



# ICAS BLUE CARBON & CLIMATE CHANGE PROGRAM

# QUARTERLY

Quarter 1 - 2023



# 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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January - March 2023

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# Theme of the Quarter: Renewable Energy is on the Table

## News on Renewable Energy is on the Table

### Expanding Global Interests and Investments in Green Technologies

The first quarter of 2023 was groundbreaking for new investments in green technologies by both wealthy and non-wealthy nations. China has begun to expand their green-sector economy by building the world's largest solar manufacturing plant, headed by Chinese firm Longli, and Chinese solar silicon producers estimated massive profits from 2022 going into 2023. CMA CGM, a French shipping conglomerate, is looking to also expand investment in green technologies in China by starting a new fund to expand decarbonizing technologies. The CMA fund will initially start with over US\$1.64 billion, and the company looks to partner with other firms to increase that amount. China and France, however, are not the only nations contributing to large investments in green projects. The Biden administration's new Inflation Reduction Act allocated more than US\$369 billion in green technology production and research, and subsequently placed significant stress upon allied nations whose technologies would be in direct competition to the new U.S. investments in green companies. The European Commission announced new updates on its own green policy to assist European green technology companies, to be implemented by 2030, in order to successfully compete with their counterparts in the U.S. markets. Specifically, the updates include the European Sovereignty Fund, which looks to place a strong emphasis on European-made green technologies and green technological research. Whether a product of competition or cooperation, it seems that significant investments in green technologies are being made on both sides of the Atlantic. The new moves from wealthy nations to inject more funding into green technology programs echoes the record-breaking US\$1.1 trillion investments from firms into clean energy in 2022, and clean energy firms are expecting this record to be broken once again in 2023. Overall, the result is substantial funding and political pushes from wealthy nations towards renewable energy initiatives as well as the production of green technologies.<sup>1</sup>



The United States, China, and the European Union are not the only ones depositing more funding into clean energy technologies. In Singapore, the completion of the Sembcorp Energy Storage System marks the new largest clean energy storage system in Southeast Asia. The completed system marks a strong investment to expand renewable energy sources, such as solar power, in Singapore. Moreover, Japan is seeking to utilize its exclusive economic zone (EEZ) in the Pacific to drastically expand wind power by building the equivalent of 45 nuclear reactors worth of wind power by 2040. China announced that the minimum expected climate adaptation investment required by 2030 totals more than US\$8.1 trillion in 10 global developing markets (. The markets included Bangladesh, China, Egypt, India, Indonesia, Kenya, Nigeria, Pakistan, the United Arab Emirates and Vietnam).

<sup>1</sup> Image: An aerial view of a solar power plant in the mountains of Fujian, China. (Source: Getty Images, Royalty-Free)



Some possible reasons for the sudden increase in green technology investments could be linked to recent reports revealing successful decreases in total carbon emissions in 2022. In Europe, there was a 2.5% decrease in carbon emissions in 2022, which the IEA attributed to higher levels of investment in green energies as well as power-saving measures from European nations. Particularly due to the extreme weather that was prevalent in the last quarter of 2022, more and more countries are becoming interested in climate adaptation technologies and, subsequently, their related investment opportunities. The British government also announces that Britain's power grid reached a record-breaking 88% zero-carbon power production, with 67% coming from wind-power sources.

This uptick in renewable energy investments appears to only be the beginning of a long-term trend, as reflected in overall investment reports from participating countries in 2023. Electric car production was close to breaking all-time records in January 2023, and is expected to continue to increase. The U.S. renewable sector successfully surpassed coal power production for the first time in 2022. Additionally, sales of electric cars have increased with 1 in 7 vehicles sold globally being electric. Alongside the increase in global electric vehicle sales, there has also been a larger push towards the U.S.-China bilateral cooperation on green technologies. Most notably this quarter, the U.S. and China reached a deal to allow for the resumption of U.S. solar panel imports from China following months of solar industry import gridlocks. Moreover, one of China's leading solar manufacturers secured a lease for the company's first U.S.-based solar manufacturing plant. The US\$60 million plant will add to the increased investment and interest in the U.S. for domestic clean energy. The increased global interest is likely to lead into higher levels of investment and production of clean energy manufacturing moving into the rest of 2023, if not beyond.

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## Global Conflicting Interests on Renewable Energy Resources

Despite the large increases in global investments for clean and green energy sources, divestment and conflicting interests remain a large, unavoidable concern for countries and firms. This quarter has been marked by proponents and opponents on both sides of increasing renewable energy investments. Moreover, the monetary increases promised last quarter at the COP-27 international forum, held in Egypt in November 2022, continue to be challenged as western nations are being criticized for not meeting the set donation goals. U.S. Climate Envoy John Kerry stated at the World Economic Forum in January that what the U.S. and other wealthy countries need to meet these goals is “money, money, money, money.” However, there has been little-to-no movement so far in fundraising efforts for wealthy nations to meet the monetary requirements for the goals set at COP-27. Countries are still debating on whether the international community should stick with an unified and strict environmental protection policy or whether certain developing countries can be allowed to have different criterias to satisfy their economic development needs. The lack of funding also affects other international goals, including switching from fossil fuels to renewable power and retraining the global workforce following the overlapping impacts of the Covid-19 pandemic and technological advancements in mass manufacturing.

There have also been heavy controversies regarding the traditional energy giants such as Shell and BP in the first quarter of 2023. Due to the Ukraine-Russia war and its subsequent inflation, the price of fossil fuels significantly increased in 2022. In some cases, this caused the interest in energy alternatives—such as renewables—to increase as Russia, one of the top global oil producers, became embroiled in several questionably legal conflicts. But following the release of the 2022 profit reports for both multinational companies as well as many other energy companies, it is clear that fossil fuel is still the most profitable



product by helping both Shell and BP to double their revenue last year. Consequently, both companies made the most rational announcement; they lowered their respective objectives in meeting renewable energy projects and climate targets to maintain shareholder gains and market favor. The moves have sparked fierce opposition and protests as climate activists from Greenpeace occupied a Shell-owned oil and gas platform in the North Sea for almost two weeks in early February. There are also shareholders arguing that shareholders should support their companies to “make a very brave decision” to commit to the Paris Agreement climate goals.<sup>2</sup>

Natural resource companies are not the only ones under fire this quarter of hampering climate-focused objectives. Multinational conglomerates Samsung, Amazon, Nestlé, and Uniqlo, among other companies, have been widely accused of misrepresenting products as being environmentally friendly or supporting

<sup>2</sup> Image: Greenpeace activist Yeb Saño from the Philippines holds aloft a flag on a rib after attempting to board a Shell oil platform being transported by the White Marlin ship on January 31, 2023 in the Atlantic Ocean north of Gran Canaria, Spain. Just two days ahead of Shells profits announcement, four Greenpeace International activists boarded the White Marlin vessel at sea north of the Canary Islands in a peaceful protest against the climate devastation around the world caused by Shell and the wider fossil fuel industry, without paying a penny towards loss and damage. (Photo by Handout/Getty Images)

environmental causes—a concept coming to be known as ‘greenwashing’—in favor of shareholder interests. In addition to making it seem like the environment is being taken care of more than it is in actuality, these disinformation activities are causing extra waste that could be avoided and providing a shortcut to please environmentalist customers. Ultimately, these activities will create obstacles to the development of renewable energy.

Despite the challenges that the loss-and-damage fund is facing, there are many new structural changes being implemented within the World Bank. The changes look to increase the amount of funding and grants to developing countries' climate infrastructure projects that might circumvent the COP-27 goals within the loss and damage fund. At the same time, as the UAE is preparing to host COP-28, their environmental minister is poised to begin a phase out process for oil and gas. As he spoke at the Munich Security Conference in February, the minister talked about transition strategies and then to, “phase out oil and gas in a just way.”

On a smaller scale, communities that currently rely on fossil fuels and non-renewable energies are understandably fearful that a global shift to green energy might leave them behind. In South Africa, advocate groups are interested in the transition to green energy, but not without such a transition including the transition of coal workers as well. South Africa is not the only country with their eyes maintaining an interest in traditional fossil fuel sources. This quarter, China approved new expansions of coal-based power plants; the largest expansion since 2015. The move reflects an overall theme for China of sticking to coal power production due to security and energy concerns. Regardless, the increase in coal power plants puts China at a disadvantage to meet the United Nations IPCC goals, as climate experts have said it will be more difficult to reach carbon-neutral status by 2050. Meanwhile, the U.S. approved a new drilling project in the state of Alaska that could produce as much as 614 billion barrels of oil. The Biden administration’s move has been met with intense scrutiny from both domestic and international partners. Despite the strong commitments to renewable energy, it is clear that there are many policy decisions internationally that seem to undermine global efforts to create a strong, smooth transition to renewable energy.

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## Influences of the Ukraine-Russia Conflict on Renewable Energy

Renewable energy progress has not been isolated from the more than year-long war between Russia and Ukraine. Russia was previously one of the largest suppliers of oil and gas in Europe, so following the start of the conflict the effects on its oil and gas trade were tremendous. Restrictions on Russian oil and gas made it very difficult for European countries to rely on the previously established gas trade, guiding some to seriously consider alternatives. As of February 24, 2023, the conflict has been ongoing for more than one year, and as it continues, it becomes harder for countries to continue to restrict access to needed power sources; including those from Russia. The restrictions caused European nations to seek other oil and gas resources, oftentimes at much higher prices, and subsequently led to increases in European carbon emissions given the necessary lack of patience. Even with high sanctions, however, some European countries like Germany still rely on Russian coal and energy products to power their nations. The worldwide increase in gas energy costs and lack of allowance to wait for new developments also led some countries to seek alternatives for power production in the short-term, such as increasing coal plant outputs.

Specifically on Ukraine, Ukrainian Minister of the Environment Ruslan Strilets stated in February that, so far, there have been more than 2,300 cases of environmental damage and more than US\$51.45 billion in damages costs from the Russian war on Ukraine. Multiple non-government organizations and international organizations have been documenting the environmental damage, including the United Nations Environment Programme, which in an official report stated that the consequences the war is having on the environment is leaving a “toxic legacy for generations to come.” *The Washington Post* reported on Russia’s intentional choice to target large oil-silos in Ukraine, which caused “more than 1 million gallons of oil from eight incinerated tanks seeped into the soil.”

The undeniable effects of the ongoing war on the region’s environment are inseparable from renewable energy progress, pushing any such progress back by years, if not decades. Intensive funding efforts will be needed to restore the environment prior to building sustainable renewable energy infrastructures. Yet the majority of decision-making parties—many of whom do not have a true understanding of the severe, negative impacts or are simply prioritizing the short-term view of the situation—appear to be stuck viewing such progressive efforts, like renewable energy projects and research, as optional or a non-priority.

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[Environmental consequences of Russian war in Ukraine](#), Clean Air For Ukraine, March 23, 2023

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## Government Statements & Actions on Renewable Energy on the Table

On the issue of renewable energy, governments and political figures around the world have been increasingly interested in increasing investments and ensuring that renewable energy sources continue to develop, including related terms in speeches, announcements, discussions and policies.

- German Chancellor Olaf Scholz detailed the acceleration of Germany's energy transition while speaking at the World Economic Forum.
- The Scottish government laid out plans to focus solely on renewable energy projects for the next 20 years, changing the previous stance focusing on purely economic recovery methods for energy production.
- The Saudi Arabian government released new initiatives to move further away from natural energy sources and focus on new renewable energy efforts, seeking to become a world leader in renewable energy.
- The government of Denmark awarded the first CO2 storage license in the North Sea, in an effort to mitigate carbon emissions and achieve their carbon neutral goal.
- The government of Pakistan is looking to increase domestic coal-based power production fourfold, in efforts to combat high-energy prices.
- The Belgian and German governments have cooperated to increase bilateral energy collaboration, and are looking to jointly accelerate clean energy development.
- Wales Deputy Climate Change Minister Lee Waters told the press that Wales will steer toward "alternative solutions" on transportation and is aiming to achieve net zero by 2050.

Some government ministries and departments have begun new initiatives to attempt increases in renewable energy projects in both the private and public sectors.

- The British environmental land management scheme has agreed to pay farmers in the U.K. more money for following green policies, protecting the environment, and producing sustainable food.
- The Australian Albanese government has put in new pollution cap policies towards the largest 215 firms in Australia with requirements to reduce emissions by 30 percent by 2030.
- The U.S. Federal Reserve Bank unveiled new policies to require the largest six banks in the U.S. to explain how climate change might have an impact on their operations.
- The Chinese Ministry of Ecology and Environment issued new detailed technical guidelines about the ways in which Chinese energy companies need to report and audit greenhouse gas production.
- The British Department for Business, Energy and Industrial Strategy is looking to offer over £600 million to help the two largest steel manufacturers change to utilize less carbon-intensive production methods.
- U.S. Deputy Secretary of State Wendy Sherman made statements hoping that U.S.-China climate cooperation can continue despite a deterioration in the bilateral relationship.
- Chinese National Energy Administration official Wang Dapeng stated that China's renewable energy industry led globally in 2022, and expects the industry to continue leading into 2023.
- The Chinese National Energy Administration stated that solar and wind projects within China's Gobi Desert will be further accelerated to increase the national renewable energy output.
- U.S. treasury officials and Chinese counterparts met to discuss the current challenges in resolving climate-related stress and economics.
- The United States Environmental Protection Agency announced new US\$550 million worth of environmental justice grants that will be used for legacy pollution as well as access to clean energy.



Multinational institutions have also spoken out about creating new policies to increase renewable energy development, calling on both the private sector as well as the public sector to attempt to find common ground to lower emissions.

- United Nations Secretary General António Guterres called member-states to “jumpstart a renewables revolution.”
- The European Union is seeking to ban the sale of fossil fuel cars by 2035, a measure believed to significantly lower carbon emissions and put the EU on track to be carbon neutral by 2050.
- The International Energy Agency released a report stating that governments subsidized a record US\$1 trillion in fossil-fuel energy, which was more than double the global investment in renewable energy sources.
- COP-28 President urged ‘Big Oil’ to join the international fight towards renewable energies and to fight climate change.
- The International Energy Agency’s Electricity Market Report 2023 predicted that renewable energies, such as solar, will be able to account for 90% of the increase in global demand by 2050.
- The International Renewable Energy Agency stated that renewable energy capacity grew 9.6% in 2022, however, it will need to grow three times the current rate to effectively combat climate change.

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### Third-Party Analyses & Data on Renewable Energy on Table

As governments pay more attention to renewable energy and start new initiatives to facilitate renewable energy projects in the first quarter of 2023, third party researchers and experts are making comments, reviews, analyses and predictions on the current performance of renewable energy and where these changes might lead.

- *Bloomberg* opinion columnist Liam Denning said that the halved silicon price offers relief to the renewable energy industry but not the ongoing tension between the United States and China.
- In an analysis for *The Washington Post*, Maxine Joselow exposed the efforts from conservative lawmakers in the U.S. to intentionally label fossil-fuels as 'green energy' sources, identifying new ways fossil-fuel advocates are moving around regulations.
- Barry van Wyk predicted in a *The China Project* analysis that China's solar energy industry is set for another record-breaking year as the price of silicon drops.
- According to *China Daily*, China led the world in energy transition investment with \$546 billion, which accounts for nearly half of the global total.
- Writing for *The Guardian*, financial editor Nils Pratley criticized Shell for not being ambitious enough in speeding up transition to renewables.
- In a commentary for *Financial Times*, Pilita Clark believed that windfall taxes is not the only option for fossil fuel profits, instead suggesting that fossil fuel companies can pay to clean up their carbon emissions to create a safer climate at an affordable cost.
- The British Petroleum (BP) company announced in early February that it has abandoned the plan to cut oil and gas output by 40 percent by 2030 as the annual profits more than doubled in 2022; a decision that was widely criticized by environmental activists.
- An assessment made by *Bloomberg* suggests that China now has almost enough wind and solar power generation capabilities to power every home domestically.
- An analysis of Yicai Global points out that the European Parliament's ban on carbon-emitting vehicles will boost China's new energy vehicle manufacturers.
- An article published by *Financial Times* describes the rapidly developing clean energy sector of the United States, and suggests that the United States' goal is to decarbonize itself and wrest control of clean energy from China.
- In his commentary in *The Japan Times*, climate economist Gernot Wagner argued that we must speed up the adoption of already proven and scalable clean energy technologies.
- According to the *Sustainable Energy in America Factbook* published by BloombergNEF (BNEF), despite the crises and disruptions, investment in clean energy generation and technologies hit a new record in 2022.
- The editorial board of *The Wall Street Journal* argues that the Willow oil drilling project's climate impact is insignificant and that the local community will ultimately benefit from the new project.
- In a briefing published on E3G, an independent climate change think tank, scholars argue that China's renewal coal boom will threaten the overall progress to end the construction of new coal power.
- A commentary published by Carnegie Endowment for International Peace argues that the Willow project's impact to the overall U.S. climate policy is limited, but it will make the transition away from fossil fuels more difficult.
- As described in an *Energy Monitor* commentary, the new regulation made by the European Union that aims for net-zero shipping is an important step to reduce greenhouse gas emissions, but the necessary technology might not be ready yet.

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ICAS Commentary

*"Greenwashing" is slowing down the needed progress in renewable electricity studies*

By Zhangchen Wang

March 27, 2023

The renewable energy industry is now entering a stage of high-speed growth as countries pay more attention to reducing carbon emissions. Considering the [enormous additions](#) of the fossil fuel industry to the global CO<sub>2</sub> emissions output, a transition from fossil fuels to renewable energy to generate electricity will be the only path to curb climate change. In fact, this transition has already begun. Currently, [more than a fourth](#) of global electricity production capacity comes from renewable energy, leading the proportion of fossil fuels-generated power to decrease in



recent years.<sup>3</sup> Many energy consumers, including both individual households and major corporations, are also trying to increase their share of renewable electricity to fulfill sustainable development goals and enhance

<sup>3</sup> Image: From the perspective of aerial photography, the wind turbine generator installed on the top of an ocean island in China. (Getty images, Royalty-Free)

the brand image. Unfortunately, despite the encouraging trends, the huge demand for renewable electricity clearly exceeds its actual productivity. As a result, some cases of misinformation and practices in disinformation related to climate productivity—commonly coming to be known as “greenwashing”—began to emerge in the renewable energy industry. Although the emergence of such “greenwashing” activities further prove the preference of the public and general market toward renewable energy and its unprecedented potential, it is still necessary to prevent this misleading information from both causing unfair competition and consequently damaging the environment.

[According to the United Nations](#), “renewable energy” refers to the energy derived from natural resources—such as solar, wind, water, and geothermal—that are replenished faster than they are consumed and create far fewer carbon emissions than fossil fuels. Global renewable electricity generation capacity is expanding rapidly every year, and it amounted to [more than 3,000 gigawatt \(GW\)](#) by the end of 2021. The International Energy Agency is also expecting this capacity to [double](#) between 2022 and 2027. Nevertheless, as an increasing number of households and corporations anticipate switching to renewable electricity, the supply of renewable electricity starts to look stretched and the chance for “greenwashing” is therefore created.

As hinted above, “greenwashing” is essentially a form of disinformation occasionally involving misinformation. It typically refers to the activity of companies intentionally enticing consumers who prefer environmentally-friendly products to purchase goods or services by falsely promising their products to be sustainable or environmentally conscious, or exaggerating the product’s environmental protection effect. In the case of renewable energy, some energy providers conducting greenwashing would falsely claim that they are providing 100% renewable energy while the majority of the energy that they supply is still generated by unsustainable fossil fuel-generating power plants.

As environmental concerns get more attention from the public, protecting the environment and achieving zero carbon emission is becoming a new fashion. Customers are also [more inclined to choose “green” products](#). This allows many companies to make themselves more attractive in the market through greenwashing. For example, apartment buildings in metropolitan areas have [used “zero emission” as selling points](#) to attract new residents while in reality it could be using the same sources of electricity generated by fossil fuel power plants as a building that does not make that statement. By 2020, at least [nine universities](#) in the United States claimed to be carbon neutral—a claim that does not require any renewable energy initiatives—and many higher educational institutions said that they are [gradually becoming carbon neutral](#) even though the majority of them do not generate any renewable energy at all. These agencies and companies almost all achieved their self-claimed objectives through purchasing certificates, such as the [renewable energy certificates](#) (REC) of the U.S., to “greenwash” the energy they supplied in order to make their claims appear legitimate.

While acknowledging that money paid to the certificates is still [used in developing renewable energy](#) and the ones who purchase the certificates are indeed making contributions in this regard, it has to be simultaneously recognized that the whole process is causing extra waste that could be avoided and providing a hotbed for misinformation. Firstly, no one is able to guarantee that the electricity used by an individual is 100% renewable because electricity generated in all methods has to be collected together by electric grids before being redistributed to customers. Moreover, electricity generated by low- and zero-emission generators could both be verified with passes like RECs, allowing some polluting energy sources to be falsely exaggerated in value. A journal article published in [Nature Climate Change](#) suggests that RECs lead to an inflated estimation of the mitigation effectiveness by at least 20% on average.

In many cases, the REC-type certificates are likely to be more of a self-consolation that is ultimately counterproductive in fighting climate change. Unfortunately, their spending for these certificates does not immediately change the amount of fossil fuel used and the money that they pay is not fully used to build more renewable electricity generators because a part of the fees is paid to the brokers to provide the certificates.

It is feasible and necessary to reduce carbon emissions by increasing the proportion of renewable energy usage; the world just needs to find more effective and meaningful methods. There are two ways to achieve this objective. First, instead of tangling with the RECs, companies should be encouraged to increase the direct investment in the construction of renewable energy power generators, which is not only a more immediate method but also avoids the expenses on brokers. For example, last year entities in China—both governmental and private—invested [more than five hundred billion dollars](#) in clean energy and [China again generated the most renewable energy](#) in the world. Indeed, investments make less of a visual impact than self-claimed zero-emission, but the end goal of proper climate-related projects is to pragmatically get closer to preventing climate change rather than portray a seemingly “green” image.

Second, renewable energy certificates and other carbon-offsetting products should not be banned all at once since they would subsidize the relatively high-cost renewable electricity. Instead, more strict criteria must be set for the issuance of the certificates and the scope of application of the revenues from selling certificates. Energy generated by low-emission generators should still be praised for its progress, but it should not be issued the same RECs as those of the zero-emission generators; this will help prevent companies from using it for greenwashing. Also, there are renewable electricity generators built without relying on RECs and so are [not obligated](#) to use the money earned from REC sales on expanding renewable energy. This situation must change to accommodate the future development of renewable energy development. The generators should be required to use the compensation earned from RECs to further develop its renewable energy generation capability, or they should not be allowed to enjoy the benefits brought by the REC.

Emission reduction and carbon offsetting products such as the REC are essentially active measures to encourage and support renewable energy development and satisfy the public’s goal of protecting the environment. It is also understandable to encounter issues such as greenwashing since all those products are still in their early stages, and there are rules and regulations that need to be improved. However, a better organized and regulated carbon trading system must be established as soon as possible to ensure fair trading and healthy operation of the market. This is not only to protect the interests of both producers and consumers but also to eliminate hidden obstacles to the future development of renewable energy.

*This commentary was originally released on the [ICAS website](#) on March 27, 2023 as part of the ICAS Blue Carbon & Climate Change (BCCC) Program.*

*This season’s Theme of the Quarter on Renewable Energy on the Table was primarily researched and written by Skyler Standridge, Research Assistant Intern, with the assistance of Zhangchen Wang, Blue Carbon & Climate Change Program Research Assistant Intern, at the Institute for China-America Studies.*

# This Season's Global Climate Affairs

## Issues & Updates on Blue Carbon

### Indonesia, South Korea share knowledge on blue carbon development

Thursday, January 12

Source: [Antara News](#)

[South Asia, East Asia]

In a seminar held by the Korea-Indonesia Marine Technology Cooperation Research Center, experts from South Korea and Indonesia exchanged their knowledge and experiences on blue carbon as a follow-up to the blue carbon cooperation between the two countries. The two countries plan to work together on blue carbon projects in Indonesia.

### Shandong Institute of Marine Resources and Environment took the lead in completing the compilation of "Seagrass Beds Carbon Sequestration Project Methodology"

Thursday, January 14

Source: [sohu](#)

[China]

Shandong Institute of Marine Resources and Environment and Ocean University of China compiled the "Seagrass Beds Carbon Sequestration Project Methodology" in order to give full play to the advantages of Shandong's blue carbon resources and promote the transformation of blue carbon resources into blue carbon assets.

### Indonesia, WEF join hands to unlock blue carbon potential

Monday, January 23

Source: [The Jakarta Post](#)

[South Asia]

Indonesia signed a partnership with the World Economic Forum to further Indonesia's ocean ecosystem restoration and conservation effort through accelerating strategic financing. The new partnership is in response to Indonesia's growing demand for blue carbon credits and projects.

### Blue carbon studies can support climate change mitigation: ministry

Monday, January 30

Source: [Antara News](#)

[South Asia]

While giving a seminar on blue carbon in Jakarta, Indonesia's Minister of Environment and Forestry announced that a study on preparing blue carbon ecosystems is very important in climate change mitigation. "We are very focused on ecology because if the sea is damaged, then the blue economy or the ecology will also be damaged and blue carbon will not be obtained," Minister Siti Nurbaya Bakar explained.



**South Africa's blue carbon sinks measured**

Wednesday, February 1

Source: [nature](#)

[South Africa]

A study published in January measured South Africa's blue carbon storage capabilities for the first time. The study also offered suggestions on how to restore blue carbon sinks in South Africa to sequester more carbon and mitigate climate change. According to the study, the reintroduction of tidal or freshwater inflows is necessary to restore salt marshes—the blue carbon with the greatest potential for restoration in South Africa.

**The First National Estimates of Mangrove Carbon Stocks in Belize's Mangroves Published**

Wednesday, February 8

Source: [Smithsonian Institute](#)

[Belize]

Researchers from the Smithsonian Environmental Research Center (SERC) published a study introducing the first national estimate of mangrove carbon stocks in Belize. The data reflects an international effort to develop nationwide mangrove datasets. It will help the studies on climate change mitigation and adaptation.

**"World's first" salmon and kelp farm launched**

Sunday, February 21

Source: [The Fish Site](#)

[Norway]

Cermaq and Folla Alger, two Norwegian fish farming companies, will work together to build the world's first farming facility that can achieve combined production of salmon and kelp at the same time. The nutrients released by salmon will fertilize the kelp, and kelp can absorb nitrogen and carbon while providing feed raw materials for salmon. Both companies believe that this will be a good environmentally friendly circular economy model.

**UNESCO/IOC co-host the 2023 Dialogue of the International Partnership for Blue Carbon**

Sunday, February 22

Source: [UNESCO](#)

[Global]

Around 50 partners to the International Partnership for Blue Carbon (IPBC) gathered in Paris, France at the UNESCO Headquarters for the 2023 IPBC Dialogue. All the partners were able to take this opportunity to reconnect and exchange, in order to better contribute to the partnership and its activities for the year ahead.

**First 'blue carbon' auction held in China's Ningbo**

Friday, March 1

Source: [CGTN](#)

[China]

The annual total carbon sink of a fishery in Xiangshan county, totaling about 2,340 tonnes of blue carbon, was auctioned off in Ningbo, China. With a starting price at 30 yuan per tonne, the winner bought the sink at 248,000



yuan. This type of auction is expected to facilitate local blue carbon development by generating both economic and ecological benefits.

### **New Initiative to Help Navigate Untapped 'Blue Carbon' and Restore Coastal Ecosystems**

Thursday, March 2

Source: [Friends of Ocean Action](#)

[South America]

The World Economic Forum announced at the Our Ocean Conference in Panama that it has launched the Blue Carbon Action Partnership (BCAP) to meet the increasing demand for blue carbon credits around the world. The partnership will work with business, communities, and civil societies to restore, conserve, and sustainably manage coastal blue carbon ecosystems.

### **Ghana to grow mangroves to revive fish stocks, increase carbon storage**

Monday, March 13

Source: [ESI Africa](#)

[Global, Africa]

Supported by the World Banks' US\$13.5 million Mangrove Blue Carbon Pilot Programme and several financial supporters, Ghana is set to plant 3,000 hectares of mangroves along its coast. The increase in carbon storage is expected to help restore its fish habitats and project its marine environment.

### **Operationalizing underwater hyperspectral imaging for blue carbon solutions**

Friday, March 17

Source: [Hydro International](#)

[Europe]

After five years of development, German technology startup company planblue is ready to release its underwater hyperspectral imaging (UHI) surveying platform and AI-driven automated data processing system to the market. The 'DiveRay' application, ranging in fields from plastic waste detection to coral reef biodiversity, was decided to initially be focused on the blue carbon market.

### **Changes in mangrove blue carbon under elevated atmospheric CO<sub>2</sub>**

Monday, March 20

Source: [PHYS.org](#)

[China]

Amidst a continually changing global environment, a group of scientists at Xiamen University in China have been studying the influence of elevated atmospheric carbon dioxide concentrations on mangrove blue carbon production and climate change mitigation.

## Multilateral Affairs & Climate Diplomacy

### The EU Introduces the Green Deal Industrial Plan to Stay in the Game

**The Short Story:** The European Union aims to introduce a Green Deal Industrial Plan to keep Europe competitive in the growing trend to green transition.

**Why It Matters:** The Green Industrial Plan is an ambitious bid of the European Union to boost the competitiveness of its net-zero technologies and products to ensure that Europe will be a leading producer of clean technologies in the future. The EU single market currently faces serious challenges posed by the United States of China in terms of green technologies. Ideally, Europe will be able to manufacture 40% of the equipment it needs for renewable energy generation and emission reduction and significantly reduce its dependence on third countries.

**The Full Feature Story:** On February 1, the European Commission officially presented the Green Deal Industrial Plan to “enhance the competitiveness of Europe’s net-zero industry and support the fast transition to climate neutrality” by primarily focusing on improving the EU’s manufacturing capacity for green products. In fact, calls for investment in the green industry have been going on for some time already. These voices were triggered by China’s rapid development in green industrial technologies as well as the introduction of the Inflation Reduction Act in the United States. The French and German heads of state agreed at their meeting in January that Europe needs to unleash investments on an “unparalleled scale” to prevent falling behind the U.S. and Chinese firms in the green economy. The EU accused both the U.S. and China—the other two major players in the field of the green industry—of not complying with international rules and enticing companies to prefer investing in their countries. Washington’s Inflation Reduction Act plans to offer US\$500 billion in new spending and tax breaks in the next decade to benefit U.S. enterprises. China is also dominating the supply chains of many green technology products, such as what is already happening in the field of rare earth. European Commission head Ursula von der Leyen confirmed that “to keep European industry attractive, there is a need to be competitive with the offers and incentives that are currently available outside the EU.”

In particular, the Green Deal Industrial Plan contains four major elements. Among all the elements, the plan to establish “a predictable and simplified regulatory environment” attracts the most attention and discussion and the “funding support” program triggers more political debate. One primary element of the plan to have a simpler regulatory framework is to simplify and accelerate various processes and facilitate the rapid realization of all goals by introducing the *Net-Zero Industry Act*. According to the press release of the European Commission, it will provide a regulatory framework suited for its quick deployment, ensuring simplified and fast-track permitting, promoting European strategic projects, and developing standards to support the scale-up of technologies across the Single Market. The act aims to limit the granting process of permits for green projects from years to no more than 18 months. Moreover, the EU will also introduce the Critical Raw Materials Act to improve the production of key raw materials, reduce its dependence on China, and reduce the overall production cost.

The Green Deal Industrial Plan still faces some questions and disagreements in Europe, especially over the funding support issue that attracts some political attention. Ideally, this pillar will speed up investment and financing for clean technology production through more accessible public financing and a new European Sovereignty Fund under a much simpler process. It will also enable public subsidies to relevant

industries when under crisis. However, some critics argue that the funding will disproportionately benefit the wealthier member states and cause distort competition. Given that the plan has just been implemented, it remains to be seen whether all the measurements can be implemented smoothly and whether it can achieve the expected results in the future.

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- [Germany and France Push for Huge Spending to Compete With US](#), *Bloomberg*, January 22, 2023
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### Zooming in on Global Attempts to Aid the Global South on Climate

**The Short Story:** There has been a substantial increase this quarter in international aid to developing countries, particularly born from the COP-27 meeting and adjustments in the World Bank, in order for the Global South to not only combat the effects of climate change but also support new renewable energy projects.

**Why It Matters:** The groundbreaking choice from wealthy nations and international organizations to send aid to developing countries allows for mitigation in traditional development methods that involve natural resources and carbon output. Moreover, the reliance upon fossil fuels from developing nations provides a hindrance on global goals of carbon neutrality, and by providing aid wealthy nations are attempting to mitigate such an increase in holistic carbon output that ultimately impacts the entire world.

**The Full Feature Story:** In the last quarter of 2022, during the COP-27 multinational meeting, historic legislation was passed to support and uphold a loss-and-damage fund for developing nations and nations severely affected by climate change. Since then, many have missed deadlines for funding and received strong scrutiny from COP-27 members, particularly as severe weather continues to rise. There have been multiple reports that support the idea that extreme weather and climate disasters will increase in the future. The China Meteorological Association stated that “extreme weather events including heat waves, floods and drought will be more likely to occur,” and *The New York Times* shared how large numbers of heat records were broken this winter across Europe. But the issue of funding, as well as lack of punishment for non-adherence, raises questions of whether climate conferences like COP-27 can actually incite meaningful action. The first meeting of the transitional committee for the loss-and-damage fund was held March 28, but the agenda was primarily based upon plans for restructuring during COP-28. Critics have been pointing at the fund's disorganization and lack of concrete regulations for funding states as representative of the inability for climate conferences to actually create actionable measures.

On the other hand, the World Bank was extremely active in the first quarter of 2023 in funding climate projects in developing nations. Starting in January, the World Bank began seeking more funding appropriations to better address the climate crisis and, along with the International Monetary Fund, is now looking to revamp internal structures for a similar purpose. Both organizations are seemingly looking to establish funds that better assist countries in clean energy transitions and any necessary rebuilding projects following extreme climate disasters. The historic roadmap document from the World Bank outlines their approach to shareholder governments as a way to shift the focus of the bank from project- and country-specific approaches to broader funding projects. One component of this restructuring would be to free up nearly US\$4 billion each year to better accommodate the international climate crisis, as recommended by World Bank president David Malpass.

The mission and focus of the World Bank is not the only area experiencing strong restructuring as World Bank president David Malpass announced he would step down earlier than expected, which critics say was because Malpass's failure to acknowledge fossil fuels' effects in climate change in spite of his other statements supporting climate disaster funding. U.S. President Joe Biden nominated Ajay Banga to replace Malpass as the World Bank President, stating that Banga "has critical experience mobilizing public-private resources to tackle the most urgent challenges of our time, including climate change." The Biden administration continues to support Banga so far as the best candidate for raising funds to help developing countries. Nominating Banga, however, was met with intensive criticism from climate advocates, with Kate DeAngelis, international finance program manager for Friends of the Earth stating Banga "represents U.S. corporations rather than the needs of 8 billion people around the world." In any case, both the World Bank and COP-27's established loss-and-damage fund will face unprecedented challenges in the coming months and years and will need to continue to adapt to climate related disasters and record-breaking extreme weather.

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- [World Bank proposes freeing up \\$4bn by loosening lending rules](#), Climate Home News, February 17, 2023
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- [Biden nominates Ajay Banga to lead World Bank](#), The Washington Post, February 23, 2023
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- [Governments sworn to secrecy on '\\$20bn' for Indonesia's energy transition](#), Climate Home News, March 3, 2023
- [Transitional Committee of COP27 holds 1st meeting on 'Loss and Damage Fund' in Luxor](#), Daily News Egypt, March 28, 2023

#### More on Multilateral Affairs & Climate Diplomacy:

- Pakistan has received over USD\$9 billion from international monetary aid efforts following devastating floods that left a third of the country underwater. ([The Independent](#), January 11)
- 13 Latin American cities in 7 nations are now in the UN Environment Programme (UNEP) Nature4Cities project helping cities use 'nature-based solutions' to combat climate change. ([United Nations Environment Programme](#), January 26)

- Filipino and Indonesian water experts are pushing for more regulations for sustainable dams, as both regions are rattled with increased rainfall and unpredictable climate. ([The Jakarta Post](#), January 28)
- Sierra Leone, Liberia, Togo and Chad have received over US\$311 million from the World Bank towards funding renewable energy projects. ([Reuters](#), February 1)
- Colombia will receive USD\$70 million in loans from the newly established Climate Investment Funds in-order to fund new renewable energy projects. ([Climate Home News](#), February 2)
- India, France, and the United Arab Emirates have signed a trilateral initiative to undertake large-scale clean energy projects, focusing on solar and nuclear energy resources. ([AP News](#), February 4)
- The Government of Zambia and Blue Carbon, a Dubai-based company that supports carbon removal projects, signed a Memorandum of Understanding aiming to implement carbon removal projects in Zambia. ([Gulf News](#), February 8)
- U.S. President Joe Biden and Brazilian President Lula de Silva project bilateral unity on climate projects, including support for rainforest protection funding. ([Reuters](#), February 10)
- The U.S. is looking to assist Vietnam with sustainable development surrounding biodiversity protections. ([Vietnam News](#), February 22)
- Cyprus and UK top representatives signed a memorandum of understanding on bilateral shipping relations. This agreement, described by the British representative as “a new chapter in [bilateral] relations,” includes a “specific focus on driving progress in shipping’s response to climate change issues. ([Seatrade Maritime News](#), February 24)
- India’s Essar Group created a new business entity to control more than US\$3.6 billion low-carbon investment projects between India and the United Kingdom. ([Reuters](#), February 27)
- Australia will co-sponsor Vanuatu’s bid to the International Court of Justice to rule upon the climate crisis, and to provide legal consequences for countries or firms causing significant environmental damage. ([The Guardian](#), March 1)
- 190 countries have reached a deal to protect biodiversity in global oceans, agreeing for the first time on a common framework for protected areas in international waters. The High Seas Treaty, finalized at the United Nations, is still expected to take years to ratify. ([The Washington Post](#), March 5)
- Singapore, Indonesia, and Cambodia have reached a joint-agreement to develop renewable energies, as well as begin commercial cooperation in the power sector. ([Bloomberg](#), March 16)
- The new FuelEU Maritime regulation agreed by the European Parliament and the Council aims to reduce net greenhouse gas emissions by at least 55% by 2030 and reach climate neutrality by 2050 through promoting the use of cleaner fuels and energy. ([gCaptain](#), March 23)
- The United Nations General Assembly has agreed on a resolution to allow Pacific island state of Vanuatu to seek an opinion on what legal obligations countries have to protect the climate under the International Court of Justice ([Al Jazeera](#), March 29)

## Domestic Activity & Climate Affairs

### Brazilian Dilemmas, Debates and Progress on Climate

**Country/Region:** Brazil

**The Short Story:** The newly returned Brazilian President Lula da Silva, inaugurated January 1, 2023, has been championing new domestic climate policy for Brazil as well as utilizing his administration to advocate for further climate strategies in global organizations. However, he has come under fire for various domestic decisions that seemingly go against his own climate agenda, and could possibly lead to negative consequences for the environment.

**Why It Matters:** Brazil, currently one of the world's largest economies, houses most of the Amazon rainforest, a global carbon sink which has long been experiencing mass deforestation. Depending on the policies set into place by the new Lula da Silva administration, the future lifespan of the Amazon could either be extended or cut even shorter. Additionally, it will take a significant amount of international advocacy to gain the funding that President Lula da Silva is seeking for some domestic policy reforms as well as placing protections on rainforest land.

**The Full Feature Story:** Brazilian President Luiz Inacio Lula da Silva was sworn in on January 1, 2023, marking the removal of previous president Jair Bolsonaro under whom deforestation of the Amazon rainforest reached an all-time high. President Lula da Silva has made it clear that climate policy and preserving the rainforest will be one of his highest priorities. The newly returned president, previously President of Brazil from 2003-2010, promises a sweeping overhaul of the climate policies that Bolsonaro laid out during his term. This includes the establishment of the US\$1.2 billion Amazon Fund, the remodel of the Ministry of Environment and Climate Change, and the revocation of previous climate policies known to assist in deforestation rather than fight against it. President Lula da Silva also appointed Marina Silva as the head of the Ministry of Environment and Climate Change, and the two have already made waves both domestically and internationally on their campaign for the climate. Both President Lula da Silva and Minister Silva have asked the broader international community to assist Brazil in their climate efforts; including to provide monetary assistance to mitigate deforestation. More specifically, Minister Silva called for more funding at the World Economic Forum, and President Lula da Silva directly requested funding from both the United States and the United Kingdom, along with other nations.

In just the first three months in her new role, Minister Silva has repeatedly spoken out against the damage to climate policy caused by the previous Brazilian administration, explaining that Brazil's "[c]limate change policy was dismantled to the point that Brazil became an environmental pariah in the world." She also spoke about her intentions to rebuild those policies. Just two weeks after her appointment, Minister Silva resumed the anti-deforestation raids conducted by federal police and environmental officials; something previously rarely, if ever, done under the Bolsonaro administration. These new environmental policies all go towards President Lula da Silva's larger goal of reversing the deforestation levels.

Despite the large-scale interest in climate policies and reversing deforestation, Brazil has come under fire for questionable climate practices; including the planned sinking of an outdated aircraft carrier in February which held asbestos and toxic materials. Advocates said that the move has the potential to severely contaminate the maritime food chain and accused Brazil of violating three international treaties by



intentionally sinking the vessel. The move has complicated President Lula da Silva's climate campaign, as he risks losing the support of the very advocates he requires to pass climate legislation for other areas, like deforestation.

Despite large-scale efforts from the Lula administration to combat climate change and turn things around from the previous Bolsonaro era, it appears they face rising scrutiny for failing to actually place those policies into actions. The Amazon faced a new record high for deforestation just this February, more than a month after President Lula da Silva swore to reverse deforestation. As deforestation continues to remain a problem, the question remains of whether Brazil's President can effectively utilize his government—and his newly established climate task force—to win over advocates and countries to support his climate campaign.

**International Reactions:** Aside from responses to the intentional sinking of the aircraft carrier, the response to Brazilian president Lula da Silva's climate campaign has been somewhat mixed. So far, Brazil's international call for funding for the rainforest has only been met by Germany, who donated more than US\$200 million. However, U.S. President Biden has pledged to “work with Congress” to fund the Amazon fund. It is yet to be seen if other countries will respond in-suit to donate money or other resources such as expert personnel or tools.

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[Brazil's Amazon must be protected to reach global climate goal, U.S. envoy says](#), *Reuters*, February 28, 2023

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[Brazil's Amazon deforestation again hits record high for February](#), *Al Jazeera*, March 10, 2023

### The Willow Project: An Economic Boon or A Climate Disaster

**Country/Region:** The United States

**The Short Story:** The Willow Oil Project in Alaska, approved by the Biden administration, has triggered serious debate on the economic and climate impacts of it among different interests groups.

**Why It Matters:** On the one hand, the Willow Project will create jobs, boost the local economy, and even strengthen the United States' energy security, according to its advocates. On the other hand, environmental groups warned that the new oil drilling project would not only bring more carbon emissions but also disrupt the gratifying trend of renewable energy development in the United States. In

addition, the far-reaching impact of this event on the Biden administration and future energy development will surely exceed the influence of the oil mine itself and needs to be further observed.

**The Full Feature Story:** On March 13, the Biden administration officially announced that it would approve the US\$7 billion Willow oil and gas drilling project proposed by ConocoPhillips in Alaska. Under the background that the whole world is actively carrying out the transformation of renewable energy, reducing the use of fossil fuels, and striving to realize the carbon emission commitments of the Paris Agreement, it seems very abrupt for the United States to approve a new oil and gas drilling program in 2023. This is also why the announcement is attracting so much attention. By approving the Willow Project, the Biden administration is breaking its campaign promise that it will end new oil and gas drilling on public lands and waters; an announcement which was even carried out as an executive order. However, the government argues that it has limited options because ConocoPhillips gained the legal right to develop long before the Biden administration took office. If rejected, the government argues, it would potentially have to pay billions of dollars to ConocoPhillips, and at taxpayer expense. The Biden administration also said that it had successfully negotiated to restrict the project by reducing the originally-planned five drilling sites to only three and by restricting surface construction to reduce the impact on natural habitats.

The Willow Project is obviously not without any benefit. According to its supporters, the new projects will create about 2,500 new job opportunities in the local area, and will help governments at all levels to make more than one billion dollars in revenue over the long term. Moreover, as the Russia-Ukraine war has made the global energy crisis more salient, the oil drilling project that could produce 576 million barrels of oil over 30 years and help the United States further improve its energy security. However, everything comes with a price. The environmental activities warned that the opportunity cost of the Willow Project is far greater than its benefits. The biggest problem of an oil project is always pollution. There is evidence that the Willow Project will produce more than 278 million tonnes of greenhouse gases during its lifespan. The estimated social costs of the project could be US\$79 billion, if not more, far exceeding its expected revenues. By prolonging the country's reliance on and accessibility to fossil fuels, green technology development will certainly be negatively impacted in the United States. This will be detrimental to the future competition of the U.S. renewable energy industry in the international market. Especially during the time when both China and the EU—the two major competitors in the renewable energy industry—are rapidly expanding their green energy industries through policy and financial support.

In fact, the Willow Project has reminded some observers that the Biden administration is not holistically doing enough to reduce fossil fuel production and consumption. The government did something to encourage people to adopt more clean energy, such as offering tax breaks for electric vehicles, but it was neither limiting fossil-fuel production nor promoting clean energy expansion. A commentary published in *The Washington Post* even suggests that President Biden approved the project partly due to the fact that he has been heavily lobbied by Alaskan officials and needed some of their support in the currently-divided Congress, implying that the Biden administration is trading the environment and the future for political interests. While it is difficult to be sure of the reasoning for the project's approval, its approval has been confirmed, leading to many questions on the project's costs and benefits for both the society and the environment.

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- **Nigeria:** Despite climate-change fueled extreme floods, Nigerian presidential candidates have continually dismissed the threat of climate-change and any potential consequences for Nigeria. ([Climate Home News](#), January 25)
- **Pakistan:** Pakistan plans to quadruple its domestic coal-fired capacity to reduce power generation costs caused by a shortage of natural gas in order to ease the foreign-exchange crisis. ([Reuters](#), February 14)
- **United States:** Following the catastrophic train crash in the U.S. state of Ohio, the Biden administration called upon the Environmental Protection Agency to force Norfolk Southern to adhere to EPA-approved clean-up methods. ([Bloomberg](#), February 21)
- **Thailand:** Thai government officials announced an official ban on plastic imports from wealthy nations. ([Bloomberg](#), February 21)
- **United States:** The Biden administration nominated Ajay Banga, a former Mastercard CEO with experience in addressing financial inclusion and climate change, to be the next president of the World Bank. ([The Washington Post](#), February 23)
- **Norway:** Arctic Geese migrate further and further away from home of Norway into colder, more suitable climates. ([Bloomberg](#), March 1)
- **Philippines:** Sunken Philippine Oil Tanker carrying 800,000 liters of industrial fuel oil has leaked substantial amounts of oil into the Philippine sea. ([CNA](#), March 2)
- **India:** Adani Green Energy has now become the largest green-energy producer in India, producing 8,024 MW in its portfolio. ([Economic Times](#), March 3)
- **Colombia:** The Colombian Environment Ministry is looking to relocate more than 100 invasive hippopotami that were left to roam wild following the acquisition of infamous drug lord Pablo Escobar's estate. Sixty hippopotami will be flown to a wildlife reserve in India, while the others will be relocated to sites in Mexico,

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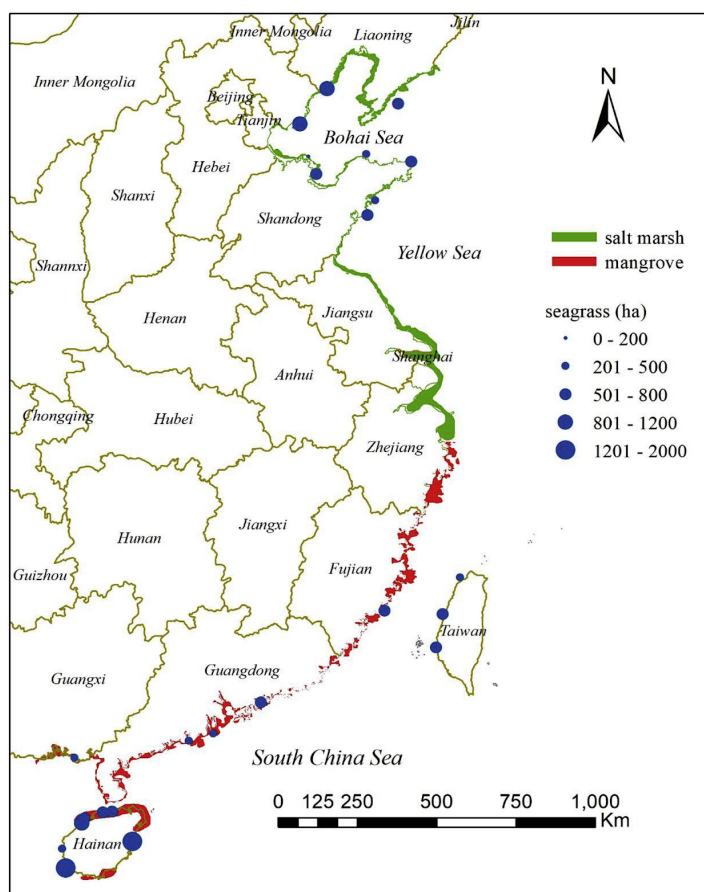
- **China:** Northern Chinese cities surrounding Beijing are experiencing high levels of pollution and health alerts, raising concerns that the Chinese industrial recovery following Covid-19 will substantially increase smog levels. ([Reuters](#), March 6)
- **China:** China's highest court plans to increase the amount of judicial regulations on climate protection policies, with the vice-president of the court stating it plans to uphold "the strictest rule of law in environmental protection and ecological conservation" ([China Daily](#), March 10)
- **United States:** The United States Environmental Protection Agency is proposing historic new standards to reduce exposure to polyfluoroalkyl and perfluoroalkyl substances, toxic chemicals that are common in drinking water. ([The Washington Post](#), March 14)
- **Brunei:** The Brunei Ministry of Primary Resources and Tourism has begun focusing on green tourism policies to help develop and enhance eco-tourism in Brunei. ([Borneo Bulletin](#), March 16)
- **Egypt:** Egyptian startup company TileGreen is aiming to turn more than 5 billion plastic bags into tiles by 2050, having already recycled more than 5 million bags, to reduce waste going into the Mediterranean Sea. ([Reuters](#), March 19)
- **Laos:** PM2.5—inhalable particulate matter (PM) with diameters that are generally 2.5 micrometers and smaller—levels were measured at concentration levels of 71µg per cubic meter of air in many areas of Laos, bringing a thick haze. The Ministry of Natural Resources and Environment warned that the air pollution has exceeded safe levels, normally recognized as anything above 25µg, and could affect people's health. ([Vientiane Times](#), March 27)

# Blue Carbon Country Profile: China

## A. Potential of China in Blue Carbon Affairs

China has a continental coastline of nearly 18,000 kilometers and is one of the few countries in the world with the capacity to naturally maintain all three coastal blue carbon ecosystems. However, in terms of total coverage, the area of China's physical blue carbon ecosystem is not at the forefront of the world. Its blue carbon ecosystem has also degraded significantly in recent decades due to the impact of human activities such as excessive deforestation, aquaculture, and construction. Simultaneously, China is also one of the first countries to recognize the importance and urgency of protecting and restoring blue carbon ecosystems and is now a leading country in blue carbon research, protection and development.

- Estimated area of sea grasses (2020): 265 km<sup>2</sup>
- Estimated area of tidal salt marsh (2021): 1207-5448 km<sup>2</sup> (Note: Due to different statistical methodologies, different institutions have not reached a national consensus on this data)
- Estimated area of mangrove (2022): 270 km<sup>2</sup>
- Key agency on blue carbon: Ministry of Natural Resources of the People's Republic of China
- Key regions of interest: Hainan Dongzhai Harbor Mangrove Natural Reserve Area, Shandong Yellow River Delta National Nature Reserve



<sup>4</sup> A map of the spatial distribution of mangroves, seagrasses, and salt marshes along the coast of China. (Source: Weiqing Meng, Rusty A. Feagin, Beibei Hu, Mengxuan He, Hongyuan Li, The spatial distribution of blue carbon in the coastal wetlands of China, *Estuarine, Coastal and Shelf Science*, Volume 222, 2019, Pages 13-20, ISSN 0272-7714, <https://doi.org/10.1016/j.ecss.2019.03.010>. Open manuscript.)

Despite China's tremendous difficulties in the development of blue carbon, its emphasis on blue carbon research and development is noticeable and, in some cases, there are some achievements that are indeed remarkable. The Chinese government—at both central and local levels—is determined to effectively restore, protect, develop, and utilize blue carbon ecosystems. Some related policies and measures were introduced before the term 'blue carbon' was even invented. In recent years, investments in blue carbon are regularly increasing. This can be seen from China's existing legal and policy documents on blue carbon. It is important to note that China did not realize the importance of the blue carbon ecosystem before other nations. However, the top-down policymaking process in China enables it to finish the top-level design quicker for new topics like blue carbon. Thus, in terms of enacted government policies and legislation, China is already ahead of most countries—if not all of them—in the world.

The biggest challenge China faces is that, despite its extensive coast, China does not have large blue carbon reserves compared to some countries, and many existing blue carbon resources in China have been damaged to some extent due to both human and natural factors. How to protect, develop, and maximize the utilization of the valuable blue carbon ecosystem is a fundamental question currently facing China. In addition, China is already planning to carry out international cooperation on blue carbon. China aims to use its advanced experience and technology developed domestically to help other countries—especially Southeast Asian countries with rich, natural blue carbon reserves—to better develop their blue carbon ecosystem in the future.

Since China's blue carbon development on the governmental level started relatively early, the non-governmental sectors have had time to become widely involved in blue carbon enterprises. A lot of universities and higher research institutes—mostly public institutes—have started to conduct blue carbon related research according to the needs of the local government. Although there is no non-government organization (NGO) specializing in blue carbon research yet, many organizations have spontaneously engaged in related works. In terms of the private sector, investors haven't recognized the potential of blue carbon, so there is no major private corporation participating in blue carbon projects in China at this time. Attracting more private capital is a crucial next step in China's blue carbon development.

## **B. Domestic Government Actions and Activities on Blue Carbon in China**

### **National Legislations**

Despite its relatively rapid uptake in interest on blue carbon affairs, China's blue carbon-related work is still in its infancy. There are many related policy documents issued at the national and local levels, but they mainly focus on the development and utilization of blue carbon while not commenting much on the legal protection of blue carbon. Specifically, China lacks a legal system that specifies the ownership, usufructuary, and many other factors of blue carbon. Nevertheless, since China has long adopted a top-down management model in most areas, there are still several laws and law amendments directly or indirectly addressing the blue carbon ecosystem. Additionally, more laws are planned to be promulgated to provide a more solid legal basis for blue carbon.

- The *Marine Environment Protection Law of the People's Republic of China*, published in 1982, is the first law that mentions the coastal ecosystem, as it banned the destruction of mangroves. After the 2017



amendment, it raised the importance of the protection and restoration of “blue carbon” resources to a higher level, requiring governments at all levels to take effective measures to protect mangroves, coral reefs, coastal wetlands, and other marine ecosystems.

- The *Environmental Protection Law of the People’s Republic of China*, published in 2021, sets clear regulations on the protection and restoration of coastal wetlands and mangrove wetlands. The law provides specific guidelines regarding wetlands protection, and it also explicitly prohibits some human activities that may cause damage to wetlands.
- In 2010, China proposed a long-term plan for enacting a new “Climate Change Law,” which was included in the State Council’s legislative plan research project in 2016. The law will contain clear and specific regulations for “blue carbon” ecosystems. The legal framework of the “Climate Change Law” is now generally mature and is fully expected to be promulgated in the near future.

## National Agencies and Government Actions

Although China only began to officially use the term “blue carbon” (蓝碳) after it was first mentioned in a United Nations report in 2009, China’s protection of its coastal ecosystems began as early as the 1980s. Statistics conducted by Chinese scholars show that the central government issued 45 policy documents related to blue carbon from 1982 to 2021, and their contents covered most of the relevant fields of blue carbon, such as mangrove protection, marine technology development, and the coastal green economy.

- **Central Government Overarching Policies:** China still continues the ‘Five-Year Plan’ policy concept started in 1953 for national economic and social development. Starting with the “11th Five-Year Plan” introduced in 2006, blue carbon related topics are frequently mentioned in this most important national development plan of China.
  - The National “11th Five-Year Plan” outlined a blueprint for ocean technology development in the *National Guideline for Medium and Long-term Plan for Science and Technology Development*. Essentially, this guideline laid a solid foundation for the technologies that are necessary for the protection and restoration of blue carbon.
  - In 2011, the State Council announced the *National Environmental Protection “12th Five-Year Plan,”* emphasizing the goal of promoting ecological protection and restoration of coastal wetlands in an attempt to maximize the economic and social benefits of blue carbon sinks.
  - The *Work Plan for Greenhouse Gas Emission Control* during the “13th Five-Year Plan,” outlined in 2016, briefly mentioned coastal wetland protection and carbon sink development. Shortly thereafter, the State Council issued the *Wetland Conservation and Restoration System Scheme* as a detailed plan. Specifically, it explains how China plans to protect mangroves in the south and meadows in the north to achieve wetland protection according to local conditions.
  - In 2021, China published the *Marine Ecological Environment Protection Plan*, the first major plan specifically for marine protection. This plan mentioned the three major blue carbon ecosystems more than twenty times. It focuses not only on the protection but also on the value assessment of these ecosystems.
- **Works by the Subsidiaries Departments:** As the overarching plans of the State Council usually only offer a general objective, the implementation of specific work projects still requires the efforts of various relevant departments. The former State Oceanic Administration (combined in 2018 with two other former agencies into the newly formed Ministry of Natural Resources), the newly formed Ministry of Natural Resources, and the National Development and Reform Commission are the main responsible departments in blue carbon-related matters. Some notable specific plans and policies include:

- As a part of the Maritime Belt and Road Initiative, the National Development and Reform Commission worked together with the former State Oceanic Administration in 2017 and proposed the *Vision of Maritime Cooperation in Building “Belt and Road.”* It called for “enhanced international cooperation on blue carbon” to establish an international blue carbon forum and cooperation mechanism.
- The Ministry of Natural Resources is a newly established department in 2018 that integrates the functions of the State Oceanic Administration, the Ministry of Land & Resources and the State Bureau of Surveying and Mapping.. It introduced the *Special Action Plan for Mangrove Protection and Restoration (2020-2025)*. This ambitious project plans to increase China’s mangrove area by almost 70% by 2025.
- In order to further promote the protection and development of blue carbon, the Ministry of Natural Resources wanted to highlight the commercial value of blue carbon. It issued the *Accounting Methods for Economic Value of Ocean Carbon Sink* in 2022 to regulate and encourage blue carbon sink trading.

### Local Government Actions

Different levels of local governments in China all responded to the central government policies and actively participated in blue carbon related works. Since blue carbon ecosystems are widely distributed in China’s coastal areas, most of the coastal provinces of China and their subordinate areas are involved in the protection and development of blue carbon. Many of them have even taken the lead in using blue carbon in carbon emission trading in order to achieve the sustainable development of blue carbon.

- **Hainan** is one of the first provinces to start blue carbon related projects in China. The Hainan Dongzhai Harbor Mangrove Natural Reserve Area is the first national nature reserve area for the blue carbon source ecosystem in China—established even before the term “blue carbon” was introduced. More wetland parks and nature reserves were also built in Hainan in recent years and the region has begun participating in other blue carbon specific economic projects. In June 2022, Hainan completed its first blue carbon sink product transaction. The provincial government is also leading and sponsoring theoretical and policy research on blue carbon.
- **Shandong** is a major marine province in northern China. It has abundant blue carbon resources as an inherent advantage in developing blue carbon sinks. The provincial government claimed in its local Five-Year Plan that it would make the best use of blue carbon ecosystems in its plan on countering climate change. Provincial cities, including Weihai, Yantai, and Qingdao, also set their own blue carbon research plans and policies, each tailored to their own economic and environmental conditions.
- **Guangdong**, a coastal province in southern China, is determined in the development of blue carbon sinks for carbon sequestration, as detailed in its marine economic development plan released in 2021. In the same year, Zhanjiang city successfully built China's first mangrove carbon sequestration project that meets the Verified Carbon Standard (VCS) and Climate Community & Biodiversity (CCB) standards. Guangdong also issued a series of policies to support blue carbon restoration and technological innovation.

## **C. Private, Commercial Third-Party Research & Projects**

### **Private Corporations and Investment Groups**

Currently, there is no major private corporation participating in blue carbon projects in China. One of the biggest challenges facing China's blue carbon development is that private corporations and investment groups are not very enthusiastic about joining this new market. Many companies have a strong interest in purchasing blue carbon sinks, but there are relatively few companies that are interested in investing in the blue carbon industry, let alone companies that directly participate in the protection and development of blue carbon. The Chinese people, like most of the world's people, still have an insufficient understanding of blue carbon. The fact that previous blue carbon projects were mainly completed by the government is the second of two main reasons for the lack of private participation in China. However, there are also some other influencing factors that should not be ignored.

Firstly, in terms of the supply side, the total reserves of Chinese blue carbon natural resources are relatively scarce in China, which means that compared with other carbon neutral projects, companies developing blue carbon will always take the risk of resource shortage. Thus, enterprises are more inclined to avoid risk and not invest too much energy in blue carbon. Secondly, private capital will inevitably prefer more mature industries. China's blue carbon accounting and testing standards are still under development. China has yet to set its own standards, and the first blue carbon project that meets the internationally recognized VCS standard was not built until 2021. More regulations, standards, and even government support are necessary to dispel doubts about the market.

Since there are many companies in China that need to realize carbon neutrality, there is considerable demand for blue carbon in the market. Most people still prefer green carbon projects, such as planting and protecting wood and bamboo forests, because they still lack confidence in the new industry. And again, there is not enough supply of blue carbon at this time in China. If the market supply of blue carbon can be improved through the joint efforts of the government, research institutes, and private capital, the demand and supply curve of blue carbon will surely find their equilibrium at an ideal point.

### **Universities and Research Institutes**

Considering that the major universities and research institutes in China are public institutions, they typically adjust their research focuses according to the needs of the country. Over the past decade, the Chinese government has arranged many scientific research projects involving blue carbon, which have produced a number of high-quality research achievements. However, as a new subject, there are still relatively few institutions that conduct blue carbon research in China. Nevertheless, since the government is attaching great importance to blue carbon and vigorously developing it, more and more Chinese universities and research institutes have joined in blue carbon research in response to the needs of the country.

- The Ocean College of Zhejiang University is one of the few universities that have many years of research experience on blue carbon. After years of exploration, Zhejiang University' blue carbon research team obtained recent data on the coverage and distribution of China's blue carbon ecosystem. Zhejiang University's research products on blue carbon have been published and have also won multiple awards.
- The East China Normal University in Shanghai established the Center for Blue Carbon Science and Technology in December 2022. Although the newly established institute is yet to make any major

contribution to blue carbon, Professor Tang Jianwu, director of the Center for Blue Carbon Science stated very clearly during the inauguration ceremony that the objective of the institute is to “build a blue carbon highland with international influences, and provide technical support and cultivate professionals for national carbon reduction and ecological restoration plans.”

- In 2022, with the joint efforts of the Hainan Provincial Government, the Chinese Research Academy of Environmental Sciences, and the Chinese Academy of Sciences, China established the Hainan International Blue Carbon Research Center in Hainan. The center aims to build a platform to share international knowledge on blue carbon.

## NGOs and Non-Profit Organizations

In China, environmental protection related non-government organizations are the fastest-growing and most influential among all kinds of NGOs. Non-government environmental protection efforts are gradually playing a more significant role in environmental protection with every year that passes, and are also getting more and more attention from the government. China’s environmental protection NGOs are becoming a force that cannot be ignored. Although there is currently a lack of organizations specializing in blue carbon study due to the late start of blue carbon research in China, many existing NGOs—especially those related to the field of ocean study—have begun to invest in blue carbon research.

- The Zhiyu Sustainable Science and Technology Development Research Center of Hainan Province is an NGO that focuses on fisheries and the marine ecological environment. It took the initiative in establishing the “Hainan Climate Partnership” program which it uses as a platform to push forward cooperation on blue carbon related issues between government, research institutes, and private enterprises.
- The Shenzhen Blue Ocean Conservation Association is the first non-profit organization dedicated to marine protection in China. In addition to conducting marine scientific research related to Shenzhen’s coastal area and popularizing maritime knowledge, the organization has also started a new mangrove planting project in recent years.

## D. Public, Governmental International Engagements on Blue Carbon

### Treaties & Agreements

Blue carbon is a new field not only for China, but also for most countries in the world. China, like many other countries, has not yet made blue carbon a part of its foreign policy. There is no official treaty or agreement between China and other countries that addresses blue carbon related issues. Nevertheless, Chinese scholars have called on China to carry out blue carbon international cooperation. For example, President Wang Sheng of the National Institute for South China Sea Studies suggests that China should cooperate with ASEAN in the South China Sea to not only deal with climate change but also improve China’s discourse power regarding blue carbon internationally.

### Statements at International Conferences

As of March 31, 2023, there are no known public statements by Chinese officials specifically related to or referencing blue carbon at international conferences or meetings.

## Cross-Border Joint Projects & Partnerships

Although China has not carried out formalized ‘blue carbon diplomacy’ China has already had several exchanges and cooperation related to blue carbon internationally.

- In 2018, the Third Institute of Oceanography and the Conservation International co-organized the Blue Carbon Initiative Working Groups Annual Meeting in Weihai, China. Officials, scholars, and experts from 13 different countries participated in the event. The meeting discussed how to combine the strengths of all parties to make blue carbon better help global climate change. The meeting was also successfully organized again in 2021.
- Conservation International is one of the most active international organizations in China that participates in blue carbon projects. It has been protecting mangroves in China since 2016 and is also helping China to explore blue carbon solutions for tackling climate change.

## E. Keeping An Eye On...

Although China’s blue carbon resource reserves are not comparatively the highest in the world, China still attaches great importance to both blue carbon and environmental protection at large. As noted, the protection of blue carbon ecosystems started even before the term “blue carbon” was introduced. All levels of the Chinese government are already paying attention to the protection and restoration of the blue carbon ecosystem as they are to the protection of all endangered ecosystems. However, this high level of emphasis only exists at the national level. Very few people besides the government and government-supported institutes are involved in blue carbon related projects. A major challenge of the top-down coordination style of government in China is how to incorporate different non-state actors into the system. Solely relying on government funding and government subsidies to protect and restore blue carbon is less sustainable because the government is not making direct profits from the projects.

Currently, the government is trying to encourage more private capital to enter the market to maximize the commercial value of blue carbon. Ideally, these companies will invest in protecting and planting blue carbon and making profits through emission trading. Thus, one of the most important issues of blue carbon that needs to be addressed in the near future is China’s need to establish a reliable blue carbon sink trading system. As green carbon trading becomes more and more mature in China, it is necessary to improve the market’s recognition of blue carbon sink transactions. When the market demand is expanded, more and more enterprises will take the initiative to join the supply side, which will in turn naturally enhance protection and research efforts. At that time, the government would only need to support enterprises in terms of technology and structural policies to help them to adapt to the market.

What’s more, China currently has a small but present foundation in international engagements on blue carbon; a foundation that, if properly managed, could be a stepping stone to further bilateral and multilateral global interactions, both in the private and public sectors. China might want to carry out “blue carbon diplomacy” through international blue carbon cooperation to improve foreign relations and gain more international discourse power. Economic downturn, environmental deterioration, and geopolitical challenges are some of the major problems China currently faces. While helping to address the first two problems, blue carbon can also help China to increase its geopolitical influence. For example, Southeast Asian countries are very vulnerable to climate change, but most also have an



abundance of blue carbon resources. As President Wang Sheng of the National Institute for South China Sea Studies said, China shares common grounds with many other countries that plan to use blue carbon as a solution to climate change, and China and these countries should maximize their respective advantages to jointly develop blue carbon for their common goal. International cooperation on blue carbon, with its almost negligible political risks and sensitivity, could become a new breaking point of China's diplomacy, even with all of the other ongoing issues still existing in the meantime.

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*This season’s Blue Carbon Country Profile on the United States was primarily researched and written by Zhangchen Wang, Blue Carbon & Climate Change Program Research Assistant Intern at the Institute for China-America Studies.*

# Scientific Research and Beyond

## Scientific Research Results & Releases

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- Journal Article: [Blue carbon sinks in South Africa and the need for restoration to enhance carbon sequestration](#), *Science of The Total Environment*, Vol. 859, Part 1 (February 10, 2023)
- Journal Article: [Mangrove reforestation provides greater blue carbon benefit than afforestation for mitigating global climate change](#), *Nature Communications*, Vol. 14 (February 10, 2023)
- Article: [How much carbon does seaweed really sequester?](#), *The Fish Site* (February 16, 2023)
- Report: [The Disruption of Arctic Exceptionalism: Managing Environmental Change in Light of Russian Aggression](#), Alfred Wegener Institute, Wilson Center (February 2023)
- Report: [Electricity Market Report 2023](#), International Energy Agency (February 2023)
- Commentary: [The world's top 1% of emitters produce over 1000 times more CO2 than the bottom 1%](#), International Energy Agency (February 22, 2023)

## March 2023

- Journal Article: [Global estimates of daily ambient fine particulate matter concentrations and unequal spatiotemporal distribution of population exposure: a machine learning modeling study](#), *The Lancet Planetary Health*, Vol. 7, No. 3 (March 2023)
- Journal Article: [Growing importance of climate change beliefs for attitudes towards gas](#), *Nature Climate Change*, Vol. 13 (March 2, 2023)
- Journal Article: [Reshoring silicon photovoltaics manufacturing contributes to decarbonization and climate change mitigation](#), *Nature Communications*, Vol. 14 (March 8, 2023)
- Journal Article: [Physiological acclimatization in Hawaiian corals following a 22-month shift in baseline seawater temperature and pH](#), *Scientific Reports*, Vol. 12 (March 10, 2023)
- Report: [AR6 Synthesis Report: Climate Change 2023](#), Intergovernmental Panel on Climate Change, (March 2023)
- Report: [World Energy Transitions Outlook 2023: 1.5°C Pathway; Preview](#), International Renewable Energy Agency (March 2023)
- Journal Article: [Abyssal ocean overturning slowdown and warming driven by Antarctic meltwater](#), *Nature*, No. 614 (March 29, 2023)

## Major Government Statements & Actions

### Key Government Speeches on Climate Issues

- January 4, Office of U.S. Governor of California Gavin Newsom [Proclaims State of Emergency and Mobilizes State Government Ahead of Winter Storms](#)
- January 5, Brazilian Environmental Minister Marina Silva: [Environment Minister announces National Authority for Climate Security](#)
- January 9, European Commission: [Speech by President von der Leyen at the International Conference on Climate Resilient Pakistan, co-hosted by the Government of Pakistan and the United Nations, via video message](#)
- January 10, U.S. Federal Reserve Chair Jay Powell: [Fed will not become a 'climate policymaker'](#)
- January 14, COP-28 President-Designate Sultan al-Jaber: [New COP28 president wants renewable energy generation to triple by 2030.](#)
- January 16, U.S. Climate Envoy John Kerry: [John Kerry tells AP he backs UAE oil chief overseeing COP28](#)
- January 16, U.K. Government Environment Agency, Chief Executive of the Environment Agency Sir James Bevan: [Facing the fear of fear itself: the case for climate optimism](#)
- January 17, Brazilian Minister of the Environment Marina Silva: [Davos 2023: Brazil lacking world aid to fight climate change](#)
- January 25, U.S. Senate Committee on Energy & Natural Resources, U.S. Senator Joe Manchin: [Manchin Legislation Halts EV Tax Credits Until Treasury Issues Guidance in Line with IRA](#)
- February 8, Government of Norway: [Minister of Petroleum and Energy's speech at Climit Summit](#)
- February 14, Permanent Representative of the United Kingdom to the United Nations Barbara Woodward at the Security Council: [Steps to prevent the worst consequences of climate change impacting future peace and security: UK Statement at the UN Security Council](#)
- February 14, Welsh Government, Wales Deputy Climate Change Minister Lee Waters: [Putting the brakes on carbon emissions, steering towards alternative solutions and driving towards net zero by 2050](#)
- February 14, COP-28 President-Designate Sultan Ahmed al-Jaber: [UAE's COP28 president-designate says world needs climate 'course correction'](#)
- March 1, U.S. Department of State: [Supporting Green Shipping and Coastal Ecosystems in the Americas](#)
- March 2, Singapore Ministry of Sustainability and the Environment: [Speech by Minister Grace Fu -](#)

### [Building a Green Singapore - Fostering a liveable, more sustainable nation](#)

- March 3, Government of Germany: [Speech by German Environment Minister Steffi Lemke on "Oceans and Climate Change" at the Our Ocean Conference](#)
- March 6, U.S. White House: [Remarks by Vice President Harris in a Moderated Conversation on Climate](#)
- March 7, U.S. Department of the Treasury: [Remarks by Secretary of the Treasury Janet L. Yellen at the First Meeting of the FSOC Climate-related Financial Risk Advisory Committee](#)
- March 8, Embassy of the United Arab Emirates in Washington, DC: [COP28 President-Designate Emphasizes Importance of Energy Industry as Part of Solution at COP28](#)
- March 20, Government of Canada: [Speech for the Honourable Steven Guilbeault, Minister of Environment and Climate Change, at Americana 2023](#)
- March 21, U.S. White House: [Biden-Harris Administration Takes New Action to Conserve and Restore America's Lands and Waters.](#)
- March 23, Mongolian President Ukhnaagiin Khurelsukh: [President Calls for Collaboration for Water Protection](#)
- March 29, United Nations, Secretary-General António Guterres: [Secretary-General's remarks to the General Assembly on the request of an Advisory Opinion of the International Court of Justice on the Obligations of States in Respect of Climate Change](#)
- March 29, United Nations, Secretary-General António Guterres: [Secretary-General's remarks at the High-Level Meeting of the General Assembly on Zero Waste](#)

### **Government Reports & Regulations on Climate Issues**

- January 2023: The U.S. White House Council on Environmental Quality [released](#) new guidelines to assist agencies in analyzing greenhouse gasses and climate change effects of major federal actions under the National Environmental Policy Act.
- January 2023: China's Central Committee [released](#) new initiatives on strengthening water and soil conservation.
- January 2023: The British Government Department for Environment, Food and Rural Affairs [will pay](#) farmers in England more public money for protecting the environment and producing food more sustainably.
- January 2023: The U.S. Biden administration [introduced](#) new plans to seek elimination of transportation emissions by the middle of the century.
- January 2023: The British government [joined](#) a larger global effort to ban single-use plastic items.
- January 2023: The U.S. National Oceanic and Atmospheric Administration [released](#) a report on the record drought gripping much of the U.S. in 2022.
- January 2023: The U.S. Department of the Interior [transferred](#) Offshore Wind Safety and Environmental Responsibilities from the Bureau of Ocean Energy Management to the Bureau of Safety and Environmental Enforcement.
- February 2023: A German court [rejected](#) a lawsuit by environmental group Greenpeace against automaker Volkswagen.
- February 2023: The U.S. Environmental Protection Agency (EPA) [announced](#) initial guidance on the design of the Greenhouse Gas Reduction Fund (GGRF) program.
- February 2023: Canada [announced](#) \$44.8 million in new funding to support the CARICOM in addressing the climate crisis.
- February 2023: The Irish Department of Housing, Local Government and Heritage [enacted](#) new measures to tackle pollution, biodiversity loss and climate impacts on Ireland's seas.
- February 2023: The Chinese Supreme Court [issued](#) China's first legal guidelines on facilitating peak carbon emissions.

- March 2023: The European Union [reaffirmed](#) strong goals of climate progress by passing legislation allocating more than US\$ 889 million in ocean and environment protection policies.
- March 2023: The U.S. delegation for the climate [announced](#) new US\$ 6 billion to be delegated towards commitments on oceanic environmental preservation.
- March 2023: The United States [announced](#) another global initiative worth US\$800 million at the Our Ocean Conference (OOC) in Panama to protect the ocean and to assist developing countries to create marine protected areas.
- March 2023: The European Union [enacted](#) a new agreement promoting sustainable fuels in maritime shipping in-order to decrease shipping emissions.
- March 2023: The Ocean Policy Committee [released](#) the first U.S. Ocean Climate Action Plan in March, that aims to harness the tremendous power of the ocean to help in the fight against the climate crisis.
- March 2023: A Swedish court [allowed](#) Greta Thunberg and hundreds of other climate activists to sue the Swedish government for “insufficient climate policy.”

### Government Hearings & Meetings on Climate Issues

- January 5-6, Vietnam: [Marine Spatial Planning for Sustainable Oceans Workshop](#)
- March 2-3, Panama: [Our Ocean Conference](#)

### Cross-National Meetings & Engagements on Climate Issues

- January 12, United States and China: U.S. Climate Envoy John Kerry [met](#) with Chinese chief climate negotiator Xie Zhenhua to jointly address challenges surrounding climate change and agreed to maintain communication.
- January 18, United States and China: U.S. Treasury Secretary Janet Yellen [met](#) with Chinese Vice Premier Liu He and pledged more cooperation on climate policy and cooperation on financial support of tackling climate change.
- January 18, The Pacific Island Forum, an organization representing 17 pacific island states, [urged](#) Japan to delay the release of the Fukushima nuclear power plant waste water over fears that the water will contaminate pacific island fisheries.
- February 13, U.S. Special Presidential Envoy for Climate Kerry [traveled](#) to the Bahamas and Germany to discuss climate issues and cooperation.
- February 22, India [joined](#) the U.S. and UAE joint Agriculture Innovation Mission for Climate.
- February 22, Indian and German climate officials [met](#) in Delhi to increase decarbonization goals between the two nations, emphasizing that “having time to sit and listen to each other and see how we can work together is actually very, very important.”
- February 24, U.S. Special Presidential Envoy for Climate Kerry [traveled](#) to Brazil, Panama, and Houston to discuss climate issues and cooperation.
- March 14, Bangladesh [joined](#) the United Kingdom in an accord on climate change where they agreed to work together to bilaterally and multilaterally deliver outcomes from COP-26 and COP-27
- March 31, the 2022 Australia–United States Ministerial Consultations (AUSMIN) [set a significant precedent](#) for the alliance by weaving a climate pillar into the structure of the alliance.

### White Papers on or Related to Climate Issues

- DNV: [Indian Coastal Green Shipping Programme](#) (February 3, 2023)



### Third-Party Analyses & Commentaries

#### Allies of Alternative Energies Speak Out

- Analysis: [Is a Dam in Rural Portugal a Key to Our Alternative Energy Future?](#) by Stanley Reed (*The New York Times*, January 3, 2023)
- Commentary: [New measures to silence climate activists? They'll only spur us on](#) by Indigo Rumbelow (*The Guardian*, January 16, 2023)
- Commentary: [How Belize's bright biodiversity is inextricably linked to blue carbon](#) by Cari-Bois News (Global Voices, January 23, 2023)
- Analysis: [Enric Sala: 'When we give space to the ocean, it comes back spectacularly'](#) by Jessica Aldred, Jack Lo Lau (China Dialogue, February 9, 2023)
- Analysis: [Guest post: How quickly does the world need to 'phase down' all fossil fuels?](#) by Greg Muttitt, Dr. James Price, Dr. Steve Pye, and Dr. Dan Welsby (*Carbon Brief*, February 16, 2023)
- Analysis: [Iceland shows the world how to run on reliable and clean energy](#) by Danielle Bochove (*The Japan Times*, March 6, 2023)
- Analysis: [A Huge City Polluter? Buildings. Here's a Surprising Fix](#) by Brad Plumer (*The New York Times*, March 10, 2023)
- Analysis: [In Sri Lanka and beyond, seagrass key to livelihoods, marine habitats](#) by Malaka Rodrigo (*Mongabay Environmental News*, March 15, 2023)
- Commentary: [Seaweed Is Having Its Moment in the Sun](#) by Somini Sengupta and Chang W. Lee (*The New York Times*, March 15, 2023)
- Commentary: [Net-zero shipping: where there's a will by Oliver Gordon](#) (*Energy Monitor*, March 20, 2023)

#### Contemplating the Question Marks of the Future

- Analysis: [We Can't Talk Green, Walk Degradation](#) (*The Economic Times*, January 5, 2023)
- Commentary: [This firm is working to control the climate. Should the world let it?](#) by Shannon Osaka (*The Washington Post*, January 9, 2023)
- Commentary: [Is CO2 Removal Ready for Its Big Moment?](#) by Suma Hussien and Adrienne Jeffries (*Bloomberg*, January 11, 2023)
- Commentary: [Can We Put a Price Tag on Nature?](#) by Manuela Andreoni (*The New York Times*, January 17, 2023)
- Analysis: [Building a Climate Ready Nation](#) by Rick Spinrad (*Sea Technology*, January 2023)
- Analysis: [What next for wetlands?](#) by Catherine Early (China Dialogue, February 1, 2023)
- Commentary: [The Winter Olympics have a climate problem. Could Sapporo be part of the solution?](#) by Eric Johnston and Dan Orlovitz (*The Japan Times*, February 5, 2023)
- Analysis: [Are investors in the seaweed sector looking in the wrong place?](#) by Karlotta Rieve (*The Fish Site*, February 7, 2023)
- Analysis: [A sweet solution? India's push to use sugar for fuel may create more problems than it solves](#) by Cheena Kapoor (*The Third Pole*, February 9, 2023)
- Analysis: [How will climate change affect conflict dynamism in Africa?](#) by Koji Sakane (International Information Network, February 10, 2023)
- Analysis: [Is China prepared for its 'warmer and wetter' future?](#) by Cyril Ip (*South China Morning Post*, February 26, 2023)
- Analysis: [Geothermal Power, Cheap and Clean, Could Help Run Japan. So Why Doesn't It?](#) by Hiroko Tabuchi (*The New York Times*, March 22, 2023)
- Commentary: [If done with integrity, carbon offsetting could be vital in the fight against climate change](#) by Steven Lutz (*EuroNews*, March 25, 2023)



### Climate Policy Reforms are Being Noticed and Evaluated

- Analysis: [Why 2023 will be a watershed year for climate litigation](#) by Isabella Kaminski (*The Guardian*, January 4, 2023)
- Report: [The Defense Production Act and the U.S. Race to Build Up Clean Energy Industrial Bases](#) by Joseph Majkut and Jane Nakano (Center for Strategic and International Studies, January 12, 2023)
- Commentary: [Opinion: India's climate plan cannot work without protecting and enhancing forests](#) by Namrata Kabra and Sanya Saroha (*The Third Pole*, January 19, 2023)
- Commentary: [Meet the New Guardian of the Amazon](#) by Manuela Andreoni (*The New York Times*, January 24, 2023)
- Analysis: [Biden Clears the Way for Alaska Oil Project](#) by Lisa Friedman (*The New York Times*, February 1, 2023)
- Analysis: [The gas industry is under fire. It's hiring Democratic politicians to help](#) by Maxine Joselow (*The Washington Post*, February 2, 2023)
- Analysis: [Energy and Climate in the 118th Congress with Sen. Kevin Cramer](#) by Lisa Hyland and Joseph Majkut (Center for Strategic and International Studies, February 6, 2023)
- Report: [Corporate Climate Responsibility Monitor 2023](#) by Lindsay Otis (*Climate Market Watch*, February 13, 2023)
- Commentary: [How 'blue insurance' can drive conservation in China](#) by Chen Qianming (*China Dialogue*, February 20, 2023)
- Report: [The Disruption of Arctic Exceptionalism](#) (Alfred Wegener Institute for Polar and Marine Research & Wilson Center, February 2023)
- Analysis: [Weathering the storm: How Japan is factoring climate change into defense policy](#) by Gabriel Dominguez (*The Japan Times*, March 19, 2023)
- Commentary: [Uruguay wants to increase marine protection – and offshore oil mining](#) by Lucía Cuberos (*China Ocean Dialogue*, March 23, 2023)
- Analysis: [Solar power: Europe attempts to get out of China's shadow](#) by Yuan Yang, Alice Hancock, and Laura Pitel (*Financial Times*, March 24, 2023)
- Commentary: [What the World Bank can do about climate change](#) by Pinelopi Koujianou Goldberg (*The Japan Times*, March 24, 2023)

### Outlooks on Potential Engagements and Overlaps in U.S.-China Climate Relations

- Report: [InsightOut Issue 8 - Closing the Loop on Plastic Waste in the U.S. and China](#) (Wilson Center, December 8, 2022)
- Analysis: [With the price of silicon dropping, China's solar energy industry is set for another record-breaking year](#) by Barry van Wyk (*The China Project*, January 10, 2023)
- Analysis: [China Has Set Its Sights on Cornering Another Green Energy Market: Hydrogen](#) by David R. Baker and Will Mathis (*Bloomberg*, January 9, 2023)
- Commentary: [The planet's future depends on a stable China-U.S. relationship](#) by Qin Gang (*The Washington Post*, January 4, 2023)
- Analysis: [How China built the world's biggest EV charging network - and left the US far behind](#) by Lili Pike (*Grid*, January 31, 2023)
- Commentary: [Don't Let Shein Be the Model for China's Solar Power Boom](#) by David Flickling (*Bloomberg*, January 31, 2023)
- Analysis: [China drafts new export controls to shore up solar dominance](#) by Nadya Yeh (*The China Project*, February 1, 2023)
- Analysis: [Climate change: China's voluntary carbon market a step closer to relaunch after suspension for underuse in 2017](#) by Yujie Xie (*South China Morning Post*, February 8, 2023)

- Analysis: [China: What the world's largest food system means for climate change](#) by Sally Qiu and Zizhu Zhang (*Carbon Brief*, February 20, 2023)
- Commentary: [Can China clean up its energy act, and can the U.S. go renewable without China? — Q&A with Michael Davidson](#) by Jeremy Goldkorn (*The China Project*, March 3, 2023)
- Analysis: [How China, the US and Others Watered Down a Key UN Climate Document](#) by Laura Millan and Eric Roston (*Bloomberg*, March 23, 2023)
- Commentary: [If the US doesn't thwart China's efforts to be semiconductor self-sufficient, climate change might](#) by David Jacob (*South China Morning Post*, March 28, 2023)

### Understanding the Realities, Starting with the Facts

- Analysis: [Island conservation should focus on land-sea links for most impact, paper says](#) by Elizabeth Claire Alberts (*Mongabay*, January 5, 2023)
- Analysis: [Challenges and Expectations for the Conservation and Restoration of Seagrass beds as Blue Carbon Ecosystems](#) by Keita Furukawa (*Eurasia Review*, January 7, 2023)
- Commentary: [Developing Nations Aren't Ready for EVs—Unless They Are Made in China](#) by River Davis (*The Wall Street Journal*, January 8, 2023)
- Analysis: [The state of 'carbon dioxide removal' in seven charts](#) by Steve Smith, Jan Minx, Greg Nemet, Oliver Geden (*Carbon Brief*, January 19, 2023)
- Analysis: [Media reaction: US Inflation Reduction Act and the global 'clean-energy arms race'](#) by Aruna Chandrasekhar, Daisy Dunne, Orla Dwyer, and Josh Gabbatiss (*Carbon Brief*, February 3, 2023)
- Analysis: [China's Wind and Solar Are Now Almost Enough to Power Every Home](#) (*Bloomberg*, February 13, 2023)
- Analysis: [One in seven cars sold globally now is an EV](#) by Clarisa Diaz (*Quartz*, March 7, 2023)
- Podcast: [Peaks and the Global Energy Systems](#) by Ben Cahill and Lisa Hyland (*Center for Strategic and International Studies*, March 21, 2023)
- Commentary: [What Does 'Made in America' Mean? In Green Energy, Billions Hinge on the Answer](#) by Phred Dvorak (*The Wall Street Journal*, March 23, 2023)

### Dealing with the Realities and Aftermaths of Climate Disasters

- Analysis: [A Toxic Stew on Cape Cod: Human Waste and Warming Water](#) by Christopher Flavelle and Sophie Park (*The New York Times*, January 1, 2023)
- Analysis: [Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows](#) by Patrick Greenfield (*The Guardian*, January 18, 2023)
- Analysis: [Yet Again, Poyang Lake's Water Level Falls to Record Lows](#) by Luo Meihan (*SixthTone*, February 2, 2023)
- Analysis: [The threat of ocean acidification](#) (*The Economist*, February 2, 2023)
- Analysis: [Four South Asian cities show the way for collaborative, low-emission development](#) (*The Third Pole*, February 15, 2023)
- Analysis: [America's growing hurricane wind problem](#) by Andrew Freedman (*Axios*, February 27, 2023)
- Analysis: [Food waste makes up 'half' of global food system emissions](#) by Orla Dwyer (*Carbon Brief*, March 13, 2023)

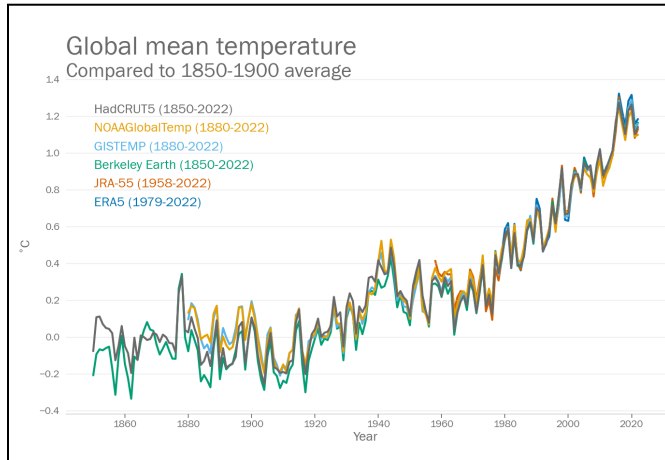
## Images of the Month

### January 2023

*Documentation of global mean temperature averages from 1850 through 1900.*

**Behind the Image:** The World Meteorological Organization assessed the data from six independent datasets and found that the global mean temperature is continuously rising. The data indicated that 2015-2022 are the warmest years on record, reaching at least 1 degree celsius above pre-industrial levels.

Source: [World Meteorological Organization](#)

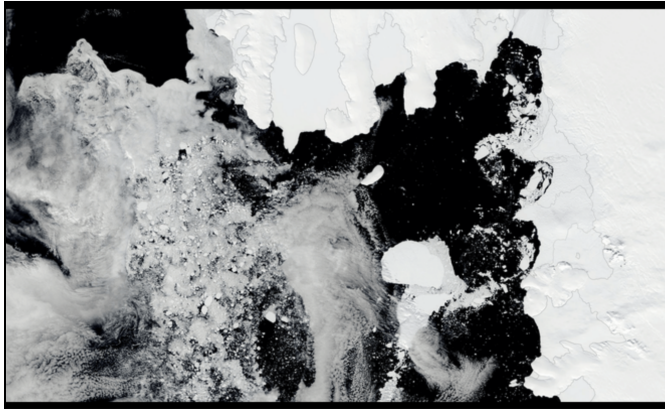


### February 2023

*A black and white satellite image of the waters of the Amundsen Sea adjacent to Antarctica's Thwaites and Pine Island glaciers, which used to be choked with sea ice, pictured at its summer minimum in February.*

**Behind the Image:** The extent of sea ice around Antarctica has reached a record low level in February due to the ongoing climate crisis.

Source: [NASA Worldview](#)



### March 2023

*Intergovernmental Conference President Rena Lee gives a thumbs up to all other UN delegates after reaching a historic agreement on protecting marine biodiversity in international waters.*

**Behind the Image:** The new “High Seas Treaty” by delegates of the United Nations Intergovernmental Conference (ICG) on Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ) will provide a legal framework to establish marine protection areas that aims to protect a third of the sea by 2030.

Source: [Earth Negotiations Bulletin](#), Photo by IISD/ENB | Mike Muzurakis



## Climate-Focused Quotes of the Quarter

“The climate emergency is imposing itself. We want to highlight what is the greatest global challenge currently facing humanity. Countries, people, and ecosystems are increasingly unable to cope with the consequences. It is proven that the poorest are the most affected ones.”

- Marina Silva, Environment Minister of Brazil, [speaking](#) at Inauguration of Brazilian President Lula, January 4, 2023

“Now that we’ve passed the most significant climate and clean energy legislation in history, Big Oil and Big Gas and their astro-turf allies are preparing to wage a historic battle at federal agencies to delay, defang and deregulate.”

- Edward Markey, U.S. Senator from Massachusetts, [speaking](#) with *The Washington Post's Climate 202*, January 12, 2023

“It [unsubstantiated claims by some firms that their products are ecologically friendly] leaves the door wide open to greenwashing.”

- Antonio Guterres, U.N. Secretary-General, [speaking](#) at the World Economic Forum, January 18, 2023

“If we only focused on the sea, we may put a marine protected area...but each of them is thinking about each ecosystem independently. If we think about them together, there may be some multiplied benefits.”

- Stuart Sandin, Professor of Biological Oceanography at UC San Diego, [said](#) to *Mongabay* about the research paper he co-authored, January 24, 2023

“The implementation of blue carbon ecosystems offers significant development opportunities but also poses challenges for several sectors, such as sustainable fisheries and aquaculture, marine and coastal tourism, and coastal development.”

- Siti Nurbaya Bakar, Minister of Environment and Forestry of Indonesia, [speaking](#) at a program related to the implementation of blue carbon ecosystem in Jakarta, Indonesia, January 30, 2023

“We don't regard China as an adversary and we don't seek confrontation with China, actually, we don't see confrontation with anyone. NATO is a defensive Alliance. We will continue to engage with China on issues where we see common or potential common interest, on arms control, on climate change and other issues.”

- Jens Stoltenberg, NATO Secretary General, [speaking](#) at Keio University in Tokyo, Japan, February 1, 2023

“We have a once in a generation opportunity to show the way with speed, ambition and a sense of purpose to secure the EU's industrial lead in the fast-growing net-zero technology sector.”

- Ursula von der Leyen, President of the European Commission, [talking](#) about the Green Deal Industrial Plan in a formal press release by the European Commission, February 1, 2023

"A green shift in the shipping industry is crucial to reach our climate goals and a prerequisite for a sustainable ocean economy..."

- Arne Jan Flølo, Consul General, Royal Norwegian Consulate General Mumbai, [said](#) to *Marine Insight* on the new DNV White Paper, February 3, 2023

"We need to do both. We need to invest in the energy transition and — not or — we need to invest in today's energy system, which is predominantly an oil and gas system...Today there is much more conversation about energy security, energy affordability."

- Bernard Looney, Chief Executive Officer of the British Petroleum, [said](#) during a Bloomberg Television interview, February 8, 2023

"Saudi Arabia will host the International Conference on Algae and Seaweeds on Feb. 12 — the first such conference to be held in the Middle East. It will see ministers and a group of scientific experts draw up an executive roadmap for the launching of mega projects...[as part of an] ambitious national strategy to achieve optimal utilization of natural resources in the sea and inland waters with smart and sustainable methodologies..."

- Mansour Al-Mushaiti, Saudi Arabia's Deputy Minister of Environment, [said](#) at the second High-Level Conference on the Blue Belt Initiative, February 14, 2023

"Houston, we have a problem...Energy leaders in this room have the knowledge, experience, expertise and the resources needed to address the dual challenge of driving sustainable progress while holding back emissions."

- Sultan al-Jaber, CEO of Abu Dhabi National Oil Company, President-designate of COP-28 [said](#) at CERAWEEK Energy Conference, March 6, 2023

"Today's IPCC report is a how-to guide to defuse the climate time-bomb. It is a survival guide for humanity."

- António Guterres, UN Secretary-General, [speaking](#) at the press conference launching the Intergovernmental Panel on Climate Change's (IPCC) [AR6 Synthesis Report](#), March 20, 2023

"We are draining humanity's lifeblood through vampiric overconsumption and unsustainable use, and evaporating it through global heating..."

- António Guterres, UN Secretary-General, [speaking](#) at the first conference on water security, March 22, 2023

"As a result, effectively harnessing the blue economy, sustainable use of ocean resources for economic growth, improving livelihoods, and job creation while preserving the health of the ocean ecosystem by preventing overfishing, protecting marine biodiversity, and reducing pollution in the ocean also necessitates maritime governance and responsible resource management..."

- Ajay Kochhar, Commandant of the Indian National Defence Academy, [speaking](#) on the topic of 'Maritime Governance and Matters Maritime', March 25, 2023



# Climate-Focused Conferences & Events

## Multinational Conferences & Global Forums

### Thirteenth Session of the IRENA Assembly

*International Renewable Energy Agency*

January 13-15

Abu Dhabi, United Arab Emirates

- From the Organizer: The 13th session of the IRENA Assembly took place in-person from 14 to 15 January 2023 in Abu Dhabi, United Arab Emirates, with related ministerial and stakeholder meetings held on 13 January 2023. The sessions were live-streamed on the IRENA Assembly event webpage. The Assembly was held under the overarching theme ‘World Energy Transition – The Global Stocktake’. The IRENA Assembly brought together Heads of State/Government, Ministers and energy decision-makers among its Membership and States-in-Accession, as well as multilateral organizations, global stakeholders and private actors to take stock of operational plans and policies and highlight the concerted action undertaken to implement the energy transition across countries, regions, and the world.
- Event Summary: The International Renewable Energy Agency’s 13th Assembly released multiple high-level reports on the current requirements for the renewable energy sector. One such report stated that renewable energy capacity increased by 9.6% in 2022, but the renewable energy sector will still need to increase investment by over US\$35 trillion by 2030 to reach the 1.5 degrees Celsius above pre-industrial levels.

### 44th IAEE International Conference

*International Association for Energy Economics*

February 4-9

Riyadh, Saudi Arabia

- From the Organizer: The IAEE Conference is one of the most influential non-commercial gatherings for energy industry professionals, thought leaders, and global policymakers. The 44th IAEE Conference in Riyadh will be the world’s pre-eminent platform, with an event theme of advancing pathways to a clean, stable, and sustainable energy future. Addressing that issue is one of the world’s most pressing challenges as nations collectively address the energy trilemma, requiring pragmatic solutions to enable a smooth and rapid energy transition.
- Event Summary: The IAEE International Conference was held under the theme of “Pathways to a Clean, Stable, and Sustainable Energy Future.” The event seemingly contained an attitude of progress for energy producing countries to begin transitions to renewable projects. While attending the conference, the director general of the World Nuclear Association stated that nuclear energy “offers a golden opportunity” for countries to meet decarbonization goals. IAEE 2023 also worked to merge public and private sector energy transitions, where there were discussions on what needs to happen in the public sphere to reach private cooperation in transitioning to clean energy sources.

### UN 2023 Water Conference

*Republic of Tajikistan and Kingdom of the Netherlands*

March 22-24

New York, United States

- From the Organizer: The first UN water conference in a generation, the UN 2023 Water Conference, co-hosted by the Governments of Tajikistan and the Netherlands will be a watershed moment to



mobilize Member States, the UN system and stakeholders alike to take action and bring successful solutions to a global scale. To catalyze action, the Conference is seeking voluntary commitments, galvanized by the Programme, to the Water Action Agenda.

- **Event Summary:** For two days in New York City, 10,000 participants from member states and other non-governmental organizations met to discuss international water policies, allocate funding to water regulations, and accelerate sustainable water developments. The event worked diligently to help meet the [United Nations Sustainable Development Goal Number 6](#) for Clean Water and Sanitation. The event ended with over 700 commitments to water policies; and over US\$ 86.15 billion dollars raised, along with multiple high-value yearly donations planned.

## Public Events & Panel Discussions

### Upcoming Events

#### International Forum "Sustainable Ocean and G7 Ministers' Meeting on Climate, Energy and Environment in Sapporo"

*Event by Ocean Policy Research Institute*

April 6 - Toranomon, Minato-ku, Tokyo & Online

#### China's Climate Security Vulnerabilities

*Event by Wilson Center ; Council on Strategic Risks Center for Climate & Security*

April 11 - Hybrid

#### Whose Grass is Greener? The American and Chinese Climate Challenge

*Event by The China Project*

April 20 - Online

#### FP Climate Summit 2023

*Event by Foreign Policy*

April 26 - Online

#### Bloomberg Green Summit

*Event by Bloomberg*

April 26 - New York, NY, U.S.

#### Nardone Family Seminar Series - Environmental Transparency & Green Innovation in Emerging Markets

*Event by Northeastern Center for Emerging Markets*

May 3 - Boston, MA, U.S.

#### Public Workshop Examining Guides for the Use of Environmental Marketing Claims

*Event by Advanced Biofuels USA*

May 23 - Hybrid

#### International Conference on Algal Biomass, Biofuels and Bioproducts

*Event by Elsevier*

June 12-14 - Waikoloa Beach, Hawaii, U.S.

**African Perspectives on Climate and Climate Adaptation in Egypt**

Event by Columbia Climate School

October 3 - Online

**Maryland Clean Energy Summit: Decarbonization Strategies and Solutions**

Event by Advanced Biofuels USA

October 16-17 - College Park, MD, U.S.

**Past Events****America's Energy Future**

Event by Wilson Center

March 29 - Hybrid ([Video Recording Available](#))

**The Arctic Ocean and Climate Change in a Time of Tension**

Event by Wilson Center ; Centre for the Ocean and the Arctic

March 21 ([Video Recording Available](#))

**Future of U.S. Climate and Energy Leadership**

Event by Center for Strategic and International Studies

March 20 - Hybrid ([Transcript and Video Recording Available](#))

**Book Event: Cooperating for the Climate with Joanna Lewis**

Event by Center for Strategic and International Studies

March 14 - Online ([Video Recording Available](#))

**The Blue Planet Turns Green: Algae Fouls Waters as the World Struggles to Grow More Food in a Changing Climate**

Event by Wilson Center

March 13 - Online ([Video Recording Available](#))

**The Changing Geopolitics of Critical Minerals and the Future of the Clean Energy Transition**

Event by Wilson Center

March 9 - Online ([Summary and Video Recording Available](#))

**Opportunities for Enhanced Near-term U.S.-China Climate Action: The Food System**

Event by Berkeley California-China Climate Institute ; Wilson Center

March 7 - Online ([Video Recording Available](#))

**The economic case for tackling climate change now**

Event by Brookings

March 6 - Online ([Transcript and Video Recording Available](#))

**Strengthening US Cooperation on Marine Protection in Latin America**

Event by Wilson Center ; U.S. Department of State

March 3 - Hybrid ([Video Recording Available](#))

**Nature-Based Solutions and Indigenous Voices: Lessons from Canada***Event by Wilson Center ; Newmont Global Center for Indigenous Community Relations*February 28 - Online ([Video Recording Available](#))**Greening BRI Governance in Southeast Asia, Latin America and Beyond***Event by Wilson Center*February 22 - Online ([Video Recording Available](#))**Keys to climate action***Event by Brookings*February 16 - Online ([Video Recording Available](#))**The Future of Low Carbon Transportation Fuels and Considerations for a National Clean Fuels Program***Hearing by the U.S. Senate Committee on Environment and Public Works*February 15 - Hybrid ([Transcripts and Video Recording Available](#))**Mitigating climate risk through localized data***Event by Brookings*February 15 - Hybrid ([Video Recording Available](#))**Climate-Related Economic Risks and Their Costs to the Federal Budget and the Global Economy***Hearing by the U.S. Senate Committee on the Budget*February 15 - Hybrid ([Opening Statement and Video Recording Available](#))**How-to: Investing in InfraTech for the net-zero and climate-resilient transition***Event by Global Infrastructure Hub*February 9 - Online ([Video Recording Available](#))**Nardone Family Series: Building Climate Resilience - A Personal Journey with a Successful Startup***Event by Northeastern Center for Emerging Markets*

February 8 - Online

**Water @ Wilson | Water and Conflict: Updates from the Russia-Ukraine War***Event by Wilson Center ; U.S. Water Partnership*February 7 - Online ([Video Recording Available](#))**Nardone Family Seminar: Ending Plastic Pollution - The Role of Small States***Hosted by Northwestern Center for Emerging Markets*

January 23 - Online

**The inaugural meeting of the Carbon Neutrality Committee of the Chinese Society of Environmental Sciences  
(中国环境科学学会碳达峰碳中和专委会成立大会)***Event by China Carbon Committee*January 19 - Online ([Summary Available in Chinese](#))**How to Achieve America's Climate Goals***Event by Foreign Policy*January 12 - Online ([Video Recording Available](#))

# ICAS BCCC Program Updates

## Upcoming BCCC Program Event

### Cooperation between Developed and Developing Countries on Blue Carbon Projects

May 2023

(Time TBD)

Hybrid (In Person & Zoom)

The United Nations Climate Change Conference COP-27 reached a groundbreaking agreement to provide developing countries—particularly the countries vulnerable to climate change—the “loss and damage” funding to compensate for their losses in climate disasters. Blue carbon, as a significant carbon sink and a natural defense line of coastal communities, plays an important role in both mitigating climate change and preventing climate-related “loss and damage.” However, countries with rich blue carbon natural resources are mostly developing countries that lack matching funds and technologies. In contrast, developed countries with relatively advanced technologies and sufficient funds are inherently insufficient in the stock of blue carbon natural resources. Inspired by the “loss and damage” fund of COP-27, this event seeks to explore the possibilities for cooperation between developing and developed countries on blue carbon to protect, restore, develop, and utilize blue carbon resources as much as possible.

What are the specific advantages and disadvantages of both developed and developing countries? And what exactly are their biggest deficiencies at present? Which developed and developing countries have the greatest potential to take the lead in this kind of cooperation? Are there some existing programs that the others can learn from? How to ensure that all participants can benefit from the cooperation? What are these countries’ major concerns about collaboration? How can we dissipate the worries? Since this scheme is inspired by and related to the “loss and damage” fund, can it be included in the fund in the future to get more support?

The full list of speakers that represent the perspectives of both developed and developed countries will be released soon. Please stay tuned to the follow-up information released by the ICAS BCCC Program and other ICAS projects to get the latest news and updates of this event.

**Learn More & Subscribe to Stay Informed:** <https://chinaus-icas.org/icas-blue-carbon-climate-change-program/>

## Upcoming MAP Event

### Roles of Asian Observers in Arctic Governance: Adapting to a Changing Arctic Council

April 13, 2023

(9:30 AM - 11:00 AM EST)

Virtual (Zoom)

Climate change has increased accessibility to potential Arctic resources, changing the geopolitical landscape and broadening the international focus on the Arctic to include more geographically distant countries such as China, Japan, South Korea, India, and Singapore... What does the suspension of the Arctic Council meetings mean for Arctic Council observers? Will Norway, who will take over the chairmanship in May 2023, make any progress to break



through the current ties? Will the debate on the concept of an “Arctic Council 2.0” gain support among non-Arctic states who have a deep interest in Arctic governance?..

This event will bring together scholars from the five Asian observers of the Arctic Council, China, Japan, South Korea, India, and Singapore to exchange their views on this critical issue.

**RSVP:** [https://us06web.zoom.us/webinar/register/WN\\_U90heywTUCpaAZaGhYpDw#/registration](https://us06web.zoom.us/webinar/register/WN_U90heywTUCpaAZaGhYpDw#/registration)

**Learn More:** <https://chinaus-icas.org/event/roles-of-asian-observers-in-arctic-governance-adapting-to-a-changing-arctic-council/>

**About Our Co-Sponsor:** <https://www.ualberta.ca/china-institute/events/2023/arctic-council.html>

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

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

ICAS is a 501(c)3 nonprofit organization

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