china-on-sustainable-fisheries/>

ICAS MAP Spotlight

Maritime Affairs Program Spotlight: Ocean Temperature

By Zhangchen Wang

August 28, 2023

The ocean covers more than 70% of the Earth's surface and directly affects the earth's climate, environment, and various ecosystems. Ocean temperature, a term used to refer to both the temperature of the ocean at any depth as well as the temperature of the ocean deep under the surface, plays an integral role in influencing these effects. Under natural conditions, ocean temperature is determined by the amount of heat it absorbs from solar energy, and it receives much more solar energy at the Equator than at the Poles...

Learn More: <https://chinaus-icas.org/research/map-spotlight-ocean-temperature/>

Explore Maritime Affairs Program (MAP) Publications: <https://chinaus-icas.org/icas-maritime-affairs-program/map-publications/>

ICAS MAP Spotlight

Maritime Affairs Program Spotlight: The Panama Canal

By Jessica Martin

September 25, 2023

The Panama Canal is a 77 km man-made waterway, completed in 1914, that cuts through the Isthmus of Panama and allows ships from around the world to drastically reduce travel time between the Pacific Ocean and the Atlantic Ocean...In spite of how important of a route the Panama Canal may be to the world, its operations have steadily been deteriorating in regularity due to increases in global shipping traffic and climactic droughts simultaneously pressuring the Canal's locks system...

Learn More: <https://chinaus-icas.org/research/map-spotlight-ocean-temperature/>

View the MAP Spotlight Archives: <https://chinaus-icas.org/icas-maritime-affairs-program/map-publications/map-spotlights/>

ICAS Blog Post

Event Summary: Advancing Climate Finance, CSIS

By Zhangchen Wang

September 30, 2023

On September 25, 2023, the Center for Strategic & International Studies (CSIS) held an event on the topic of "advancing climate finance," aiming to address the challenges related to climate change and climate finance in order to build a more productive, resilient, and equitable future through effective climate finance...

Learn More: <https://chinaus-icas.org/research/event-summary-advancing-climate-finance-csis/>

ICAS Expert Voices Initiative

Interview with Wang Sheng on Blue Carbon Development in China

Thursday, August 3, 2023



On August 3, 2023, the Institute for China-America Studies (ICAS) Expert Voices Initiative (EVI) conducted an interview with Mr. Wang Sheng, President of the National Institute for South China Sea Studies (NISCS) to discuss “Blue Carbon Development in China.” The interview was recorded in-person at the NISCS Office in Hainan, China, and hosted by Zhangchen Wang, ICAS Blue Carbon and Climate Change (BCCC) Program Part-time Research Assistant Intern.

In recent years, there are more and more people recognizing the positive impact of blue carbon ecosystems on protecting coastal ecology and addressing climate change. Countries around the world are also increasing their emphasis on the protection and development of blue carbon ecosystems. However, not all countries have the ability to independently develop blue carbon resources, and the development potential of many countries is constrained by issues such as resource reserves, technology, and funding. Moreover, there is a lack of mutual trust among different countries on this issue, further restricting the potential for development. Thus, this EVI aims to explore the prospect and potential of blue carbon international cooperation. This event will also study whether the establishment of a set of blue carbon international standards by cooperation among countries will become the basis for promoting cooperation among blue carbon countries in the future.

Watch the Interview: <https://youtu.be/Geb5zylT9sw>

Explore the ICAS Expert Voices Initiative Archive: <https://chinaus-icas.org/media/expert-voices-initiative-archive/>

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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