



ICAS BLUE CARBON & CLIMATE CHANGE PROGRAM

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BCCC 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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Theme of the Quarter: Global Uptick in Commitments to Climate

News on Global Uptick in Commitments to Climate

Nation-States' Pledges to Reduce Carbon Emissions¹

As the year of 2022 reaches its final quarter, global leaders are reaffirming their commitment to limit global warming. At this year's COP27—the annual United Nations climate change conference which was held this year in Egypt from November 6-18 —countries reaffirmed their earlier commitment to limit global heating to 1.5 degrees Celsius above pre-industrial levels. Similar commitments have been echoed in other international events and celebrations. At the G20 Summit in Bali, November 15-16, leaders of the G20 countries committed to "achieve global net zero greenhouse gas emissions/carbon neutrality by



or around mid-century" and "recognised the importance" to accelerate the transition towards low-emission energy systems, including through the "phasedown of unabated coal power." At the 40th and 41st ASEAN Summit on November 11, 2022, ASEAN countries expressed "grave concern" for rising greenhouse gas emissions and "the compound socio-economic impacts of climate change" and reiterated their commitments to global climate action. This year's World Maritime Day, which preceded these series of summits on September 29, 2022, also highlighted the need to support a green transition of the maritime sector, especially through greener shipping.

In accordance with the renewed pledges, some economies have also ramped up their individual targets. Following joint agreement of EU countries, the European Commission announced that the EU is ready to reduce its carbon emissions by 57% by 2030 from 1990 levels; up from the original target of 55%. China also announced a new action plan to control and monitor the emission of methane, accompanied with plans to establish a pilot national program "early next year." Meanwhile, Singapore predicted that it can now achieve a peak in carbon emissions earlier than its original goal, and is seeking to start generating electricity from low-carbon hydrogen as early as 2027.

Despite these commitments and plans, many believe that existing efforts are not sufficient to ensure the achievement of the 1.5 degree goal. According to the Global Carbon Budget 2022 report—a study conducted by more than 100 researchers from 70 organizations in 18 countries, emission of greenhouse gasses will reach a record high in 2022, in part due to an increase in carbon emission from fossil fuels. The report said that if current emissions levels persist there is a 50% chance that the 1.5 degree goal would be breached in nine years. In contrast, climate scientists have warned that existing pledges are not sufficient to contain carbon emission and researchers have found that only a limited number of countries have followed through the emissions reduction pledges made at COP26 last year. As such, climate scientists and energy economists have not only cautioned that the chances of 1.5 degrees are "narrowing" but are continuously calling for actions such as more ambitious carbon reduction commitments, more government investment in clean energy, and stricter adherence to announced initiatives, plans and goals.

¹ Image: President of the 26th United Nations Climate Change Conference, Alok Sharma attends the Opening Ceremony and Handover of COP 27 in Sharm el-Sheikh . Picture by Rory Arnold / No 10 Downing Street. Source: UK Government (<u>CC BY-NC-ND 2.0</u>).



Main Relevant Sources:

<u>Scientists thought carbon emissions had peaked. They've never been higher</u>, The Washington Post, December 5, 2022

<u>Federal government releases first 'climate change statement'. but Australia remains behind on emissions targets,</u> ABC News, November 30, 2022

<u>Giving up on 1.5C climate target would be gift to carbon boosters, says IEA head</u>, The Guardian, November 30, 2022

What are the key outcomes of Cop27 climate summit?, The Guardian, November 20, 2022 <u>COP27 leaves world on dangerous warming path despite historic climate fund</u>, The Washington Post, November 20, 2022 G20 agrees to pursue efforts to limit temperature rise to 1.5C, *Reuters*, November 16, 2022

Wealthy Nations Offer Indonesia \$20 Billion to Curb Coal, The New York Times, November 15, 2022 Timmermans: EU's 2030 climate goal 'can now be increased to 57%', Euractiv, November 14, 2022 Carbon emissions from fossil fuels will hit record high in 2022, The Guardian, November 11, 2022 COP27 climate talks: Chinese carbon emissions set to drop this year while US set for rise, study forecasts, South China Morning Post, November 11, 2022

<u>China announces plan to curb rising methane emissions but challenges await</u>, Reuters, November 9, 2022 <u>Singapore lowers 2030 emissions forecast</u>, to boost hydrogen, Reuters, October 25, 2022 <u>EU countries agree to hike climate change target next year</u>, Reuters, October 24, 2022

Climate Reparations and Assistance to the Global South²

As wealthier countries become more receptive to the idea of climate reparation, considerable progress has been made in this quarter to support countries vulnerable to climate damages.

At COP27, members established new funding arrangements and a dedicated fund to assist developing and vulnerable countries in responding to "loss and damage" resulting from climate disasters. This is the first time that such a climate reparation fund has been created on a global scale and at a COP meeting. Approaching the issue from a different angle, the Vulnerable 20 and the G7 agreed to increase cooperation to shield vulnerable nations from financial risks resulting from climate change, including by strengthening the global climate and disaster risk finance and insurance architecture and mobilizing donors and other



funds to close protection gaps. In more regional and plurilateral manners, the European Union and African Union launched a new initiative to enhance cooperation and better respond to the climate change adaptation needs of African nations by reinforcing early warning systems, enhancing risk finance and insurance tools and supporting climate risk data collection and analysis. Following discussions at G20, the International Partners Group (IPG)—co-led by the United States and Japan, and including Canada, Denmark, France, Germany, Italy, Norway, and the United Kingdom—also reached an agreement with Indonesia to

² Image: Climate activists demonstrate at the Sharm el-Sheikh International Convention Centre, in Egypt's Red Sea resort city of the same name, during the COP27 climate conference, on November 14, 2022. (Photo by AHMAD GHARABLI/AFP via <u>Getty Images</u>)



support the transition to low-emission energy and work towards "groundbreaking climate targets" in Indonesia.

Developing countries and countries vulnerable to climate change consequences have long urged developed countries to increase commitments to climate reparation and climate change financing. At this year's COP27, for example, Indian officials asked that developed countries fulfill their promises of allocating US\$100 billion a year in funding to developing nations for climate change as well as renewable energy development. Meanwhile, small island states and African nations contended that wealthier countries and oil companies should pay reparation for the pollution and consequent climate change disasters inflicted on vulnerable nations and their economies. In contrast, major powers have traditionally had mixed reactions to climate reparation deals. United States officials have reportedly said that climate envoys were encouraged to support the new "loss and damage" deal but were discouraged from "any explicit push for new aid or funding." Chinese climate envoys said that they "strongly support the claims from developing countries, especially the most vulnerable countries, for claiming loss and damage compensation," and urged wealthy nations to move on from "empty slogans" and "turn targets into actions," but emphasized that China would not support the deal financially. The newly created "loss and damage" fund at COP27 specified that wealthy nations are not to be held liable for any payments. Commentators have also noted that G7 countries have yet to make explicit climate financing commitments despite the establishment of new funds and the launch of several new initiatives.

Main Relevant Sources:

<u>What you need to know about the COP27 Loss and Damage Fund</u>, United Nations Environment Programme, November 26, 2022

In a First, Rich Countries Agree to Pay for Climate Damages in Poor Nations, The New York Times, November 19, 2022

Team Europe Initiative on Climate Change Adaptation and Resilience in Africa, European Union, November 16, 2022 Wealthy Nations Offer Indonesia \$20 Billion to Curb Coal, *The New York Times*, November 15, 2022 China will support climate damage mechanism but not with cash, *Reuters*, November 9, 2022 Developed countries should fulfill climate finance promise: Chinese envoy, *China Daily*, November 9, 2022 COP27: Polluters must pay for climate change, poor nations tell rich, *The Economic Times*, November 8, 2022 COP27: Island nations want China, India to pay for climate damage, *Reuters*, November 8, 2022 COP 27 Developing countries need \$1 trillion a year in climate finance -report, *Reuters*, November 7, 2022 India to press rich countries to keep climate fund pledge, *Reuters*, October 31, 2022 China urges rich world to shun 'empty slogans' ahead of climate talks, *Reuters*, October 27, 2022 African nations to finalize aims ahead of UN climate summit, Associated Press, October 24, 2022 US Supports Climate Reparations Talks at UN Summit in Egypt. *Bloomberg*, October 20, 2022 Small island states to propose 'response fund' for climate victims at Cop27, *Climate Home News*, October 19, 2022 V20 and G7 agree on financial protection cooperation, to formally launch Global Shield Against Climate Risks at COP27, The Vulnerable Twenty (V20) Group, October 14, 2022 Congo urges climate funding at pre-COP27 talks, *Deutsche Welle*, October 4, 2022

Private-Sector Actions in the Name of Climate Progress³

Just as governments and nation-states increased their commitments to climate actions, the private sector also expanded their contribution to climate across a variety of sectors and regions in this quarter. On the transition to low-carbon energy, Japanese trading company Sumitomo Corporation Group entered into

³ Image: Mangroves and seagrasses, two of the most vital coastal blue carbon resources, in Lembongan, Indonesia. Credit: Flickr/Blue Forests; photo by Steven Lutz, GRID-Arendal (<u>CC BY-NC 2.0</u>).



partnership with Kayan Hydro Energy, an Indonesian company affiliated with PowerChina, to develop a hydroelectric power station in Indonesia. On carbon sink and ecosystem protection, Google Inc. announced a new collaboration with the Australian government to conduct research on coastal ecosystems and their carbon sequestration effect—i.e., "blue carbon"—in the Indo-Pacific. Meanwhile, Amazon.com Inc. and Conservation International jointly established the International Blue Carbon Institute in Singapore with the aim to help mitigate climate change by the restoration and protection of coastal blue carbon ecosystems in Southeast Asia and the Pacific Islands. More recently, 3M announced that the company would phase out the usage of perfluoroalkyl and polyfluoroalkyl substances from all manufacturing, having in mind the human health risks and environmental impacts of the chemicals.



Moreover, companies and government officials are jointly seeking to motivate private capital and investment on climate change mitigation and adaptation more systematically by building voluntary carbon markets. In the case of the United States, the Rockefeller Foundation and the Bezos Earth Fund joined U.S. Special Presidential Envoy for Climate John Kerry to establish an Energy Transition Accelerator (ETA) that would finance carbon emission reduction by allowing developing countries to sell carbon credits to private companies to offset those companies' carbon emission, following in the

footsteps of those in nations like Australia. At the same time, a new Africa Carbon Markets Initiative was also announced at COP27 to support the growth of similar carbon credit markets in Africa to meet the climate finance needs of African economies.

While supporters consider such carbon credit initiatives a "win-win" of companies who want to achieve carbon neutrality and economies in need of climate financing, opponents have argued that climate support for low-income and vulnerable nations should come in terms of grants and reparation instead of "carbon offsets" that give private companies licenses to pollute. Others worry that these arrangements will "flood" existing carbon markets by creating too many credits, thus driving down carbon prices. In the case of the U.S.-initiated ETA, United Nations Secretary-General António Guterres warned that carbon credit arrangements do not substitute "genuine emission reduction efforts," including the necessary phase-out of fossil fuels, but was reportedly supportive provided that rigorous safeguards are added. U.S. climate envoy Kerry has said that fossil fuel companies will be prohibited from purchasing carbon credits through ETA, but did not explain, for example, how fossil fuel companies can be prevented from acquiring the credits through secondary markets.

On a broader scale, as private entities commit to achieve net zero emissions, some expressed concerns over "greenwashing"—dishonest climate accounting or misleading claims intended to create false and exaggerated reputation of a company's contribution to address climate change. In a recent report on net zero emissions commitments of non-state entities, a high-level expert group from the United Nations acknowledged "credible" initiatives that mobilize private sector resources to address climate change, but made a number of suggestions to ensure the integrity, transparency and accountability of private sector commitment to climate. There has also been pushback by companies like ExxonMobil over concerns that governments and multinational organizations like the EU are overexerting authority in the name of climate.



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<u>3M will stop making dangerous 'forever chemicals'</u>, *The Washington Post*, December 20, 2022 <u>New blue carbon institute to be launched in Singapore</u>, *The Straits Times*, November 15, 2022 <u>Amazon and Conservation International establish the International Blue Carbon Institute</u>, Amazon Inc., November 14, 2022

<u>CSIRO, DFAT and Google Australia Announce 'Blue Carbon' Project at COP27</u>, *Ocean News*, November 10, 2022 <u>Kerry announces – and is immediately criticized for – a new plan to raise money for climate action</u>, *CNN*, November 9, 2022

<u>US coal phaseout plan meets divided response at COP27</u>, *Financial Times*, November 9, 2022 <u>Africa Carbon Markets Initiative launched to dramatically expand Africa's participation in voluntary carbon market</u>, *Climate Champions*, November 8, 2022

Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions, report by United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities, November 2022 John Kerry: Carbon offsets can help wean developing countries off coal, Climate Home News, November 1, 2022 Japan's Sumitomo joins \$17.8bn Indonesia hydropower project, Nikkei Asia, October 6, 2022 Exxon sues EU in move to block new windfall tax on oil companies, Financial Times, December 28, 2022

Government Statements & Actions on Global Uptick in Commitments to Climate

Global leaders, government officials and political figures have been outspoken about the world's commitment to address climate change; more than usual given the multiple major United Nations conferences on climate issues that took place this quarter.

- U.S. Special Envoy to Climate John Kerry openly called on U.S. and China cooperation to resume bilateral climate talks that have stopped following U.S. Speaker of the House Nancy Pelosi's visit to Taiwan, adding that U.S.-China cooperation on climate is "inevitable."
- Before the start of the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27) in November, Li Gao, head of the climate change office at China's Ministry of Ecology and Environment urged developed countries to fulfill their annual climate funding commitment, show "real ambition" and "turn [climate] targets into actions."
- At COP27, U.S. President Biden highlighted the United States' current progress in addressing climate change and vowed to help make the global low-carbon transition more "affordable" through "climate investment."
- European Commission Executive Vice-President for the European Green Deal Frans Timmermans announced that the European Union is ready to reduce its carbon emission by 57% by 2030, expanding the bloc's original pledge of a 55% reduction.
- Brazil's President-elect Luiz Inacio Lula da Silva said that the country will "spare no effort" in protecting the Amazon rainforest and helping ensure "climate security for the world." Commitment in Brazil was further enforced by the confirmation of green activist Marina Silva in late December as Brazil's environment minister, who herself said in October that "[t]here is no need to deforest anymore."
- Antigua's Prime Minister Gaston Browne, speaking on behalf of the Alliance of Small Island States, proposed that oil and gas companies should pay a global carbon tax as a source of funding to support developing countries suffering from extreme weather and sea-level rise.
- Speaking ahead of the 15th Conference of the Parties to the Convention on Biological Diversity (COP15), the U.S. Department of State reiterated its support for the Global Biodiversity Framework. The department highlighted their efforts to protect biodiversity, including the America the Beautiful Challenge and the work of the U.S. Agency for International Development (USAID).
- Speaking ahead of the COP15 meeting, Zhou Guomei, Deputy Secretary General of the China Council



for International Cooperation on Environment and Development, released a statement to express support for a biodiversity deal that was "ambitious, pragmatic, balanced, feasible, and achievable."

- Australian Federal Environment Minister Tanya Plibersek pushed back against a recommendation from UNESCO to place the Great Barrier Reef on the list of World Heritage in danger. Plibersek said: "If the Great Barrier Reef is in danger, then every coral reef in the world is in danger. If this World Heritage site is in danger, then most World Heritage sites around the world are in danger from climate change."
- In a jointly authored commentary, Canada's minister of environment and climate change Steven Guilbeault and the European commissioner for the environment, oceans and fisheries Virginijus Sinkevičius called for action on global climate crisis and biodiversity and highlighted pledges and contribution by Canada and the EU.

Some government ministries and departments have also taken action this quarter to fulfill their climate commitment. There are examples of this happening both at the domestic level and in new cooperative efforts, especially between the traditional 'Global North' and 'Global South.'

- Australia's Department of Climate Change, Energy, and the Environment released its 2022 emissions projections report which details Australia's greenhouse gas emissions trends to 2035. The report said that, despite Australia's earlier promise to reduce emissions by 43 percent by 2030, the country is now expected to achieve a 40 percent reduction.
- The U.S. House of Representatives Committee on Oversight and Reform released new documents showing how the fossil fuel industry engages in "greenwashing" to obscure its massive long-term investments in fossil fuels and failure to meaningfully reduce emissions.
- In China, as part of national efforts to achieve carbon peak before 2030 and carbon neutrality before 2060, China's National Energy Administration (NEA) published an action plan to establish common technical standards for non-fossil fuel energy. According to the action plan, the new standard should be established by 2025 to support China's transition to low-carbon energy.
- The U.S.-EU Trade and Technology Council launched a new Transatlantic Initiative for Sustainable Trade between the United States and the European Union "to support our shared desire of tackling climate change" and "to advance our shared objective of achieving a green and sustainable future."
- U.S. lawmakers proposed a regulation that would require major federal contractors to publicly disclose their greenhouse gas emissions and climate-related financial risks and set science-based emissions reduction targets.
- At the United Nations' COP27, the European Union and the African Union announced a new Team Europe Initiative on Climate Change Adaptation and Resilience in Africa, which will bring together existing and new climate change adaptation programmes of over €1 billion as well as reinforcing policy dialogue and coordination between the EU and the AU.
- Following discussions at G20, Indonesia and the International Partners Group (IPG)—co-led by the United States and Japan, and including Canada, Denmark, France, Germany, Italy, Norway, and the United Kingdom—jointly announced "commitment to groundbreaking climate targets [in Indonesia] and associated financing" to support Indonesia's transition to low-emission energy.

Multinational institutions applauded the shift in attention to climate change, but noted the needs for more actions and commitments concerning this issue.

- Speaking ahead of COP27, United Nations Secretary-General António Guterres called for "game-changing, quantum level compromise between developed and emerging economies" to ensure financing for climate action.
- In a joint declaration at the G20 Bali summit, leaders of the G20 countries reiterate their commitment to "achieve global net zero greenhouse gas emissions/carbon neutrality by or around mid-century, while



taking into account the latest scientific developments and different national circumstances."

- Speaking at the closing of COP27, United Nations Secretary-General António Guterres "welcomed" the decision to establish a "loss and damage" fund as a "much-needed political signal to rebuild broken trust" but emphasized that "the world still needs a giant leap on climate ambition."
- The Global Environment Facility (GEF) welcomed decisions to allocate resources on climate change adaptation and mitigation, and announced a partnership with the Vulnerable 20 Group (V20) to support community-based climate adaptation activities in V20 countries.

Main Relevant sources:

<u>GEF climate adaptation funds to support V20 Group efforts to avert and minimize climate impacts.</u> Vulnerable 20, December 15, 2022

<u>Oversight Committee Releases New Documents Showing Big Oil's Greenwashing Campaign and Failure to Reduce</u> <u>Emissions</u>, House Committee on Oversight and Reform, December 9, 2022

<u>Opinion: Why we have ambitious goals for COP15</u>, Montreal Gazette, December 8, 2022

U.S.-EU Joint Statement of the Trade and Technology Council, The White House, December 5, 2022

<u>Federal government releases first 'climate change statement', but Australia remains behind on emissions targets</u>, *ABC News*, December 1, 2022

<u>Australia's Great Barrier Reef should be listed as a world heritage site 'in danger', says UN panel</u>, The Independent, November 29, 2022

China calls for ambitious, pragmatic biodiversity deal, Reuters, November 28, 2022

António Guterres (Secretary-General) on the Closing of COP27, United Nations, November 19, 2022

<u>COP27: Team Europe steps up support for climate change adaptation and resilience in Africa under Global Gateway</u>, European Commission, November 16, 2022.

<u>G20 Bali Leaders' Declaration</u>, The White House, November 16, 2022

<u>'Brazil is back' at COP27 as Lula meets US, Chinese climate envoys</u>, Reuters, November 15, 2022

Green champion Marina Silva returns to Brazil's environment ministry, Financial Times, December 29, 2022

<u>The EU and International Partners launch ground-breaking Just Energy Transition Partnership with Indonesia</u>, European Commission, November 15, 2022

Timmermans: EU's 2030 climate goal 'can now be increased to 57%', Euractiv, November 14, 2022

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FACT SHEET: Biden-Harris Administration Proposes Plan to Protect Federal Supply Chain from Climate-Related Risks, The White House, November 10, 2022

<u>Developed countries should fulfill climate finance promise: Chinese envoy</u>, China Daily, November 9, 2022 <u>COP27: Polluters must pay for climate change, poor nations tell rich</u>, The Economic Times, November 8, 2022 <u>John Kerry: Carbon offsets can help wean developing countries off coal</u>, Climate Home News, November 1, 2022 <u>China urges rich world to shun 'empty slogans' ahead of climate talks</u>, Reuters, October 27, 2022

<u>'We need to get China': John Kerry calls for return to bilateral climate talks</u>, The Guardian, October 25, 2022 <u>This Republican wants to outcompete China on climate change</u>, The New York Times, October 17, 2022 <u>China publishes action plan to ensure quality of energy transition</u>, China Dlalogue, October 13, 2022 <u>Secretary-General's press encounter on Pre-COP27</u>, United Nations, October 3, 2022



Third-Party Analyses & Data on Global Uptick in Commitments to Climate

As the international community reaffirm climate commitments and build on new climate initiatives, third party researchers and experts are compiling evidence that showcases lingering challenges to global cooperation and the fulfillment of long-term climate commitments:

- The International Energy Agency's World Energy Outlook 2022 report found that a huge increase in energy investment is needed to ensure global energy security as well as to support the transition to clean energy and achieve net zero emissions by 2050.
- According to a recent poll by the Associated Press and University of Chicago, a majority of the American public do not believe the U.S. government is doing enough to fight climate change.
- According to a recent report from Evergreen Action, U.S. President Biden's recent Inflation Reduction Act is reducing the carbon footprint of the U.S. energy sector, but the U.S. Environmental Protection Agency is still not taking enough actions to ensure that climate goals are met.
- A recent report from the World Meteorological Organization finds that concentrations of the three major greenhouse gasses reached record highs in 2021, which has led to "high impact events" resulting in severe environmental damage in 2021.
- A Washington Post analysis concludes that most countries have not taken sufficient actions to reduce carbon emissions to meet the 1.5 degree Celsius target of the Paris accord.
- Climate reporter Ella Nilsen argued in a *CNN* article that as the U.S. and China developed an understanding to cooperate on climate cooperation at COP27, the strategic competition between the U.S. and China can in turn fuel new developments to help reduce carbon emissions.
- A *Bloomberg* commentary noted that despite success in reaching an agreement on climate reparation, COP27 has failed to reach a new emissions agreement.
- Political commentator Henry Olson outlines in *The Washington Post* concerns for possible rise in populism from wealthy nations in response to the new climate reparation agreements made at COP27.
- Noting the possibility of at least a temporary global warming overshoot above 1.5 degree, former minister of finance of Indonesia Muhamad Chatib Basri and dean of Schwarzman College at China's Tsinghua University Xue Lan calls for increasing attention in climate adaptation in addition to containing global warming in a commentary for the South China Morning Post.
- Arguing that recent COP outcomes only highlighted division, chaos and lack of concrete actions, a Brookings Institute commentary proposes ways to make COP more positive and productive.
- In a *China Dialogue* commentary, Africa Regional Manager at the Business & Human Rights Resource Centre Joseph Kibugu underlined the human right abuse risks in Kenya's transition to renewable energy and called for actions to ensure a rapid and fair energy transition in Africa.
- A *New York Times* article highlighted Mia Mottley, the prime minister of Barbados's powerful presence in global climate talks to highlight the voices of small and vulnerable countries.
- Climate reporter You Xiaoying analyzed possible ways for China to contribute to climate reparation and advance South-south cooperation in a piece for *China Dialogue*.

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<u>World Energy Outlook 2022</u>, International Energy Association, October 2022 <u>People don't think the government is doing enough to combat climate change</u>, AP-NORC Center for Public Affairs Research, October 25, 2022

Falling Behind: A Report Card on EPA's Progress on 10 Important Power Sector Rules, Evergreen, Fall 2022WMO Provisional State of the Global Climate 2022, World Meteorological Organization, 2022

<u>Countries vowed to ramp up climate pledges in 2022. Very few have.</u>, The Washington Post, November 3, 2022 <u>The US-China climate deal was a rare bright spot in an otherwise thorny relationship. Should it be mended?</u>, CNN, November 10, 2022



<u>Opinion: How a Flawed But Historic Climate Deal Emerged From COP Chaos</u>, Bloomberg, November 20, 2022 <u>How this climate change fund could fuel populism in richer nations</u>, The Washington Post, November 21, 2022 <u>1.5 degrees? We need to prepare for a temperature overshoot and worse climate change</u>, South China Morning Post, December 10, 2022

<u>Can COP keep up with an evolving climate effort?</u>, Brookings Institute, December 13, 2022 <u>Kenya's energy transition risks being derailed by human rights failures</u>, *China Dialogue*, December 13, 2022 <u>A Powerful Climate Leader From a Small Island Nation</u>, *The New York Times*, December 14, 2022 <u>How can China contribute to climate 'loss and damage'?</u>, *China Dialogue*, December 20, 2022

ICAS Commentary

Closing the Climate Financing Gap: New Proposals and Emerging Risks By Amanda (Yue) Jin December 28, 2022

As an increasing number of <u>research projects and reports</u> are underlining the need to contain global warming within 1.5 degree Celsius, it is ever more important for the international community to increase their efforts to mitigate and adapt to climate change. Thankfully, global leaders decided to <u>reaffirm their commitments</u> to the 1.5 degree goal at the Sharm el-Sheikh Climate Change Conference (COP27), held from November 6-18, 2022. Furthermore, major powers such as the <u>European Union</u>, the <u>United States</u> and <u>China</u>—as well as multilateral organizations such as <u>G20</u>, <u>ASEAN</u>, <u>the Alliance of Small Island States</u>, <u>African Union</u> and <u>the Vulnerable 20</u>—have all announced additional pledges, proposals and/or action plans to address climate change. As the international community turns to market mechanism ideas to address climate change, these proposals can lead to unintended and counterproductive impacts despite their potential. Accordingly, global leaders and stakeholders should carefully evaluate and implement new initiatives to ensure effectiveness and avoid emerging risks.

The recent global uptick in climate commitments belies a potentially expanding gap in climate-related investment and financing. According to the Intergovernmental Panel on Climate Change (IPCC), an annual average investment of <u>around US\$2.4 trillion</u> is needed in the energy sector alone to reach the 1.5 degree goal. In contrast, many developing countries have not recovered economically to their pre-pandemic level, and low-income countries are now <u>cutting public investment</u> critical for long-term sustainable development. As the impacts of climate change intensify, the amount of funding needed for <u>climate adaptation</u> will also drastically increase. Despite promising developments such as the new <u>climate reparation fund</u> and a number of <u>North-South cooperation initiatives</u>, it is unclear whether vulnerable communities and countries will have sufficient resources to respond to climate change impacts and risks.

As public funding and aid <u>can be insufficient</u> to close the financing gap, global leaders are now increasingly eyeing <u>market mechanisms</u> to incentivize contribution from the private sector. Just as the United States announced the <u>Energy Transition Accelerator</u> in early November 2022 to catalyze private climate financing by allowing developing countries to sell carbon credits to private companies that can "offset" the companies' carbon emissions, the <u>Africa Carbon Markets Initiative</u> also aims to advance sustainable development by expanding Africa's carbon credit market, potentially between the region and private companies worldwide.



At the same time, countries at the forefront of climate change mitigation are now worried about "<u>carbon</u> <u>leakage</u>": as a country sets higher environmental and carbon emission standards, companies are prone to move their production and operation elsewhere, leading to trading disadvantages and less effective emission reductions. Accordingly, the European Union has planned to implement a <u>Carbon Border Adjustment</u> <u>Mechanism (CBAM)</u>; a de facto carbon tariff for certain imports from non-EU producers who have not "already paid a price for the carbon used in the production."

The idea of similar "carbon adjustment" tariffs has also attracted <u>bipartisan interest</u> in the United States. More recently, the U.S. has reportedly proposed to establish an "<u>Global Arrangement on Sustainable Steel</u> <u>and Aluminum</u>" along with the European Union to jointly impose carbon tariffs against steel and aluminum products that are produced in carbon-intensive ways. This particular arrangement is described as an effort to "level the playing field."



Despite good intentions, legitimate concerns and promising prospects, the above-mentioned initiatives and proposals must be carefully implemented to ensure effectiveness. In contrast to the potential of carbon credits, carbon markets are still at <u>an early stage of development</u> at both the national and regional levels. As emissions trading schemes (e.g., in the European Union and China) are still exploring the best way to ensure accuracy, reliability and accountability in the counting, verification and trading of carbon emission reductions within their own economy, the <u>concerns for greenwashing</u>—namely, that companies will misrepresent or exaggerate their contribution to climate change—have persisted. These issues will only be highlighted when initiatives such as the Energy Transition Accelerator and Africa Carbon Markets Initiative allow carbon credits to flow between the developing countries and the private companies around the world. This is especially important when said private companies are incorporated in economies that do not have a carbon market (e.g.,

⁴ EU Commissioner for European Green Deal - First Vice President and Executive Vice President Frans Timmermans (left) and the EU Commissioner for Economy Paolo Gentiloni (right) at a press conference on the EU's Carbon Border Adjustment Mechanism and energy taxation, July 15, 2022. (Photo by Thierry Monasse via <u>Getty Images</u>)



the United States).

To avoid a global race to the bottom, the international community should at least establish a global coordination and monitoring mechanism, such that best practices are shared and incorporated across different initiatives. Ideally, the individual initiatives should eventually lead to a global carbon market, aiming at genuine and measurable carbon emission reduction progress to jointly contain global warming.

Notwithstanding the urgent need for global cooperation on climate change actions and market mechanisms, recent developments in "carbon tariffs" could shift the narrative from international cooperation to geoeconomic tensions. As the United States proposes to establish a "climate club" with the European Union and other like-minded partners to jointly impose carbon tariffs against non-members, researchers have found that punitive climate tariffs could inflict significant damage on the economies of others as well as global trade but might not effectively induce further emissions reductions unless non-members of the climate club are forced to join the club. As many developing countries are still struggling to find sufficient resources to invest in climate change mitigation and adaptation, such measures can potentially be counterproductive to global sustainable development and, accordingly, the global fight against climate change. Additionally, the introduction of punitive tariffs risked violating the rules of the international economic order and would erode trust in the global system for sustainable development—trust that has already been tested by the U.S. withdrawal from the Paris Agreement in 2017 and the increasing tensions between the United States and China.

As the international community reaffirms its commitment to climate change actions, global leaders should give careful consideration to the measures that they seek to implement in addressing the climate financing gaps. Effective actions in the progression of sustainable development require not only the effective incorporation and coordination of all countries and stakeholders but also the genuine attention to effectiveness, accountability and the building of trust.

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This season's Theme of the Quarter on Global Uptick in Commitments to Climate was primarily researched and written by Amanda Jin, Research Assistant Intern, with the assistance of Skyler Standridge, Research Assistant Intern, at the Institute for China-America Studies.



This Season's Global Climate Affairs

Issues & Updates on Blue Carbon

UWI, IDB Agreement On Blue Carbon

Tuesday, December 27 Source: <u>The New York Carib News</u> [Trinidad and Tobago]

The Inter-American Development Bank and the University of the West Indies St. Augustine Campus of Trinidad and Tobago signed a technical cooperation agreement worth \$996,000. In an attempt to offer a platform for scientifically based data on the sequestration and release of blue carbon in the sites of participating countries of the United Kingdom Blue Carbon Fund.

Hokkaido kelp farmers aim to boost storage of 'blue carbon' in seaweed beds Monday, December 19 Source: <u>The Japan Times</u> [Japan]

Fisheries cooperatives, governments, and companies from a major kelp-producing region in Hokkaido, Japan, are pushing to increase the amount of carbon captured by blue carbon ecosystems. In addition to supplementing poor fishing harvests by selling blue carbon credits, raising seaweeds can also make fishing grounds richer and increase revenue from the fishery.

<u>Global study reveals widespread salt marsh decline</u> Monday, December 19 Source: <u>Mongabay</u> [Global]

After NASA scientists analyzed satellite images from around the globe, they concluded that the world has lost 1,453 square kilometers (561 square miles) of salt marsh between 2000 and 2019, resulting in significant carbon emissions. Severe storms and human-induced restoration both make up for part of the loss.

<u>Urchin farming company gets world first blue carbon credit for kelp</u> Thursday, December 15 Source: <u>SeafoodSource</u> [Japan]

The Tokyo-based Japanese subsidiary of the aquaculture company Urchinomics, Uninomics K.K., successfully received the world's first voluntary blue carbon credit for kelp-bed restoration through the relocation of sea urchins. The credit was validated and certified by the state-appointed Japan Blue Economy Association who was tasked with establishing blue carbon credit standards.



Base Carbon Selected by Danish Red Cross as Partner on Blue Carbon Projects Tuesday, November 22 Source: <u>The Financial Post</u> [Southeast Asia]

Base Carbon Company signed a letter of intent with the Danish Red Cross to assess and potentially develop blue carbon related carbon reduction projects in Southeast Asia. The project is anticipated to last for at least two years, and an initial project in the Philippines is already in the scoping phase. More Red Cross Movement partners are anticipated to join the partnership in the future.

<u>Amazon and Conservation International establish the International Blue Carbon Institute</u> Monday, November 14 Source: <u>Amazon News</u>; <u>Asia News Network</u> [Singapore, Southeast Asia]

Amazon and Conservation International established the International Blue Carbon Institute in November with support from the Singapore Economic Development Board. The International Blue Carbon Institute will serve as a knowledge hub to support blue carbon projects in Southeast Asia and beyond. The institute will support the restoration and protection of coastal blue carbon to mitigate climate change and protect local communities.

<u>CSIRO, Google team for blue carbon AI project</u> Friday, November 11 Source: <u>InnovationAus</u> [Australia]

Google and the Commonwealth Scientific and Industrial Research Organization will collaborate to study the blue carbon ecosystem in the Indo-Pacific and Australia by using machine learning tools such as artificial intelligence platform technology. The team seeks to explore new ways to monitor carbon sequestration and more scalable and cost-effective mapping and data modeling methods.

IAEA COP27 Event Focuses on Blue Carbon as a Nature-Based Climate Solution

Wednesday, November 9 Source: <u>IAEA</u> [Global, Egypt]

In the International Atomic Energy Agency (IAEA) event held during COP27, marine science experts discussed the role of blue carbon in offering long-term, nature-based solutions to reduce CO2 concentrations in the atmosphere. Each panelist stressed the need for immediate action and more in-depth research to both restore and make the best use of the vulnerable ecosystem. The IAEA can determine accurate carbon storage rates to measure sediment accumulation, which allows policymakers to find the most efficient Blue Carbon sinks.



<u>New seaweed deal taps into Indigenous ecological knowledge</u> Monday, October 24 Source: <u>Axios</u> [United States, South Pacific]

The Te Whānau-ā-Apanu, a tribe of the New Zealand First Nations, has signed and invested in a Trans-Pacific seaweed research and farming deal with Blu3, a climate technology company based out of California. The deal mainly includes research and commercial projects centered around the potential of seaweed as a source of blue carbon, food, bioenergy, construction and biopharmaceuticals.

<u>Tiny Antarctic creatures provide US\$8.6 billion of carbon storage via their poo</u> Thursday, October 20 Source: <u>Imperial College London</u> [The Antarctic, Europe, Global]

A new research report released by the World Wide Fund for Nature explains how the krill that live in the Antarctic seas can significantly help reduce global heating by keeping 23 megatonnes of carbon annually out of the atmosphere, making them "worth more to nature and people left in the ocean than removed."

<u>Researchers look to Canada's oceans to sink planet-warming carbon</u> Tuesday, October 18 Source: <u>CTV News</u> [Canada]

Canada launched a three-year, \$1.59 million Blue Carbon Canada collaborative project to produce a national assessment of the blue carbon storage capacity of Canada. An interdisciplinary team from conservation agencies and federal agencies will participate in the project. The project will locate blue carbon ecosystems, estimate the mitigation capacity, and project different protection scenarios.

Indonesia, Australia Cooperate On Blue Economy Tuesday, October, 11 Source: <u>Maritime Fairtrade</u> [South East Asia, Australia]

On October 7, Indonesia and Australia signed an agreement to cooperate on maritime and blue economy projects during the Road to Ocean 20 (O20) event. The agreement was finally reached after five years of negotiation and planning. Indonesian Acting Deputy Coordinating Minister for Maritime Resources Firman Hidayat signed the agreement and confirmed that Indonesia will continue the cooperation with Australia, which includes joint research, capacity building, technology transfer and knowledge exchange.



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50% of Earth's coral reefs face climate change threat by 2035 Tuesday, October 11 Source: <u>University of Hawai'i News</u> [Global]

According to new research done at the University of Hawai'i at Mānoa, if climate change continues unabated, its negative impacts on coral reefs "are actually worse than anticipated due to a broad combination of climate change-induced stressors." Thus, among other conclusions, by 2035 50% of the world's coral reefs will be unsuitable when multiple stressors are considered.

New study maps blue carbon stored in Jersey waters

Thursdays, October 6 Source: <u>BBC News</u> [The United Kingdom]

A new study examined the carbon stored in Jersey's territorial water, and researchers estimated Jersey's seabed helped remove more than 10,000 tonnes of carbon every year. The government's marine resources team identified the levels of blue carbon in the island's waters. The study estimated that 12 million tonnes of carbon were stored in the shells of clams, crustaceans, and coral alone.

<u>The Mediterranean Sea is so hot, it's forming carbonate crystals</u> Wednesday, October 5 Source: <u>Ocean Acidification International Coordination Centre</u> [Europe]

Global warming is now causing some parts of the eastern Mediterranean Sea to form carbonate crystals in a process called stratification as the sea can no longer absorb carbon dioxide gas and instead releases it.

First African Emissions Reduction Platform to Begin Trading

Monday, October 3 Source: <u>Bloomberg</u> [Africa, Global]

Africa's first verifiable emissions reduction platform, known as CYNK, will begin trading in "Tamuwa biomass tokens" this quarter, with plans already underway to also add "regenerative agriculture" and "blue carbon" credits to the platform.



Multilateral Affairs & Climate Diplomacy

Multiple European Countries Pulling out of the Energy Charter Treaty

The Short Story: Many European countries announced in the past months that they would quit the controversial Energy Charter Treaty that supports the fossil fuel industry due to climate concerns.

Why It Matters: The Energy Charter Treaty, signed in 1994 by more than 50 countries, was initially designed to protect foreign energy investments among the contracting states. However, it is now used by fossil fuel and nuclear energy companies to defend themselves against the government's reforms to develop renewable and clean energies. Many countries have regarded the treaty as an obstacle to achieving the objectives of the Paris Agreement adopted in December 2015 by 196 Parties. The future of this controversial treaty after the turbulence is yet to be discovered.

The Full Feature Story: Initially, the Energy Charter Treaty aimed to integrate the former Soviet energy suppliers into the western market by protecting investments in these countries. It has binding provisions for investment protection, free trade, and freedom of transit of energy materials. However, as the international market stabilizes and the demand for fossil fuels keeps declining, the treaty currently has a more negative impact on the development of the energy market. Energy companies would sue governments for regulatory changes that threaten returns on specific investments. It is happening more and more frequently nowadays as more countries start to shift to cleaner energies to fulfill their Paris Agreement objectives. Moreover, the lawsuits mostly happen among European countries themselves, where the energy company of one European country sues the government of another European country. Spain has the biggest number of treaty-related lawsuits, followed by Italy-which has been no longer a member of the treaty since 2016.

Nevertheless, even though it has been years since green activists started to protest the Energy Charter Treaty, and the attempts that aim to reform the treaty in the past years also ended in failure, it is still surprising to see multiple countries pull out of the treaty in a matter of months. Poland was the first country to officially start taking steps to quit the treaty, which happened even before the fourth quarter of this summer. Poland's decision was then followed by five more countries—Spain, France, the Netherlands, Germany, and Italy. All six of them are leaving the treaty for the same reasons, mentioned above, and none of them believe that any change or reform within the treaty is sufficient to improve the status quo. Germany's Economic Minister Robert Habeck said the treaty "has proven itself in the past to be an obstacle for change." It seems that more and more countries agree with his views, as the Slovenian parliament unanimously endorsed the government's proposal to withdraw and became one of the two newest countries to join this group together with Luxembourg. The European Union's attempt to reform the treaty in November also fell apart after the four countries abstained in a key vote that blocked the entire process from happening. The Dutch Minister for Climate and Energy Policy suggested that it would be preferable if the entire European Union could quit the treaty. Just a few days later, on November 24th, the European Parliament adopted the resolution that requested the European Commission to initiate the coordinated exit process of the EU from the Energy Charter Treaty.

International Reactions: The other signatories of the treaty—including Japan and Central Asia countries—are yet to make any sound response after this recent turbulence in Europe. However, this substantial withdrawal could have been prevented if the other signatories did not hinder Europe's attempt



to reform the treaty to align with their climate goals. For example, the Japanese government resisted reforming the treaty to disallow energy companies to sue governments when climate policies hurt their profits.

Sources:

Why are EU countries leaving the Energy Charter Treaty?, Euobserver, October 19, 2022 Netherlands follows Spain in quitting Energy Charter Treaty, Euractiv, October 19, 2022 France joins other European countries in pulling out of treaty protecting energy investments, Reuters, October 21, 2022 EU states 'revolt' against controversial energy treaty, DW, October 25, 2022 German parties agree to ratify CETA, quit energy charter, Reuters, November 11, 2022 Slovenia withdraws from Energy Charter Treaty, Euractiv, November 16, 2022 Another blow for Energy Charter Treaty as Luxembourg announces exit, Euractiv, November 18, 2022 EU attempt to reform the controversial Energy Charter Treaty falls apart after four countries abstain, euronews, November 21, 2022 European Parliament resolution 'final nail in the coffin' for Energy Charter Treaty, ClientEarth, November 24, 2022 Germany approves withdrawal from Energy Charter Treaty, DW, November 30, 2022 Japan blocks green reform of major energy investment treaty, Climate Home News, September 8, 2022

Resurrection of the U.S.-China Climate Talk

The Short Story: After months of disruption triggered by the Speaker of the House of Representatives Nancy Pelosi's visit to Taiwan, the United States and China finally resumed the bilateral climate talk during the United Nations' COP27 gathering.

Why It Matters: The United States and China are the world's two biggest greenhouse gas emitters, and their failure to cooperate will pose enormous challenges to global climate action. Benign and effective cooperation between the two countries can significantly improve the chance of meeting the target of limiting global warming to below 2 degrees Celsius. Global climate cooperations such as COP27 will be productive only after the major countries such as China and the United States reach a consensus. Meanwhile, a cooperative partnership on climate issues could help improve the current, holistic negative diplomatic relationship between the two countries.

The Full Feature Story: Beijing suspended all kinds of bilateral climate discussions with the United States in August after Nancy Pelosi's travel to Taiwan. According to a spokesperson of the Chinese Foreign Ministry, although China and the United States "developed good cooperation in the area of climate change" and "[work] together to get the Paris Agreement reached," Pelosi's "serious breach of Chinese sovereignty" left China with no choice but to suspend the talks. Nevertheless, some early statements that described the suspension as a breakdown in bilateral cooperation were still overly pessimistic. The United States wanted to get China back to the negotiation table since October, a month before COP27, when Special Envoy John Kerry said: "I think China and the U.S. must inevitably work together to do the things we need to do to win this battle." Kerry refuted the notion of treating climate issues like all the other political issues, suggesting instead that the climate issue is a global threat that requires the two largest emitters and the two largest economies to work together to benefit the world.

In fact, China also reacted with a different attitude on climate issues compared to "all the other political issues." Even though the talk was officially suspended, John Kerry was still able to exchange information



with his counterpart, Xie Zhenhua, regarding methane emission, deforestation, and green transition. As early as October, they had already tried to explore the feasibility of resuming the dialogue. China was also making new moves on its own. Unlike the United States, which emphasizes collaboration and wants to lead the whole world to make climate commitments, China is more interested in demonstrating its pragmatism, independence, and sense of responsibility. As a *Wall Street Journal* analysis article pointed out, China might "go beyond its [climate] commitments without making any new pledges." For example, China is the world's largest consumer of electric vehicles, and it is leading the world in the installation of more new renewable energy facilities.

Before the conference, there were always concerns about how the poor U.S.-China relationship might negatively impact COP27. It was quickly proved that such concerns were unfounded. Kerry and Xie spoke with each other unofficially shortly after COP27 started. On November 8, they both confirmed that they were talking to each other and, as Kerry said, China and the United States "have a common interest in working together to try to reduce emissions." One week later, the two climate envoys met officially at COP27. Xi and Biden met each other during the G20 in Indonesia around the same time, ending the months-long diplomatic turbulence between the United States and China. Although both sides had disagreements on who should compensate poorer countries for environmental damages, they both contributed to the signature of the new climate agreement that requires rich countries—including the United States and those in the EU—to pay poorer countries for environmental damages. China, as a developing country, promised not to receive money from the agreement, which accelerated the successful implementation of the agreement.

International Reactions: The international community did not directly respond to the suspension of the U.S.-China climate talks or make direct critiques of the subject. However, everyone was aware that many climate goals would be impossible to achieve without China and the United States working together. For example, Frank Jotzo, director of the Centre for Climate and Energy Policy at Australian National University, said that "the U.S.-China collaboration on climate commitments is something that has really helped in the past." The European Union would be hesitant to agree on the new climate agreement without sitting together with both China and the United States to solve the disagreements and concerns.

Sources:

<u>China says U.S. must 'take responsibility' for breakdown in climate ties</u>, *Reuters*, November 4, 2022 <u>US and Chinese Climate Envoys in Contact Despite Halt to Talks</u>, *Bloomberg*, October 25, 2022 <u>'We need to get China': John Kerry calls for return to bilateral climate talks</u>, *The Guardian*, October 25, 2022 <u>China Resists Climate Pressure From West, but Makes Gains on Its Own</u>, *The Wall Street Journal*, November 9, 2022

<u>US, China Meet for Climate Talks as Xie Says Door Is Open</u>, *Bloomberg*, November 9, 2022 <u>U.S. Climate Envoy John Kerry Rekindles Contact With China at COP27</u>, *The Wall Street Journal*, November 8, 2022

<u>US. China climate envoys meet at COP27 summit in Egypt</u>, Associated Press, November 15, 2022 <u>Resurrection of U.S.-China Ties Boosts COP27 Climate Talks</u>, *The Wall Street Journal*, November 17, 2022 <u>In a First, Rich Countries Agree to Pay for Climate Damages in Poor Nations</u>, *The New York Times*, November 19, 2022

More on Multilateral Affairs & Climate Diplomacy:

• A historical biodiversity agreement was reached at the United Nations Biodiversity Conference on December 19 in Montreal, Canada, representing the most significant effort to protect biodiversity in the world's lands



and oceans, and providing the developing world with the most critical financing to save biodiversity. (<u>UN</u> <u>Environment Programme</u>, December 20)

- The European Union has officially added shipping to its carbon market, which requires emitters to buy permits when they emit carbon dioxide, in a move likely to encourage the shipping sector to invest in greener technologies. (*Reuters*, December 2)
- On November 6, the 14th Meeting of the Conference of the Contracting Parties to the Ramsar Convention on Wetlands in Wuhan, China adopted the Wuhan Declaration, which is committed to mobilize more resources to develop a more ambitious plan to promote the conservation, restoration, management, wise and sustainable use of wetlands. (*China Daily*, November 6)
- On January 1, 2023, the International Maritime Organization will enforce the Carbon Intensity Indicator (CII); a new regulation to combat global warming through lowering carbon emission by having container ships, tankers, bulkers, car carriers and other vessels operate more efficiently. (International Maritime Organization, November 1)
- European Union countries agreed on October 24 to raise their target to curb greenhouse gas emissions. Currently, the EU's target is to cut its net emission by 55% by 2030, and now it hopes to push that goal higher as soon as the bloc agrees on a dozen new emission reduction laws. The EU wants to use this ambitious plan to encourage other major emitters also to push themselves further on climate objectives. (*Reuters*, October 24)

Domestic Activity & Climate Affairs

Some Notable Changes of The New UK Cabinets' Environmental Protection Policies

Country/Region: The United Kingdom

The Short Story: The British government is indecisive about its environmental policies.

Why It Matters: The United Kingdom is playing a considerable role in the global net zero emission goal. It is both a developed country with sufficient resources and a major greenhouse gas emitter. However, its vacillating environmental policy in both the Liz Truss and Rishi Sunak administrations has raised many concerns. An independent review also suggests that the motivation for achieving net zero is now driven not only by environmental concerns but also by economic opportunities.

The Full Feature Story: Affected by the general economic recession and the energy crisis caused by the Russo-Ukrainian War, Prime Minister Liz Truss showed a low priority towards environmental conservation throughout her time in office. Although she only lived in 10 Downing Street for a few weeks, it was still long enough for her administration to lift the moratorium on fracking for shale gas in England, support oil and gas exploitation in the North Sea, and slow down onshore wind projects. Truss planned to ban the installation of solar farms on agricultural land in England as well, but she did not stay in office long enough to make actual progress on that. An initial disagreement between the now-former prime minister and the newly crowned King Charles was also related to climate issues. Truss "advised" the King to stay away from the COP27 Summit even though the royal family has been a strong advocate of environmental protection for decades. Ultimately, environmental activists such as the Greenpeace group and public



figures—including the former Prime Minister Boris Johnson—condemn Truss for the United Kingdom's reversal on climate issues.

As Truss' brief rule ended, Rishi Sunak entered the prime minister's office with blurry climate policies and commitments. While he reversed Truss's decision to lift the moratorium on fracking, he kept the other unfriendly-to-nature policies introduced by Truss unchanged. He did announce plans to launch major climate packages to cement the UK's COP legacy, which will help to protect the environment all around the world. At the same time, he decided not to attend COP27 due to domestic budget issues. He defended himself, saying it was in the long-term interest of climate policy. Due to the pressure from environmental activists, opposition politicians, and even within his own party, he almost made a U-turn on his environmental policies. He reversed his decision and said that he would "deliver on Glasgow's legacy of building a secure and sustainable future" at COP27. He also said that "there is no long-term prosperity without action on climate change...[and] no energy security without investing in renewables." Nevertheless, many still argued that he was trying to "avoid embarrassment" instead of "providing leadership" by making those changes and not making those appearances. He has already tarnished the UK's—and his own—reputation on climate policy, especially as Sunak is yet to declare where he stands on new oil and gas licensing and onshore wind. UK business secretary Grant Shapps recently signaled that the UK government might also reverse its ban on onshore wind farms as well. UK environmental policies may be back on track after months of unwelcoming changes, but concerns about the coherence of its policies are bound to linger for some time.

Sources:

Prince William will NOT stand in for King Charles at Cop27 summit in Egypt after Liz Truss 'advised monarch to stay away from climate change conference', Dailymail, October 2, 2022

<u>Truss's plan to ban solar on farmland risks £20bn of investment, sector warns</u>, *Financial Times*, October 10, 2022 <u>COP 27-UK PM Sunak reverses decision to skip climate talks</u>, *Reuters*, November 2, 2022

<u>Boris Johnson condemns Liz Truss on fracking in COP27 speech as he bids to be UK's green champion, inews,</u> November 7, 2022

<u>UK announces major new package of climate support at COP27</u>, Government of the United Kingdom, November 7, 2022

<u>Recent Shifts in UK Government's Climate Change Policy</u>, JDSUPRA, November 22, 2022 Grant Shapps signals U-turn on UK onshore wind power, *Financial Times*, November 28, 2022.

A Carbon Neutral FIFA World Cup is Overconfident but Ambitious

Country/Region: Qatar

The Short Story: FIFA—the International Association Football Federation—claims that the FIFA World Cup 2022 in Qatar is carbon neutral, but there are still many doubts on the accuracy of this statement for various reasons.

Why It Matters: Major sporting events have long been questioned for their high greenhouse gas emissions. This year's FIFA World Cup is the first event in the tournament's long history that pledged to be carbon neutral. Such a positive attitude already marks a heartening improvement, and it will be used as an example and benchmark for all major sporting events in the future. However, this bold first attempt was still immature in many aspects and has attracted a lot of doubts and debate over its realization.



The Full Feature Story: From November 20-December 18, the small, Middle-Eastern nation of Qatar managed to bring together many millions of fans from around the world for 64 exciting and enjoyable football games. However, the serious greenhouse gas emissions behind these games were also reportedly unprecedented. FIFA and the nation of Qatar estimated that the tournament would generate about 3.6 million tonnes of carbon dioxide; only slightly less than the previous two World Cups combined. Qatar built seven brand new stadiums for the tournament. Except for 'Stadium 974' that was made from 974 shipping containers that will be dismantled after the match, the other six will remain and Qatar will have to find new duties from them to cover their carbon footprint. Furthermore, due to the high temperature during the World Cup, the organizer had to use outdoor air conditioning systems to cool down the stadiums, which was also a major carbon generator. Nevertheless, none of the above is as serious as the carbon footprint generated by the staff and fans that traveled to Qatar from all over the world. FIFA says they are responsible for 52 percent of the total carbon emissions of the 2022 World Cup.

The primary carbon neutral mechanism used by Qatar was financing greenhouse gas emission reduction projects all around the world in exchange for carbon credits. In other words, the organizers needed to buy 3.6 million carbon credits to counterbalance the carbon emissions from the event. In reality, FIFA and Qatar each took care of half of the carbon credits. FIFA actually established its own carbon offset agency, the Global Carbon Council (GCC), to take care of these projects. As of before the start of the World Cup, GCC has approved three emission reduction related projects, including two wind farms in Turkey and Serbia and another hydroelectric plant in Turkey.

International Reactions: Although FIFA claims that this World Cup is carbon neutral and is taking action to back up those claims, there are more doubts than compliments on FIFA and Qatar's pledge to carbon neutrality. International spectators and relevant experts have suggested that the number of emissions generated by this tournament was underplayed by the organizers. Gilles Dufrasne, an author of the Carbon Market Watch paper, estimated that the organizers were underestimating the carbon emission by at least 1.6 million tonnes in the stadium construction section alone. In addition, others questioned whether the establishment of the GCC is actually facilitating data fraud on actual carbon emission since Qatar was able to bypass the traditional certification bodies recognized on the international carbon market with GCC's criteria. *BBC News* also pointed out how some problems were ignored before the event. For instance, since Qatar could only offer a limited number of hotel rooms and could not meet the demand of passionate fans rushing into the small country from all over the world, many fans lived in Dubai and took "shuttle flights" to Qatar frequently. Situations like this would bring a lot of extra carbon emissions. Despite these doubts, not all of the international reaction was negative. Sheile Miller, a sustainable systems professor at the University of Michigan, called Qatar's effect "a really positive thing from an environmentalist perspective, and something we should be encouraging more major international events to be doing."

Sources:

<u>World Cup 2022: The 'mirage' of carbon offsetting</u>, *Le Monde*, November 19, 2022 <u>Is the Qatar FIFA World Cup really carbon neutral?</u>, *Deutsche Welle*, November 21, 2022 <u>Qatar 2022: The World Cup's promise of 'carbon neutrality' lacks credibility</u>, *Le Monde*, November 7, 2022 <u>Qatar's Carbon-Neutral World Cup Is a Fantasy</u>, *Bloomberg*, November 10, 2022 <u>World Cup: Shuttle flights cast doubts on carbon-neutral pledge</u>, *BBC News*, December 1, 2022 <u>For a sweltering petrostate</u>, a 'carbon neutral' World Cup is a challenge, The Washington Post, December 6, 2022



More on Domestic Activity & Climate Affairs:

- **China**: In early November, China, as a major emitter of methane, announced its new draft plan to curb methane emissions and pledged to promote new technologies and finance mechanisms to slash the rising methane emission. (*Bloomberg*, November 17)
- **Germany**: In October, German Chancellor Scholz ordered to extend the lifespan of Germany's last three nuclear power plants, which were initially planned to be shut down and replaced by clean energy generators at the end of this year to mid-April next year, to compensate for the energy disruptions caused by the Russia-Ukraine War. (*Politico*, October 17)
- Indonesia: In November, the Indonesian government worked closely with the Asian Development Bank to seek to reach a deal with one of the <u>32 identified pollutive coal plants</u> for their early retirement in order to meet climate targets. (*The Straits Times*, November 14)
- Japan: Two of Japan's leading shipping companies are reporting progress in developing ammonia-fueled commercial ships; ones ultimately converted from currently-used liquefied natural gas vessels. The goal is reportedly to have a commercial alternative available "by the middle of this decade." (*The Maritime Executive*, December 1)
- South Africa: After nearly a year's negotiation with the U.S., UK, EU, France, and Germany, who are the contributing funds, the South African government finally approved an US\$8.5 billion energy transition investment plan package to accelerate the country's transition to clean energy. (*Climate Home News*, October 20)
- **The United States:** In an interview with *CNN*, Angus King, U.S. Senator in Maine, warned that the U.S. has "been slow to pick up on" securing the Arctic region as other powers move in as a "new ocean" is in the process of appearing in the region due to climate change and a declining summertime extent of sea ice. (*CNN*, October 16)
- The United States: In Norfolk, Virginia, the non-profit organization Elizabeth River Project is building a US\$8.1 million headquarters in an area destined to be submerged in the upcoming decades in an effort to show people "how to work and play and live with this rising sea level." (*The Washington Post*, October 12)
- **Turks and Caicos Islands:** This small island country in the Pacific passed the Merchant Shipping Bill 2022 to implement the necessary laws to improve safety at sea and protect marine life. (*Turks and Caicos Weekly News*, December 22)

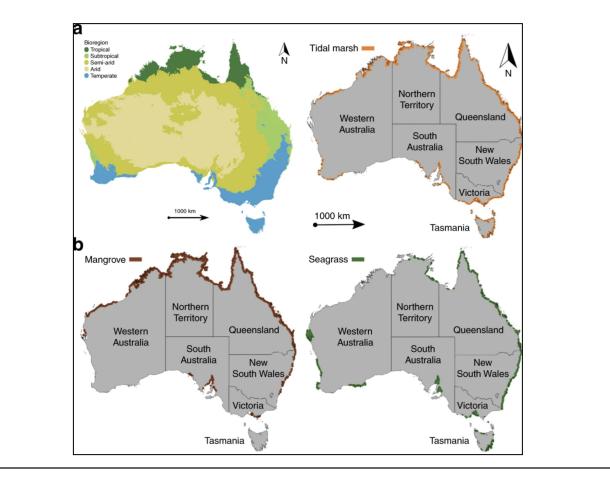


Blue Carbon Country Profile: Australia

A. Potential of Australia in Blue Carbon Affairs

Given its geography, the Australian government has understandably called itself a global "blue carbon hotspot." Australia's blue carbon ecosystem accounts for about 12% of the known world wide blue carbon ecosystem and reportedly holds about 7-12% of global carbon stock. Australia has ample amounts of all the coastal blue carbon resources—mangroves, salt marshes and seagrasses—according to the Marine Education Society of Australia. In fact, Australia has the third largest area of mangroves in the world.

- Mapped area of sea grasses (2015): 51,000 km²
- Mapped area of tidal salt marsh (2017): 13,825 km²
- Mapped area of mangrove (2015): 11,500 km²
- Key agency on blue carbon: Department of Climate Change, Energy, the Environment and Water (DCCEEW)
- Key regions of interest: The Great Barrier Reef, Shark Bay, the Ningaloo coast
- More information:
 - Distribution of climate regions, vegetated coastal ecosystems (tidal marshes, mangroves and seagrasses) in Australia⁵



⁵ Image: The distribution of blue carbon resources in Australia. Source: Serrano, O., Lovelock, C.E., B. Atwood, T. et al. Australian vegetated coastal ecosystems as global hotspots for climate change mitigation. Nat Commun 10, 4313 (2019). <u>https://doi.org/10.1038/s41467-019-12176-8</u> (Author Note: This image is cut from a larger image)



Based on its current actions, the Australian government already actively recognizes the importance of the blue carbon ecosystem for mitigating climate change, protecting biodiversity, and improving the livelihoods of coastal communities. It is already supporting research, restoration projects, capability building, and global partnerships related to blue carbon at local and, occasionally, national levels. It is also one of the first countries to report on blue carbon in its National Greenhouse Gas Inventory. And in August 2022, Australia also released the National Ocean Ecosystem Account, which collects information on carbon storage and coastal protection benefits of Australia's blue carbon ecosystems for the first time.

Furthermore, given the existence of multiple key coastal regions of interest in blue carbon studies such as the Great Barrier Reef, Australia has also recognized the vital role it is to play in both protecting and restoring blue carbon ecosystems. Government agencies, research institutes, and non-governmental organizations are all working collectively on blue carbon related research. For instance, in 2021 the Australian Bureau of Statistics and the Department of Climate Change, Energy, the Environment and Water (DCCEEW) worked together and identified several capabilities of blue carbon such as carbon sequestration and coastline protection, which helped inform evidence-based policies.

The Australian Government is both ambitious and monetarily generous on blue carbon related affairs, funding multiple projects, programs, and organizations to protect and develop blue carbon. Australia is not only focusing on the blue carbon ecosystem domestically; it is also a leader on the world stage on blue carbon affairs. Australia leads the International Partnership for Blue Carbon, a global partnership that includes 53 partners from government, private, research and non-government fields that aims to protect, manage, and restore coastal blue carbon ecosystems.

B. <u>Domestic Government Actions and Activities on Blue Carbon in Australia</u>

National Legislations

As a newly developed subject, there are very few legislations related to blue carbon and its relevant subfields. This happens not only in Australia but also in most countries around the world. Nevertheless, the Australian government is paying more and more attention to the protection and development of blue carbon through government intervention and legislation. Initially, the Australia Department of Industry, Science, Energy and Resources (DISER) started to include blue carbon into legislations in recent years before the tasks were then transferred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

• In January 2022, the Clean Energy Regulator, tasked by the Minister for Industry, Energy and Emissions Reduction, announced the "Blue Carbon Method" under the Emissions Reduction Fund. The method provides landholders with incentives to restore coastal wetlands by "reintroducing the tide to lands where tidal influences have been reduced by installed barriers."

National Agencies and Government Actions

The Australian government currently supports and funds several blue carbon related programs domestically, many of which are designed to be enacted in the next few years if they have not already been initiated.

• The Australian government's Blue Carbon Conservation, Restoration and Accounting Program is funding practical actions to support the blue carbon ecosystem. This program will help to scale up investment in coastal blue carbon ecosystems. The government will invest AU\$30.6 million on



on-ground blue carbon restoration and conservation activities both in Australia and overseas.

- As a part of this program, the Blue Carbon Ecosystem Restoration Grants provide funding over a designated four year period (from 2021-2022 to 2024-2025) for the purpose of implementing on-ground projects that restore degraded coastal wetland ecosystems in Australia.
- The Australian government's National Environmental Science Program (NESP) is funding environmental and climate research. It plans to invest approximately AU\$300 million by 2026-2027 in a total of 10 research hubs. Studies conducted by the Marine and Coastal Hub on blue carbon ecosystems, coast, reefs, shelf and deep-water are part of the program.
- The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is currently working on not only estimating the potential of Australia's blue carbon but also measuring the value of other related co-benefits. Among other benefits, this analysis will offer information to facilitate the development and adoption of blue carbon restoration in Australia.

Local Government Actions

Compared to the national level, there are even more blue carbon-related projects taking place on the local government level in Australia. Also, local governments and related institutes and organizations are able to carry out their projects more accurately and meticulously as they can identify and employ the specific conditions and features of their regions. The following are some key examples of such localized projects.

- In recent years, a collaboration that includes the New South Wales Fisheries, the National Parks and Wildlife Service, the Hunter Regional Local Land Services, and the Water Research Laboratory at the University of New South Wales is devoted to transform the Tomago Wetlands site from a large acidic landscape into a restored productive tidal wetland. In order to facilitate fish passage and the restoration of habitat for shorebirds.
- The New South Wales government launched the NSW Blue Carbon Strategy 2022-2027 to support restoring coastal ecosystems and reducing carbon emission. At the same time, the project also aims to "provide the catalyst for action, increase participation in the emerging blue carbon market and leverage the many co-benefits of blue carbon projects."
- The Government of South Australia released the Blue Carbon Strategy for South Australia in November 2019. This strategy aims to use blue carbon measures to accelerate the protection and restoration of coastal ecosystems to reduce emissions; and it also hopes to facilitate social, environmental, and economic co-benefits.
- The Land Restoration Fund (LRF) supports the research, innovation and development of environmental markets in Queensland. It helps Queensland landholders to make benefits from participating in the carbon market. It works together with the Blue Heart Initiative on the Maroochy floodplain with Sunshine Coast Council and Unitywater to better protect the blue carbon in Queensland.



C. Private, Commercial Third-Party Research & Projects

Private Corporations and Investment Groups

There is not yet a known private corporation in Australia that primarily focuses on blue carbon affairs. Currently, blue carbon related research and policy analyses are mostly conducted by government agencies, NGOs and research institutes. Nevertheless, there are still private corporations in Australia that work on curbing carbon emission through blue carbon methods. Although there have been doubts about major corporations investing in environmental protection over claims of 'greenwashing'—a relatively new term used to describe the act of intentionally deceiving a company's customers or audience into believing that their products or services are more environmentally friendly than they actually are for the purpose of bettering that company's reputation—others would claim that they are making meaningful contributions to blue carbon nonetheless. The following is a pair of such private investments and groups currently active in Australia.

- The BHP Group, an Australia mining company, launched an AU\$3 million grants program to help the development of Australia's blue carbon market. The grant program is supported by and developed together with Pollination, a leading climate change investment and advisory firm. The Blue Carbon Breakthrough Grant Program will support the projects that are ready to start, and the Blue Carbon Enabler Program will support earlier stage projects.
- HSBC Australia and Qantas are committed to supporting blue carbon research regarding Queensland's Great Barrier Reef. They consider blue carbon research an important part of their cooperative efforts on building a sustainable future. Both companies are significant contributors of carbon emissions, and they are both devoted to reducing their environmental impacts.

Universities and Research Institutes

Australian academia strongly supports blue carbon related research and is arguably the most active third-party group in Australia on this issue. Several universities have their own blue carbon-related programs and projects, and there are also independent research institutes that work on blue carbon. They are not only committed to the research, protection, and management of blue carbon, but also cultivating young talents for the future development of blue carbon.

- The Centre for Marine Science of The University of Queensland is conducting a blue carbon study that focuses on analyzing how blue carbon projects can be pursued within the existing legal and regulatory frameworks in Australia. Its program primarily focuses on studying the restoration and conservation of mangroves—one of the three primary blue carbon ecosystems.
- Deakin University runs the Blue Carbon Lab that offers innovative research solutions to mitigate climate change and enhance the blue economy. It studies the blue carbon not only domestically in the Australian states of Queensland and Victoria but also in the Seychelles archipelago.
- The University of New South Wales' Water Research Laboratory is the leader in implementing large-scale Blue Carbon restoration projects in Australia. With more than 25 years of experience, the Water Research Laboratory has been pioneering Blue Carbon research, which includes contributions to the development of the Australian government's recently-added *Blue Carbon Method* project.
- In 2019, after two years of research, the Coastal Carbon Opportunities project of the Goyder Institute for Water Research summarized the most comprehensive data available for blue carbon in South Australia. The research outputs are now "paving the way for a broader scale rollout of similar work to other areas across the State and country." It will continue to support the assessment of coastal carbon sequestration and emission abatement opportunities in both South Australia and beyond.



- An article called "Substantial blue carbon in overlooked Australian kelp forests" was published in the Scientific Reports on July 23, 2020. This article argues that the value of kelp forests as 'blue carbon' was overlooked. It concluded that omitting kelp forests from blue carbon "significantly underestimates the carbon storage and sequestration potential from vegetated coastal ecosystems globally."
- On October 2, 2019, a group of authors from different universities and research institutes in Australia
 wrote an article on the topic of "Australian vegetated coastal ecosystems as global hotspots for
 climate change mitigation" together. The article "demonstrates the potential of conservation and
 restoration of [vegetated coastal ecosystems] to underpin national policy development for reducing
 greenhouse gas emissions."

NGOs and Non-Profit Organizations

Non-government organizations (NGOs) and non-profit organizations have played a noticeable role in blue carbon-related works in Australia. Unlike their governmental, federal, and academic counterparts, they are achieving their objectives by advocating the importance of blue carbon protection, working together with government agencies and research institutes, and conducting independent research and analysis of all that they observe.

- The Australian Marine Conservation Society (AMCS) is working on the "big issues that risk our ocean wildlife," including actively advocating the protection of blue carbon. In particular, it is calling for further investment in the conservation and restoration of the Great Barrier Reef, Shark Bay and Ningaloo-Exmouth Gulf catchment areas. It also asks the government to develop a quantifying methodology of ecosystem restoration in order to include blue carbon in Australia's Paris Agreement targets.
- The Nature Conservancy (TNC) is a global, non-profit environmental organization founded in 1951 with one of its official—and highly active—branches being located in Australia. For instance, after receiving a AU\$2.9 million fund from the Australian government in 2021, TNC Australia and its partners will restore and enhance 12,400 hectares of mangroves and saltmarsh habitats located 50 km north of the city of Adelaide, Australia in the Adelaide International Bird Sanctuary.
- The Reef Aid program of Greening Australia—a non-profit organization mandated to rebuild nature—is working to "restore wetlands, swamp forests and saltmarshes and reduce sediment and nutrient run-off to improve water quality for the Great Barrier Reef ecosystem."
- Natural Resource Management (NRM) South is a natural resource management body located on Tasmania Island. Their ongoing Blue Carbon Ecosystem Restoration project, funded by Australia's Blue Carbon Ecosystem Restoration Grants in 2021, will temperate saltmarsh communities and other blue carbon ecosystems in Tasmania.

D. Public, Governmental International Engagements on Blue Carbon

Treaties & Agreements

- As of December 2022, like most of the rest of the world, Australia has not signed any treaty primarily addressing blue carbon. However, there is mention of "blue carbon" or its related ecosystems in larger treaties, agreements and discussions.
- In 1971, Australia was one of the first nations to become a Contracting Party to the Ramsar Convention on Wetlands, signed in Ramsar, Iran. Since then, Australia has led the development of resolutions in the convention to encourage global action for the protection and restoration of blue carbon wetland ecosystems.



 Recently on October 7, 2022, Australia and Indonesia signed an agreement to cooperate on maritime and blue economy projects at the Road to Ocean 20 (O20) event. The Deputy for Maritime Resources Coordination of Indonesia held Road To Ocean 20 (O20): 'Workshop on Blue Carbon of Seagrass Ecosystem and Livelihood" in Labuan Bajo, East Nusa Tenggara from October 5-7, 2022 in support of the Sustainable Development Goals during the G20 Indonesia Summit. This three-day workshop is a clear sign of collaboration between the two governments in the Indonesia-Australia Blue Carbon program, ultimately to deliver policy recommendations.

Cross-Border Joint Projects & Partnerships

- Established in 2015, the Australian federal government in Canberra currently leads the International Partnership for Blue Carbon (IPBC), working together with 53 other partners from governments, non-governmental organizations, intergovernmental organizations and research institutions to "protect, sustainably manage, and restore global coastal blue carbon ecosystems." As the coordinator of the IPBC, Australia facilitates operations in line with the strategic direction and manages day-to-day activities of the partnership.
- As described by the DCCEEW, "demonstrating the viability of generating blue carbon offsets" is an important component of Australia's four major efforts to support national climate action and livelihoods in Papua New Guinea and Fiji. It will help to "attract investments and exchange knowledge and expertise between Australian Indigenous communities across the Pacific."
- In 2021, the Australian federal government worked in partnership with the International Union for the Conservation of Nature (IUCN), and set up the Blue Carbon Accelerator Fund (BCAF) to support the development of blue carbon restoration and conservation projects in countries outside Australia. Projects from Benin, Madagascar, Peru, and the Philippines were the first four projects to receive support in 2022.

Statements at International Conferences

- On June 30, 2022, the Australian Government, the International Partnership for Blue Carbon (IPBC), and the Intergovernmental Oceanographic Commission of UNESCO co-hosted the official side event "Blue Carbon: Charting the Path for Governance and Partnerships" during the United Nations Ocean Conference in Lisbon, Portugal. Among other discussions and comments, Australia's Minister for the Environment and Water the Hon. Tanya Plibersek announced new blue carbon partnerships and funds during this side event.
- On December 6, 2022, Australia and the United States released the Joint Statement on Australia-U.S. Ministerial Consultations (AUSMIN) 2022, which includes an agreement that "[b]oth countries support avenues to invigorate existing ocean related partnerships, such as the International Partnership for Blue Carbon, and intend to work closely together on issues that impact the ocean's health."
- In his remarks on the Blue Carbon program to COP26 in Glasgow, Australia's Minister for the Environment and Water the Hon. Tanya Plibersek emphasized the importance of blue carbon to the world. He said: "better management of these systems will enhance food security, support livelihoods and increase resilience, all the while sequestering carbon." He also emphasized the multilateral cooperation between Australia and other countries on blue carbon and expressed with confidence that, "with Australia's support, our partner countries will be able to incorporate blue carbon into their national policies and meet their UNFCCC reporting obligations on greenhouse gas inventories and nationally determined contributions."



E. Keeping An Eye On...

Australia is already a world-leading country in blue carbon in terms of both utilization and protection. The Australian government—at the federal, state and local levels—are all very active and supportive of blue carbon affairs. For instance, the government has set up several funds, such as the Blue Carbon Ecosystem Restoration Grants, to support the practical actions on blue carbon programs both domestically and abroad. Australia's financial and technological support for blue carbon-related programs stretches all the way from Australia's southernmost island of Tasmania to Benin in West Africa. In addition, there are a lot of organizations—governmental organizations, research institutes, universities, and nonprofits—in Australia that cover the topic of blue carbon or even focus on studying it. The benefits of blue carbon to Australia is even going far beyond the objective of curbing carbon emissions. In addition to being blue carbon resources, mangroves, sea grasses, and tidal salt marsh all growing in large areas on its thousand miles stretch of coastline are also important economic, tourist, and cultural resources. The world-famous heritage site areas, such as the Great Barrier Reef, Shark Bay, and the Ningaloo coast, all store blue carbon in large amounts. Because of these, and other reasons, Australia has every reason to be on top of the global "blue carbon" tracking, preservation, and restoration field.

Nevertheless, there are two major areas that Australia can still work on to improve further its capabilities in utilizing and protecting blue carbon. First, Australia still needs more legislation to formalize many blue carbon-related policies. Since blue carbon is still a very new subject, this lack of legislation is understandable, but Australia has the opportunity to be a leader in formulating and employing legislation on this issue given its domestic expertise, access, and natural interests. The Department of Climate Change, Energy, the Environment and Water, as a newly established government agency with a more specialized focus on blue carbon, should set rules to standardize blue carbon related programs and manage them more comprehensively. In addition, although there have been discussions about other benefits of blue carbon besides curbing emissions, blue carbon is yet to bring significant outputs to Australia. Blue carbon projects still largely rely on government funding. Thus, Australia should also encourage more private enterprises to engage in blue carbon protection—ideally while averting attempts of disingenuine 'greenwashing'—and allow them to explore routes to achieve self-sufficiency and even bring more benefits to blue carbon conservation.

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<u>HSBC and Qantas join Queensland's Blue Carbon wave</u> , Blue Carbon Lab, March 1, 2020 <u>Blue Carbon</u> , The University of Queensland, Centre for Marine Science, last visited December 7, 2022	
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Remarks on Blue Carbon program to COP26 in Glasgow, Australian Government, Department of Industry, Science and Resources, November 8, 2021	

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



Scientific Research and Beyond

Scientific Research Results & Releases

October 2022

- Journal Article: <u>Rarest rainfall events will see the greatest relative increase in magnitude under future</u> <u>climate change</u>, Communications Earth & Environment, Vol. 3, No. 235 (October 10, 2022)
- Publication: <u>The Internal Combustion Engine Bubble</u>, Greenpeace (October 10, 2022)
- Journal Article: <u>Co-occurring anthropogenic stressors reduce the timeframe of environmental viability for</u> <u>the world's coral reefs</u>, *PLoS Biology* Vol. 20, No. 10 (October 11, 2022)
- Journal Article: <u>Living in relationship with the Ocean to transform governance in the UN Ocean Decade</u>, *PLoS Biology* Vol. 20, No. 10 (October 17, 2022)
- Journal Article: <u>Mangroves provide blue carbon ecological value at a low freshwater cost</u>, Scientific Reports Vol. 12 (October 21, 2022)
- Journal Article: <u>Conservation priorities for global marine biodiversity across multiple dimensions</u>, National Science Review nwac241 (October 31, 2022)

November 2022

- Report: <u>World heritage glaciers: sentinels of climate change</u> (UNESCO and International Union for Conservation of Nature, 2022)
- Report: <u>2022 State of the Cryosphere Report</u> (International Cryosphere Climate Initiative, November 2022)
- Journal Article: <u>Demanding development: The political economy of climate finance and overseas</u> <u>investments from China</u>, Energy Research & Social Science Vol, 93 (November 2022)
- Report: <u>Global Carbon Budget 2022</u>, *Earth System Science Data* 14, 4811-4900, 2022 (November 11, 2022) [Official Presentation in PDF]
- Report: <u>Climate change exacerbated heavy rainfall leading to large scale flooding in highly vulnerable</u> <u>communities in West Africa</u>, World Weather Attribution, (November 16, 2022)
- Journal Article: <u>Opposing seasonal temperature dependencies of CO2 and CH4 emissions from</u> <u>wetlands</u>, *Global Change Biology* (November 17, 2022)

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- Report: <u>A Systematic Review and Meta-analysis of Climate Change and Water Resources in Sub-Sahara</u> <u>Africa</u>, National Research Repository of Uganda (December 2022)
- Journal Article: <u>Methane and nitrous oxide emissions complicate the climate benefits of teal and blue</u> <u>carbon wetlands</u>, *One Earth* Vol. 5, Issue 12 (December 16, 2022)
- Journal Article: <u>Ranking the risk of CO2 emissions from seagrass soil carbon stocks under global change</u> <u>threats</u>, *Global Environmental Change* Vol. 78 (December 22, 2022)
- Journal Article: <u>Spatial and temporal evolution of green logistics efficiency in China and analysis of its</u> <u>motivation</u>, *Environment*, *Development and Sustainability* (December 22, 2022)
- Journal Article: <u>Economic and biophysical limits to seaweed farming for climate change mitigation</u>, Nature Plants 2022 (December 23, 2022)



Major Government Statements & Actions

Key Government Speeches on Climate Issues

- October 3, United Nations Secretary General António Guterres: <u>Secretary-General's press encounter on</u> <u>Pre-COP27</u>
- October 3, United Nations Deputy Secretary-General Amina J. Mohammed: <u>Deputy Secretary-General's</u> remarks at Pre-COP27 Discussions [as prepared for delivery]
- October 4, eight U.S. Senators to U.S. President Biden: <u>Letter on the Inflation Reduction Act</u>
- October 16, China's President Xi Jinping: Report to the 20th National Congress of the Communist Party of China [Excerpt on China's pursuance of green development; in Chinese] [Full speech in English]
- October 25, U.S. Climate Envoy John Kerry: <u>'We need to get China': John Kerry calls for return to bilateral</u> <u>climate talks</u>
- October 25, U.S. National Security Council Spokesperson Adrienne Watson: <u>Statement by NSC</u> <u>Spokesperson Adrienne Watson on launch of the US-EU Task Force on the Inflation Reduction Act</u>
- October 27, China's Head of Climate Change Office at the Ministry of Ecology and Environment Li Gao: <u>China urges rich world to shun 'empty slogans' ahead of climate talks</u>
- October 27, U.S. Climate Envoy John Kerry: <u>The road to COP27: In conversation with US Special</u> <u>Presidential Envoy for Climate John Kerry</u>
- November 4, President of France Emmanuel Macron, President of Senegal and Chair of the African Union Macky Sall, and Prime Minister of the Netherlands Mark Rutte: <u>The climate is already collapsing in Africa</u> <u>– but its nations have a plan</u>
- November 8, Sri Lanka's President Ranil Wickremesinghe: <u>Developing countries are the worst affected</u> by rising emissions from the industrialized world, and must be compensated – President Ranil <u>Wickremesinghe emphasizes at COP 27</u>
- November 9, Antigua's Prime Minister Gaston Browne, speaking on behalf of the Alliance of Small Island States: <u>PM Browne tells oil giants it's time to pay their climate damage bills</u>
- November 11, U.S. President Biden: <u>Remarks by President Biden at the 27th Conference of the Parties to</u> <u>the Framework Convention on Climate Change (COP27) | Sharm el-Sheikh, Egypt</u>
- November 15, Brazil's President-Elect Luiz Inacio Lula da Silva: <u>'Brazil is back' at COP27 as Lula meets</u> US, Chinese climate envoys [Tweet in Portuguese]
- November 16, European Commission Executive Vice-President Frans Timmermans: <u>Remarks by</u> <u>Executive Vice-President Timmermans at the Ministerial side event on the Team Europe Initiative on</u> <u>climate change adaptation and resilience in Africa</u>
- November 17, President of Vanuatu Nikenike Vurobaravu: <u>Vanuatu implores world leaders to vote for</u> <u>International Court of Justice Climate Resolution</u>
- November 21, European Union: <u>EU agrees to COP27 compromise to keep Paris Agreement alive and</u> protect those most vulnerable to climate change
- November 25, Brazil's upcoming Ministry of the Environment Marina Silva: <u>Brazil's new environmental</u> <u>future under Lula: Q&A with Marina Silva [Interview Video]</u>
- December 1, India's Prime Minister Narendra Modi: <u>Modi urges unity on 'greatest challenges' as India</u> <u>assumes G20 presidency</u>
- December 6, Australia's Federal Environment Minister Tanya Plibersek: <u>Australia argues against</u> <u>'endangered' barrier reef</u>
- December 8, Canada's Minister of Environment and Climate Change Steven Guilbeault and the European Commissioner for the Environment, Oceans and Fisheries Virginijus Sinkevičius: <u>Opinion: Why we have ambitious goals for COP15</u>



Government Reports & Regulations on Climate Issues

- October: China released a <u>white paper</u> detailing its policy and actions to address climate change in 2022.
- October 11: China's National Energy Administration (NEA) <u>published an action plan</u> for standardization of non-fossil fuel energy amidst the country's efforts to achieve carbon peak and carbon neutrality. [In <u>Chinese</u>]
- November 2: China <u>officially released</u> the Special Plan on Scientific and Technological Innovation in the Field of Ecological Environment for the 14th Five-Year Plan Period (2021-2025). [<u>In Chinese</u>]
- November 7: The United States <u>released the draft report</u> of the 5th National Climate Assessment.
- November 10: The United States <u>proposed to</u> require major federal contractors to disclose their greenhouse gas emissions and climate-related financial risks and set science-based emissions reduction targets.
- November 14: China set up the world's <u>first international mangrove center</u> to advance wetland protection and blue carbon research. [In Chinese]
- November 15: The European Commission adopted the Communication "<u>Towards a strong and</u> <u>sustainable EU algae sector</u>," aiming to create opportunities for the algae industry as an effort to address food and energy demands under environmental pressures. [<u>Press Release</u>] [<u>Official Q&A</u>]
- November: At the beginning of COP27, the United Nations' High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities released the report "Integrity Matters: Net Zero Commitments by Businesses, Financial Institutions, Cities and Regions," which set out 10 recommendations to ensure the "integrity, transparency and accountability" of climate pledges made by companies and business entities.
- November 29: China announced its <u>positions and hopes</u> for the 15th Conference of the Parties to the Convention on Biological Diversity (COP15). [In Chinese]
- December: Australia's Department of Climate Change, Energy, and the Environment released its <u>2022</u> <u>emissions projections report</u> which details Australia's greenhouse gas emissions trends to 2035.
- December 5: The United States and the European Union <u>announced</u> the launch of a Transatlantic Initiative for Sustainable Trade to advance a shared objective of achieving a green and sustainable future.
- December 9: The U.S. House of Representatives Committee on Oversight and Reform <u>released a new</u> <u>memo and documents</u> showing how the fossil fuel industry engages in "greenwashing" to obscure its massive long-term investments in fossil fuels and failure to meaningfully reduce emissions.
- December 15: The U.S. Department of State <u>released</u> a fact sheet "Highlighting U.S. Efforts to Combat the Biodiversity Crisis" explaining the domestic and international "efforts to advance progress towards combating the biodiversity crisis."

Government Hearings & Meetings on Climate Issues

- October 21: The U.S. Department of Treasury is seeking information on the climate-related financial risks and their effect on homeowner insurance.
- October 21: The U.S. government is <u>seeking stakeholder input</u> on the implementation of the Greenhouse Gas Reduction Fund created by the Inflation Reduction Act.

Cross-National Meetings & Engagements on Climate Issues

 November 6-November 22: The 2022 United Nations Climate Change Conference (COP 27) was held in Sharm El Sheikh, Egypt. During the conference, the parties reached an international agreement to provide "loss and damage" funding for vulnerable countries hit hard by climate disasters, among other achievements.



- Official Summary of Global Climate Action at COP27
- Draft Text of the COP27 agreement (Version November 16, 2022, November 17)
- COP27 Closing Remarks by the UN Climate Change Executive Secretary
- <u>United Nations Secretary-General's remarks to High-Level opening of COP27 as delivered</u>
- November 15: The EU, the United States, Japan, Canada, Denmark, France, Germany, Italy, Norway, and the United Kingdom launched a <u>Just Energy Transition Partnership (JETP)</u> with Indonesia during an event at the G20 Summit in Bali.
- November 16: Leaders at the G20 meeting <u>reaffirmed their commitment</u> to limit rise in global temperature, phase down coal use and step up efforts to protect biodiversity.
- November 16: The European Union and the African Union announced a new <u>Team Europe Initiative on</u> <u>Climate Change Adaptation and Resilience in Africa</u> as part of the EU-Africa Global Gateway Investment Package.
- December 5: The U.S.-EU Trade and Technology Council <u>launched a new Transatlantic Initiative for</u> <u>Sustainable Trade</u> between the United States and the European Union "to support our shared desire of tackling climate change" and "to advance our shared objective of achieving a green and sustainable future."
- December 7-19, governments from around the world attended <u>the 15th Conference of the Parties to the</u> <u>Convention on Biological Diversity</u> (COP15) and adopted <u>a new UN Biodiversity Agreement</u>.
- December 15: The Global Environment Facility (GEF) announced <u>a partnership with the Vulnerable 20</u> <u>Group (V20)</u> and committed to provide US\$5.3 million for community-based climate adaptation activities in V20 countries.

Third-Party Analyses & Commentaries

State of the World on Climate and the Environment

- Report: <u>Living Planet Report 2022</u> by R.E.A. Almond, M. Grooten, D, Juffee Bignoli, and T. Peterson (World Wildlife Fund and ZSL Institute of Zoology, 2022)
- Report: <u>World Energy Outlook 2022</u> (International Energy Association, October 2022)
- Report: <u>WMO Provisional State of the Global Climate 2022</u> (World Meteorological Organization, 2022)
- Report: International Shipping (International Energy Association, 2022)
- Press Release: <u>Temperatures in Europe increase more than twice global average</u> (World Meteorological Organization, November 2, 2022)
- Report: <u>Coal in Net Zero Transitions</u> (International Energy Association, November 2022)
- Report: <u>Critical Minerals Policy Tracker</u> (International Energy Association, November 2022)

The Transition to Low-Carbon Energy

- Report: Falling Behind: A Report Card on EPA's Progress on 10 Important Power Sector Rules (Evergreen, Fall 2021)
- Commentary: <u>We are at a crossroads in history: Africa can and must be a leader in clean energy</u> by William Ruto (*The Guardian*, October 4, 2022)
- Analysis: <u>China Is Burning More Coal, a Growing Climate Challenge</u> by Keith Bradsher and Clifford Krauss (*The New York Times*, November 3, 2022)
- Opinion: <u>Carbon emissions from fossil fuels will hit record high in 2022</u> by Damian Carrington (The *Guardian*, November 11, 2022)
- Analysis: <u>Kenya's energy transition risks being derailed by human rights failures</u> by Joseph Kibugu (*China Dialogue*, December 13, 2022)



Identifying Gaps and Pressing Issues

- Commentary: <u>In Brazil's election, the future of the Amazon is at stake</u> by Saphora Smith (*The Independent*, October 2, 2022)
- Commentary: <u>In Depth: China's Relocated Chemical Plants Bring Pollution Problems With Them</u> by Yang Yuqi, Qin Jianhang and Wang Xintong (*Caixin*, October 4, 2022)
- Editorial: <u>The Guardian view on Cop27: Climate justice must take centre stage</u> by The Guardian Editorial (*The Guardian*, October 5, 2022)
- Report: <u>Riders on the storm How debt and climate change are threatening the future of small island</u> <u>developing states</u> by Iolanda Fresnillo and Ilaria Crotti (*eurodad*, October 11, 2022)
- Opinion: <u>Extreme weather could blow a hole in national security</u> by Margaret Beckett (*The Times*, October 26, 2022)
- Analysis: <u>How Putin and Friends Stalled Climate Progress</u> by Somini Sengupta, Steven Lee Myers, Manuela Andreoni and Suhasini Raj (*The New York Times*, November 5, 2022)
- Opinion: <u>How this climate change fund could fuel populism in richer nations</u> by Henry Olsen (*The Washington Post*, November 21, 2022)
- Opinion: <u>Op-ed: It's time to re-think the United Nations' COP climate negotiations</u> by Ruth Greenspan Bell (*The Daily Climate*, December 1, 2022)
- Commentary: <u>Climate change costs are eating up the money needed to avert it</u> by David Fickling (*The Japan Times*, December 5, 2022)
- Opinion: <u>1.5 degrees? We need to prepare for a temperature overshoot and worse climate change</u> by Muhamad Chatib Basri and Xue Lan (*South China Morning Post*, December 10, 2022)
- Opinion: <u>Can COP keep up with an evolving climate effort?</u> by Emily Carlton and David G. Victor (Brookings Institute, December 13, 2022)

Climate Opportunities, Potentials and Solutions

- Analysis: <u>The Climate Economy Is About to Explode</u> by Robinson Meyer (*The Atlantic*, October 5, 2022)
- Analysis: <u>How will China's submersibles help us explore the ocean depths?</u> by Zhang Chun and Liu Jun (*China Dialogue Ocean*, October 17, 2022) [In Chinese]
- Report: <u>Clean Hydrogen's Place in the Energy Transition</u> (Carbon Tracker, October 20, 2022)
- Report: Antarctic krill: Powerhouse of the Southern Ocean' (World Wildlife Fund, October 2022)
- Opinion: <u>Beyond Catastrophe: A New Climate Reality Is Coming Into View</u> by David Wallace-Wells (*The New York Times Magazine*, October 26, 2022)
- Analysis: <u>How 'airshed management' could tackle India's air pollution crisis</u> by Deepa Padmanaban (*The Third Pole*, November 3, 2022)
- Commentary: <u>Unlocking the Potential of African Carbon Markets</u> by Yemi Osinbajo and Iván Duque Márquez (*Project Syndicate*, November 8, 2022)
- Opinion: It's time to give carbon removal a chance by Kumi Naidoo (Al Jazeera, November 16, 2022)
- Opinion: <u>Giving 'Mother Nature a little bit of a boost' on the Great Barrier Reef</u> by Frances Vinall and Michael Robinson Chavez (*The Washington Post*, November 22, 2022)
- Analysis: <u>Are Qatar's World Cup Stadiums the Future of Sports in a Warming World?</u> by John Branch (*The New York Times*, December 13, 2022)
- Analysis: <u>How can China contribute to climate 'loss and damage'?</u> by You Xiaoying (*China Dialogue*, December 20, 2022)
- Analysis: <u>A ravaged Quebec coast fights climate change by retreating</u> by Calvin Woodward, Lynn Berry, Christina Larson and Carolyn Kaster (Associated Press, December 20, 2022)



Attentions on Blue Carbon Expand

- Commentary: <u>What is blue carbon, and why is it important?</u> by Lori Gorczynski (Soils Matter, Get the Scoop!, October 1, 2022)
- Opinion: <u>Blue carbon world's most efficient absorbers of CO2 and long-term carbon sinks</u> by IANS (*Investing.com*, October 28, 2022)
- Opinion: <u>The ocean's 'blue carbon' can be our secret weapon in fighting climate change</u> by Cristina Mittermeier and Paul Nicklen (*CNN*, November 2, 2022)
- Commentary: <u>5 principles to secure the future of blue carbon</u> by Whitney Johnston (World Economic Forum, November 10, 2022)
- Opinion: <u>What are we getting wrong about blue carbon?</u> by José Pablo Murillo (Stockholm International Water Institute, November 11, 2022)
- Commentary: <u>How Seychelles ocean plants could help tackle climate change</u> by Dingindaba Jonah Buyoya (*BBC*, December 9, 2022)
- Commentary: <u>California is embracing the wrong strategy for carbon sequestration. Why not algae?</u> by Eral Harel (*Calmatters*, December 14, 2022)
- Commentary: <u>Indonesia's 'blue carbon credits' are crucial for global climate mitigation. Here's how to</u> <u>help them flourish</u> by Karizki Hadyanafi, Bimo Dwisatrio and Sandy Nofyanza (*Phys.org*, December 22, 2022) [In Thai]

Chinese Climate and Energy Policy At Home and Abroad

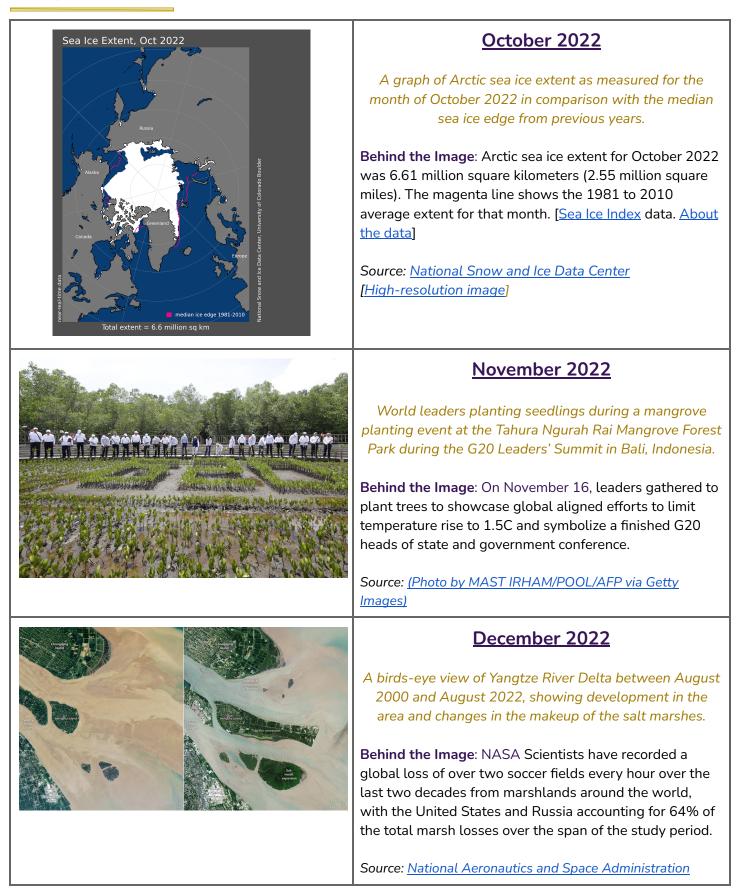
- Analysis: <u>数字化技术带来碳市场发展新思路</u> [Digitalization technology brings new ideas to developing <u>carbon markets</u>] by Environmental Economy (*Eco.gov.cn*, October 19, 2022)
- Report: <u>China in a Decade: Transformation drives energy saving, consumption reduction</u> by GMW.cn (*GMW.cn*, October 25, 2022)
- Commentary: <u>Can China build a "community" for shared oceans?</u> by Cherry Hitkari (*The Interpreter*, October 14, 2022)
- Opinion: <u>The US-China climate deal was a rare bright spot in an otherwise thorny relationship. Should it</u> <u>be mended?</u> by Ella Nilsen (*CNN*, November 10, 2022)
- Analysis: <u>How Host Country Policies are Driving Chinese Finance for Renewables</u> by Rishikesh Ram Bhandary (China Global South Project, November 15, 2022)

Executive and Legislative Actions in the U.S. on Climate and Environment

- Commentary: <u>Biden's Message on Climate Might Not Be the One the World Wants</u> by Lisa Friedman (*The New York Times*, November 10, 2022)
- Analysis: <u>Biden pledged \$11 billion in international climate aid. Can Congress deliver?</u> by Maxine Joselow (*The Washington Post*, November 11, 2022)
- Analysis: <u>The U.S.'s Struggle to Wean Itself From Chinese Solar Power</u> by Phred Dvorak (*The Wall Street Journal*, November 15, 2022)
- Opinion: <u>What the Unusual Midterm Elections Mean for Climate Action</u> by Coral Davenport and Lisa Friedman (*The New York Times*, November 17, 2022)
- Commentary: <u>America Can't Depend on China for Its Electric Vehicles</u> by William P. Barr (*The Wall Street Journal*, November 21, 2022)
- Tracker: <u>Tracking Biden's environmental actions</u> by Juliet Eilperin, Brady Dennis and John Muyskens (*The Washington Post*, last updated January 3, 2023)
- Commentary: <u>Budget deal falls far short on Biden's promise of climate aid</u> by Timothy Puko (*The Washington Post*, December 21, 2022)



Images of the Month





Climate-Focused Quotes of the Quarter

"The agreement reached at COP15 is a landmark deal to protect nature, restore ecosystems and keep our planet liveable. This is about our very survival: humanity has no future on a dead planet."

 Frans Timmermans, Executive Vice-President for the European Green Deal, speaking at COP15 Biodiversity Conference on December 15, 2022

"Biodiversity is the foundation of life. Without it, there is no life."

- Elizabeth Maruma Mrema, executive secretary of the UN Convention on Biological Diversity, <u>told</u> BBC Radio 4's Inside Science on December 8, 2022

"There are no ocean-related words in the EU's NDC [Nationally Determined Contribution], from 'the ocean' and 'marine', to 'coastal' to 'fish', not a single one came up."

Loreley Picourt, executive director of the Ocean & Climate Platform, <u>speaking</u> to China Dialogue on December 2, 2022

"Today, the greatest challenges we face—climate change, terrorism, and pandemics—can be solved not by fighting each other, but only by acting together."

- Narendra Modi, Prime Minister of India, <u>speaking</u> after India began its year-long presidency of the G20 on December 2, 2022

"States have the obligation to protect and preserve the marine environment...What are the legal consequences under these obligations for states which, by their acts and omissions, have caused significant harm to the climate system and other parts of the environment?"

- <u>Quote</u> by the island nation of Vanuatu in a draft UN resolution on behalf of a group of states, requesting an International Court of Justice (ICJ) advisory opinion on climate change on November 29, 2022

"No planet, no business—that is what we need the IMFs of this world to understand."

- Esteban Brenes, the World Wide Fund for Nature (WWF) U.S. director of conservation finance, <u>speaking</u> in a event during COP27 on November 17, 2022

"It's important for the people who defend the Amazon to get to know what the region is. We will fight hard against illegal deforestation...This devastation will be a thing of the past...We will rebuild our enforcement capabilities and monitoring systems that were dismantled during the past four years."

- Luiz Inacio Lula da Silva, President-elect of Brazil, <u>speaking</u> at the UN COP27 summit in Egypt on November 16, 2022

"We don't have time to choose between stopping emissions and removing CO₂ from the air. We need to do both to survive."

- Kumi Naidoo, former Secretary-General of Amnesty International, <u>wrote</u> in a commentary published on Aljazeera on November 16, 2022



"We believe that our approach in The Bahamas is a gold standard for which others can also benefit. We also believe that our approach reflects the realities for what is needed in effecting real action to meet the challenge of climate change."

- Philip 'Brave' Davis, Prime Minister of the Bahamas, <u>speaking</u> at COP27 on November 11, 2022

"Even as the two countries haven't resumed official climate talks, we met already for unofficial consultations for a successful COP27."

- Xie Zhenhua, China's climate envoy, <u>speaking</u> before a press briefing during the COP27 summit on November 9, 2022

"Just as there's no longer a credible path to keeping warming to 1.5 degrees Celsius, there's no credible path to avoiding an ice-free summer"

- Robbie Mallett, sea ice researcher at University College London, <u>writing</u> in a <u>report</u> regarding Arctic sea ice he co-authored on November 7, 2022

"Temperatures in Europe have increased at more than twice the global average over the past 30 years—the highest of any continent in the world."

 Quote from a World Meteorological Organization report, <u>published</u> on November 2, 2022

"Thanks to astonishing declines in the price of renewables, a truly global political mobilization, a clearer picture of the energy future and serious policy focus from world leaders, we have cut expected warming almost in half in just five years."

- David Wallace-Wells, Journalist, <u>writing</u> to the New York Times Magazine, complimenting the achievements on curbing global warming on October 26, 2022

"The past two years had provided us multiple reminders that the global dependence on fossil fuels is unhealthy, not just for the environment, but also for the economy."

> - Kumar Singh, Minister of Power and New and Renewable Energy Raj of India, <u>speaking</u> after inaugurating the Fifty Assembly of the International Solar Alliance on October 18, 2022.

"Responding to climate change and achieving sustainable development are urgent tasks facing the international community."

 Wang Sheng, President of the National Institute for South China Sea Studies and Senior Advisor of the Institute for China-America Studies (ICAS) Blue Carbon & Climate Change (BCCC) Program, <u>speaking</u> at a virtual public event hosted by the ICAS BCCC Program on October 12, 2022.

"The global shipping industry causes tremendous harm to port and coastal communities in its relentless pursuit of profit, so we are thrilled to see West Coast leaders stepping up to decarbonize maritime shipping and to electrify ports."

- Teresa Bui, State Policy Director for Climate at Pacific Environment, <u>talking</u> about Port Electrification and Maritime Decarbonization on October 8, 2022.



Climate-Focused Conferences & Events

Multinational Conferences & Global Forums

UN Biodiversity Conference (COP15)

United Nations Environment Programme December 7-19

Montreal, Canada

- From the Organizer: "The main objective of the Conference is to adopt the post-2020 global biodiversity framework. Draft One of the framework, released in July 2021, builds on lessons learned from the Strategic Plan for Biodiversity 2011-2020 and its Aichi Biodiversity Targets. It recognizes that urgent policy action globally, regionally and nationally is required to transform economic, social and financial models so the trends that have exacerbated biodiversity loss will stabilize by 2030 and allow for the recovery of natural ecosystems, with net improvements by 2050."
- Event Summary: For almost two weeks in December 2022, global representatives met in Montreal, Canada to discuss, debate, learn about, and resolve biodiversity issues. By the end of the Conference, the COP15 negotiators successfully issued a new global framework representing significant efforts on protecting the world's lands and oceans and providing financing for biodiversity in the developing world. Most significantly, negotiators outlined a plan to protect 30% of land and water considered important for biodiversity by 2030; an increase from current protections of 17% of terrestrial and 10% of ocean areas.
- Learn More & View Agenda: <u>View Here</u>
- Immediate Resulting Agreements:
 - Kunming-Montreal Global biodiversity framework
 - Cooperation with other conventions and international organizations
 - Engagement with subnational governments, cities and other local authorities to enhance implementation of the post-2020 global biodiversity framework

Sharm el-Sheikh Climate Change Conference (COP27)

United Nations Framework Convention on Climate Change (UNFCCC) November 6-20

Sharm el-Sheikh, Egypt

- From the Organizer: "At the Sharm el-Sheikh Climate Change Conference (COP 27), countries came together to take action towards achieving the world's collective climate goals as agreed under the Paris Agreement and the Convention. The conference took place from 6-20 November 2022 in Sharm el-Sheikh, Egypt. Heads of State and Government attended the Sharm el-Sheikh Climate Implementation Summit on 7 and 8 November. A high-level segment primarily attended by Ministers took place from 15-18 November."
- Event Summary: For two weeks in November 2022, dozens of global leaders and experts in climate change met in Sharm el-Sheikh, Egypt to discuss, debate, learn about and improve climate change concerns. COP27 came as international severe weather and energy crises have caused damage for countries around the world, pushing a deep focus by the negotiators towards "loss and damage" policies. The Egyptian presidency on COP27 promised to provide "implementation COP" with hopes of greater action than that of previous conferences which has been met with mixed reactions. COP27's ability to achieve on the effects of climate change (i.e., the new "loss and damage" fund) have resulted in a higher general confidence in the Conference's ability to respond to the effects of climate change.



Despite this confidence, COP27 was unable to initiate tentative agreements to assist in climate damage prevention.

- COP-27 Agenda: <u>View Here</u>
- Blue Carbon Session:
 - Small Island Develop States and the Blue Carbon Market
- Resulting Agreements:
 - <u>COP27 Reaches Breakthrough Agreement on New "Loss and Damage" Fund for Vulnerable</u> <u>Countries</u>
 - Decisions taken at the Sharm El-Sheikh Climate Change Conference Advance unedited versions
- Surrounding New Initiatives:
 - <u>Global Shield Against Climate Risks</u>
 - <u>Team Europe steps up support for climate change adaptation and resilience in Africa under</u> <u>Global Gateway</u>

2022 Global Climate Change Week (GCCW)

Global Climate Change Week October 12-18 Global Hybrid

Global, Hybrid

- From the Organizer: "Global Climate Change Week (GCCW) encourages academic communities including academics, students, and non-academic staff at universities – in all disciplines and countries to engage with each other, their communities, and policy makers on climate change action and solutions. Held annually in October, GCCW provides an open-ended platform for voluntary activities by university groups aimed at raising awareness, inspiring behavior change, and driving political transformation in relation to climate policy."
 - Highlighted Events
 - Highlighted Showcases

The fourth regional workshop for the promotion of the sustainable development of Africa's deep-seabed resources in support of Africa's blue economy opens in Nigeria

Federal Republic of Nigeria, International Seabed Authority, African Union, Norwegian Agency for Development Cooperation (NORAD)

October 5-7

Abuja, Nigeria

- From the Organizer: "It aims to foster international and regional cooperation to promote the sustainable development of Africa's deep seabed resources in support of Africa's blue economy by bringing together key stakeholders and experts including official representatives of Comoros, Djibouti, Eritrea, Ethiopia, Ghana, Guinea, Guinea-Bissau, Nigeria, Sao Tome and Principe, South Sudan, Sudan, and Uganda...One of the key deliverables of the project is to organize five regional workshops with a view to raising awareness among African decision-makers about the importance of sustainable development of activities on Africa's continental shelf and in the adjacent international seabed area (the Area)."
- Learn More & View Agenda: <u>View Here</u>



Public Events & Panel Discussions

Upcoming Events

Biodiversity COP15: what outcomes?

Webinar by Institute for Sustainable Development and International Relations January 4, 2023 - Online

2023 Global Energy Forum

Event by Atlantic Council January 13, 2023 - Hybrid

How Low-Carbon Ammonia Can Help Fight Climate Change Webinar by Columbia University Climate School January 18, 2023 - Online

Getting to zero requires a big push: Climate-technology treaties and the energy transition

Public Lecture by The London School of Economics and Political Science, Department of Geography and Environment and the Grantham Research Institute on Climate Change and the Environment January 24, 2023 - London, United Kingdom

<u>Global Landscape of Climate Finance, a Decade of Data</u> Webinar by Climate Policy Initiative January 25, 2023 - Online

<u>Opportunities for Enhanced Near-term U.S.-China Climate Action: Decarbonizing the Buildings Sector</u> Webinar by Berkley California-China Climate Institute January 26, 2023 - Online

Decarbonising Transport in India: Analysis, Dialogue, and Action Event by the International Transport Forum February 9-10, 2023 - Delhi, India

Decarbonising Transport in Azerbaijan Regional Dialogue Event Event by the International Transport Forum February 9-10, 2023

15th International Conference on Climate Change *Conference by The Heartland Institute* February 23-25, 2023 - Orlando, FL, United States

Past Events

Can Climate Models Aid Adaptation Efforts with Help from A.I.? Event by Columbia University Climate School December 22, 2022 - Online [Event Recording Available]



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Subscriber Exclusive: Europe's Top Climate Negotiator on the Road After COP27 Event by Foreign Policy December 5, 2022 - Online [Event Recording Available]

<u>Technological Innovation and Arctic Climate Security</u> Event by Wilson Center November 30, 2022 - Online

Join FP at COP27 Event Series by Foreign Policy November 8-10, 2022 - Online [Some Event Recordings and Summaries Available]

CAP Events at COP27

Event Series by Center for American Progress November 6-18, 2022 - Sharm El-Sheikh, Egypt [<u>Event Recordings Available</u>]

The Symposium on Global Maritime Cooperation and Ocean Governance Symposium by China-Southeast Asia Research Center on the South China Sea November 3-4, 2022 - Hybrid [Event Recordings Available]

Answering the Amazon's Call: Private Sector Mobilization for Protection of the Amazon Event by Wilson Center & The ICCF Group November 4, 2022 - Hybrid [Event Recording Available]

Renewable Energy and Mining in Latin America Event by Wilson Center & Newmont November 3, 2022 - Online [Event Recording Available]

The Impact of Climate Change on Maternal and Newborn Health Outcomes Event by Wilson Center & UNFPA November 1, 2022 - Online [Event Recording Available]

<u>Climate Change, Population, and the Shape of the Future</u> Event by Wilson Center & Population Institute October 25, 2022 - Online [<u>Event Recording Available</u>]

Race to the Top on Global Green Infrastructure: From BRI to Bluedot and Beyond Event by Wilson Center October 19, 2022 - Online [Event Recording Available]

<u>COP27: Closing the Climate Adaptation Investment Gap in Small Island States and Coastal Communities</u> Event by Stimson Center October 18, 2022 - Online [<u>Event Recording Available</u>]



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<u>COP President Alok Sharma: Looking Back and Stepping Forward</u> Event by Wilson Center & British Embassy Washington October 14, 2022 - Washington, D.C. [Event Recording & Select Summary Available]

Protecting the Ocean - Moving Forward at 50: London Convention & Stockholm Declaration International Conference by World Maritime University October 10-13, 2022

Climate Security

Event by Center for a New American Security October 13, 2022 - Online [<u>Event Recording Available</u>]

An inclusive Climate Club to promote climate ambition

Event by Brookings Institute October 12, 2022 - Washington, D.C. [Event Recording Available]

2022 Regional Clean Energy Outlook Conference: Advancing climate and security goals

Conference by the Atlantic Council October 10, 2022 - Istanbul, Turkey [<u>Event Recording Available</u>]

Forty Years of Antarctic Marine Conservation: Policy Approaches in the Antarctic Treaty System Event by Wilson Center Polar Institute October 4, 2022 - Online [Event Recording Available]

African Perspectives on Climate and Climate Adaptation in Egypt Webinar by Columbia Climate School October 3, 2022 - Online

<u>Climate Change 2022</u> Conference by Chatham House October 3-4, 2022 - London, United Kingdom & Online

<u>Launch: Army Climate Implementation Plan</u> Event by Center for Strategic & International Studies October 6 - Washington, D.C. & Online [<u>Event Recording & Transcript Available</u>]



ICAS BCCC Program Updates

ICAS BCCC Program Event

Prospects of Climate Policies and Cooperation: The Expectations of COP 27 October 12, 2022

Virtual (Zoom)

Post-Event Summary

On October 12, 2022, the Institute for China-America Studies (ICAS) Blue Carbon & Climate Change (BCCC) Program hosted a virtual public event in partnership with the Institute for China-Europe Studies to discuss the "Prospects of Climate Policies and Cooperation: The Expectations of COP 27." Featuring expert scholars from the United States, China, Germany and Japan, this event discussed the achievements—as well as deficiencies—of different countries and organizations' activities in climate affairs since COP26 and explored outlooks for the upcoming COP27 and beyond.

Professor Wang Sheng, President of the National Institute for South China Sea Studies and Senior Advisor of the ICAS BCCC Program, delivered opening remarks. In his remarks, he described responding to climate change and achieving sustainable development as "urgent tasks facing the international community" and offered proposals to promote international cooperation on blue carbon and other key environmental projects. The discussion that followed was moderated by Dr. Nong Hong, Executive Director and Senior Fellow at ICAS, and featured four speakers: Ms. Anke Herold, Executive Director of the Oeko-Institut e.V. (Institute for Applied Ecology Research); Ms. Sally Yozell, Senior Fellow and Director of the Environmental Security Program at the Stimson Center; Dr. Teng Fei, Associate Professor and Deputy Director of the Institute of Energy, Environment, and Economy at Tsinghua University; and Dr. Keita Furukawa, Affiliated Research Fellow at the Ocean Policy Research Institute of the Sasakawa Peace Foundation (OPRI/SPF). The four panelists first discussed climate and environment protection progress post COP26 with a special focus on their respective nations and regions. The panelists then shared their suggestions and comments about future climate change and environment protection work. After a brief interactive discussion time, Mr. Yang Li, Executive Director of the Institute for China-Europe Studies, delivered closing remarks.

Watch the Full Recordings: <u>https://www.youtube.com/watch?v=-9oMrobfJPc</u> Learn More: <u>https://chinaus-icas.org/event/prospects-of-climate-policies-and-cooperation-the-expectations-of-cop-27/</u>

ICAS Co-Sponsored Event

The Symposium on Global Maritime Cooperation and Ocean Governance 2022 November 3-4, 2022 (Beijing, UTC+8) Hybrid (Sanya & Virtual)

Inaugurated in November 2020, The Symposium on Global Maritime Cooperation and Ocean Governance (SGMCOG) aims to offer a unique platform for thought-provoking dialogues among the thinkers of various backgrounds from all over the world and promote academic research and exchange on maritime cooperation and ocean governance. The SGMCOG 2022 will continue to focus on the topics concerning global ocean governance from the perspective of



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multilateralism and explore maritime cooperation in and beyond the South China Sea region. It was conducted in a hybrid format with both virtual and physical attendance in Sanya, China.

In addition to ICAS co-sponsoring the Symposium, ICAS Executive Director & Senior Fellow Dr. Nong Hong presented in Session 5: Ocean Governance and Practices in Polar Regions (Friday, November 4, 2022, GMT+8), moderated by Prof. Gordon Houlden, Director Emeritus, China Institute, University of Alberta, Canada.



Watch Dr. Hong Nong's Panel Discussion:

https://www.youtube.com/watch?v=c18x-ql7SsU Learn More & Find All Session Recordings: https://chinaus-icas.org/event/the-symposium-on-global-maritime-cooperation-and-ocean-governance-2022/ Explore the Symposium Website: http://www.csarc.org.cn/the-symposium-on-global-maritime-cooperation-and-ocean-governance-2022/

ICAS Commentary

Challenges and Expectations for the Conservation and Restoration of Seagrass beds as Blue Carbon Ecosystems

> By Keita Furukawa December 31, 2022

Although coastal areas account for only about 7% of the ocean, they are highly productive. Ecosystems in the area support half of the world's fish caught and supply 50% of animal protein and minerals to 400 million people of the world. The coastal ecosystems that support such productivity are unevenly distributed and are in danger of serious loss or degradation. The East Asian seas are home to 4 million hectares of mangrove forests, 3 million hectares of seagrass beds, and other blue carbon ecosystems that are hotspots of productivity and biodiversity and are suffering from a very high rate of loss...

On December 27, 2022, the Japanese Ministry of Land, Infrastructure, Transport, and Tourism (MLIT) issued a press release on the promotion of "Blue Infrastructure Expansion Project for Life-Nurturing Ports". Focusing on the effects of marine and coastal ecosystems in terms of carbon dioxide absorption and water purification, the project aims to contribute to the realization of carbon neutrality through the expansion of carbon dioxide sinks and to enrich marine biodiversity... We are hoping that this policy decision will encourage more stakeholders to participate in the conservation, restoration, and creation of blue carbon ecosystems.

Continue Reading:

https://chinaus-icas.org/research/challenges-and-expectations-for-the-conservation-and-restoration-of-seagrass-beds-as-blue-car bon-ecosystems/

ICAS Commentary

Why Russia's Arctic agenda should be of more concern than China's actions By Nong Hong October 7, 2022

A recent report titled "China's Strategy and Activities in the Arctic", by the US-based Rand Corporation and Swedish



Defence Research Agency, examines the potential implications of Chinese investment and activity in the Arctic. It points out that while China's presence in the North American sections of the Arctic remains limited, the world should keep an eye on its relationship with Russia, which will create uncertainties in the region.

A careful observation of China-Russia relations in the Arctic alongside recent developments in the region arising from the Ukraine conflict can shed further light on the factors that are causing uncertainty in Arctic affairs...

Continue Reading: https://chinaus-icas.org/research/why-russias-arctic-agenda-should-be-of-more-concern-than-chinas-actions/

ICAS Past Academic Engagement

Executive Nong Hong speaks speaks at the 7th International Conference on the Law of the Sea November 15-17, 2022 (Seoul, KST)

On Thursday, November 17, from 10:00-14:00 (KST), ICAS Executive Director Dr. Nong Hong participated in the Seventh International Conference on the Law of the Sea, with a theme of "Law of the Sea for the Next Generation: Effectiveness of UNCLOS Revisited." Dr. Hong presented in Panel 5: Voices of the Next Generation, speaking on the topic of "China's Chance to Revisit the Role of UNCLOS in Ocean Governance and Dispute Settlement in the South China Sea."



Learn More:

https://chinaus-icas.org/event/executive-nong-hong-speaks-at-the-7th-international-conference-on-the-law-of-the-sea/ View All Conference Recordings: https://www.youtube.com/@lawofthesea1982

ICAS BCCC Program Announcement



The Chinese-language version of the ICAS Blue Carbon & Climate Change Quarterly 2022 Q3 is Published

The Chinese-language version of the ICAS Blue Carbon & Climate Change (BCCC) Quarterly 2022 Q3 is out! "蓝碳与气候变化"主题研究第三季度季刊中 文精华版现已发布!

In an effort to share our research and news with an Asian audience on this essential, cooperative topic, the main points of this quarterly newsletter will be periodically translated into Chinese. 定期发布"蓝碳与气候变化"主题季刊的中文精华版,以帮助中文读者群体更好的了解这一重要议题的研究及发展动态。

This quarter's Theme of the Quarter was 'Global Extreme Weather' and the Blue Carbon Country Profile was on 'The United States'. 当季度蓝碳及气候变化关键词为"全球极端气候",本季度的蓝碳国家专题介绍了美国的情况。

View the Chinese Version: https://chinaus-icas.org/wp-content/uploads/2022/12/ICAS-BCCC-Quarterly-2022-Q3-CHN.pdf



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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