



ICAS BLUE CARBON & CLIMATE CHANGE PROGRAM

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ICAS BLUE CARBON & CLIMATE CHANGE PROGRAM

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

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

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ICAS BLUE CARBON & CLIMATE CHANGE QUARTERLY

October - December 2023

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Theme of the Quarter: Multinational Climate Engagements

News on Multinational Climate Engagements

COP28 Reached Several Key Agreements to Combat Climate Change

On December 13, the 2023 United Nations Climate Change Conference—also known as 2023 Conference of the Parties of the UNFCCC or simply as COP28—concluded in Dubai, United Arab Emirates, reaching the milestone “UAE Consensus.” Following days of discussions and negotiations, the conference achieved agreements on several critical issues demanding immediate action. These include confirming the urgent need to transition away from fossil fuels, the establishment and implementation of a “loss and damage” fund, and the reaffirmation of the commitment to meet the objectives of the Paris Agreement.

The most noteworthy achievement was when delegations of different countries reached an agreement on plans for transitioning away from fossil fuels, which is unprecedented in the history of the United Nations Climate Change Conferences. More countries are beginning to recognize that in order to achieve the goals of the Paris Agreement, specifically to keep the global temperature increase below 1.5°C, it is necessary to gradually phase out all fossil fuels. Previously, for various reasons including energy security and economic



development, many countries refused to seriously discuss the issue of fossil fuels at all. COP28 is the first time that fossil fuel is specifically marked as a primary cause of climate change in the Conference’s outcome document. Indeed, the consensus still falls short of some countries’ expectations because transitions cannot happen overnight for those countries originally opposed to phasing out fossil fuels. It took a longer time for countries to reach an agreement on this issue because some countries, especially the developing countries, considered the term “phase down” or “phase out” of fossil fuels to be too radical. Delegations eventually agreed that the phrase “transition away from fossil fuels” best aligns with the collective interests of countries worldwide. Generally speaking, even though the details of this agreement are somewhat ambiguous, adoption of the first deal on fossil fuels is a victory for humanity.¹

Additionally, COP28 successfully—and fairly easily—approved the climate disaster “loss and damage fund” that was first tabled at COP27. Developed countries aim to contribute to the fund in order to support developing nations vulnerable to climate change. During the conference alone, not only did the fund receive over US\$700 million in donation pledges from various countries, it was also confirmed that the fund will be managed by the World Bank. Later, it also mobilized another US\$57 billion from different global solidarity groups, governments, businesses, investors and philanthropies. Overall, COP28 raised

¹ Image: Delegates during the Closing Plenary at the UN Climate Change Conference COP28 at Expo City Dubai on December 13, 2023, in Dubai, United Arab Emirates. (Source: COP28 / Anthony Fleyhan via flickr)

over US\$85 billion for climate action efforts. Since many countries have not yet made pledges or have committed only a small amount of funds at present, the total number raised is anticipated to continue to grow even further.

Lastly, COP28 completed the first Global Stocktake of the Paris Agreement. Article 14 of the Paris Agreement—signed in 2015 at COP21—stipulates that the first global stocktake of the Paris Agreement should be finished in 2023, and the “UAE Consensus” is actually built based on the conclusions of this stocktake. The stocktake affirmed that the positive changes in the process of climate change mitigation is inseparable from the efforts of all countries, but it also pointed out that the international community needs to make more changes in order to achieve the goal of limiting the temperature rise to within 1.5 degrees Celsius. Specifically, the “UAE Consensus” suggests that measures such as doubling the installation of renewable energy by 2030, significantly reducing non-CO2 greenhouse gas emissions, decreasing coal power generation, and eliminating inefficient fossil fuel subsidies will all contribute to achieving the goals of the Paris Agreement.

Main Relevant Sources:

[\\$700m pledged to loss and damage fund at Cop28 covers less than 0.2% needed](#), *Guardian*, December 6, 2023
[COP28 Delivers Historic Consensus in Dubai to Accelerate Climate Action](#), COP28 UAE, December 13, 2023
[COP28: Mohammed Bin Rashid welcomes ‘UAE Consensus’ transition away from fossil fuels](#), *Gulf News*, December 13, 2023
[COP28: Key outcomes agreed at the UN climate talks in Dubai](#), *Carbon Brief*, December 13, 2023
[COP28 Dubai is over: Four key highlights from the UN climate summit](#), *Al Jazeera*, December 13, 2023
[UAE Consensus on global stocktake to guide future climate efforts](#), *People’s Daily*, December 15, 2023
[Frequently Asked Questions About the Global Stocktake](#), United Nations Climate Change, Accessed December 30, 2023

Compromise and Partial Satisfaction Are Also Parts of Multinational Conferences

Despite the considerable achievements of COP28, not all stakeholders came out satisfied. The wording of the COP28 agreement itself has sparked a great deal of controversy. As mentioned earlier, many countries believe that the term “transition away” is not strong enough, leading many countries to, therefore, be inactive on reducing the use of fossil fuels and leaving the goal of keeping the global temperature increase below 1.5°C unachievable. For example, the representatives from Samoa believe that the plan of the agreement is too conservative and insufficient for the current situation. However, everyone must acknowledge that phasing out fossil fuels is highly unfavorable for all fossil fuel producing countries and those countries that are still heavily reliant on fossil fuels. Other countries, including China and Saudi Arabia, also believe that the agreement is not perfect but, contrary to Samoa's position, that it does not fully consider the actual limited capabilities of fossil fuel relying countries. From a purely economic interest perspective, such countries have ample reason to oppose any attempts to phase out fossil fuels. Nevertheless, these countries still joined others in collectively signing the agreement to gradually transition away from fossil fuels.

It cannot be denied that these countries also bear a sense of responsibility for climate change, as do all countries, but it must also be acknowledged that international conferences like COP28 play an indispensable, bridging role in reaching such agreements. Firstly, albeit limited, COP28 activities imply a general consensus within the international community and places tremendous pressure on any country attempting to completely refuse it. Secondly, COP28 itself provides a platform for negotiation, compromise,

and interest sharing, ensuring that the interests of all participants are at least partially taken into account. Thus, while committing to transition away from fossil fuel, COP28 also promised that the world will accelerate the use of zero- and low-carbon fuels, triple renewable energy capacity, and double the annual rate of energy efficiency improvements by 2030. Although the agreement lacks specific action plans on these issues, these still could be seen as a promise of compensation to countries who will suffer immediate losses by the energy transition agreement.

Additionally, the loss and damage fund, another widely popular topic of discussion, also could only reach a partially satisfying conclusion. The loss and damage fund is an initiative first raised last year, aiming to provide financial support to developing countries that are particularly vulnerable to the adverse effects of climate change. Considered a vital step towards climate justice, developed and rich countries alike are supposed to contribute to the fund. However, even though developed countries have already raised over US\$700 million for the fund and the Green Climate Fund also received pledges of a total of US\$12.8 billion from 31 countries, this amount is still well short of the promised annual US\$100 billion from wealthy nations. In particular, as a *Voice of America* article pointed out, major historic emitters are not contributing enough to the fund. For example, the United States only pledged US\$24.5 million thus far to compensate for the climate impact felt by vulnerable countries in the Global South. In fact, providing financial assistance to developing countries is also not typically a legal binding obligation of developed countries. Developed countries are still demonstrating a form of responsible global citizenship by providing this assistance for the welfare of all humanity. This reflects the recognition and support of the entire world for multilateral cooperation on climate change related issues. Therefore, it must be acknowledged that, while the achievements regarding the loss and damage fund at this conference were not entirely satisfactory, there remain reasons to believe that international climate cooperation under the framework of multinational conferences has a promising future.

Main Relevant Sources:

[COP28 “UAE Consensus” Agreement Lacks Promised Action](#), *Forbes*, December 13, 2023

[COP28 Deal a ‘Disappointing’ Win, Experts and Activists Say](#), *Voice of America*, December 13, 2023

[Analysis: At COP28, Sultan al-Jaber got what the UAE wanted. Others leave it wanting much more](#), *AP News*, December 13, 2023

[COP28 offers climate action a lifeline but no finish line](#), *China Dialogue*, December 13, 2023

[Despite COP28 deal on fossil fuels, 1.5C goal likely out of reach](#), *Reuters*, December 14, 2023

[We have to fix unfairness: Ten takeaways from Cop28](#), *Climate Home News*, December 15, 2023

[Blog: COP28’s UAE Consensus – Big on vision and paradigm, small on concrete measures](#), UN Environmental Programme, December 19, 2023

Climate Change Related Topics Were Discussed in Multiple International Conferences

Besides the COP28, there are also events that focus on more specific topics related to climate change. For example, the attendees of the Climate and Energy Summit, co-hosted by the International Energy Agency (IEA) and the Government of Spain in early October, talked about energy transition. They argued again that there is an urgent need to accelerate the global clean energy transition. Energy and climate ministers from different countries sought to build an international coalition that can increase the pace of energy transition to meet the goal of limiting global warming to 1.5 °C of the Paris Agreement. In mid-October, the High-level Forum on Green Development was held as part of the Third Belt and Road Forum for International Cooperation in Beijing, China under the theme: “Joint Building of the Green Silk Road for Harmony between Man and Nature.” Hosted by Beijing’s Ministry of Ecology and Environment and their

partners, more than 400 people from over 40 countries attended the Forum that encouraged all to “jointly build a clean and beautiful world.”

In addition to conferences specifically dedicated to discussing climate change, almost every international conference now touches upon topics related to climate change, though to varying degrees. Several international conferences held before October, such as the BRICS Summit, the G20 Summit, the ASEAN Summit, and the African Climate Summit, all had serious discussions on issues related to climate change. As we entered the fourth quarter of 2023, this trend continues with several more multinational conferences considering climate change as a main topic of discussion. After issuing a Joint Statement on Climate Change during the 43rd ASEAN Summit in September, ASEAN also discussed climate change-related issues in the first ASEAN-Gulf Cooperation Council (GCC) summit held in Riyadh, Saudi Arabia in October. A new five-year Framework of Cooperation 2024-2028 was adopted during this summit, which aims to elevate relations between the two regions to a higher level through a wide spectrum of practical cooperation. In all areas of cooperation, climate change adaptation and innovation, along with renewable energy, occupy very important positions. Both parties have recognized that cooperation in these fields is as important as in areas like religious exchange and counterterrorism, which themselves already have a long history of collaboration.



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Climate change and sustainable development were also discussed at the APEC Summit held in San Francisco, California in November. Most notably, the APEC Summit introduced the “San Francisco Principles on Integrating Inclusivity and Sustainability into Trade and Investment Policy,” which aim to balance economic, social, and environmental planning in APEC members’ policies. In terms of climate change and sustainable development, the members agreed to incorporate environmental sustainability and social inclusivity in policy development and enhancing cooperation on environmental goods and services. This, like other cases of increased mention of climate issues at multinational gatherings, marks a significant step forward in multinational collaboration for a more sustainable world.

Main Relevant Sources:

[Climate and Energy Summit: A Grand Coalition to Keep 1.5 °C Within Reach](#), International Energy Agency, October 2, 2023

[The Third Belt and Road Forum for International Cooperation High-level Forum on Green Development Is Held in Beijing Han Zheng Attends the Forum and Delivers Remarks](#), The Third Belt and Road Forum for International Cooperation, October 19, 2023

² Image: Leaders confirmed during the ASEAN-Gulf Cooperation Council (GCC) Summit in Riyadh that the two regions will enhance cooperations on climate change adaptation and innovation and renewable energy. (Source: Association of Southeast Asian Nations, Public Domain)

[ASEAN leaders and Gulf Cooperation Council hold first Summit](#), ASEAN.Org, October 20, 2023

[ASEAN-GCC Summit: The Need to Keep it Going](#), *Fulcrum*, October 23, 2023

[Businesses urge APEC leaders to collaborate on climate](#), *China Daily*, November 15, 2023

[U.S. 2023 APEC Outcomes](#), U.S. Department of State, November 17, 2023

[APEC's 'San Francisco Principles' on sustainability, inclusiveness](#), *Reuters*, November 18, 2023

[APEC Leaders pledge to create resilient and sustainable future](#), *CGTN*, November 18, 2023

Government Statements & Actions on Multinational Climate Engagements

The most eye-catching topic on climate change in the fourth quarter of 2023 was undoubtedly the COP28 United Nations Climate Change Conference, where many government leaders took the opportunity to express their views on the necessity of collective efforts in combating climate change. Some government officials also emphasized the significance of international climate cooperation on other occasions. In addition, there are also government ministries that spoke about the recent international climate conference and expressed their support or concerns.

- Speaking at the Third Belt and Road Forum for International Cooperation High-level Forum on Green Development, PRC Vice President Han Zheng said “promoting the building of the Green Silk Road is an important measure to promote the green and low-carbon development of developing countries and jointly build a clean and beautiful world,” emphasizing the need to “further expand the circle of friends for green development” and learn from one another in the process.
- UN Secretary-General Antonio Guterres stated that a global fossil fuel phaseout is inevitable if the international community still aims to limit global heating to 1.5°C. He also emphasized the need for justice and equity in this transition since some parts of the world will be impacted more by the transition.
- The U.S. Secretary of State Antony J. Blinken emphasized the critical need for international collaboration to address global food insecurity induced by climate change and highlighted United States’ participation and commitment in multiple global initiatives on this issue.
- Prime Minister Mark Rutte of the Netherlands made a speech at COP28, in which he emphasized the need for action on all pillars of the Paris Agreement: mitigation, adaptation, and climate finance. He then announced that the Netherlands will provide 15 million euros to the startup costs of the loss and damage fund.
- In his national statement at COP28, Prime Minister Rishi Sunak of the United Kingdom announced several new climate finance commitments of the UK, including an additional £1.6 billion for clean energy and innovation, a new fund for the Glasgow forests deal, and an extra £60 million for the Loss and Damage fund.
- President Luiz Inácio Lula da Silva of Brazil made a speech at the opening session of the COP28 Presidency. He criticized the failure to meet previous climate commitments and called for concrete action rather than “eloquent and empty speeches.”

Multinational forums are also of great significance to international organizations. It provides a platform for various international organizations to make financial commitments, launch environmental initiatives, and organize sustainable development partnerships. Those cases highlight examples of the ongoing efforts that have been made globally among non-governmental groups in addressing climate change over the past three months, underlining the importance of collective action among different levels of the society in this battle.

- During COP28, the Green Climate Fund (GCF) received six new pledges totaling USD 3.5 billion for the second replenishment. GCF announced that its second replenishment grew to a record US\$12.8 billion and 31 contributor countries with those new achievements reached at COP28, boosting momentum for its upcoming programming cycle.

- On December 2, The Mangrove Alliance, in partnership with the UN High Level Climate Champions and the COP28 Presidency, hosted several Mangrove Breakthrough Flagship events in Dubai, UAE on the sidelines of the COP28 climate conference. At one of these events, they launched the Mangrove Breakthrough Financial Roadmap, which “provides actionable recommendations for scaling mangrove-positive business models and developing innovative financial instruments to accelerate investment in mangroves.”
- On December 2, the African Union Commission, in collaboration with the United Nations Economic Commission for Africa (ECA), the African Development Bank (AfDB), African member states and other regional partners, celebrated Africa Day at COP28 in Dubai under the theme: “Scaling up Financing for Climate Action and Green Growth in Africa.”
- On the sidelines of COP28, the "African Development Bank Group-Civil Society Coalition on Climate and Energy" was launched, led by civil society non-government organizations. Speaking at the launch, African Development Bank President Akinwumi Adesina, who created the Bank’s Civil Society Division, explained the coalition ultimately works to ensure that “adaptation and resilience-building are at the heart of climate-vulnerable African economies” amidst dealing with their unique circumstances.
- Following COP28, the International Energy Agency (IEA) released an “assessment of the evolving pledges at COP28,” noting pledges have been made in three of the five crucial areas for action that were highlighted by the International Energy Agency ahead of COP28. IEA said it would “continue to monitor the ongoing developments at COP28 and update its assessment as needed.”

Main Relevant sources:

[The Third Belt and Road Forum for International Cooperation High-level Forum on Green Development Is Held in Beijing Han Zheng Attends the Forum and Delivers Remarks](#), The Third Belt and Road Forum for International Cooperation, October 19, 2023

[The Mangrove Alliance at COP28](#), The Mangrove Alliance, November 2023

[Secretary Antony J. Blinken At the UN Climate Conference, COP 28, Leaders Event: Transforming Food Systems in the Face of Climate Change](#), U.S. Department of State, December 1, 2023

[Plenary statement by Prime Minister Mark Rutte at COP28](#), Government of the Netherlands, December 1, 2023

[PM's National Statement at COP28: December 01 2023](#), Government of the United Kingdom, December 1, 2023

[Speech by President Lula at the opening session of the COP28 Presidency](#), Presidência da República, December 1, 2023

[Africa Day at COP28 to focus on financing climate action and green growth](#), United Nations Africa Renewal, December 1, 2023

[COP28: African civil society unveils its recommendations for the fight against climate change in Africa](#), African Development Bank Group, December 6, 2023

[IEA assessment of the evolving pledges at COP28](#), International Energy Agency, December 10, 2023

[COP28 ends with call to 'transition away' from fossil fuels; UN's Guterres says phaseout is inevitable](#), United Nations, December 13, 2023

[GCF at COP28: A wrap up of outcomes at COP28](#), Green Climate Fund, December 20, 2023

Third-Party Analyses & Data on Multinational Climate Engagements

Alongside the currently vigorous schedule of global multilateral meetings and cooperation on climate issues, experts, analysts, and observers have been forming their own viewpoints on such multinational climate engagements. Many of them believe that multilateral meetings help to enhance communication, understanding, and mutual trust, and positively contribute to the global joint response to the challenges of climate change. However, some scholars also worry that climate change might instead become a new platform for competition and a bargaining chip in international negotiations.

- In a podcast hosted by the U.S.-China Institute, James Borton and Rodger Baker talked about the environmental factors involved in the South China Sea and the importance of scientific diplomacy and collaborative efforts in this disputed region.
- In one commentary, Jacob Mardell argued that the Belt and Road Initiative enhances Beijing's position as a global leader in environmental matters and fosters a multitude of renewable energy projects across Central Asia.
- An article published on the Global Government Forum argues that considering the complex interplay of various stakeholders and substantial financial flows, the global effort to combat climate change requires increased transparency and oversight.
- In an article from *Politico*, three authors discuss the debate surrounding the establishment of the loss and damage fund, worrying that the disagreements involving developed countries like the U.S. and the EU might jeopardize the success of the conference.
- A *Mongabay* commentary suggests that the Muslim community that accounts for nearly a quarter of the world's total population should have more say on the international stage and play a larger role in the global action on climate change.
- In her outlook for COP28 in *Earth.org*, Caterina Favino argued for the urgent need to ramp up renewable energy efforts and phase out fossil fuels despite the conflicts of interest with the COP28 presidency.
- A *Guardian* article discusses the importance of the Pacific Islands Forum (PIF) led by Australia and New Zealand to climate-related issues in the region, and also what changes external powers like the U.S. and China might bring to the forum.
- A *China Dialogue* article mentions how the strengthening climate agreement between the U.S. and China reaffirms both nations' commitments to addressing climate change and scaling up renewable energy, and that it will positively influence the COP28 climate talks.
- An *AP News* article pointed out that COP28 President Sultan Al Jaber's contradictory statements on fossil fuel phase-out underscore the oil states' complex position on climate issues, balancing modern development with economic reliance on fossil fuels.
- The United Nations' *Africa Renewal* magazine released an article reviewing the African continent's top six negotiating priorities at COP28, described as the 'African Common Position on Climate Change for COP28', and explaining why Africa's transition "cannot be identical to the rest of the world" but "must be just, inclusive and equitable" and is "a matter of life and death" for African countries.
- In an analysis of the COP28 final agreement, Benjamin Shingler from *CBC* highlighted the achievements of the COP28 agreement in terms of energy transition, but he also emphasized the lack of clear commitment of the agreement.
- International Bar Association's Environment Correspondent Katie Kouchakji reflected a view that is agreed by many in her commentary: that the consensus reached in the COP28 agreement is far from sufficient for the current climate change mitigation efforts.

Relevant sources:

[James Borton and Rodger Baker: Science Diplomacy and The Ecological Implications of The South China Sea](#), US-China Institute, October 5, 2023

[BRI at 10: Checking in on the 'green silk road'](#), The China Project, October 9, 2023

[The fight against climate change requires greater transparency](#), Global Government Forum, October 29, 2023

[The money fight that could 'break' the climate summit](#), *Politico*, October 30, 2023

[Muslim community must have a seat for global climate change discourse \(commentary\)](#), *Mongabay*, November 3, 2023

[What Can We Expect From COP28, And What Must Happen?](#), *Earth.org*, November 6, 2023

[Pacific Islands Forum: what is it and why does it matter?](#), *Guardian*, November 6, 2023

[‘Wind in the sails’: US–China climate agreement can boost global action](#), China Dialogue, November 22, 2023
[Analysis: Emirati oil CEO leading UN COP28 climate summit lashes out as talks enter toughest stage](#), AP News, December 5, 2023
[Africa’s top six priorities at COP28](#), United Nations Africa Renewal, December 6, 2023
[Historic or half measures? Breaking down the UN climate deal](#), CBC, December 13, 2023
[Comment and analysis: COP28 – a consensus that isn’t enough](#), International Bar Association, December 15, 2023

ICAS Commentary

“Transitioning away” from fossil fuels requires patience and fresh ideas

By Zhangchen Wang

December 30, 2023

One of the most commendable achievements of the 2023 United Nations Climate Change Conference or Conference of the Parties of the UNFCCC, more commonly known simply as COP28—is the joint agreement by nearly 200 countries to commit to [transitioning away from fossil fuels](#) from this point forward. This is the first time in history that the international community has reached a consensus on the future of fossil fuels, marking a significant milestone in global joint actions to address climate change. This agreement was hard-won. The two-week long COP28 even had to go into one day of “overtime” to finally seal the agreement on December 13.³

Despite the hard efforts, many are still not satisfied with the content of this consensus. [Some critics](#) argue that the language of this consensus is too weak to benefit the global efforts to the global process of reducing fossil fuels consumptions and carbon emissions. They believe that instead of “transitioning away,” the agreement should require countries to “phase out” the use of coal, oil and natural gas. However, the reason for the conference to choose the phrase “transition away” is because this approach is more in line with the actual situation of most of the countries, and a radical energy transition might actually be counterproductive. Only a just transition carried out after carefully considering the energy supply structures and economic development level aligns best with the interests of most countries. In other words, this agreement prioritizes progress and marks “transitioning away” as more fair and realistically achievable than “phasing out.”



³ Image: Digital generated image of sustainable growing bar chart made out of cubes and multiple environments showing the transforming process from coal industry to green energy. (Source: Getty Images, Royalty-free)

Ever since the signing of the [Paris Agreement](#) in December 2015, there have been voices advocating for the necessity of a “[just transition](#)” in addressing climate change. That concept primarily focuses on protecting the rights and interests of workers during the transition to address climate change, aiming to prevent workers from being harmed by industrial restructuring. In fact, not just workers, but every person in any country should have the opportunity of experiencing a “just transition.” The world has acknowledged that the efforts to address climate change should not harm the legitimate rights and interests of ordinary people.

The United Kingdom and the European Union, along with several of the latter’s 27 members, are often among the strongest supporters of phasing out fossil fuels. The US, UK, and EU have [demanded](#) “stronger language” in determining the future of fossil fuels. However, it must also be acknowledged that if the phasing out of fossil fuels becomes a mandatory regulation for all countries, those countries would also be among the least affected countries. By 2024, the UK will be able to [completely stop using coal and oil](#) for electricity generation, and its reliance on natural gas for power generation will also drop to about 10% of the total power generated. Similarly, the share of fossil fuels in the power mix of Germany is also [less than 25%](#), and its installation capacity of renewables continues to increase.

In comparison, countries like China and India, which faced [heavy criticism](#) at COP28 for opposing the use of strong language regarding fossil fuels, can be used in case studies for developing countries that cannot afford to phase out fossil fuels too rapidly. Renewable energy accounts for only [16%](#) and [10%](#) of the primary energy in China and India, respectively. Although China is accelerating its energy transition, it still cannot be finished overnight. In the summer of 2022, severe drought led to insufficient power supply from hydroelectric stations, and the subsequent [energy shortage](#) severely affected provinces along the Yangtze River in China. China even had to temporarily increase its coal power generation. For India, reducing the usage of fossil fuels also becomes a less pressing issue when many people still do not have access to reliable and affordable energy. Thus, a hasty phasing out of fossil fuels is neither reasonable nor realistic for such people at the moment.

While this milestone agreement does not mandate any country to completely stop using fossil fuels by a certain point in time, it does require a [commitment to](#) “rapidly phasing down unabated coal and limiting permissions of new and unabated coal power generation.” This type of planning scheme reflects a very important principle of the agreement: the ultimate goal is not to stop the use of fossil fuels entirely but instead to assist countries to achieve net zero by 2050 by transitioning away from fossil fuels. Furthermore, there are several existing measures that can already be used to assist in the process of transitioning away from fossil fuels without affecting economic development or the overall price of energy.

China—the country with the fastest development rate in renewable energy—can be taken as an example. Over the past decade, China’s renewable energy installation capacity has increased from [8% to 16%](#) in total energy consumption, and its use of coal has decreased from [68% to 55%](#) at the same time. It can be said that renewable energy has significantly helped to reduce fossil fuels usage. Nevertheless, although many advocate replacing fossil fuels by increasing the use of renewable energy, everyone must also recognize the limitations of renewable energy. Firstly, the present growth rate of renewable energy can only partially meet the need to replace coal and is not sufficient to satisfy China's increased demand for energy consumption. China’s level of reliance on other fossil fuels has not changed with the development of renewable energy. To achieve that admirable yet minimal growth from 8% to 16%, China’s wind power generation increased from 282 TWh to 1988 TWh and its solar power

generation from 9 TWh to 1115 TWh, and the use of other renewable energy sources also saw significant growth.

Thus, countries should also adopt accessible and low-carbon fuels to replace high-pollution energy sources, such as using natural gas to replace coal. Although it is also a fossil fuel, natural gas emits [50% less carbon](#) than coal and is much more accessible than renewable energy. Moreover, the price of natural gas is becoming increasingly competitive with improvements in extraction and transportation technologies. Therefore, increasing the use of low-emission energy sources such as natural gas is actually an effective means to reduce carbon emission, especially when the supply of renewable energy is still insufficient. More importantly, it is not particularly complicated to replace coal with natural gas. Currently, coal is primarily used in thermal power plants for electricity generation. One can [turn a coal power plant into a natural gas power plant](#) by converting the boiler of a coal-fired steam plant to a natural gas-fired boiler. With such a conversion, the output of electricity needed for development will not decrease, and the workers originally employed at the power plant also will not lose their jobs. This is just one method of expanding the use of natural gas and other similar low-carbon energies which can play a greater role in many more fields for a long time to come.

Additionally, it is necessary to improve the storage and transportation methods of renewable energy. Two issues that must be faced in the process of transitioning away from fossil fuels is that renewable energy can almost only be converted into electric energy and stored in batteries, and that there are always times when renewable energy cannot be naturally generated. This makes the application of renewable energy not as extensive or reliable as fossil fuels, especially oil, and also makes its storage and transportation comparatively more difficult. Accelerating the development of green hydrogen may partially solve this problem in the future, achieving the goal of transitioning away from fossil fuels in areas other than electricity. [Green hydrogen](#) is not a naturally obtained resource. Instead, it converts electricity generated from renewable energy into another form, and it can play a wider role in heavy industry, transportation, mining and other fields. For example, it could replace oil as the zero emission fuel for ships and airplanes in the future, which is something that electricity cannot achieve. Additionally, they also avoid the potential waste of renewable energy due to the insufficiency of lithium batteries.

To sum up, COP28's groundbreaking international agreement to "transition away" from fossil fuels marks a significant and carefully framed step toward a global net zero objective. It logically balances the urgent need for climate change mitigation with the non-negligible economic and social realities of different countries, thus making it more likely to succeed. In order to achieve the goal of transitioning away from fossil fuels as soon as possible, the green development work needs to make more efforts in both replacing high-emission energy sources with low-emission ones and expanding the application of renewable energy in the long run, and if adhered to this agreement is a solid step towards that goal.

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This season's Theme of the Quarter on Multinational Climate Engagements was primarily researched and written by Zhangchen Wang, Part-Time Blue Carbon & Climate Change (BCCC) Program Intern at the Institute for China-America Studies.

This Season's Global Climate Affairs

Issues & Updates on Blue Carbon

Nigeria's new blue economy ministry could harness marine resources: moving the focus away from oil

Monday, October 2

Source: [The Conversation](#)

[Nigeria]

Nigeria established the Ministry of Marine and Blue Economy in August 2023 to harness its extensive coastline and marine resources and move away from oil. Nigeria hopes to create more than US\$1.5 trillion in value annually by developing marine resources. By creating effective collaboration among stakeholders and partners, integrating sustainability into policies and strategies, and checking mismanagement, this move aims to create jobs, boost economic development, and diversify Nigeria's oil-dependent economy.

Aviva and WWF launch innovative saltmarsh research in Lancashire

Monday, October 9

Source: [Aviva](#)

[The United Kingdom]

Aviva and WWF are collaborating on a research project to assess the carbon storage potential of UK saltmarsh habitats by installing a carbon flux tower in the Ribble Estuary, Lancashire. The project aims to show the amount of carbon that is captured and for how long it is stored. The research could evaluate saltmarsh's role in climate change mitigation and contribute to the development of a UK Saltmarsh Code.

Blue economy values strengthen marine ecosystems: Minister

Monday, October 9

Source: [Antara News](#)

[Indonesia]

Speaking at the Archipelagic and Island States series of blue economy dialogues, Indonesia's Minister of Environment and Forestry (LHK) Siti Nurbaya Bakar advocated for more capacity building, regulations, and technology to support policies in the blue economy. She notes that coastal ecosystems, especially mangroves, play a crucial role in sustaining the blue economy, benefiting over 100 million people worldwide and contributing to economic growth, environmental sustainability, and social inclusion.

Working on making mangroves as pillar of blue economy's resilience

Friday, October 13

Source: [Antara News](#)

[Indonesia]

Indonesia aims for the blue economy to contribute up to 15% of its GDP by 2045, and mangrove ecosystem development is among the seven key aspects being emphasized. Deputy for Maritime Affairs and Natural

Resources at the Ministry of National Development Planning, Vivi Yulaswati, stated that the development of mangrove ecosystems can absorb around 21.9 billion tons of CO2 emissions in Indonesia.

Indonesia, UAE to Launch Mangrove Research Center at COP28

Thursday, November 2

Source: [Jakarta Globe](#)

[Multinational]

In collaboration with Indonesia, the United Arab Emirates plans to launch an international research center in Bali focusing on mangroves. The center, set to be unveiled during COP28, aims to bring together global researchers to showcase expertise in restoring mangrove ecosystems and promote them as a nature-based solution to address climate change.

Oman's Mangrove Restoration Could Generate \$150 Million in Carbon Credits

Thursday, November 2

Source: [Carbon Credits](#)

[Oman]

Oman is actively restoring mangroves to eliminate emissions and counter climate change. Meanwhile, the country aims to generate US\$150 million economic benefits through carbon credits. The Oman Blue Carbon project will collaborate with MSA Green Projects to cultivate 100 million mangrove trees to move forward its National Zero Carbon Strategy 2050 and offering carbon credits to companies seeking to offset emissions.

Sea level rise found to encourage mangrove expansion on Great Barrier Reef islands

Thursday, November 23

Source: [Phys.org](#)

[Australia]

Environmental scientists from the University of Wollongong and the University of New South Wales have discovered that sea level rise is promoting mangrove expansion on certain islands of the Great Barrier Reef. Despite the generally observed decline of mangrove forests due to rising sea levels, the researchers found an exception on the Howick Islands, highlighting new features and potentials of mangroves.

Mowilex Completes its Pledge to Plant 50,000 Mangrove Trees by Establishing 25,000 Trees in West Kalimantan, While Supporting Local Environmental Hero

Tuesday, November 28

Source: [PR Newswire](#)

[Indonesia]

PT Mowilex Indonesia has fulfilled its commitment to plant 50,000 mangrove trees, establishing 25,000 trees in West Kalimantan, Indonesia. The initiative supports local communities along the Kupah River, providing benefits such as erosion prevention, flood control, carbon storage, and habitat creation. This project supported the work of Rudi Hartono, a young environmental hero who won KLHK's 2022 Kalpataru Award.

Ocean Visions Creates Road Map to Advance Research for the Restoration of Blue Carbon

Friday, December 1

Source: [Ocean Visions](#)

[The United States]

Ocean Visions released a new road map on restoring blue carbon in order to accelerate research and development of ocean-based solutions—especially the blue carbon ecosystem—to the climate crisis. This road map aims to address challenges in carbon storage, restoration techniques, and improve monitoring and reporting systems. It is part of a suite of road maps for ocean-based solutions to climate changes.

The Philippines joins Blue Carbon Action Partnership to Strengthen Coastal Ecosystems

Monday, December 4

Source: [World Economic Forum](#)

[The Philippines]

The Philippines announced at COP28 that it joined the World Economic Forum's Blue Carbon Action Partnership to bolster the conservation and restoration of blue carbon ecosystems including mangroves, seagrasses, and salt marshes. The blue carbon ecosystems in the Philippines are capable of sequestering nearly 700 billion metric tons of carbon. This partnership will be of great help to food security, livelihoods, and coastal protection.

A breakthrough moment for mangroves: Delivering Global Action on Mangrove Restoration and Protection

Monday, December 15

Source: [Global Mangrove Alliance](#)

[Multinational]

The Mangrove Breakthrough's objective of protecting and restoring 15 million hectares of mangroves by 2030 with US\$4 billion of new investments was successfully secured during the COP28 Climate Conference in Dubai. This initiative gained the backing of over 40 new governments, with various stakeholders including ministers, indigenous communities, financial institutions, and NGOs making substantial commitments toward realizing the Breakthrough.

Seaweed farms the size of 176 football pitches planned for Cornwall

Thursday, December 28

Source: [Cornwall Live](#)

[Multinational]

Two companies, Biome Algae and The Carbon Sea Garden, have filed applications with the United Kingdom's Marine Management Organisation to establish two large, 55-hectare seaweed farms—a region as big as 176 football fields—in Gerrans Bay off the Roseland Peninsula in Cornwall, England. If approved, the applications would be valid for 50 years and, in spite of arguments over their value, several locals openly oppose the idea.

Multilateral Affairs & Climate Diplomacy

China and the United States Agreed to Strengthen Climate Change Cooperation

The Short Story: China and the United States reached new consensus and achievements in the field of climate change cooperation during the last quarter of 2023.

Why It Matters: As the two largest greenhouse gas emitters in the world, the mere existence of joint actions between the United States and China have a significant impact on global climate change mitigation efforts. Considering the long-festering, tense nature of bilateral relations on many issues in recent years, climate cooperation continues to be a bright spot and a stabilizer in U.S-China bilateral relations. Additionally, their cooperation also highlights the importance of collaboration in addressing climate change to the rest of the world.

The Full Feature Story: In an attempt to improve bilateral relations and strengthen climate change cooperation, U.S. Climate Special Envoy John Kerry visited China in July 2023, but the two countries were unable to reach any substantial consensus at that time. After several months of negotiations and relentless efforts, Kerry and his counterpart—China’s special climate envoy Xie Zhenhua—finally reached an important consensus on climate change cooperation in November at the Sunnylands estate in California. The joint statement, titled “Sunnylands Statement on Enhancing Cooperation to Address the Climate Crisis,” represents the two countries’ declared willingness to work together in energy transition, methane emissions reduction, and improving resource efficiency. Considering that China’s development still relies heavily on coal and other fossil fuels, China did not make specific commitments to reduce coal usage in the statement. Nevertheless, both countries still recognized the importance of transitioning towards renewable energy, and agreed to “pursue efforts to triple renewable energy capacity globally by 2030.”

Moreover, this statement also marks the first time that China has explicitly pledged to reduce methane emissions. China has previously refused to join the Global Methane Commitment. The world’s top two carbon emitters agreed that they will both include methane in their respective 2035 emission-cutting plans. Although the Sunnylands Statement did not set specific goals for the two countries in terms of methane reduction, it at least provided a publicly-released blueprint for solving this problem that has long lacked attention. It is particularly noteworthy that the statement was released shortly before the meeting between the two presidents at the APEC Summit which, to an extent, laid a good foundation for the subsequent meeting between the two leaders. During their individual meeting at the APEC Summit, Chinese President Xi Jinping and U.S. President Joe Biden reaffirmed the importance of climate change in their meeting and confirmed that their countries would restart the climate talks that had been previously suspended due to tensions in the bilateral relationship.

As noted, it is a proven fact that the United States is the biggest greenhouse gas emitter in history cumulatively while China is currently the biggest greenhouse gas emitter in the world. The willingness of the two countries to reduce emissions is crucial in determining whether the world can reach the objective of keeping the average global temperature rise to 1.5 degrees Celsius above pre-industrial levels. Although neither country aims to start making changes immediately, at least there is hope for improvement in the situation. Many countries in the world will also be more willing to address climate change challenges in a cooperative manner with other countries because of the consensus reached

between China and the United States. In fact, both countries also seem to be willing to lead a global reformation. Notably, representatives of both countries expressed their willingness to cooperate before the start of COP28. The additional achievements of COP28, along with various individual statements made by government officials in recent years, further prove that China and the United States agree that cooperation is better than competition in the field of climate change, and there will also be no winner in a US-China confrontation.

Sources:

[US says to hold climate talks with China in California ahead of COP28](#), *South China Morning Post*, November 3, 2023

[US, China reach 'understandings' on climate ahead of COP28 talks -Kerry](#), *Reuters*, November 10, 2023

[U.S. and China Agree to Displace Fossil Fuels by Ramping Up Renewables](#), *New York Times*, November 14, 2023

[US-China joint climate action back on track, hours ahead of Xi-Biden meeting in San Francisco](#), *South China Morning Post*, November 15, 2023

[US, China advance climate cooperation following California talks](#), *Reuters*, November 15, 2023

[In a breakthrough, U.S. and China agree to restart climate talks](#), *The Washington Post*, November 15, 2023

[China-US Sunnylands statement rekindles hope of tackling climate crisis](#), *China Daily*, November 28, 2023

[U.S., China to work together at COP28 summit, Kerry says](#), *Reuters*, November 29, 2023

[China, US work together for successful COP28: Xie Zhenhua](#), *The Global Times*, December 14, 2023

The European Union Advances in Climate Action as 2023 Comes to a Close

The Short Story: The European Union started several new initiatives to combat climate change and transition to a sustainable future during the last months of 2023.

Why It Matters: The European Union's new measurements in addressing climate change will mitigate climate change and promote sustainable development in many different aspects, covering a very wide range of topics. These measures can also assist each country within the European Union in finding more viable climate action plans for their own unique circumstances, capabilities and needs.

The Full Feature Story: The European Union has never stopped its efforts in addressing climate change. Recently, the European Union has been introducing new measures and policies every month to facilitate the realization of its climate goals. In October, the European Commission completed the "Fit for 55" legislative package for achieving the EU's 2030 climate targets. The "Fit for 55" package is a comprehensive legislative framework that encompasses a wide list of policies. It was given that name because it aims at reducing the EU's greenhouse gas emissions by at least 55% by 2030 (compared to emission levels from 1990), which is in line with the goals of the European Green Deal. The "Fit for 55" package has introduced many targets and innovative measures on climate action. For example, it has the target to achieve a minimum of 42.5% renewable energy by 2030, to improve energy efficiency by 11.7% by 2030, and to achieve zero-emission targets for cars and vans by 2035. Commission President Ursula von der Leyen said that the EU is not only on track of meeting the targets but also about to overshoot the ambition. She also argued that "this [Fit for 55] is an important sign to Europe and to our global partners that the green transition is possible, that Europe is delivering on its promises."

Besides the package of legislations, the EU has also taken more specific actions in recent months to lead the green transition. For example, the European Commission launched the European Hydrogen Bank in November, aiming to support the production of renewable hydrogen in Europe. The initiative starts with

€800 million from the EU Emissions Trading System (ETS) revenues and is ultimately designed to bridge the cost gap between renewable and non-renewable hydrogen production. Since non-renewable hydrogen is still cheaper to produce, the fund will make renewable hydrogen more competitive in the market and easier to survive.

In December, the EU confirmed that it has disbursed €2.17 billion to modernize the energy systems in nine Member States through 19 selected projects via the Modernisation Fund. The money for the Modernization Fund comes from the revenues of the EU Emissions Trading System (EU ETS). After adding the most recent €2.17 billion, the Modernization Fund has already invested more than €9.68 billion in less than two years to assist member countries accelerate their green transition. The major objective of the fund is to help the less developed members of the EU reduce greenhouse gas emissions in energy, industry, and transport through new technologies and equipment, and it also aims to improve energy efficiency. The underdeveloped countries from Eastern Europe such as Bulgaria, Croatia, and Romania have benefited the most from the fund so far.

Sources:

[Commission welcomes completion of key 'Fit for 55' legislation, putting EU on track to exceed 2030 targets](#), European Commission, October 9, 2023

[EU scales up green subsidies: How you can benefit from new support for clean investments](#), Norton Rose Fulbright, October 2023

[Commission launches first European Hydrogen Bank auction with €800 million of subsidies for renewable hydrogen production](#), European Commission, November 23, 2023

[EU invests an additional €2 billion of emissions trading revenues in clean energy infrastructure projects in Member States via the Modernisation Fund](#), European Commission, December 20, 2023

[EU Invests Over €2 Billion of Emissions Trading Revenue into Clean Energy Infrastructure Projects](#), ESG Today, December 20, 2023

[Germany first beneficiary of European Hydrogen Bank's financing scheme](#), Offshore Energy, December 21, 2023

More on Multilateral Affairs & Climate Diplomacy:

- ASEAN member states agreed to jointly work on natural disasters mitigation during the 11th ASEAN Ministerial Meeting on Disaster Management. ([Vietnam News](#), October 10)
- Indonesia President Joko Widodo asked China to support Indonesia's development in renewable energy during a bilateral meeting with Chinese President Xi Jinping. ([The Jakarta Post](#), October 18)
- China, the United States, the United Kingdom, France, and Australia are the major contributors to 93 new ASEAN investment projects, with China being the biggest investor and putting most of its funds on supporting ASEAN's green and digital investment projects. ([Nikkei Asia](#), October 22)
- Japan and Denmark agreed to cooperate on the research and development of floating offshore wind power technologies as a solution to combat climate change. ([The Japan Times](#), October 25)
- The United Kingdom and the European Union seek to push the rich OECD countries to end their subsidies for foreign oil, gas, and coal projects at a close-door meeting because these richer countries have been the biggest foreign source of public finance for fossil fuels. ([Financial Times](#), October 29)
- *The Guardian* revealed that banks offered more than US\$150 billion in 2022 for 425 different extraction projects that can each create more than one gigaton of carbon dioxide. ([The Guardian](#), October 31)

- A United Nations report released weeks before COP28 suggests that governments are not making enough progress in reducing greenhouse gas emissions and that global emission will fall only 2% by 2030 under the current circumstance. ([Reuters](#), November 14)]
- The European Union reached a deal to cut methane emissions by requiring the fossil fuel industry to not only report their methane emissions but also take steps to avoid them. ([The Guardian](#), November 15)
- The Philippines signed an agreement with the Korea International Cooperation Agency, focusing on developing an integrated weather and flood forecasting system to enhance the capabilities of its weather agency. ([Inquirer.net](#), November 22)
- The Greenpeace group publicly argued that oil and gas giants in China and other places in the world are using low-quality carbon offsets to “greenwash” their LNG imports. ([Reuters](#), November 27)
- Indonesia and Japan agreed on three energy transition projects under the Asia Zero Emission Community framework, including a geothermal plant, a waste-to-energy power plants, and a peatland management. They also signed subsequent agreements for implementation and power purchase. ([The Jakarta Post](#), December 9)
- During a special lecture at the Brunei Prime Minister’s Office, Deputy Prime Minister Lawrence Wong of Singapore said that the two countries can further strengthen cooperation on food security and green transitions ([The Strait Times](#), December 14)
- Several airlines, including Lufthansa, Etihad and Air France-KLM, are facing a ban on some of their online advertisements for making misleading claims about their sustainability efforts, also known as "greenwashing". ([Reuters](#), December 19)
- Indonesia and the United Arab Emirates have expanded their collaborations for mangrove restoration and conservation, including the establishment of the International Mangrove Research Center in Indonesia. ([Green Network](#), December 29)
- China and Pacific Island nations have united through a climate pact to combat climate change together in the Pacific Region. Their collaboration will focus on capacity-building, technology transfer, and financial support. ([Loop](#), December 23)

Domestic Activity & Climate Affairs

The Deforestation of Amazon Has Significantly Improved

Country/Region: Brazil

The Short Story: According to data from neutral institutions, although deforestation still exists widely across the Brazilian Amazon rainforest, the Brazilian government's proactive measures in recent months have led to a notable improvement in this year's deforestation issue in comparison to previous years.

Why It Matters: Often portrayed as a giant carbon sink—a term referring to anything that absorbs more carbon from the atmosphere than it releases—for the world, the importance of preserving the Amazon rainforest to combating climate change is all but self-evident. Meanwhile, destroying the Amazon rainforest would release the greenhouse gas it had sequestered into the atmosphere, thus causing as much of a climate change problem as directly emitting greenhouse gases. Therefore, ensuring and encouraging positive changes regarding the deforestation of the Amazon is critical to global efforts to combat climate change.

The Full Feature Story: To the grateful surprise of many, Brazil's Amazon rainforest experienced a continual downward trend in deforestation during the first three quarters of 2023. For instance, a report published in early October 2023 revealed a staggering 56.8% decrease in deforestation in the Amazon in September compared to the same period last year. Another report published in November showed that about 9,000 square kilometers of Amazon jungle were destroyed in the 12 months through July; a considerable decrease compared to the 11,568 square kilometers deforested a year earlier. Notably, as a country where more than 90% of its energy supply already comes from renewable energy, the primary factor contributing to Brazil's status as the world's fifth-largest carbon emitter is the ongoing deforestation of the Amazon rainforest. When Brazilian President Luiz Inacio Lula da Silva took office in January 2023, he proposed two major goals: reaching zero deforestation by 2030 and achieving net zero emissions by 2050. In fact, Lula virtually staked his entire international reputation on halting deforestation when he took office. Fortunately, he has been largely successful so far with his achievements in 2023 by effectively stemming the surge of destruction that occurred under his predecessor, Jair Bolsonaro. More specifically, one vital step taken by Lula was to almost completely eliminate the problem of illegal logging that was rampant during Bolsonaro's term. He also gave more power to the environmental agencies who were weakened under Bolsonaro's rule in order to step up the enforcement of environmental laws.

In addition to illegal logging, agriculture is also a major contributor to deforestation in not only the Amazon but in other parts of the world as well as forests are unlawfully converted into farmlands or pastures for farming and ranching. This problem has been improved through stricter environmental enforcement or through more creative solutions such as the EU's idea to alleviate deforestation by introducing a ban on the import of agricultural products that cause deforestation. Similarly, in response to the deforestation caused by ranching, the Brazilian government launched a cattle traceability program in December 2023. For example, the state of Pará in northern Brazil—a state that is heavily affected by deforestation—aims to tag and monitor all cattle transported through the state by December 2025 as well as the permanent herd of approximately 24 million cattle by December 2026. In addition to monitoring the location of cattle to avoid deforestation, this monitoring system can also track the methane emissions of cattle to improve the problem of greenhouse gas emissions inevitably caused by cattle.

Nevertheless, rainforest protection requires adequate financial support and Brazil does not believe it should bear all the responsibility alone. Moreover, a fact that is often overlooked by many is how not all of the Amazon rainforest is located within the borders of Brazil. According to the World Wildlife Fund, only about 60% of the Amazon is located in Brazil while the remaining percentage is shared among eight other countries. Thus, during the COP28 climate summit in December, Brazil proposed the creation of a US\$250 billion “Tropical Forests Forever” fund for all the rainforests worldwide. In short, the proposal aims to raise funds from both governments and the private sector to be distributed to tropical countries to limit deforestation while simultaneously aligning with a growing interest in nature-based solutions for addressing climate change and other environmental challenges. In addition, Brazil also took the initiative and announced the "Arc of Restoration" program at COP28, allocating US\$205 million to restore 60,000 square km of deforested and degraded forest land in the Amazon by 2030.

Sources:

[Deforestation in Brazil's Amazon falls 57% in September](#), Reuters, October 6, 2023

[What drought in the Amazon means for the planet](#), The Washington Post, November 10, 2023

[Amazon deforestation falls more than 20% to its lowest levels in 5 years](#), CNN, November 10, 2023

[Exclusive: Amazon rainforest destruction slows sharply year to date, report says](#), Reuters, November 28, 2023

[Brazil to Propose Conservation Fund for Tropical Rainforests at COP28](#), earth.org, November 29, 2023

[Brazil's focus on farms and forests to cut emissions risks setback from oil](#), Financial Times, November 30, 2023

[Brazil proposes \\$250 billion “Tropical Forests Forever” fund for rainforests](#), Mongabay, December 3, 2023

[Brazil cattle traceability program to limit deforestation in Pará state](#), Mongabay, December 4, 2023

[The Amazon](#), World Wildlife Fund, Accessed December 2023

China's Renewable Energy Development Expands Again With the Close of 2023

Country/Region: China

The Short Story: Although China set some seemingly unachievable goals in the renewable energy sector at the beginning of 2023, they largely appear to be on track with meeting those goals. At the same time, China has also made some new breakthroughs in renewable technology that they are not afraid to advertise.

Why It Matters: China has arguably always been at the forefront of the world in renewable energy development, further widening its lead in the past few months. These advancements are significant for China to realize energy transition and reduce carbon emissions. What is more noteworthy is that China has made progress in different areas including solar power, wind power and hydropower, which indicates China has very few, if any, current weaknesses in terms of renewable energy development and production.

The Full Feature Story: When China first announced at the beginning of the year that it plans to install 230 gigawatts (GW) of new solar and wind energy installation capacity in 2023, many expressed their skepticism about this ambitious goal. To their surprise, China managed to set this new record by the end of the year, significantly surpassing the 140.6 GW added in 2022. Moreover, China not only managed to increase the total installation capacity but also improved the efficiency of renewable energy utilization. For example, it was confirmed that the solar curtailment level—referring to the level of forced reduction in total output due to transmission constraints—was significantly reduced from over 10% in 2020 to just 2% now due to extra investment to the grid. Now, with the improvement in transmission capacity, the utilization of renewable energy is also significantly improved. The completion of new renewable projects

and the grid upgrades and subsequent integration both reinforce China's commitment to low-carbon energy transformation. According to the Chinese National Energy Administration's data at the end of the year, China's total renewable energy capacity surpassed 1.45 billion kilowatts (kW) in 2023, accounting for over 50% of the country's total power generation capacity.

In addition, not only has China increased its total renewable energy capacity, but it has also achieved significant progress in technology advancements. For instance, in October, scientists from City University of Hong Kong and Huazhong University of Science and Technology worked together to develop a new type of solar cell using perovskite. Most importantly, these scientists proved that these cells are more efficient than traditional silicon-based cells. The power conversion efficiency of these perovskite solar cells has reached 25.6%, and they retain over 90% of their initial efficiency after 1,200 hours of operation at high temperatures. It was also proven that the new material has much better stability and longer service life. It was believed that these advancements could significantly lower the cost of solar energy in the future, making solar power a more viable option of renewable energy worldwide.

Meanwhile, China developed and assembled the world's largest 18-megawatt (MW) offshore wind turbine in Fujian Province, shortly after it successfully operationalized a 16-MW offshore wind turbine. That giant turbine has 126-meter-long blades and can sweep an area of 53,000 square meters. It is designed to generate 38 kilowatt-hours (kWh) of electricity from just one rotation and produce 72 million kWh of clean electricity annually. Because of its efficiency, China plans to mass-produce and install this 18-MW wind turbine in Fujian next year.

Lastly, the development of hydropower is also noteworthy. In October, the Lijixia Hydropower Station successfully went into operation in Qinghai Province, joining several others of its kind along the northern reaches of the Yellow River. It is now the world's largest twin-row hydropower station that has a single unit capacity of 400,000 kilowatts. China's journey towards a more sustainable future continues to unfold, offering valuable insights for the development of renewable energy globally.

Sources:

- [World's largest twin-row hydropower station enters operation in China](#), CGTN, October 11, 2023
- [Future looks bright as new Chinese-designed solar cell provides renewable energy breakthrough](#), South China Morning Post, October 29, 2023
- [World's largest 18-megawatt offshore wind turbine rolls off assembly line](#), CGTN, November 12, 2023
- [China forecast to install record 230 GW of new renewable capacity in 2023](#), PV Tech, November 28, 2023
- [Yellow River hydropower stations not impacted by NW China quake](#), China Daily, December 21, 2023
- [Renewable energy now exceeds 50% of installed capacity](#), China Daily, December 22, 2023
- [2023 in review: Major progress achieved in China's renewable energy industry](#), CGTN, December 26, 2023

More on Domestic Activity & Climate Affairs:

- **The United Kingdom:** The first turbine of the world's largest offshore windfarm project was connected to the UK electricity grid and has begun powering British homes from the North Sea. ([The Guardian](#), October 9)
- **Australia:** In a security guarantee to Tuvalu, Australia confirmed that it will protect the Pacific nation by accepting migrants due to climate change and offering climate finance. ([Climate Home News](#), October 11)

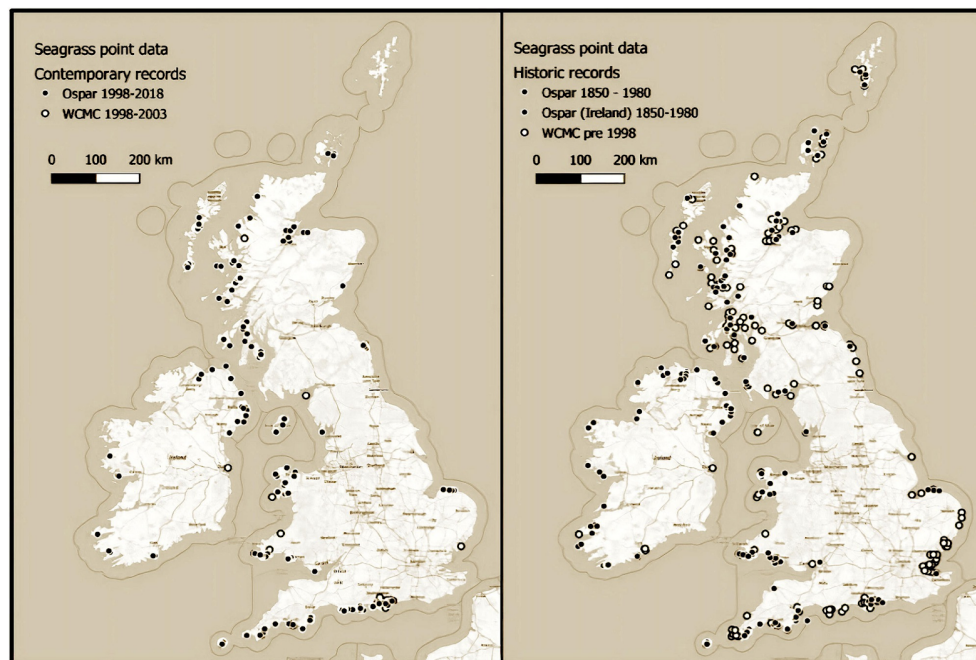
- **China:** Scientists in China have started to use specialized drones to detect emission changes with greater accuracy to better monitor human-led carbon emissions. ([South China Morning Post](#), October 16)
- **Japan:** The land ministry plans to resume a subsidy program to aid families with young kids to build energy-efficient houses. ([The Japan Times](#), October 21)
- **India:** Due to a surge in electricity demand, India plans to double its coal-fired power capacity by an additional 30,000 megawatts on top of its current 50,000 megawatt capacity. ([The Time of India](#), November 6)
- **Seychelles:** The Seychelles has decided to reduce the tax for hybrid cars next year to encourage consumers to purchase more eco-friendly vehicles. ([African News Agency](#), November 8)
- **Singapore:** Singapore's only landfill, the 350 hectares Semakau landfill, is filling up at an alarming rate of over 2,000 tonnes of waste per day, making environmental experts concerned about the resources wasting problem of Singapore people. ([Channel News Asia](#), November 9)
- **The United Kingdom:** The newly inaugurated £10 million Green Automotive Manufacturing Hub will serve as a sustainable shipping connection between Stellantis's Ellesmere Port factory in Cheshire and its sister plant in Spain to reduce supply chain carbon emissions. ([BBC](#), November 15)
- **Indonesia:** Indonesia launched a US\$20 billion investment plan to accelerate the development of renewable energy in order to cut carbon dioxide emissions to 250 million metric tonnes for its on-grid power sector by 2030. ([Channel News Asia](#), November 21)
- **Australia:** Australia signed a statement for a clean energy transition and promised that it will end international finance for climate polluting projects. ([The Sydney Morning Herald](#), December 5)
- **Azerbaijan:** The COP29 climate summit in 2024 will be hosted by Azerbaijan after a political impasse among Eastern European countries was solved and Armenia and Bulgaria withdrew their bids to host the UN's annual climate summit. ([Politico](#), December 9)
- **Hungary:** Hungary calls for the European Union to apply tighter fiscal policy and higher subsidies for the electric-vehicle industry in order to compete with Chinese and American automakers. ([Bloomberg](#), December 13)
- **The United Kingdom:** The UK government plans to implement a carbon border tax by 2027 to safeguard British manufacturers and align with similar measures in the EU. ([Financial Times](#), December 19)

Blue Carbon Country Profile: The United Kingdom

A. Potential of the United Kingdom in Blue Carbon Affairs

The United Kingdom, with its extensive marine and coastal environments, plays a significant role in global blue carbon affairs. Notably, the United Kingdom's definition of what counts as a blue carbon resource slightly differs from that of many other countries. Saltmarsh, seagrass, and mangroves that are generally considered as the three types of blue carbon resources all can be found in the British Isles and UK Overseas Territories. In addition, the UK also includes macroalgae, seafloor sediments, and kelp forests in the defined list of blue carbon resources, and they are widely distributed along the UK's coastal areas as well. Still, the UK has relatively few blue carbon resources in total reserves compared to countries with rich blue carbon resources, and some blue carbon ecosystems cannot even survive in some parts of its water. Nevertheless, since the UK has committed to a legally binding target to reach Net Zero greenhouse gas emissions by 2050, blue carbon ecosystems still make a significant contribution in terms of carbon capture and coastal ecosystem conservation. The most recent data shows that these ecosystems sequester and store around 2% of UK emissions per year.⁴

- Amount of mapped seagrass: 84.39 km² (2021)
- Amount of mapped saltmarsh: 350 km² (2022)
- Amount of mangroves: 316km² (2021)
 - Note: Mangroves can only be found in UK Overseas Territories because they cannot survive in the British Isles due to its geographical location and climate.
- Key Institutions of Study on Blue Carbon: Department for Environment, Food and Rural Affairs (Defra)
- Key Regions of Interest: Scottish Special Areas of Conservation, Nature Conservation Marine Protected Areas



⁴ Seagrass point data from the OSPAR and UNEP-World Conservation Monitoring Centre datasets showing contemporary records (left) and historic records (right). (Source: Green AE, Unsworth RKF, Chadwick MA and Jones PJS (2021) Historical Analysis Exposes Catastrophic Seagrass Loss for the United Kingdom. *Front. Plant Sci.* 12:629962. doi: 10.3389/fpls.2021.629962)

Due to climate change and human activities, the United Kingdom's blue carbon resources have suffered significant losses in recent decades. Research shows that there has been a notable decline in seagrass beds and tidal marshes in the UK. The extent of seagrass beds has decreased by about 50% since the 1980s. In some of the most severely damaged areas, over 90% of the areas originally suitable for blue carbon ecosystems have been destroyed through both human-induced and natural changes to the coastline. The other UK-specific blue carbons such as seafloor sediment and kelp are also significantly affected by bottom-trawling and dredging activities. Fortunately, the UK has come to recognize the importance of protecting blue carbon ecosystems and is working hard on the protection and development of blue carbon in recent years.

In fact, general environmental protection efforts in the UK started very early compared to other nations, with many climate protection related policies and activities having been introduced as early as two decades ago. Notably, some of these climate protection activities at that time took into account the protection of blue carbon ecosystems even before the concept of blue carbon was fully established. Nevertheless, these early protective measures were not effective enough on blue carbon ecosystems due to the lack of experience, funding, detailed policies, and specialized attention, leading to their current state.

Nowadays, different levels of institutions in the UK—including both central and regional governments, higher education institutions, and non-government organizations (NGOs)—have all begun to engage in more professional work on blue carbon protection. As a country that already places considerable emphasis and support on climate change issues, the UK has the potential for rapid development in blue carbon protection efforts. Additionally, as a developed country with limited domestic blue carbon resources, the UK can also be expected to play a larger role in blue carbon international cooperation in areas with rich h resources and ecosystems.

B. Domestic Government Actions and Activities on Blue Carbon in the United Kingdom

National Legislations

Currently, the UK does not have specific national legislation solely dedicated to blue carbon. However, there are broader legislative frameworks and initiatives that include aspects of blue carbon management and conservation within their scope.

- The **National Adaptation Programme** authorizes the UK Government to protect natural carbon stores within Marine Protected Areas (MPAs), which covers more than a third of UK waters, as demarcated by the **Marine and Coastal Access Act 2009**.
- **Climate Change Act 2008** also encompasses blue carbon indirectly as it underscores the necessity of protecting and restoring all natural resources with carbon sequestration capabilities.

National Agencies and Government Actions

There is no government agency in the UK responsible for dealing with issues related to blue carbon ecosystems, but the UK government and some departments have already introduced programs that are specifically aimed at the protection and development of blue carbon. There are also government actions emerging that involve content related to blue carbon.

- **Department for Environment, Food and Rural Affairs (Defra):** According to the Defra, the important role blue carbon habitats play in supporting adaptation and resilience to climate change is officially recognized.
 - The Defra introduced the short-term £40 million **Green Recovery Challenge Fund** during the coronavirus pandemic to “kick-start environmental renewal in England, while creating and retaining a range of jobs,” and a significant portion of it is being used to fund a number of seagrass restoration projects in the UK. A second round of the Fund was run soon after in 2021, which again focused on restoration, conservation, mitigation and nature-based solutions.
- **UK Blue Carbon Evidence Partnership (UKBCEP):** A cross-Administration partnership that is designed to enhance research on blue carbon habitats in the UK’s waters. It aims to support the commitment to protecting and restoring blue carbon habitats as a nature-based solution. The partnership involves collaboration among the UK government, the Department for Business, Energy and Industrial Strategy, the Scottish Government, the Welsh Government and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland, and Defra, focusing on key research questions related to blue carbon policy.
- **Natural Capital and Ecosystem Assessment programme:** A £140 million, three-year flagship research and development program starting in 2022 that aims to collect data on the extent, condition, and changes over time of England’s ecosystems and natural capital. The program involves creating detailed maps of the amount and absorption rate of blue carbon ecosystems in England’s land, coast, and sea. It will also measure the effects of physical damage and disturbance to the seabed on blue carbon storage.
- **Blue Belt Programme:** A project that works closely with UK Overseas Territories to assist them in creating and maintaining healthy and productive marine ecosystems. Careful examination and management of the blue carbon habitats—particularly the blue carbon stocks in the Caribbean Territories—is also an important part of the project.

Local Government Actions

The Devolution in the United Kingdom grants a greater level of self-government to the local governments in Scotland, Wales, Northern Ireland, and even England to an extent. In this case, local governments have greater control over their internal affairs, including formulating environmental and climate change policies that are more suitable for their regions and circumstances. Therefore, there are some regions in the UK that have blue carbon policies specific to certain regions.

- **Scottish Blue Carbon Forum:** Formed by the Cabinet Secretary for Environment, Climate Change and Land Reform of Scotland in 2018, this forum aims to connect blue carbon experts from research institutions, non-government organizations, and public bodies with the Scottish Government to develop a collaborative and innovative blue carbon community in Scotland. The Forum’s activities include enhancing the evidence base for blue carbon in Scotland and contributing to the understanding of blue carbon habitats in Scotland and the UK.
- **Blue Carbon International Policy Challenge (BCIPC):** Funded by the Scottish Government in 2022, BCIPC hopes to establish blueprints for international and domestic blue carbon policy action, and realize the potential of blue carbon as a nature based solutions for climate, people, and biodiversity. It currently has four projects with a general mission of promoting international collaboration and supporting blue carbon knowledge exchange among different actors including policy makers, financiers, and community restoration groups.
- **Blue Carbon Recovery Plan of Wales:** Introduced in November 2020 as part of a four-point plan for

“securing the benefits of blue carbon in Wales,” this program allows the Welsh Government to proactively restore key coastal carbon habitats and enable the large-scale reintroduction of those that have been lost. The plan includes the protection and restoration of native oyster beds, seagrass meadows, and saltmarsh habitats.

C. Private, Commercial Third-Party Research & Projects

Private Corporations and Investment Groups

As of December 2023, the UK does not have any private corporations that primarily focus on blue carbon-related businesses. Considering that the main purpose for private capital and companies to invest in ecosystems like blue carbon is usually to obtain carbon credits, the lack of a carbon code for blue carbon habitats in the UK might be a major reason why private capital is not yet interested in investing in UK’s blue carbon. A report jointly published by the Blue Marine Foundation and the University of Exeter titled “Blue Carbon In the United Kingdom” also points out that the blue carbon credit market in the UK has tremendous potential. However, since blue carbon-related technology and the carbon market’s development in the UK are still in their infancy, the current environment is immature and not suitable for investment. As the understanding of blue carbon’s role in climate change mitigation increases and as the market develops, it is likely that more private entities will engage directly with the blue carbon market.

- Nevertheless, this is not to suggest that the private sector has paid no attention to the issue at all. For instance, the environmental consultancy Beyondly has made a donation of £25,000 to the Blue Carbon project of the United Kingdom-based National Oceanography Centre (NOC) to support the carbon coring and analysis of seagrass and macroalgae in Porthdinllaen Bay, on the northern Welsh coast.

Universities and Research Institutes

In comparison to the relatively quiet private sector, several UK universities are actively engaged in blue carbon research with their unique programs, increasing the understanding of blue carbon among the academic community and the wider society through their research and publications. As higher education institutions, they have conducted many varieties of scientific and policy research, providing theoretical knowledge to the protection and development of blue carbon in general. Their capabilities and research findings are also further utilized in collaborations with government agencies and NGOs both inside and outside the United Kingdom.

- University College London (UCL) has published several articles introducing blue carbon and its importance to climate change mitigation over the years. Additionally, the Centre for Law and Environment at UCL launched a research project in 2012 entitled “Binding blue carbon: developing global legal and policy responses to an emerging risk of climate change.” It was focused on aligning blue carbon management activities with international legal and institutional governance frameworks. Moreover, in 2020 PhD Candidate Alix Green and Dr. Peter Jones from UCL Geography published a thesis titled “Assessing the impact of environmental pressures on seagrass Blue Carbon stocks in the British Isles” in which they analyzed seagrass degradation and offered recommendations for future blue carbon management activities.
- The University of Plymouth is highly active in blue carbon research. The university is involved in developing new transdisciplinary perspectives on blue carbon, including robust reporting on carbon stores, restoring natural habitats, and improving the social and economic wellbeing of coastal

communities. Furthermore, researchers and students at this university have completed the UK's first marine Natural Capital Asset Register in collaboration with DEFRA and the North Devon UNESCO Biosphere, highlighting the contributions that blue carbon can make to biodiversity, food security, and net zero agenda.

- The University of St. Andrews opened its new Global Research Centre for Blue Carbon at its Scottish Oceans Institute in October 2023; an interdisciplinary blue carbon research collaboration that involves international partners from governments, charities, and NGOs. The university also launched a dedicated Blue Carbon Academy to increase expertise and train talents in marine ecosystems and coastal wetlands. Additionally, the University of St. Andrews is the leading institution of the Global Ocean Decade Programme for Blue Carbon; an initiative focused on enhancing understanding on blue carbon ecosystems in various environments.

NGOs and Non-Profit Organizations

The UK does have local NGOs prioritizing blue carbon protection, even though blue carbon is not their sole research focus. They mainly contribute by doing scientific research, advising government decisions, and raising public awareness on blue carbon issues. Similar to universities, although the NGOs may not make immediate and significant changes on blue carbon affairs, they are integral to the advancement of the UK's blue carbon strategies, contributing to the establishment of a solid and foundational understanding in this emerging field.

- The UK-registered Blue Marine Foundation (BLUE) is an NGO that devotes itself to marine conservation. Its BLUE Carbon Project emphasizes the potential of marine habitats like saltmarsh, seagrass, and sediment in carbon sequestration and storage and conducts research to identify blue carbon conservation opportunities that are feasible, verifiable, and achieve benefits for the marine environment and local communities. BLUE is also working on mapping carbon in the English North Sea and advocating the creation of a voluntary blue carbon market.
- Rewilding Britain is the UK's first rewilding organization, focusing on the large-scale restoration of nature across Britain. Rewilding Britain emphasizes the need to protect habitats like seabed sediments, saltmarsh, seagrass, shellfish, and kelp areas. It is working on restoring key blue carbon habitats around the UK coast. Simultaneously, it works on raising public awareness about the importance of blue carbon ecosystems in carbon sequestration.
- The National Oceanography Centre (NOC) is an independent, self-governing oceanographic institution actively involved in several initiatives related to blue carbon. As mentioned earlier, it has partnered with Beyondly to advance blue carbon research in Porthdinllaen Bay. It is also partnering with the Blue Carbon Initiative (BCI) to conduct blue carbon related research for climate change mitigation. NOC offers blue carbon-related postgraduate and doctoral research opportunities as well, further displaying the Centre's dedication to blue carbon.

D. Public, Governmental International Engagements on Blue Carbon

Treaties & Agreements

While the UK has a growing number of international engagements that recognize the importance of blue carbon in climate strategy, they fall short of formal blue carbon treaties or agreements. This phenomenon perhaps suggests that the UK should engage in more international cooperation on blue carbon at the national level, especially now that their knowledge in the subject is expanding.

Statements at International Conferences

- In 2018, Dr. Thérèse Coffey, a member of the UK Parliament, made a special address during COP24 after the UK joined the International Partnership for Blue Carbon (IPBC). She emphasized the critical role of mangrove forests in supporting endangered biodiversity and carbon sequestration. She also stated that joining the IPBC will help the UK to “improve understanding of the importance of the carbon stored in our seas and coastal ecosystems.”
- On World Ocean Day in 2021, a group of cross-party parliamentarians in the UK pledged to be “Blue carbon champions,” supporting the Marine Conservation Society’s call for a four-nation blue carbon strategy. Blue carbon champions include the Conservatives’ Sally-Ann Hart, Labour’s Kerry McCarthy, Lib Dem’s Lord Teverson and the Green Party’s Caroline Lucas. This strategy emphasizes scaling up marine rewilding for biodiversity and blue carbon benefits and integrating blue carbon protection into climate and environmental management policies.
 - Kerry McCarthy (Labour MP for Bristol East): “If we are to achieve net zero emissions, we can’t just focus on technological solutions and changing behaviour; we also need to promote natural carbon solutions, and that means recognising the immense value of our seas and blue carbon habitats like coral reefs, seagrass and kelp.”
 - Caroline Lucas (Green MP for Brighton Pavillion): “Any strategy for addressing the climate and nature crises must account for our marine environment. The UK’s saltmarshes and seagrass beds are absolutely vital, not just for biodiversity but for storing carbon too.”
- During an international Blue Carbon Conference in 2021, Cabinet Secretary for Rural Affairs and Islands Mairi Gougeon said in her opening remark that the work of the Scottish Blue Carbon Forum has significantly contributed to understanding blue carbon habitats in Scotland and the UK. She also pledged a £150,000 fund to support establishing specialist blue carbon research in Scotland through the Nature Restoration Fund.

Cross-Border Joint Projects & Partnerships

- The Department for Environment, Food and Rural Affairs of the UK is a member of the International Partnership for Blue Carbon (IPBC). It joined the IPBC to contribute to international efforts to protect, sustainably manage and restore global coastal blue carbon ecosystems alongside with the other 54 government organizations and NGOs who are also in the partnership.
- In 2021, the UK government launched the ambitious £500 million Blue Planet Fund to support developing countries in adapting to climate change and building sustainable coastal economies. A significant portion of this fund (£150 million) is allocated to the COAST program, which focuses on protecting and restoring coastal and marine blue carbon habitats such as corals, mangroves, and seagrasses in developing countries.
- Several UK organizations and universities launched the UK Blue Carbon Forum in 2021 to address the important role of blue carbon in mitigating the current ecological and climate emergency. The forum serves as a platform for leading experts and stakeholders from government, academia, and the charitable sector to better communicate and cooperate on blue carbon related topics.

E. Keeping An Eye On...

Although the UK does not currently hold blue carbon ecosystems in large amounts, it has increasingly placed emphasis on the protection and development of blue carbon ecosystems in the last 2-5 years. The UK fully recognizes that blue carbon ecosystems have suffered severe damage due to climate

change in recent years, leading the government, academia, and non-governmental organizations to start taking various measures to reverse this situation.

However, among the blue carbon related actions taken in the UK, there are more activities focused on promoting and advocating for blue carbon protection and conducting blue carbon academic research than actual blue carbon conservation efforts. This is certainly not to argue that the actions currently being undertaken in the UK are meaningless. On the contrary, successful blue carbon conservation work is inseparable from a solid theoretical knowledge background and wide support from all sectors. In many ways, this research and promotion is an essential first step to understanding and familiarizing the UK with the concept of blue carbon. Nevertheless, if leaders are not already doing so behind closed doors, the UK should work to implement specific measures for blue carbon protection, such as restoring an area of damaged seagrass, which is exactly what is currently lacking in the UK. Furthermore, whenever possible, these discussions should be held in open forums and involved communities to not only help familiarize the general public with the potential of blue carbon but also to attract other public and private partners to the table.

Indeed, blue carbon protection requires a substantial amount of financial support. Considering that almost all aspects of climate change-related work requires funding, the government can only offer very limited financial support for blue carbon. Therefore, besides advocating for more government funding, asking whether private capital can raise sufficient funds for blue carbon is very important to the future regrowth, development, and protection of blue carbon in the UK. Blue carbon is already commercially profitable for private capital, offering an investment opportunity that combines ecological conservation with economic benefits. For instance, private investors can make profits through carbon credit trading, tourism, and fisheries or look into the increasingly popular intersection of sustainability and technology. If framed correctly and armed with the knowledge, the government, universities, and NGOs can work together to attract companies with experience in environmental protection to invest in blue carbon projects in the future.

The UK also has the potential to play a greater role in blue carbon international cooperation in the future. Over the last 2-5 years, parties in the UK have been working to gather experience in and knowledge of blue carbon protection and development. At the same time, the UK does not have abundant domestic blue carbon resources currently available for research and development, with some regions of the UK having no local blue carbon ecosystems at all. Both these factors should encourage the UK to play a greater role in blue carbon protection on the international stage, especially bilaterally. The UK could consider enhancing blue carbon cooperation with Pacific Island Countries and island countries like Indonesia. Firstly, these are all developing countries with abundant blue carbon ecosystems, and they also all face serious blue carbon ecosystem degradation if not outright fear of climate change. With their small economies and limited resources, they need developed countries to step up and help them rebuild their blue carbon ecosystems. This would be of great help to them in protecting coastal areas, reducing the impact of natural disasters, and developing their blue carbon economy in the future. Given how the UK itself is an island country with several overseas island territories, it is already experienced in working alongside the aforementioned two types of countries. All of these factors considered, the UK should strive to fully leverage its strengths and celebrate the mutual benefits that would come from such cooperation.

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This season's Blue Carbon Country Profile on the United Kingdom was primarily researched and written by Zhangchen Wang, Part-Time Blue Carbon & Climate Change (BCCC) Program Intern at the Institute for China-America Studies.

Scientific Research and Beyond

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Major Government Statements & Actions

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- October 24, U.S. Federal Deposit Insurance Corporation Board of Directors Jonathan McKernan: [Statement by Jonathan McKernan, Director, FDIC Board of Directors on Climate Risk Guidance](#)
- October 29, Department for Energy Security and Net Zero of the UK: [2023 Climate and Development Ministerial: Coalition of ambition on adaptation finance - vision goals and proposed priority actions](#)
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- November 16, The White House: [FACT SHEET: In San Francisco, President Biden and 13 Partners Announce Key Outcomes to Fuel Inclusive, Sustainable Growth as Part of the Indo-Pacific Economic Framework for Prosperity](#)
- November 30, COP28 President Sultan Al Jaber: [COP28 President Dr. Sultan Al Jaber's Opening Plenary Speech](#)
- December 1, Prime Minister Kishida Fumio of Japan: [Statement by Prime Minister KISHIDA Fumio at COP28 World Climate Action Summit](#)
- December 1, Prime Minister Mark Rutte of the Netherlands: [Plenary statement by Prime Minister Mark Rutte at COP28](#)
- December 4, Republic of the Philippines Department of Environment and Natural Resources: [Philippines Pushes Blue Economy Agenda as it Joins the Blue Carbon Action Partnership](#)
- December 13, U.S. President Joe Biden: [Statement from President Joe Biden on Agreement Reached at COP28](#)
- December 19, The White House: [FACT SHEET: Biden-Harris Administration Announces American Climate Corps Listening Sessions, New Actions to Mobilize the Next Generation of Clean Energy, Conservation, and Resilience Workers](#)
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- December 27, President Emmanuel Macron of France: [The Pillars of Green Wisdom](#)

Government Meetings, Reports & Regulations on Climate Issues

- On October 24, the European Commission [published](#) a report on the topic of “State of the Energy Union 2023: Further action needed to accelerate climate action,” highlighting the EU’s progress in achieving its climate and energy goals.
- In November, Systemiq [released](#) *The Mangrove Breakthrough Financial Roadmap: Unlocking investment at scale in critical coastal ecosystems* report for the Mangrove Breakthrough, in partnership with the UN Climate Change High-Level Champions and the Global Mangrove Alliance, in collaboration with the Financial Services Taskforce of the Sustainable Markets Initiative.
- On November 10, the Chinese government [published](#) its plan to tackle climate-warming methane emission.
- On November 14, the U.S. government [released](#) the Fifth U.S. National Climate Assessment, demonstrating how climate change is affecting America’s working lands, how communities are reducing their risks, and how winning solutions to climate change can be found in productive landscapes.

- In mid-November, at the halfway point of a three-year project, two top marine officers [explored](#) the progress from the Isle of Man's Manx Blue Carbon Project and the project's goals through 2025. As 85% of the Isle of Man's territory lies beneath the waves, this project began in February 2022 to better understand the sea and restore lost marine life. The Manx Blue Carbon Project is funded and hosted by the Isle of Man's Climate Change Transformation Team and Department of Environment, Food & Agriculture, respectively.
- On December 20, Thailand's chief of the Department of Climate Change and Environment Phirun Saiyasitpanich [said](#) that Thailand will change its carbon emissions target from 30% to 40% under a second version of the Nationally Determined Contributions (NDC).
- On December 22, the European Council and the European Parliament [concluded](#) a provisional political agreement on the proposed regulation to establish a framework for setting ecodesign requirements for sustainable products.

Cross-National Meetings & Engagements on Climate Issues

- On November 6, Britain's Prince William met Singapore's President Tharman Shanmugaratnam and Prime Minister Lee Hsien Loong during his four-day visit in Singapore, they [discussed](#) the innovative solutions needed to hold back climate change and a worsening global water crisis.
- The U.S. Special Presidential Envoy for Climate John Kerry [visited](#) Singapore from November 10 to 12 and held meetings with the Prime Minister and ministers to discuss climate and clean energy efforts under the U.S.-Singapore Climate Partnership.
- On November 16, Chinese President Xi Jinping [said](#) at an informal dialogue and working lunch during the Asia-Pacific Economic Cooperation (APEC) Economic Leaders' Meeting that sustainable development is the "golden key" to solving current global problems.
- On November 20, the United States and the Republic of Korea [held](#) the Clean Energy Business Roundtable on the sidelines of the APEC Leaders' Summit to discuss opportunities to strengthen and renew their mutually beneficial clean energy cooperation.
- On December 5, the Philippines and the World Economic Forum (WEF) [signed](#) an agreement managing a blue carbon ecosystem and plastic pollution.

Third-Party Analyses & Commentaries

How it Went in 2023: Climate

- Analysis: [Why many scientists are now saying climate change is an all-out 'emergency'](#) by Shannon Osaka (*The Washington Post*, October 30, 2023)
- Opinion: [Pacific climate change fight is a test for both U.S. and China](#) by Denghua Zhang (*Nikkei Asia*, November 2, 2023)
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- Opinion: [The Year's Worst Climate News You Haven't Heard About](#) by David Fickling (*Bloomberg*, December 25, 2023)
- Opinion: [2023 Climate Power Rankings: The Year Heat Came to Stay](#) by Mark Gongloff (*Bloomberg*, December 26, 2023)

- Analysis: [Year in Review: Renewables Start to Power China's Economy](#) by You Xiaoying and Fan Ruohong (*Caixin Global*, December 28, 2023)

How it May Go in 2024: Climate

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- Live Analysis: [Rajiv Shah on How to Fund the Green Transition](#) (*Foreign Policy*, December 11, 2023)
- Opinion: [Why guilt shouldn't be the basis for climate change policy](#) by Eduardo Porter (*The Washington Post*, December 15, 2023)
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COP28: The Long-Awaited, Global Attention-Grabber

- Opinion: [What Can We Expect From COP28, And What Must Happen?](#) (Earth.org, November 6, 2023)
- Opinion: [COP28 Climate Summit in Dubai: What to Expect](#) by Clara Fong (Council on Foreign Relations, November 21, 2023)
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- Opinion: [A look at what to expect as latest UN climate talks get under way in oil-rich UAE](#) by Jamey Keaten (AP, November 30)
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- Analysis: [Unpacking COP28: Key Outcomes from the Dubai Climate Talks, and What Comes Next](#) (World Resources Institute, December 17, 2023)
- Opinion: [Takeaways from the COP28 Climate Conference](#) (Resources, December 18, 2023)
- Analysis: [COP28 put food system transformation on the menu, but who will pick up the bill?](#) by Terry Slavin (Reuters, December 21, 2023)

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- Commentary: [How carbon prices are taking over the world](#) (*The Economist*, October 1, 2023)
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- Analysis: [A green economy requires more than subsidies](#) by David Amiel (Australian Strategic Policy Institute, December 7, 2023)

Zooming in on China's Climate Policy Agenda

- Report: [China Swore Off Overseas Coal Plants. Is Xi Keeping His Climate Promise?](#) by Sha Hua (*The Wall Street Journal*, October 4, 2023)
- Analysis: [China's green tech giants link supply chains to Southeast Asia](#) by Erwida Maulia (*Nikkei Asia*, October 4, 2023)
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Zooming in on the United States' Climate Policy Agenda

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- Commentary: [U.S.-China EV Race Heats Up with Forthcoming Guidance on 'Foreign Entity of Concern' Rules](#) by Jake Nakano and Quill Robinson (Center for Strategic and International Studies, November 2, 2023)
- Analysis: [In 2024, Republican EV attacks may fall short as swing states reap investment](#) by Gram Slattery and Nichola Groom (*Reuters*, November 27, 2023)
- Analysis: [Could Biden's Clean Energy Push Be a Victim of Its Success?](#) by Jonathan Weisman (*The New York Times*, November 27, 2023)
- Analysis: [China Hawks Are Putting the Green Transition at Risk](#) by Kevin Brunelli (*Foreign Policy*, December 6, 2023)

Talks of Blue Carbon

- Analysis: [Restoring Hong Kong's oyster reefs: a photo story](#) by Wang Yan and Shanshan Kao (China Ocean Dialogue, October 6, 2023)
- Analysis: [To Protect its Valuable Seagrass, Seychelles Leverages Partnerships](#) (The Pew Charitable Trusts, October 10, 2023)
- Analysis: [Can China's seaweed blooms be stopped?](#) by Niu Yuhan (China Ocean Dialogue, October 18,

2023)

- Analysis: [‘Like a 40-metre pizza’: the seaweed farms that could feed us all – at a cost](#) (*The Guardian*, November 17, 2023)
- Analysis: [How States Can Develop Blue Carbon Programs](#) by Sylvia Troost (Pew Charitable Trusts - December 4, 2023)
- Issue Brief: [How States Can Develop Blue Carbon Programs](#) (Pew Charitable Trusts, December 4, 2023)

Understanding Renewable Energy and its Potential, Especially at Sea

- Analysis: [Biden's 2030 Wind Goal Looks Like It Simply Won't Happen](#) by Will Wade and Jennifer A. Dlouhy (*Bloomberg*, October 18, 2023)
- Analysis: [Where Does U.S. Offshore Wind Go from Here?](#) by Allegra Dawes (Center for Strategic and International Studies, October 27, 2023)
- Analysis: [The Nordic Roadmap: Plotting a course for the maritime energy transition](#) (*Hellenic Shipping News*, October 30, 2023)
- Analysis: [Shipping Contributes Heavily to Climate Change. Are Green Ships the Solution?](#) By Ana Swanson (*The New York Times*, October 30, 2023)
- Analysis: [Biden Climate Goal Remains in Reach Even After Wind Setback](#) by Leslie Kaufman (*Bloomberg*, November 2, 2023)
- Analysis: [Towards a greener \[f\]uture: how shipping needs to adapt and evolve](#) by David Glass (*Seatrade Maritime News*, November 14, 2023)
- Commentary: [Gaza's Solar Power in Wartime](#) by Will Todman, Joseph S. Bermudez Jr., and Jennifer Jun (Center for Strategic and International Studies, November 21, 2023)
- Analysis: [Why Clean Shipping Fuels Need Solar-Industry Style Support](#) by Brian Davis (*The Marine Executive*, December 4, 2023)
- Analysis: [Energy Storage Reaches New Heights in China](#) by Katrina Northrop (*The Wire China*, December 31, 2023)

Green Technology Remains of Definite Interest...Right?

- Opinion: [US has the trade tools needed for China's EVs — but it must use them](#) by Wendy Cutler (*Financial Times*, October 2, 2023)
- Analysis: [Amid Climate Goals, China Zones in on AI's Growing Energy Needs](#) by Zhu Junxi (*Sixth Tone*, October 23, 2023)
- Analysis: [Renewables and EVs are soaring. It's still not enough.](#) by Shannon Osaka (*The Washington Post*, December 4, 2023)
- Analysis: [Tiny Electric Vehicles Pack a Bigger Climate Punch Than Cars](#) by Somini Sengupta, Abdi Latif Dahir, Alex Travelli and Clifford Krauss (*The New York Times*, December 9, 2023)
- Opinion: [If Countries Are Serious about Climate Change, They Should Get Serious about Quantum Computing](#) by Sam Howell (Center for a New American Security, December 19, 2023)
- Analysis: [How Electric Vehicles Are Losing Momentum with U.S. Buyers, in Charts](#) by Sean McLain and Nate Rattner (*The Wall Street Journal*, December 27, 2023)

Coal, Oil and Natural Gas, Still on the Playing Field

- Analysis: [Why Carbon Capture Is Big Oil's Solution for Climate Change](#) by Christine Li Edwards (*Bloomberg*, November 22, 2023)
- Analysis: [Before China's coal is even burned, its mines are warming the planet](#) by Christian Shepherd (*The Washington Post*, December 1, 2023)

- Analysis: [Oil companies' unexpected plan to tackle climate change](#) by Timothy Puko (*The Washington Post*, December 2, 2023)
- Analysis: [China's Coal Calculations](#) by Rachel Cheung (*The Wire China*, December 10, 2023)
- Commentary: [Natural Gas Can Deliver Energy Justice and Climate Progress in Africa](#) by Gracelin Baskaran and Quill Robinson (Center for Strategic & International Studies, December 11, 2023)

Minerals: Critical, Traded, Monopolized and Otherwise

- Report: [U.S. aims to end reliance on China for minerals, but environmentalists block mining on American soil](#) by Eduardo Jaramillo (The China Project, October 2, 2023)
- Analysis: [Copper Market Slump Threatens Shift to Wind Power, Electric Cars](#) by Bob Henderson (*The Wall Street Journal*, November 11, 2023)
- Analysis: [The promise and risks of deep-sea mining](#) by Daisy Chung, Ernest Scheyder, and Claire Trainor (*Reuters*, November 15, 2023)
- Analysis: [The US should consider a critical minerals trade agreement with Indonesia](#) by Cullen S. Hendrix (PIIE, November 16, 2023)
- Analysis: [The next front in the tech war with China: Graphite \(and clean energy\)](#) by Lily Kuo (*The Washington Post*, November 29, 2023)

Evaluating Small-Scale Changes and What They've Brought So Far

- Analysis: [How simple steps can help alleviate climate anxiety](#) by Joel Tansey (*The Japan Times*, November 5, 2023)
- Analysis: [How Singapore is positioning itself as Asia's carbon hub](#) by Sandy Ong (*Reuters*, November 6, 2023)
- Analysis: [How to know if Canada's climate plan is working](#) by Dave Sawyer and Anna Kanduth (Canadian Climate Institute, November 20, 2023)
- Analysis: [The World's Biggest Climate Bureaucrat Wants to Win an Election](#) by Paul Hockenos (*Foreign Policy*, November 21, 2023)
- Analysis: [How Japan's renewable underestimates are impacting Asia's energy transition](#) by Nithin Coca (*The Japan Times*, December 3, 2023)
- Opinion: [Human security needs to be prioritised in the Pacific's climate response](#) by Afeeya Akhand (Australian Strategic Policy Institute, December 6, 2023)
- Opinion: [Finding crucial solutions in a time of climate crisis](#) by Chris Russel and Joel Tansey (*The Japan Times*, December 24, 2023)

Case Studies in Indirectly Fuelling Pollution

- Analysis: [Climate's 'Catch-22': Cutting pollution heats up the planet](#) by Jake Spring and David Stanway (*Reuters*, November 2, 2023)
- Analysis: [Focus: How shipping more US natural gas to Europe helped fuel CO2 pollution](#) by Tim McLaughlin (*Reuters*, November 8, 2023)
- Analysis: [Forests, methane, finance: Where are the Cop26 pledges now?](#) by Matteo Civillini (*Climate Home News*, November 11, 2023)
- Opinion: [How to end plastic pollution on Earth for good](#) by Tatiana Schlossberg (*The Washington Post*, November 27, 2023)
- Analysis: [How China Cleaned Its Filthy Air While India Continues to Choke](#) by Dan Strumpf (*Bloomberg*, December 7, 2023)
- Analysis: [DEEP BLUE SCARS-Environmental Threats to the South China Sea](#) by Monica Sato, Harrison

Prétat, Tabitha Mallory, Hao Chen, and Gregory Poling (Center for Strategic & International Studies, December 18, 2023)

- Analysis: [The art world's big planetary problem](#) by Thu-Huong Ha (*The Japan Times*, December 31, 2023)

Forests and Fields: Both Terrestrial and Submarine

- Analysis: [The Golden Era of European Mountaineering Is Coming to an End](#) by Oscar Boyd (*Bloomberg*, November 3, 2023)
- Opinion: [Canada says it can fight climate change and be major oil nation. Massive fires may force a reckoning](#) by Suman Naishadham and Victor Caivano (*PBS News Hour*, November 9, 2023)
- Opinion: [Climate change is hastening the demise of Pacific Northwest forests](#) by Nathan Gilles (*AP*, November 16, 2023)
- Commentary: [Control of Africa's forests must not be sold to carbon offset companies](#) by Alexandra Benjamin (*Mongabay*, November 17, 2023)
- Opinion: [Here's a realistic path to protecting the Amazon rainforest](#) (*The Washington Post*, December 6, 2023)

The Outcomes of Weather Going Haywire

- Analysis: [Flood-ravaged Afghanistan braces for climate impacts](#) by Ruchi Kumar (*The Third Pole*, October 2, 2023)
- Opinion: [China may be close to a climate tipping point](#) by Pilita Clark (*Financial Times*, November 30, 2023)
- Opinion: [If your drinking water is salty, you're too late on climate change](#) by Drew Goins (*The Washington Post*, October 10, 2023)
- Analysis: ['Nightmare' Hurricanes Are Popping Up Out of Nowhere](#) by Mark Gongloff (*Bloomberg*, October 25, 2023)
- Analysis: [Africa's extreme weather has killed at least 15,000 people in 2023](#) by Daisy Dunne (*Carbon Brief*, October 25, 2023)
- Analysis: [SoCal's beautiful coast has a hidden secret: The 'barrens' of climate change](#) by Trevor Hughes (*USA Today*, October 30, 2023)
- Report: [Climate impacts in the U.S. are 'far-reaching and worsening,' federal report finds](#) by Brady Dennis and Scott Dance (*The Washington Post*, November 14, 2023)
- Analysis: [Snakes, Spores and Sewage: Life in the Neighborhood Called 'the Hole'](#) by Hilary Howard (*The New York Times*, December 17, 2023)
- Analysis: [The climate future arrived in 2023. It left scars across the planet.](#) by Chico Harlan (*The Washington Post*, December 31, 2023)

Images of the Month

October 2023

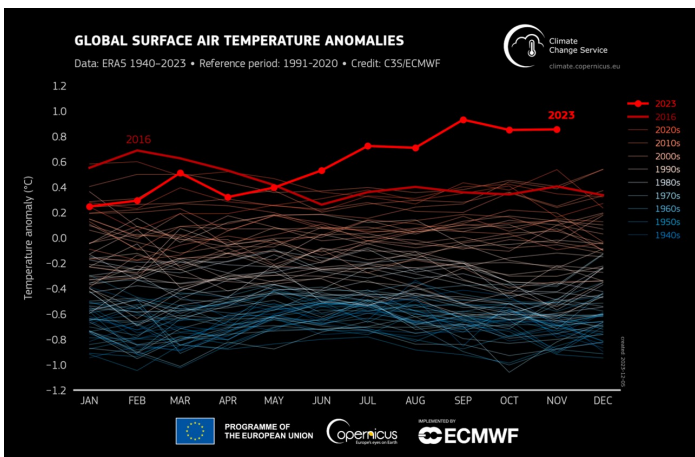


View of the destruction left by Hurricane Otis outside the Acapulco's International Airport in Mexico.

Behind the Image: In the fourth week of October, Hurricane Otis underwent a dramatic and unprecedented intensification, evolving from a tropical storm to a Category 5 hurricane in mere hours. Scientists believe that the abnormal phenomenon could be a symptom of a human-caused climate crisis and could become more frequent in the future.

Source: [Photo by RODRIGO OROPEZA/AFP via Getty Images](#)

November 2023



A Copernicus Climate Change Service (C3S) statistical graph shows that November 2023 was the warmest November on record, 0.85°C above the 1991-2020 average for November.

Behind the Image: 2023 has had two record breaking seasons. The impacts of human-induced climate change and global warming are becoming increasingly evident.

Source: [European Centre for Medium-Range Weather Forecasts \(ECMWF\)](#)

December 2023



COP28 President Sultan Al Jaber and other participants onstage during the Closing Plenary at the UN Climate Change Conference COP28.

Behind the Image: Nearly 200 countries at the COP28 climate summit have agreed to a deal that, for the first time, calls on all nations to “transition away” from reliance on fossil fuels.

Source: [Photo by COP28 / Christopher Pike via Flickr](#)

Climate-Focused Quotes of the Quarter

“Currently, more than 100 million people in the world live within the reach of mangrove forests. Meanwhile, in countries in Asia, including Indonesia, most of the population depends on mangrove resources, and mangroves have a high value of blue carbon as part of a low-carbon national development strategy.”

- Siti Nurbaya Bakar, Minister of Environment and Forestry of Indonesia, [speaking](#) in her remarks at the 2023 AIS Forum high-level meeting in Nusa Dua, Bali, Indonesia on October 9, 2023

“China has the potential to lead the world in turning the goals of Paris into a solid and durable reality.”

- Sultan Al Jaber, President of COP28, [addressing](#) leaders at the High-level Forum on Green Development as part of the Third Belt and Road Forum for International Cooperation in Beijing on October 18, 2023

“We’re not going to move the needle on climate change unless the United States and China collaborate together.”

- Gavin Newsom, U.S. Governor of the State of California, [said](#) at a news conference after meeting with President Xi Jinping on October 25, 2023

“Developed countries bear an unshakable historical responsibility for global climate change and also now have the capacity to address it.”

- Xia Yingxian, Deputy head of China’s delegation to the 2023 United Nations Climate Change Conference, [talking](#) about China’s anticipation on developed countries for COP28 on October 27, 2023

“We’re seeing enormous potential for offshore wind in the South China Sea, but it’s not a panacea.”

- Shawn Steil, Canadian Ambassador to Vietnam, [speaking](#) at Vietnam’s annual forum about the South China Sea on October 29, 2023

“To guarantee an inclusive and equitable transition to low-carbon and resilient growth, the voices of emerging and developing countries must not go unheard.”

- Sultan Al Jaber, President of COP28, [speaking](#) at the third Climate and Development Ministerial on October 29, 2023

“Prince William and I discussed the innovative solutions needed to hold back climate change and a worsening global water crisis. And the optimism that can and must be created by discovering and implementing them on a global scale.”

- Tharman Shanmugaratnam, President of Singapore, [commenting](#) on his meeting with Britain’s Prince William regarding climate change and the global water crisis on November 6, 2023

“There’s been clear progress for some of these companies since the last time we did a formal analysis, but overall, China’s e-commerce giants still don’t do enough to leverage their platforms towards sustainability.”

- Tang Damin, Greenpeace project manager in Beijing, [talking](#) about China’s e-commerce platforms’ performance on sustainable development on November 9, 2023

“The collapse of the cryosphere under the impact of climate change ... the most immediate and visible effect is the melting of the ice caps ... it represents an unprecedented challenge for humanity.”

- Emmanuel Macron, President of France, [speaking](#) at the Paris Peace Forum on November 10, 2023

“While climate impacts are most acute in developing countries near the equator, seeing climate-fueled streaks of extreme heat in the U.S., India, Japan and Europe underscores that no one is safe from climate change.”

- Andrew Pershing, vice president for science at Climate Central, [analyzing](#) the hottest 12 months on record on November 10, 2023

“Japanese companies have excellent research and development, and they will help the country reach decarbonization targets, even if tweaks to its strategy are made along the way.”

- Yoshihide Suga, Former Prime Minister of Japan, [speaking](#) during an interview in Tokyo on November 24, 2023

“For oil and gas companies in particular, carbon offsets are a smokescreen to obscure their continued, redoubled carbon emissions.”

- Li Jiatong, project leader with Greenpeace in Beijing, [commenting](#) on the "carbon neutral" branding of the fossil fuel producers on November 26, 2023

“The Republic of the Marshall Islands did not come here to sign our death warrant. We will not go silently to our watery graves.”

- John Silk, the minister of natural resources for the nation of atolls in the Pacific Ocean, [talking](#) about the necessity of a climate agreement to island states during COP28 on December 11, 2023

“In terms of safeguarding 1.5C in a meaningful way, the language is certainly a step forward, it speaks to transitioning away from fossil fuels in a way the process has not done before. But we must note the text does not speak specifically to fossil fuel phase-out and mitigation in a way that is in fact the step change that is needed. It is incremental and not transformational.”

- Anne Rasmussen, representative of the alliance of small island states (Aosis), [talking](#) about the loopholes of the deal to phase-out fossil fuels on December 13, 2023

“[The final document] announced the global and irreversible trend toward a green, low-carbon transition.”

- Zhao Yingming, vice minister of Ecology and Environment of China, [praising](#) the COP28 agreement on transitioning away from fossil fuels on December 13, 2023

“Mangroves are the unsung heroes in our fight against climate change. They are the sentinels of our coasts and the guardians of our marine biodiversity. The UAE recognizes the immense value of mangroves. Our ambitious goal to plant 100 million mangroves by 2030 is a testament to this recognition.”

- Mariam bint Mohammed Almhairi, Minister for Climate Change and Environment of UAE, [talking](#) about the realization of the milestone Mangrove Breakthrough's goal on December 15, 2023

Climate-Focused Conferences & Events

Multinational Conferences & Global Forums

Climate and Energy Summit: A Grand Coalition to Keep 1.5 °C Within Reach

International Energy Agency (IEA) & Government of Spain

October 2

Madrid, Spain

- From the Organizer: “This important event, which takes place during the Spanish Presidency of the Council of the European Union, will bring together energy and climate ministers from around the world just weeks before the United Nations' COP28 Climate Change Conference. The Summit seeks to build a broad international coalition that can increase momentum in order to meet the commitments of the Paris Agreement – notably the goal of limiting global warming to 1.5 °C.”
- [Watch Recording](https://www.youtube.com/watch?v=C6omHPW8MTY&t=3311s): <https://www.youtube.com/watch?v=C6omHPW8MTY&t=3311s>

Berlin Climate Security Conference

Berlin Climate and Security Conference 2023

October 6

Berlin, Germany

- From the Organizer: “Since its inaugural edition in 2019, the annual Berlin Climate and Security Conference (BCSC) has become the global forum connecting governments, international organisations, experts, and practitioners working to promote interlinkages between different approaches within the climate and security agenda whilst also critically interrogating complex new challenges like securing critical minerals for a conflict-sensitive energy transition while discussing how high COP28 expectations on mitigation, adaptation, finance and Loss and Damage can be realised.”
- Event Agenda: The conference, entitled Building a Climate for Peace, will focus on three strategic goals to ensure that climate action and sustainable peace go hand in hand:
 - Solutions for fragile contexts
 - Tools and knowledge
 - Tools and knowledge
- Side Event: [BSCS Nairobi 2023](#)

One Planet - Polar Summit

Paris Peace Forum

November 8-10

Paris, France

- From the Organizer: “The November 2023 edition of the Paris Peace Forum "Seeking Common Grounds in a World of Rivalry" hosted this One Planet Summit at a time when, subject to growing geopolitical tensions and increasing economic exploitation, the already fragile glacial and polar worlds are under threat to their ecosystems. For the first time, researchers and scientists from over forty glacial and polar nations met in Paris to share their findings and observations with IPCC and IPBES experts, as well as with the heads of international institutions, NGOs, representatives of indigenous peoples and local communities, the private sector involved in these regions, and the political leaders of countries present in the Arctic, Antarctic and glacial worlds.”
- Event Agenda: “At the National Museum of Natural History, a scientific forum bringing together the

international scientific community was held on November 8 and 9. The political segment with leaders and figures from the glaciers and polar worlds, joined by the French President, has taken place on November 10 in the Great Gallery of Evolution of the Museum.”

2023 United Nations Climate Change Conference (COP28)

United Nations Climate Change

November 30-December 12

Dubai, United Arab Emirates

- From the Organizer: “At COP21 in 2015, the world agreed to limit global warming to 1.5°C compared to pre-industrial levels by 2050. To remain on target, science tells us that emissions must be halved by 2030. We only have another seven years to meet that goal. COP28 UAE is a prime opportunity to rethink, reboot, and refocus the climate agenda. Working with the UNFCCC Executive Secretary alongside the UN Climate Change High-Level Champion and the UAE Youth Climate Champion, I will strive to build consensus amongst parties to drive climate action. Together, we will prioritize efforts to accelerate emissions reductions through a pragmatic energy transition, reform land use, and transform food systems. We will work to mobilize solutions for vulnerable countries, operationalize loss and damage, and deliver the most inclusive Conference possible.”
- Event Agenda: Check out the [COP28 Schedule & Thematic Program](#)

Public Events & Panel Discussions

Upcoming Events

Report Launch: Renewables 2023

Event by International Energy Agency

January 11 - Hybrid

The 8th International Conference on Climate Change 2024

Event by IPCC

February 8-9 - Colombo, Sri Lanka

Climate Change Conference Feeding a Changing World: Climate Change and Global Food Systems

Event by Loyola University Chicago

March 14-15 - Hybrid

Innovations in Climate Resilience Conference 2024 (ICR24)

Event by Wilson Center

April 22-24 - Hybrid

US Climate Action Summit 2024

Event by Climate Group

April 22-28 - In Person, Washington DC

Past Events

COP28 Climate Outcomes: What Do They Mean for the Arctic?

Event by Belfer Center, Harvard University

December 18 - Online

The Climate Crisis and Gender: Regional, National and Local Approaches*Event by Stimson Center*December 14 - Hybrid ([Event Recording Available](#))**Reflections on COP28: An Africa-focused climate action and development agenda***Event by Atlantic Council & DAI*December 13 - Hybrid ([Event Recording Available](#))**COP28: Climate Challenges and Opportunities for the Philippines***Event by Stimson Center*December 12 - Hybrid ([Event Recording Available](#))**Subscriber Exclusive: Rajiv Shah on How to Fund the Green Transition***Event by Foreign Policy*December 11 - Online ([Event Recording Available](#))**World Climate Summit – The Investment COP***Event by Carbon Tracker*

December 8 - In Person, Dubai, UAE

The Regulation of Seabed Mining: A Conversation with Michael Lodge, Secretary General of the International Seabed Authority*Event by Wilson Center*November 29 - Hybrid ([Event Recording Available](#))**An Ecological History of Modern China***Event by China Institute, University of Alberta*November 28 - Hybrid ([Event Recording Available](#))**The NSAGs' challenge to global climate action***Event by International Institute for Strategic Studies*November 27 - Hybrid ([Event Recording Available](#))**What to Expect From COP-28***Event by Foreign Policy*November 27 - Online ([Event Recording Available](#))**The International Eelgrass and Blue Carbon Workshop***Event by Sasakawa Peace Foundation Ocean Policy Research Institute*

November 17-19 - Hybrid

2024 Journalists' Guide to Energy & Environment*Event by Wilson Center*

November 16 - In Person, Washington, DC, USA

COP Stocktake: Inside Perspectives on the Global Climate Conference*Event by Center for Strategic and International Studies*November 16 - Hybrid ([Event Recording Available](#))

What to expect at COP28*Event by Atlantic Council*November 14 - Hybrid ([Event Recording Available](#))**APEC summit 2023: The future of climate and trade policies in a world of geopolitical divides***Event by Brookings*November 13 - Hybrid ([Event Recording Available](#))**Unpacking China's Climate Action***Event by Wilson Center*November 9 - Hybrid ([Event Recording Available](#))**Closing the Resource Divide on Climate Resilience***Event by Stimson Center*November 8 - Hybrid ([Event Recording Available](#))**Wilson Center-AmCham Conference on Climate Finance in Chile and Latin America: Pathways for Advancing the Global Energy Transition***Event by Wilson Center*November 7 - Hybrid ([Event Recording Available](#))**Navigating the Global Energy Transition: A Conversation with Kuwait Petroleum CEO Sh. Nawaf Al-Sabah***Event by Center for Strategic and International Studies*November 6 - Hybrid ([Event Recording Available](#))**Wilson Center Conference on US-Chile Climate Action and the Energy Transition***Event by Wilson Center*November 6 - Hybrid ([Event Recording Available](#))**Hawai'i-Germany Green Hydrogen Horizon***Event by East-West Center*

November 2 - Online

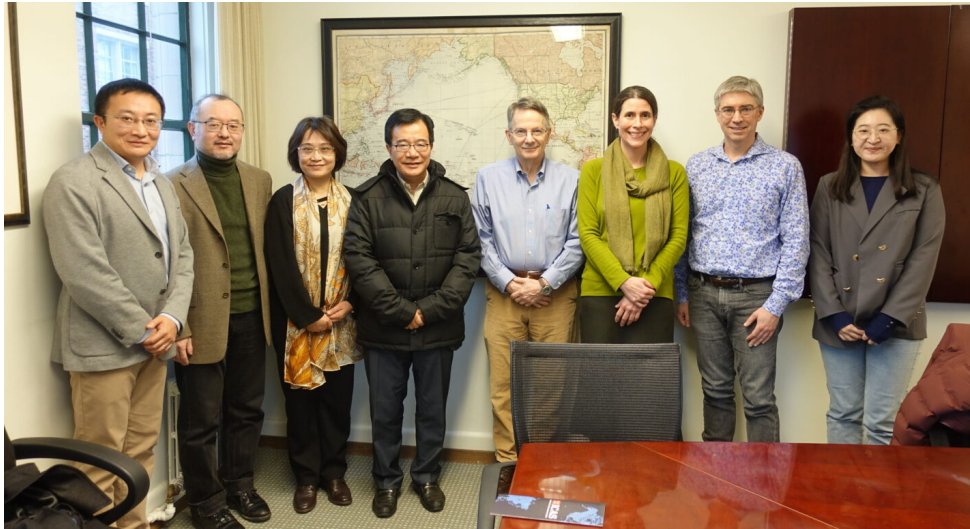
China's Critical Mineral Investments in Africa*Event by Wilson Center*October 31 - Hybrid ([Event Recording Available](#))**After the EU-US Summit: What's next for international cooperation on industrial decarbonization?***Event by Atlantic Council*October 24 - Hybrid ([Event Recording Available](#))**U.S. EIA's International Energy Outlook 2023***Event by Center for Strategic and International Studies*October 11 - Hybrid ([Event Recording Available](#))**Transatlantic Collaboration on the Energy Transition***Event by Center for Strategic and International Studies*October 3 - Hybrid ([Event Recording Available](#))

ICAS BCCC Program Updates

ICAS Academic Engagement

ICAS Staff Participate in Several Academic Exchanges in the State of Washington

December 11-12, 2023



From December 11-12, 2023, Dr. Nong Hong and other ICAS researchers engaged in academic discussions with various institutions in the State of Washington, which were facilitated through the invitation extended by the China Ocean Institute. Dr. Tabitha Grace Mallory, Founder and CEO of the China Ocean Institute and Affiliate Professor of the University of Washington Henry M. Jackson School of International Studies. An academic delegation led by Mr. Wang Sheng, President of China National Institute for South China Sea Studies, also participated in the group visits and exchanges.

[Learn More:](https://chinaus-icas.org/event/icas-staff-participate-in-several-academic-exchanges-in-the-state-of-washington/) <https://chinaus-icas.org/event/icas-staff-participate-in-several-academic-exchanges-in-the-state-of-washington/>

Book Release

US-China Global Maritime Relations (Routledge 2024)

By Nong Hong

January 1, 2024

This book explores the U.S.-China global maritime relationship, examining the development and implementation of the maritime strategies of both the United States and China.

Delving into the U.S.-China maritime relationship within the global context, the book investigates six key maritime regions: the South China Sea, the Northeast Asia waters (the East China Sea, the Yellow Sea), the Indian Ocean, the South Pacific Ocean, as well as the Arctic and Antarctic regions. Its observations form a comprehensive exploration of these regions and their significance in shaping the dynamics between the two nations, and this analysis reveals that an



**US-CHINA GLOBAL
MARITIME RELATIONS**

Nong Hong



expanded view is necessary to discover and clearly display the role that these maritime regions currently—and could potentially—play in overarching U.S.-China relations.

Examining both the ongoing conflicts and opportunities for cooperation in the global maritime domain between the United States and China, this book will be a valuable resource to students and scholars of international relations, Chinese and U.S. politics, strategic studies, and maritime studies.

[Learn More:](https://chinaus-icas.org/research/us-china-global-maritime-relations/) <https://chinaus-icas.org/research/us-china-global-maritime-relations/>

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<https://www.routledge.com/US-China-Global-Maritime-Relations/Hong/p/book/9781032510897>



ICAS MAP Spotlight

The Red Sea

By Jessica Martin

December 28, 2023

...Like the Persian Gulf, the Red Sea is one of the most saline bodies of water in the world largely due to high evaporation rates and insignificant freshwater inflow, with its salinity typically recorded at 40-41 parts per thousands (ppt) but capable of reaching 50 ppt in certain areas. This measure is compared to the typical range of sea water salinity at 33-37 ppt. While the Red Sea does reach depths of 3,000 meters at its deepest point, it is holistically shallow, with one-quarter of the Red Sea being less than 50 meters deep. As the Red Sea simultaneously contains some of the world's hottest water from two distinct monsoon seasons thus making it the world's most northern tropical sea, it is the habitat of over 1,200 fish species and 200 soft and hard corals. These unique characteristics and the extensive presence of marine life and corals led the World Wide Fund for Nature to identify the Red Sea as a "Global 200" ecoregion and a priority for conservation...

[Learn More:](https://chinaus-icas.org/research/map-spotlight-the-red-sea/) <https://chinaus-icas.org/research/map-spotlight-the-red-sea/>

ICAS MAP Spotlight

Submarine Volcanoes

By Jacqueline Cheng

November 28, 2023

Submarine volcanoes, also referred to as volcanic seamounts, are volcanoes that are located below sea level. Submarine volcanoes are, on average, located 8,500 feet (2,600 meters) below sea level and produce around 75% of the annual global output of lava. Around 75% of all of Earth's volcanoes are located along the "Ring of Fire," a path around most of the Pacific Ocean with high amounts of seismic activity due to the movement of plate tectonics...On October 21, 2023, an unnamed volcano off the coast of Iwo Jima in Japan began erupting, eventually forming a new island of about 100 meters, or 328 feet, in diameter as of October 30, 2023, according to the Earthquake Research Institute at the University of Tokyo...

[Learn More:](https://chinaus-icas.org/research/map-spotlight-submarine-volcanoes/) <https://chinaus-icas.org/research/map-spotlight-submarine-volcanoes/>

Guest Commentary

The Significance of Strengthening International Cooperation on Blue Carbon and the Practical Pathways

By Wang Sheng

November 2023

Blue carbon plays a unique role in combating climate change and is significant for China's "dual carbon" goals. Its mechanism, carbon reduction potential, and economic value align with the Green Silk Road initiative. China's plans and practices in blue carbon contribute to the development of the Belt and Road Initiative, and provide strong momentum for enhancing international cooperation. It is important to integrate blue carbon into international climate change cooperation, establish international blue carbon regulations, build an international blue carbon market, enhance technology exchange, and provide "China's solutions" to global sustainable development.

[Learn More:](http://www.nanhai.org.cn/review_c/719.html) http://www.nanhai.org.cn/review_c/719.html

Professor Wang Sheng is a Senior Advisor of the ICAS BCCC Program

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.

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