BCCC

ICAS
Institute for China-America Studies

ICAS Blue Carbon & Climate Change Program

Quarterly

Quarter 3 - 2024

ICAS Blue Carbon & Climate Change Program

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

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

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ICAS BLUE CARBON & CLIMATE CHANGE QUARTERLY

BCCC

July - September 2024

Contents

Theme of the Quarter: Infrastructure and Climate Change

News on Infrastructure and Climate Change

Strengthening Infrastructure to Build Resilience Against the Increasing Threats of Climate Change is a Global Need

As climate change intensifies, its impacts on global infrastructure are becoming increasingly evident. Extreme weather events such as heatwaves, floods, and droughts are pushing existing infrastructure to its limits. The Union of Concerned Scientists (UCS) recently warned that nearly 1,100 key infrastructure facilities along the U.S. coastline could experience flooding once a month by 2050 due to rising sea levels. This would put critical infrastructure services such as wastewater treatment plants, schools, and hospitals under serious threat, which are all essential to the daily operation and safety of communities. Also in the U.S., analysts recently found that extreme heat and flood are already damaging transportation infrastructure, affecting everything from roads to airports, causing significant disruptions to daily life and economic activity. For example, in Moorhead, Minnesota, increased rainfall has overwhelmed stormwater systems and led to frequent street flooding. What is most worrying is that much of the infrastructure in the U.S. was built many years ago and is seriously outdated, which makes them particularly vulnerable to increasingly extreme weather. This is particularly true of infrastructure in inland regions, evidenced by the disastrous multi-state Hurricane Helene in late September that isolated—if not destroyed—entire mountainous communities, swept out highways and bridges, killed over 100 people, left millions of people across 10 states without power, and resulted in an estimated $160 billion in damages and economic loss. Similarly, in Africa, the World Meteorological Organization (WMO) reports that climate-related hazards, including droughts, floods, and tropical cyclones, are damaging local infrastructures and causing annual economic losses amounting to two to five percent of their GDP, seriously exacerbating the food insecurity, water scarcity, and displacement problems of this underdeveloped continent.[1]

The growing frequency of climate-induced disruptions underscores the urgent need to upgrade and redesign infrastructure to withstand future conditions. The U.S. state of Florida has collectively invested

[1] Hurricane Helene caused flooding on the North Fork Catawba River in McDowell County that washed out a bridge on Highway 22 in North Cove, N.C. on Sept. 28, 2024, disconnecting communities and isolating them from already limited resources. (Photo by Julia Wall for The Washington Post via Getty Images)

more than $1.2 billion since 2019 to assist local critical infrastructure projects. In the United Kingdom, the National Infrastructure Commission has called for new resilience standards that would guide an expected £400 billion in investment decisions over the next five years. These standards aim to ensure that infrastructure can continue to provide reliable services even during extreme weather events. However, the report also noted that setting these standards will require significant trade-offs, including increased costs that may not always be publicly or politically popular. On July 28, the Peruvian government announced the creation of the Ministry of Infrastructure to address its national deficit in critical public infrastructure. In Africa, the WMO advocates for investments in hydro-meteorological infrastructure and early warning systems to improve the ability of governments to issue timely advisories and take preventive measures against extreme events. The Southeast Asia Disaster Risk Insurance Facility (SEADRIF), created in 2018 in partnership with ASEAN and the World Bank to increase regional preparedness, paid out US$750,000 to support Laos after Typhoon Yagi hit in early September.

However, it is important to note that existing support often falls short of the huge needs in many parts of the world. The U.S. federal government's bipartisan infrastructure law provides funding for upgrading critical systems, but local officials frequently report that these funds are insufficient to cover all necessary improvements. Also in Barbados, a US$40 million loan from the Inter-American Development Bank is financing water reclamation projects to improve climate resilience, yet the initiative still relies on substantial local funding. As Minnesota's climate director noted when discussing improvements to local aging stormwater systems, the total costs of resilience investments are hard to predict and the long-term benefits are complicated to measure, making it more difficult to get enough funding. But in any case, investing in resilient infrastructure today will pay dividends for decades, reducing the need for costly emergency measures and protecting communities from the worst effects of climate change.

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Cost is a barrier as cities prepare for wild weather in a changing climate, *MPR News*, August 26, 2024
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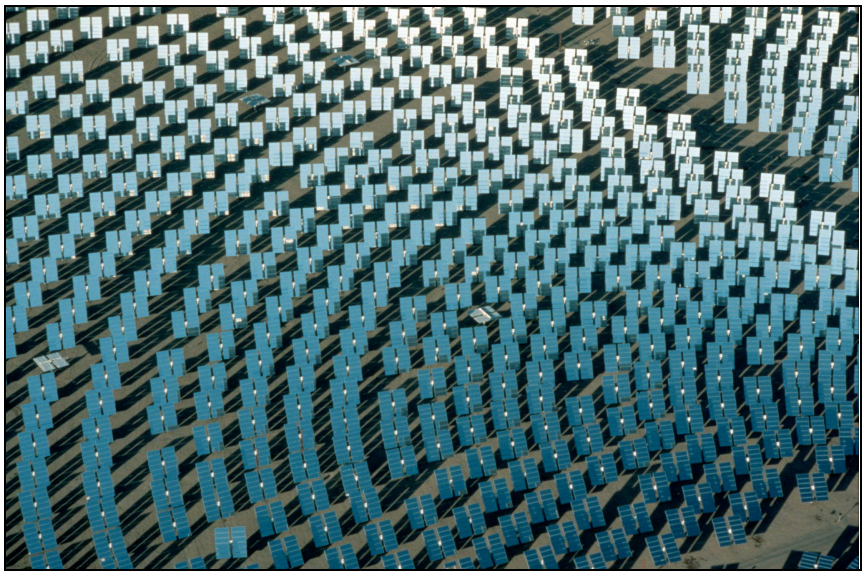
Recent Uptick in Green Infrastructure Investments, Both Domestically and Across Borders

Over the last half year, there has been a surge of investments in green infrastructure—i.e. solar panel fields, rain gardens, floodplains, and urban forests—worldwide. More countries are becoming committed to sustainable development projects aimed at tackling climate change and enhancing resilience. These infrastructure investments share the common goal of building a more sustainable future by improving renewable energy capacity, modernizing transport systems, and fostering biodiversity.

China is providing substantial support to African countries for green infrastructure investment, pledging in August during the Forum on China-Africa Cooperation (FOCAC) over US$50 billion in financial aid over the next three years. This new commitment surpasses the US$40 billion offered at the 2021 FOCAC. Among the key initiatives, Nigeria has signed an agreement with China's Mutual Commitment Group to assemble electric tricycles and establish a training and testing center for solar and renewable energy technologies. Additionally, China is strengthening renewable energy cooperation with South Africa, focusing on energy storage, transmission, and distribution. Through these projects, China is supporting Africa's green transition while bolstering regional connectivity. In July, Vietnam received significant backing from the Asian Infrastructure Investment Bank to expand its green infrastructure. The focus includes renewable energy projects and the development of a vast expressway network aimed at boosting the country's connectivity and economic resilience. At the same time, Indonesia is also seeking large-scale investments to develop solar and geothermal energy projects as part of its ambitious plan to achieve net-zero emissions by 2060.



China is not the sole national contributor of green infrastructure investments. In Europe, the European Union has made a record investment of €7 billion in July to go towards sustainable transport infrastructure, upgrading railways, maritime ports, and inland waterways to align with the European Green Deal. This investment aims to enhance environmentally friendly transport options and improve the continent's overall climate resilience. Similarly, in August in the UK, the government is openly prioritizing green infrastructure in its urban planning, using parks, wildlife areas, and green spaces to improve public health, biodiversity, and climate resilience.[2]

Across the Atlantic, the San Francisco Bay Area is benefiting from a US$10.6 million grant from the U.S.

[2] An aerial view of a large solar panel field. (Source: Photo by Grafton Marshall Smith via Getty Images)

Environment Protection Agency to fund watershed restoration and flood mitigation projects. These efforts, which are popularizing across major U.S. cities in recent months, are focused on enhancing water quality and reducing climate-related risks in vulnerable communities.

Indeed, these projects face notable challenges. Countries like Indonesia and South Africa are still having a hard time securing enough funds, and regulatory hurdles and technical expertise also complicate the timely implementation of projects in developing countries. Nevertheless, the surge in green infrastructure projects across the world still represents a crucial step toward a more sustainable future.

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China has Inked Several Green Infrastructure Deals with African Countries, *africa.com*, September 6, 2024

Government Statements & Actions on Infrastructure and Climate Change

Multinational organizations are increasingly recognizing the challenge of climate change, especially in relation to infrastructure resilience. These bodies are pushing for upgrades to existing infrastructure to better withstand climate-related disruptions, while promoting collaborative global efforts to reverse negative trends. There is also a growing call from less affluent regions for support from wealthier nations, stressing the need for coordinated global action to ensure fair and effective adaptation and mitigation strategies across all regions.

- On July 10, UNECE Executive Secretary Tatiana Molcean highlighted the potential of AI to boost climate action and enhance infrastructure resilience. She emphasized AI's role in improving early warning systems and infrastructure monitoring.
- On August 28, Nicolas Pinaud, Deputy Director of the Organization for Economic Cooperation and Development (OECD), emphasized the need for resilient infrastructure to withstand extreme climate events. Speaking in an interview with G20 Brazil, he stressed that infrastructure adaptation, especially in urban areas, is crucial to tackle climate change impacts. He also mentioned the next G20's ambition in fostering global cooperation and developing policies that ensure infrastructure resilience.
- On September 5, NATO emphasized the importance of resilience and civil preparedness, rooted in Article 3 of the North Atlantic Treaty, to withstand major shocks including natural disasters and attacks. NATO works with member nations to strengthen critical infrastructure, including energy, communications, and transport systems, ensuring they can recover quickly from disruptions, including extreme weather events.
- On September 21, at the Africa Infrastructure Forum, delegations from different countries emphasized the importance of clean cooking energy to address climate change and enhance livelihoods. There is a growing demand for investments in sustainable energy sources like solar and biogas, aiming to mitigate environmental degradation while creating economic opportunities. The forum also called for global and private sector involvement in financing clean energy initiatives across Africa.

The United States is paying special attention to the climate resilience of infrastructure, with both federal and state agencies taking significant steps to enhance climate resilience of infrastructures across various sectors. There is a strong focus on improving infrastructure, such as water management, flood defenses, and transportation systems, to cope with the increasing impact of extreme weather events. Federal investments are being dedicated to modernizing critical systems and protecting communities, while state governments are working on strategies to enhance infrastructure resilience to climate risks. These efforts underscore the U.S. government's commitment to both immediate adaptation and long-term sustainability in the face of climate change.

- On July 10, U.S. Department of Homeland Security Secretary Alejandro Mayorkas announced a finalized rule implementing the Federal Flood Risk Management Standard to enhance resilience against flooding. He emphasized that the rule will help communities by using the best available science to address both current and future flood risks. Federal Emergency Management Agency Administrator Deanne Criswell added that this measure will protect critical infrastructure and taxpayer investments, reducing the cycle of flood damage and loss.
- On August 1, California released the 2023 State Water Project report, highlighting that water delivery could decrease by up to 23% in the next 20 years due to extreme weather. Karla Nemeth, Director of the Department of Water Resources, stressed the urgency of upgrading infrastructure to manage changing water conditions and protect vital resources. The state government also underscores the need for stronger climate adaptation measures to prevent significant water losses.
- On August 15, the National Oceanic and Atmospheric Administration announced US$34 million in funding to modernize its fisheries infrastructure. U.S. Secretary of Commerce Gina Raimondo emphasized the importance of this investment for supporting coastal communities and the US$370 billion fishing industry. The funds will enhance data delivery systems, integrate advanced technologies, and reskill the workforce, ensuring better preparedness for climate impacts on marine resources.
- On August 16, Secretary of Transportation Pete Buttigieg praised projects like road repairs and bridge enhancements under the Infrastructure Investment and Jobs Act, which is aimed at improving resilience to climate impacts such as floods and wildfires. He specifically mentioned efforts to strengthen key supply routes and invest in climate-adaptive public transit and electric vehicle infrastructure. These efforts make transportation systems less vulnerable to extreme weather while also cutting emissions.
- On August 29, Florida Governor Ron DeSantis announced funding for further infrastructure improvements in Florida's Nature Coast through the Florida Job Growth Grant Fund and Rural Infrastructure Fund. Citrus County will receive US$2.8 million to complete critical infrastructure for Holder Industrial Park. Cedar Key Water and Sewer District and Cross City also received funding for vital water infrastructure projects to strengthen local economies.
- On September 24, the U.S. Department of Commerce announced US$9.9 million in investments for infrastructure improvements to support economic resiliency in Florida due to natural disasters.

While the U.S. has made significant progress on improving climate resilience of infrastructure, other countries appear to be lagging on this front in recent months, with India being one of the few exceptions, having introduced a new policy on green infrastructure. Holistically, this suggests that more global efforts are needed to enhance infrastructure resilience to climate change and create environmentally friendly infrastructures. If other, highly localized examples of such efforts exist, they would benefit from being openly discussed and brought to attention online and in the media.

- On September 20, the Mumbai Green Summit addressed key challenges related to climate change, focusing on sustainable infrastructure and green building initiatives. Experts highlighted the need for projects like bamboo cultivation and green steel construction to mitigate climate impacts. The summit also introduced the "Green Dossier," showcasing efforts to promote eco-friendly buildings and sustainable urban development.

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Third-Party Analyses & Data on Infrastructure and Climate Change

There is a common understanding that climate change-induced extreme weather is increasingly threatening existing infrastructure, which was not originally designed to withstand such conditions. To address these challenges, there is a need to reinforce the existing infrastructure to better prepare them for a foreseeable harsher condition. There is also a need for new infrastructure, such as cooling systems for hotter climates and improved construction materials that are more resilient. These developments require public funding and policy support. As expected, underrepresented communities are disproportionately impacted, more targeted attention and resources is necessary to ensure equitable resilience against climate change.

- In his commentary for *Axios*, Iowa state climatologist Justin Glisan emphasizes the urgent need for infrastructure updates to withstand increasing climate change induced extreme weather events. He warns that Iowa's outdated systems are ill-prepared for the predicted 10-20% rise in precipitation over the coming decades, posing significant risks of flooding and strain on urban infrastructure.
- An analysis by the Union of Concerned Scientists examines the increased risk of flooding to U.S. coastal infrastructure due to rising sea levels. The study predicts that nearly 1,100 facilities, including wastewater plants, schools, and hospitals, could flood monthly by 2050. The article emphasizes the need for urgent action to protect long-lived infrastructure.
- An analysis by Cranfield University in the United Kingdom stresses the need for governments to classify cooling as critical national infrastructure to combat climate change impacts. Improved cooling infrastructure is needed to meet societal, health, and economic adaptation goals in an increasingly

warming world.

- An article from Columbia Climate School argues that there is an urgent need to retrofit or integrate resilience into planning, design, and materials used in construction to protect communities and reduce future damages.
- A *CBC News* report argues that Canadian municipal governments, responsible for 60% of the country's infrastructure, are underfunded and struggle to manage the impacts of climate change and population growth. The recent floods in cities like Montreal and Toronto, it says, underscore the urgent need for updated infrastructure and a more supportive funding model from federal and provincial governments.
- In her analysis for the *Irish Independent*, Trinity College Dublin's Professor Karen Wiltshire warns that Ireland must start relocating people and key infrastructure away from coastal areas due to climate change impacts. She emphasizes that traditional solutions for extreme weather are insufficient, and a more strategic retreat is necessary. Wiltshire also advocates for updated legislation to better protect vulnerable infrastructure.
- In her commentary for *The New York Times,* Coral Davenport believes that climate change, specifically extreme heat and flooding, is accelerating the deterioration of bridges in the U.S., causing a growing threat to transportation infrastructure. Many bridges were built decades ago with materials not designed to withstand such weather extremes, and this issue could exacerbate supply chain disruptions and inflating costs if there are no effective counter measurements.
- A commentary published on *Modern Diplomacy* suggests that despite China's significant investments in infrastructure, such as the "sponge cities" developments, its cities still face climate change induced extreme weather challenges due to inadequate coordination and on-the-ground implementation.
- An analysis from Vanderbilt University explores the environmental and social impacts of large infrastructure projects, particularly focusing on their unforeseen consequences. Anthropologist Ashley Carse argues that infrastructure developments, such as port expansions and urban heat islands, disproportionately affect marginalized communities.

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ICAS Commentary

Building Sustainable Infrastructure for Electric Vehicle Charging Requires Aligned Planning

By Zhangchen Wang
September 30, 2024

Sustainable infrastructure refers to systems and facilities designed to meet societal needs while minimizing negative environmental impacts, efficiently using resources, and supporting long-term social and economic goals. It encompasses key areas such as transportation, energy grids, and water management, all central to building a low-carbon and climate-resilient future. Sustainable infrastructure comes in two key forms: infrastructures built with low-carbon materials that reduce environmental impact during construction, and infrastructures that help transition toward a renewable and lower-carbon society. With the rapid development of the electric vehicle (EV) industry aimed at a low carbon future, electric vehicle charging stations are also becoming a critical part of this sustainable infrastructure. They are essential to support the growth of the EV industry, ensuring that drivers have access to convenient, reliable, and fast charging energy supplies.

However, the development of charging infrastructure has not kept pace with the rapid adoption of EVs, creating obstacles to the goal of EVs further replacing traditional vehicles in the future. As a result, a collective effort between the public and private sectors is needed to address this gap. Driven by market demand, private companies have the motivation to increase the number of charging stations and to optimize their layout, while the government can support this initiative by providing policy support and strengthening grid configuration to meet the growing demand.[3]

The scale of the EV infrastructure gap in many places is alarming. As of January 2024, there are only about 183,000 individual charging outlets within the 61,000 public charging stations in the U.S. At the same time, the U.S. is estimated to have more than 3 million EVs on the road. Honestly, this is not a remarkable figure for a country with 239 million licensed drivers. Having only one charging outlet for every 17 EVs is still far from enough for meeting the demand. Furthermore, previous data shows that the EV-to-charger ratio in the U.S. has reached around 17 as early as 2021, indicating that little progress has been made in expanding charging infrastructure over the past few years in the U.S.. Similarly in Europe, the average EV-to-charger ratio among

[3] An electric vehicle charging station in China. (Source: Photo by koiguo via Getty Image)

EU countries is also above 15, primarily because electric vehicle sales have surged while the expansion of charging infrastructure has not kept pace. Additionally, almost 90% of the charging points in Europe are still slow chargers, which can take hours to charge a vehicle fully.

Even in China, the global leader in EV development, the charging infrastructure is also facing unique problems. If the problems in the U.S. and Europe stem mainly from a lack of attention to the development of EV infrastructure aimed at rising EV sales, China's predicament is the uneven distribution of chargers between urban and rural areas, leaving many rural regions underserved. In 2024, China owns over 85% of the world's fast chargers and around 60% of slow chargers. However, the number of charging stations in rural areas and along highways is disproportionately low.

Some solutions to the problem of EV infrastructure insufficiency already exist. Public-private partnerships (PPPs) can be an effective way for countries with high EV-to-charger ratios to rapidly expand their charging infrastructure. One of the main barriers that prevents the construction of EV charging stations is the long payback period, which some financial institutions estimate to be almost 10 years. Some researchers even suspect that certain public charging economic models—especially direct current fast charging—could be not profitable at all. Under such circumstances, only industry giants like Tesla, and companies that mainly operate slow-charging stations like ChargePoint, dare to invest heavily in EV infrastructure, which makes the U.S. EV infrastructure increasingly stretched and in dire straits.

There are researchers suggesting that government subsidies could fundamentally reverse this situation. A study by McKinsey shows that government subsidies can significantly transform the economic viability of EV charging stations—especially public fast charging stations. Without subsidies or credits, these stations typically operate with annual earnings before interest and taxes (EBIT) losses of $40,000-$50,000. However, subsidies or tax credits from programs such as the Inflation Reduction Act and the National Electric Vehicle Infrastructure (NEVI) Formula Program can turn the station's annual EBIT positive, generating a profit of $25,000-$30,000.

Despite substantial government subsidies, the expansion of EV charging infrastructure in the U.S. has been slower than expected due to several factors. One major obstacle is the complex regulatory and bureaucratic requirements for accessing federal funds, which have delayed the construction of new charging stations. For example, the NEVI program has seen slow progress as states navigate the contracting process and meet federal standards. In addition, companies need time to adapt their operations, source equipment, and scale up to meet the demand for EV chargers. Given time, domestic producers are likely to rise to the challenge as these hurdles are gradually addressed.

For more immediate results, accepting experienced foreign EV charging providers, which already have well-established public EV infrastructure and excess capacity, could help countries with high EV-to-charger ratios to close the gap in the short term while domestic companies scale their operations. While the U.S. and

Europe are focusing on trade protectionism in the EV sector, especially by imposing tariffs on Chinese electric vehicles and key components like batteries, there are no significant tariffs on EV charging station-related products or infrastructure at this time. International trade in charging stations remains open—and should remain open. After all, rapid EV growth cannot happen without sufficient charging stations that provide consumers with confidence in the network's availability and reliability.

Another factor that limits the development of electric vehicle charging stations is the carrying capacity of the power grid. As mentioned earlier, even though the EV-to-charger ratio is lower than three in China, the charging stations are mainly concentrated in megacities. Rural areas do not have enough charging stations, so electric vehicles are not widely used outside cities and are not usually used for long-distance travel. This is mainly due to the fact that power grids in some places—especially rural areas—-tend to have lower capacity and rely on older infrastructure that is not designed for the sharp increases in demand associated with EV fast charging. The same problem also plagues other countries.

To address these challenges, governments must invest in grid modernization. This includes upgrading transformers, substations, and deploying smart grid technologies that allow for dynamic load balancing. Technologies such as Vehicle-to-Grid can also play a critical role by enabling EVs to send unused energy back to the grid during peak demand, helping balance supply and demand. In rural areas, where grid capacity is a significant limitation, renewable energy sources like solar and wind power offer another potential solution. Renewable energy-powered charging stations, paired with battery storage, can generate and store energy locally, thus reducing reliance on the grid and enabling sustainable EV charging without overloading the existing infrastructure.

To ensure a successful transition to a more sustainable future, addressing the gap in EV charging infrastructure is essential. By fostering public-private partnerships, governments and companies can work together to expand charging networks based on market demand, and international trade can also play a mutually beneficial role. Additionally, grid modernization and renewable energy integration will be crucial in supporting the rising demand, particularly in rural areas. These collaborative efforts are key to building a sustainable, reliable infrastructure that supports the future of EVs.

This commentary was originally released on the ICAS website on September 30, 2024 as part of the ICAS Blue Carbon & Climate Change (BCCC) Program.

This season's Theme of the Quarter on Infrastructure and Climate Change was primarily researched and written by Zhangchen Wang, Part-Time Research Assistant at the Institute for China-America Studies.

This Season's Global Climate Affairs

Issues & Updates on Blue Carbon

Sri Lanka's blue carbon ecosystems at risk as government seeks way out of economic crisis

Tuesday, July 16
Source: *Mongabay*
[Sri Lanka]

Sri Lanka's blue carbon ecosystems are under threat as the government seeks to exploit natural resources to address the country's severe economic crisis. The country's minister of wildlife and forest conservation has issued an order to degazette a section of Vidattaltivu Nature Reserve in the northern district of Mannar to push forward development projects that favor short-term economic gains. Local communities and environmentalists are concerned that this approach will cause irreversible ecological damage and undermine long-term benefits.

AP Plans Carbon Market to Protect Mangrove Forests

Tuesday, July 16
Source: *The Times of India*
[India]

The Andhra Pradesh government plans to establish a carbon market to protect mangrove forests and promote sustainable development by trading carbon credits. The initiative, which focuses on conservation and restoration, aims to attract investments and secure extra funds for blue carbon protection by setting a public-private partnership model. The project aligns with broader environmental goals and international carbon trading frameworks, and will provide economic benefits to local communities

Surveys reveal vast mangrove damage along Great Barrier Reef and restoration hotspots

Friday, July 26
Source: *James Cook University*
[Australia]

The survey by James Cook University found severe damage to mangroves along the Great Barrier Reef due to environmental stressors like sea level rise, cyclones, and pollution. Meanwhile, researchers also mapped over 1,000 kilometers of coastline and identified 52 key areas, or "restoration hotspots," where potential restoration could be most effective. Researchers emphasize that restoring these areas are critical as they could significantly enhance carbon storage, reduce erosion, and protect marine biodiversity.

Breakthrough blue carbon initiative to be delivered at two sites within wetlands

Monday, July 29
Source: *Sunshine Coast News*
[Australia]

Australia has approved a blue carbon project led by GreenCollar and operating in Queensland's Great Sandy Strait. The project aims to generate carbon credits by protecting and restoring vital coastal wetlands ecosystems like mangroves and saltmarshes.. The project is also expected to provide both environmental benefits and new economic opportunities through carbon trading, setting a precedent for similar future efforts across the country.

New Study Shows Impressive CO2 Capture Capabilities Of Marine Animals

Thursday, August 1
Source: *Carbon Herald*
[The United States]

A new study conducted by global information hub Ocean Science & Technology shows that mesopelagic fish—animals found at ocean depths greater than 200m—have stronger capabilities in capturing and storing 'oceanic blue carbon' during their lifespan.

New Manual for Improving Accuracy in Mangrove Mapping and Monitoring

Monday, August 5
Source: *Caribbean News Service*
[Global]

The Nature Conservancy (TNC) and the Food and Agriculture Organization (FAO) have released a new manual to enhance the accuracy of mangrove mapping and monitoring with more advanced remote sensing technologies. Most existing datasets rely on medium-resolution satellite imagery, which often misses sparse, narrow, and fringing mangroves common on small islands. The manual equipped with new technologies will offer up-to-date tools and techniques to support local resource managers and decision-makers to improve coastal management, conservation efforts, and resilience to climate change.

New Mangrove Methodology Featuring Remote-Sensing Expands Nature-based Solutions From Gold Standard

Wednesday, August 26
Source: *Carbon Herald*
[The Netherlands, Germany]

Swiss sustainability group Gold Standard and German climate group FORLIANCE released their first methodology—the Sustainable Management of Mangroves Methodology—for mangrove projects that enables remote-sensing applications for measurement and impact quantification.

Aggressive seagrass species discovered in Biscayne Bay

Wednesday, September 4
Source: *FIU News*
[The United States]

Researchers from Florida International University have discovered an aggressive seagrass species, Halophila stipulacea, in Biscayne Bay, which is spreading rapidly and may threaten native seagrass species and local marine ecosystems. This invasive species can outcompete native grasses, alter habitat structure, and affect local biodiversity. While it poses a threat to native species by outcompeting them, it can also provide some ecological benefits, such as stabilizing sediments and offering a habitat for certain marine organisms. However, researchers remain cautious about its overall impact on Biscayne Bay's ecosystem.

Blue Forest receives license for world-leading mangrove restoration project

Friday, September 6
Source: *Further Africa*
[Mozambique, United Arab Emirates]

Blue Forest, a Dubai-based blue carbon project development company, has successfully received a license to begin operating one of the world's largest mangrove restoration projects. The project, known as MozBlue, is located in Mozambique, covers an area of over 155,000 hectares, and plans to start in November 2024 by restoring more than 5,000 hectares of degraded coastline.

Scientists Will Engineer the Ocean to Absorb More Carbon Dioxide

Thursday, September 12
Source: *The Scientific American*
[Global, Pacific Ocean]

A group of academics from a not-for-profit consortium have presented a program idea to examine how much carbon dioxide the process of iron fertilization can sequester in the deep sea and what additional impacts it may have on marine ecosystems. They hope to begin trials as soon as 2026.

Antarctic krill can lock away similar levels of carbon as seagrass and mangroves, finds study

Tuesday, September 17
Source: *Phys.org*
[The Antarctic]

New research shows that Antarctic krill, a specific species located in the Antarctic that have been subject to global warming and overfishing, are capable of storing similar amounts of carbon as mangroves, saltmarshes and seagrasses. This, the Europe-based researchers explain, means that Antarctic krill should receive similar levels of protection as 'blue carbon' ecosystems.

Multilateral Affairs & Climate Diplomacy

World Lives Through Yet Another Hottest Summer on Record

The Short Story: The summer of 2024 was the hottest on record globally, again testifying to how the need to address climate change driven by human activities is increasingly urgent.

Why It Matters: This repeated record-breaking summer of heat exemplifies the escalating impact of climate change being collectively witnessed across the world. If swift action is not taken to tangibly reduce greenhouse gas emissions, these extreme heat phenomena will lead to increased mortality, economic damage, and societal disruptions.

The Full Feature Story: This summer, the world experienced its hottest period on record, with temperatures reaching unprecedented levels on average globally. Data from the United States' NASA and the European Union's Copernicus Climate Change Service confirm that the summer of 2024 was the hottest since records began being recorded in 1880. According to NASA, the average global temperature for Summer 2024 was about 0.2 degrees Fahrenheit (0.1 degrees Celsius) warmer than the previous record, which was set only one year ago in 2023. August 2024 alone was 2.34 degrees Fahrenheit (1.3 degrees Celsius) warmer than the long-term average. The Copernicus Climate Change Service further reported that August 2024 was the hottest month ever recorded globally, with temperatures 1.51 degrees Celsius above pre-industrial levels. This trend is consistent with scientific models that predict more frequent and intense heatwaves, droughts, and extreme weather events as global temperatures continue to rise. The extreme heat was felt across various regions. In North America, cities like Las Vegas and Death Valley hit new records, with temperatures soaring above 120 degrees Fahrenheit. In Europe, major cities of Italy, Spain, and France were all under severe heat alerts. In Asia, Japan saw its hottest summer and China reported record-breaking temperatures in August, while Saudi Arabia faced deadly heatwaves during the annual Hajj pilgrimage.

This unprecedented, lasting heat is a clear consequence of climate change, and the vast majority of scientists believe it is human-induced. According to NASA, human activities—including burning fossil fuels, deforestation, and industrial processes—facilitate trapping more heat in the Earth's atmosphere and thus contributing to global warming. The rising temperature is also triggering a cascade of vicious cycles that further compounds global warming. For example, feedback mechanisms such as the melting of polar ice caps decrease the Earth's reflectivity, accelerate the warming process as they cause more solar radiation to be absorbed by oceans and land. Additionally, warmer oceans exacerbate marine heatwaves, which affect weather patterns globally and contribute to increased land temperatures.

In fact, the severe heat of 2024 is not just a standalone event; it is part of a larger pattern of intensifying climate impacts compounding and exacerbating the issue. The World Economic Forum emphasized in a report in August that these extreme events will only worsen if there is no urgent action to reduce GHG

emissions, and will thus lead to more devastating consequences for people and the planet—including but not limited to increased mortality rates during heatwaves, economic disruptions, and heat-related damages to infrastructure. Scientists argue that transitioning to renewable energy and reversing environmental damages can help mitigate some of these impacts. However, time is of the essence. As climate scientist Roxy Mathew Koll noted, "[w]e are in an age where weather and climate records are frequently stretched beyond our tolerance levels."

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John Podesta Visit to China in Early September Sets the Stage for Productive Talks

The Short Story: U.S. climate envoy John Podesta visited China in early September, where he engaged in crucial talks with Chinese officials on climate cooperation, setting the stage for potential achievements ahead of the COP29 climate summit.

Why It Matters: The visit by John Podesta to China reflects a renewed effort by the world's two largest emitters to find common ground on urgent climate issues, including finance and emissions reduction targets, despite the presence of broader geopolitical tensions. The dialogue not only impacts global climate policy, particularly the upcoming COP29 negotiations, but also serves as a critical step in stabilizing and improving overall U.S.-China relations.

The Full Feature Story: John Podesta, U.S. Senior Advisor for International Climate Policy, visited China from September 4-6 to conduct critical dialogue with Chinese officials including Foreign Minister Wang Yi and Special Envoy Liu Zhenmin. This visit came at a crucial time, less than two months ahead of both the November U.S. presidential election and the COP29 climate conference in Baku, Azerbaijan, raising expectations for meaningful progress in the U.S.-China climate relations. It is also a significant meeting between U.S. and Chinese officials on climate as both countries' veteran climate envoys, John Kerry and Xie Zhenhua, handed over their positions earlier in 2024.

Prior to the visit, expectations were high for Podesta to discuss with China regarding each other's greenhouse gas reduction targets, aligning with the Paris Agreement's goals. The two sides were also

prepared to have a frank exchange on their countries' policy differences in addressing climate change. Although China and the United States have different approaches to address climate change, they have a long-established consensus on issues such as deforestation and addressing methane emissions. Besides climate related discussions, analysts also noted that the visit could help to foster mutual trust and cooperation amid ongoing geopolitical tensions between the two major powers, with both countries recognizing the importance of climate diplomacy as a stabilizing factor in their bilateral relationship.

During his trip, Podesta met Chinese Foreign Minister Wang Yi and China Special Envoy for Climate Change Liu Zhenmin and discussed several key issues, including narrowing differences on climate finance and establishing new ambitious climate targets. Both sides also acknowledged progress in discussions around methane reduction and the transition away from coal. Podesta noted that while some disagreements persisted—particularly regarding contributions to the New Collective Quantified Goal aimed at supporting developing countries—there was a shared commitment to finding collaborative pathways. Wang Yi emphasized that climate change dialogue and cooperation are integral parts of China-U.S. relations. He highlighted that climate teams from both sides have been in close communication and have achieved outcomes since the beginning of the year. Wang also urged the U.S. to maintain policy consistency, respect China's legitimate concerns, and avoid protectionism and pan-securitization. Liu Zhenmin echoed the importance of continued collaboration, and he reaffirmed China's commitment to working with the U.S. and other parties to support a successful COP29.

This visit also has broader global impacts, both tangibly and symbolically. Some experts suggest that the talks set a cooperative tone for COP29, potentially revitalizing international climate negotiations that have stalled due to geopolitical tensions. They also believe that constructive dialogue could lead to a framework for joint commitments prior to COP29, reminiscent of the successful 2014 framework that preceded the Paris Agreement. However, some analysts suggest that there is a need for cautious optimism. For example, the uncertainty surrounding the upcoming U.S. presidential election adds a layer of complexity, with potential policy shifts that could derail ongoing efforts. In either case, the dialogue between the U.S. and China signals a positive direction in bilateral climate diplomacy.

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FM Wang meets with US climate policy advisor Podesta in Beijing, *China Daily*, September 6, 2024
US, China 'narrowing' rift on climate finance in this week's talks, US envoy says, *Reuters*, September 6, 2024
Second Meeting of U.S.-China Working Group on Enhancing Climate Action in the 2020s, U.S Department of State, September 6, 2024
China and the United States push each other on priorities for COP29 (in Chinese), *Financial Times*, September 9, 2024
China-US climate talks conclude: narrowing differences and creating a cooperative atmosphere for COP29 (in Chinese), The Meteorological Administration, September 9, 2022

More on Multilateral Affairs & Climate Diplomacy:

- The European Court of Auditors has criticized the EU's hydrogen strategy as overly ambitious and lacking robust analysis, warning that the EU is unlikely to meet its renewable hydrogen production and import targets of 10 million tonnes by 2030 despite €18.8 billion in funding. (*Euractiv*, July 18)
- A United Nations task force is reportedly opposing big polluters and technology companies that rely on carbon credits to offset their emissions outside of state-regulated schemes, advocating instead for direct investment in reducing their own carbon footprints. (*Carbon Pulse*, July 24)
- The EU plans to push emerging economies, particularly China, to contribute more funding for climate action at COP29, arguing that wealthier countries should help support vulnerable nations in addressing the impacts of global warming. (*Politico*, July 31)
- The UN has accused the fossil fuel industry of using disinformation campaigns to slow down the global transition to clean energy and is now urging world leaders to combat these efforts and prioritize the shift to sustainable energy sources to meet international climate goals. (*The Guardian*, August 8)
- Developed countries led by the EU and the U.S. are pushing for wealthier, more polluting nations like China to contribute more to the UN climate finance target, while many developing countries insist on maintaining the 1992 classification of donor countries. Climate finance experts from Switzerland and Canada propose that top emitters with a high per capita income should contribute more. (*Climate Home News*, August 16)
- During Fijian Prime Minister Sitiveni Rabuka's visit to Beijing, China pledged to support Fiji's development and tackle climate change, as well as cooperation in infrastructure, agriculture, and tourism. (*South China Morning Post*, August 20)
- Although 1,500 climate policies have been implemented worldwide, a new study says only about 4% have significantly reduced emissions. The effective policies reduced up to 1.8 billion metric tons of carbon, but much larger reductions are needed to meet the targets set in the 2015 Paris Agreement. (*The New York Times*, August 22)
- Climate campaigners have taken the European Union to court over its 2030 emissions-cutting rules, arguing that the current regulations are insufficient to meet the Paris Agreement targets. The plaintiffs argue that more aggressive action is required to prevent catastrophic climate impacts. (*Reuters*, August 28)
- A new report from the World Meteorological Organization reveals that African nations are losing up to 5% of their GDP annually due to the disproportionate impacts of climate change, despite contributing less than 10% of global greenhouse gas emissions. Without proper actions, the report says, up to 118 million people in Africa could face extreme weather events by 2030. (*AP News*, September 3)

- The European Court of Human Rights ruled that climate inaction by states violates human rights, marking a landmark decision that could hold governments accountable for failing to address the climate crisis and its impact on people's lives. (*Climate Home News*, September 4)
- WaterEquity announced it has raised US$100 million for its new impact fund, which focuses on investing in climate-resilient water and sanitation infrastructure in emerging markets. The fund will address the urgent need for sustainable water solutions in vulnerable communities. It aims to improve health and economic opportunities for millions of people. (*Global Newswire*, September 10)
- On September 17, the United Kingdom's new Labour government announced the launch of the Global Clean Power Alliance designed to help countries transition towards renewable energy and away from fossil fuels. (*energynews*, September 19)
- At least five African countries are working on a joint "debt-for-nature" swap to raise at least $2 billion for the protection of coral-rich Indian Ocean ecosystems, marking the first multi-country deal of its kind. (*Reuters*, September 26)
- In response to new—but still not finalized—regulations on deforestation set to be imposed by the European Union, the world's largest coffee traders have begun selling 'deforestation-free' coffee beans to Europe, even though the details needed to determine compliance are expected to be finalized until December. Coffee bean traders say that they are confident suppliers from their top producers, Brazil and Vietnam, can meet the requirements, though Brazil and Germany are requesting delays. (*Bloomberg*, September 30)

Domestic Activity & Climate Affairs

UK's New Labour Government Sets a Fresh Course for Climate Change

Country/Region: The United Kingdom

The Short Story: The UK's newly elected Labour government is pursuing an ambitious agenda to make the country a "clean energy superpower" through both strengthened international climate diplomacy and bold domestic policies.

Why It Matters: The Labour government's climate strategy marks a significant shift in the United Kingdom's approach to climate action as it aims to position the country as a leader in global efforts to tackle the climate crisis. The outcome of these policies will impact both the UK's domestic climate agenda and its international reputation.

The Full Feature Story: The United Kingdom held its general election on July 4, turning over 14 years of Conservative rule by filling 412 of the 650 seats in the House of Commons with Labour Party members, thus also paving the way for the head of the Labour Party, Keir Starmer, to become Prime Minister. Ever since, the new UK Labour government's ultimate objective on climate has been to transform the UK into a "clean energy superpower" by 2030. To achieve this goal, the Labour government has significantly increased funding for renewable energy projects to £1.56 billion per year. The goal is to rapidly expand offshore wind, onshore wind, and solar power capacity to achieve net-zero emissions from electricity generation by 2030, five years earlier than the previous government's target. Less than three weeks after the election, the new UK government had confirmed one of Labour's key election pledges—the creation of Great British Energy, a state-owned green energy company designed to drive investment in renewable technologies and reduce reliance on imported fossil fuels—and introduced the Great British Energy Bill to Parliament. Prime Minister Starmer has also taken a firm stance against local councils—including some Labour-led ones—that have opposed the installation of pylons and other infrastructure necessary to deliver clean electricity. He has pledged to push forward with these projects despite opposition.

On the international stage, the Labour government is seeking to play a more prominent role on climate related issues. The Labour government has announced that Energy Secretary Ed Miliband will lead the UK delegation to the upcoming COP29 climate summit in Azerbaijan, a dramatic departure from the previous government's low-key approach. Miliband's involvement is seen as a commitment to stronger climate diplomacy and is intended to restore the UK's leadership in international climate negotiations. To guarantee the UK's credibility and leadership role on the global stage, the new government has also reaffirmed its pledge to provide £11.6 billion in overseas climate aid; a commitment that had been left unfulfilled by the previous Conservative government. Labour's climate strategy has received positive feedback from several international figures as Secretary Miliband's leadership at COP29 has been welcomed by climate diplomats. However, questions remain about whether the UK government can effectively navigate domestic political challenges and fulfill its ambitious climate commitments.

Domestically, the government's actions have been met with mixed reactions. Conservatives still mainly question Labour's climate policy from an economic perspective. Meanwhile, Green Party co-leader Adrian Ramsay criticized the Labour government for supporting airport expansion and not going far enough to address the climate crisis, arguing that Labour's approach still lacks the ambition to achieve transformative change.

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Green Party co-leader promises to hold Labour to account on Gaza, benefits and climate, *Left Forward*, September 3, 2024
Labour getting it wrong, says Green Party co-leader, *BBC*, September 6, 2024
GB Energy: What does it mean for Scotland?, *BBC*, September 24, 2024

Climate Change as Overshadowed in the 2024 U.S. Presidential Election Campaign

Country/Region: The United States

The Short Story: While climate change is not a central issue in the 2024 U.S. presidential election, it remains a significant point of divided opinions between the two political parties, thus indicating the broader divides that still exist on climate policy in the U.S.

Why It Matters: The divergent stances of the two major political parties reflect the broader debates over how the U.S. should respond to the climate crisis and indicate the growing polarization on this issue among American voters. Clearly, the outcome of the election in November will directly affect the near future of U.S. climate policy—or even the course of global climate governance.

The Full Feature Story: Although climate change is not a central issue in the 2024 U.S. presidential election, it has remained a major point of contention between the two main candidates, Democratic Party candidate Kamala Harris and Republican Party candidate Donald Trump, due to their opposing agendas on the matter. If Harris wins, the U.S. is likely to continue on a path of aggressive climate action, which includes significant investments in renewable energy and stricter environmental regulations. A Trump victory, on the other hand, could result in a rollback of many existing policies, a renewed emphasis on fossil fuel production, and reduced U.S. involvement in global climate initiatives.

Kamala Harris has positioned herself as a strong advocate for climate action, frequently emphasizing the urgency of addressing what she describes as an "existential threat." She played a role as vice president in passing the Inflation Reduction Act (IRA) in August 2022, which represents the largest government

investment in clean energy in U.S. history. As the current U.S. vice president, Harris' reputation has also become aligned with an array of climate initiatives initiated and supported under the Biden-Harris Administration, such as funding clean energy transitions, pushing a climate-conscious economic stimulus package, and creating climate-related tax credits. Now, as the Democratic nominee, Harris has vowed to build on these policies if elected, with a focus on transitioning to a clean energy economy, promoting renewable energy, and upholding environmental justice. Her campaign also highlights her background as California's attorney general, where she prosecuted oil companies for environmental violations, reflecting her commitment to holding polluters accountable. However, some experts note that Harris has not heavily emphasized climate change in her campaign messaging, speculating it to be a strategic choice to prioritize issues like the domestic economy and healthcare, which are seen as more immediate concerns for many voters. Additionally, Harris has tempered some of her positions to avoid alienating voters in key battleground states such as Pennsylvania. For example, although she previously supported banning fracking, she clarified in September that she would not impose a complete ban as president, given the economic importance of the natural gas industry.

Meanwhile, former President Donald Trump has adopted a sharply contrasting approach to climate policy. During his first term, Trump withdrew the U.S. from the Paris Agreement and rolled back several environmental protections, notably reducing the EPA's authority and promoting fossil fuel production. His administration's primary focus was on deregulation and energy independence. Trump has frequently dismissed climate change as a "hoax" and openly criticized the Biden administration's climate agenda, including the IRA. Over the last few months, he has promised to roll back key climate regulations and expand fossil fuel production to ensure U.S. energy dominance through increased extraction. Trump has also pledged to reduce funding for climate-focused agencies and intends to withdraw the U.S. from international climate agreements again, such as the Paris Agreement, if re-elected. During his first term, he attempted significant budget cuts to the U.S. Environmental Protection Agency, and similar efforts could be expected under a second Trump administration.

Despite these divisive stances, climate change is not a primary issue for most voters in this election. Climate issues received little attention in the Harris-Trump presidential debates. Harris discussed climate change as a "pocketbook issue," whereas Trump reiterated his skepticism about large-scale renewable energy projects. Analysts suggest that other concerns, such as the economy, healthcare, and immigration, are more likely to drive voter behavior. This idea is supported by the fact that the two rounds of presidential debates barely touched on climate issues. While climate change remains a priority for certain voter groups, particularly younger voters and those in environmentally vulnerable states, it is unlikely to be the decisive factor for the majority of the electorate. But while the elected winner may not be influenced by the candidates' stance on climate change, the near future of American—and global—climate action will certainly be influenced by which candidate comes to sit in the Oval Office.

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Do Trump and Harris have climate change plans? See where both candidates stand, *CBS News*, September 10, 2024
California's young voters must participate if we want a livable climate future, Cal Matters, September 11, 2024
The presidential debate proved that climate change is not at center of 2024 election, experts say, *ABC News*, September 12, 2024

More on Domestic Activity & Climate Affairs:

- **Azerbaijan:** Although concerns remain over its commitment to transitioning away from fossil fuels amid heavy reliance on oil and gas revenues, Azerbaijan, host country of COP29, plans to launch a climate investment fund with an initial US$500 million to support green projects. (*Reuters*, July 11)
- **China**: The "China Electric Power Development Report 2024" reveals that China's non-fossil energy power generation capacity reached a new milestone in 2023, surpassing 1.57 billion kilowatts—a 23.9% year-on-year increase—accounting for 53.9% of the country's total installed capacity. (*Xinhua*, July 17)
- **China:** China has launched its first fully green virtual power plant, located in an industrial park in Ningbo, China, which can meet 80% of the industrial park's daily electricity needs. (*Caixin Global*, July 20)
- **South Africa**: South Africa has passed its first comprehensive climate change law, setting emission reduction targets, establishing a national greenhouse gas inventory, and introducing a carbon budget system to help the country meet its climate commitments. (*Reuters*, July 23)
- **The United Kingdom**: UK-based financial advisor group Citicourt & Co is working to raise £100 million for a venture capital fund dedicated to sustainability-focused space opportunities. (*SpaceNews*, July 29)
- **The United States**: According to a recent study, nearly one-quarter of the U.S. Congress—100 in the House of Representatives and 23 in the Senate—deny the existence of human-caused climate change. All of these climate change deniers are Republicans, making the U.S. an international outlier as public concern over global climate change intensifies. (*The Guardian*, August 5)
- **Brazil**: According to a study by World Weather Attribution, the wildfires that ravaged Brazil's Pantanal, burning 440,000 hectares and causing immense wildlife loss, were made at least four times more likely and 40% more intense by human-caused climate disruption. (*The Guardian*, August 8)
- **The United Kingdom**: The UK has approved the creation of an electricity "superhighway" to transfer renewable energy between Scotland and England, featuring a 310-mile cable under the North Sea from Peterhead to Bridlington and an underground section to Drax, with a capacity to power up to 2 million homes. (*The Times*, August 13)

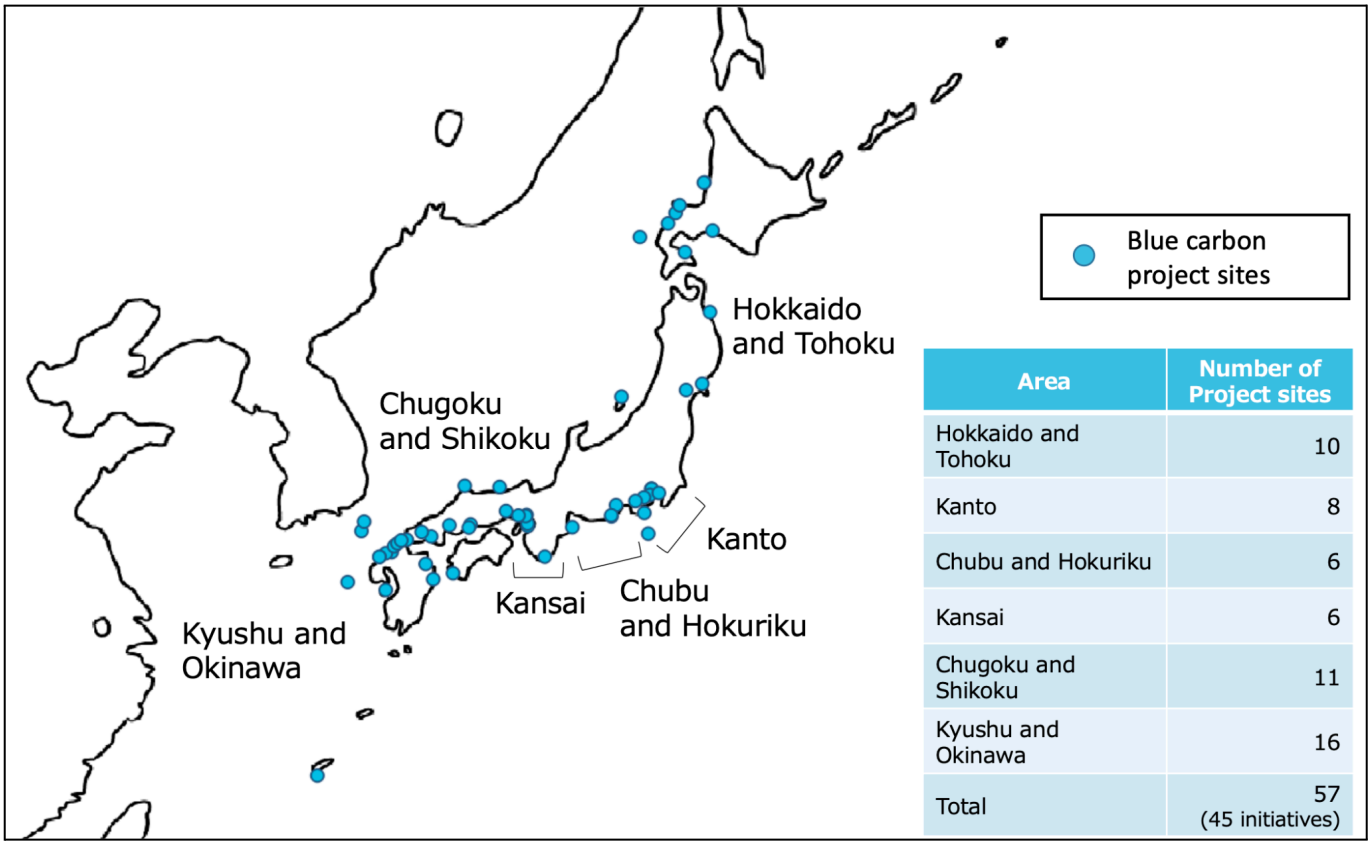
- **Ukraine**: Ukraine has approved a US$20 billion plan to boost renewable energy production by 2030, aiming to increase its renewable energy capacity, reduce dependency on fossil fuels, and enhance energy security in its ongoing conflict with Russia. (*Reuters*, August 13)
- **Germany**: In July, Germany's expanding collection of solar panels broke a record for solar power energy production by producing around 10 terawatt hours of power within the month. (*I Am Expat*, August 24)
- **South Korea:** South Korea's Constitutional Court unanimously ruled that the Republic of Korea government's climate goals, declared in 2021, are unconstitutional and fail to protect the rights of future generations, adding that they must make concrete plans for action through 2049. (*AP News*, August 29)
- **Greece**: Greece has been battling its worst wildfire season in two decades, facing about 4,000 fires since May 1, with one of its largest burning near Athens from August 11-13. (*Bloomberg*, September 6)
- **Maldives**: According to the World Bank's Maldives Country Climate and Development Report, climate change is posing severe risks to the Maldives' economy, particularly to tourism and fisheries, which make up nearly half of its GDP. The report also warns that the impacts on coral reefs and marine ecosystems will worsen sharply by mid-century. (*Mirage*, September 17)
- **Nigeria:** Nigeria has warned of potential flooding in 11 states along the Benue River due to Cameroon's planned controlled releases from the Lagdo Dam, following heavy rainfall in West and Central Africa. (*The Guardian*, September 18)
- **Norway:** Environmental groups warn that Norway's plans for seabed mining in the Arctic could threaten marine life and cause harm to fragile ecosystems in the region. (*Inside Climate News*, September 20)
- **Japan**: Japan has agreed to expand long-term monitoring of treated water from the Fukushima nuclear plant with third-party inspectors in hopes of lifting foreign ban on Japanese seafood imports, especially from China. (*The Japan Times*, September 20)
- **Brazil:** A study by Boston Consulting Group estimates that, by 2040, Brazil's car market will be heavily favoring fully electric and hybrid car models, especially those from Chinese automakers BYD and GWM who are planning local manufacturing in addition to continued imports. (*Finimize*, September 27)

Blue Carbon Country Profile: Japan

A. Potential of Japan in Blue Carbon Affairs

Japan's approach to blue carbon is comprehensive and innovative. Japan incorporates not only traditional blue carbon ecosystems like seagrasses, mangroves, and tidal marshes, but also seaweed beds, which are widely distributed along Japan's extensive coastline. As a large island nation, Japan's rich marine environment supports vast blue carbon ecosystems, and the country is one of the few countries that has placed significant emphasis on managing these resources across multiple levels of society, including in the government, the private sector, research institutions, and non-government organizations. Japan also actively engages in international blue carbon initiatives, collaborating with other countries to promote the concept, foster joint research, and support blue carbon conservation efforts, particularly in developing nations.

- Amount of mangroves: Approximately 500 hectares
- Amount of seagrass: 62,000 hectares
- Amount of seaweed beds: 172,000 hectares
- Key institutions of study on blue carbon: Ministry of the Environment; the Ministry of Agriculture, Forestry and Fisheries; the Ministry of Land, Infrastructure, Transport and Tourism; and the Fisheries Agency
- Key regions of interest: Yokohama Blue Carbon Project; Fukuoka City Hakata Bay Blue Carbon Offset Programme; Osaka Bay Sea Forest (Seaweed Beds) Conservation and Restoration Project



Area	Number of Project sites
Hokkaido and Tohoku	10
Kanto	8
Chubu and Hokuriku	6
Kansai	6
Chugoku and Shikoku	11
Kyushu and Okinawa	16
Total	57 (45 initiatives)

[4]

[4] Image Source: "Case Study on Blue Carbon Initiatives in Japan: Conserving and Restoring Coastal Ecosystems as a Solution to Climate Change"; Blue Carbon Liaison Council of Ministry of the Environment. December 2023.

Several government agencies in Japan are emphasizing the importance of blue carbon in various ways, most notably by vocalizing blue carbon's advantages in generating carbon credits, enhancing relevant tourism, and supporting fisheries. There are even numerous blue carbon projects that are hosted by local governments, such as the Yokohama Blue Carbon Project that have already been operating for over a decade, highlighting a unique level of governmental engagement not often seen in other countries. The private sector is also deeply involved in blue carbon preservation and growth, motivated by the economic value of blue carbon credits, which are able to be traded on the Tokyo Stock Exchange as of October 2023, even before being officially included in the carbon market. Universities and research institutions play their role by contributing technical expertise, spreading knowledge of blue carbon to the public, and supporting the implementation of blue carbon initiatives.

Still, Japan's blue carbon efforts face challenges, most markedly the degradation of coastal ecosystems and the complexities of effectively managing these habitats. Reforestation and the restoration of seaweed and seagrass beds remain critical needs, and the impact of climate change on these sensitive ecosystems poses ongoing risks. Despite these challenges, Japan's commitment to blue carbon remains a pioneering model of integrated, multi-level engagement that balances environmental sustainability with economic and social benefits.

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

National Legislations

Japan currently does not have specific national legislation dedicated solely to blue carbon ecosystems. This absence is likely due to the broader integration of blue carbon within existing environmental policies. Nevertheless, relevant ministries, such as the Ministry of the Environment and the Fisheries Agency, are already actively promoting blue carbon initiatives through their own policies and actions. The government's proactive actions, combined with strong support from civil society organizations, have largely filled concerns over most legislative gaps and leave blue carbon-related issues present in Japanese legislative circles.

National Agencies and Government Actions

Japan's national strategy on blue carbon is characterized by a comprehensive, multi-agency approach that integrates blue carbon ecosystems into its climate change mitigation efforts. Different ministries and agencies each play a specific role in promoting and managing blue carbon initiatives, with the Ministry of the Environment (MOE) and the Blue Carbon Liaison Council at the center of this coordination. Together, these agencies illustrate Japan's comprehensive strategy that leverages blue carbon as an important component of its sustainability efforts.

- **Ministry of the Environment (MOE):** The MOE leads Japan's efforts on blue carbon both domestically and abroad. For instance, it incorporated blue carbon ecosystems into greenhouse gas inventories in the inventory reported to the United Nations in April 2023, and promotes all sorts of local projects

that align with biodiversity goals and global warming countermeasures.

  - **Blue Carbon Liaison Council:** In January 2023, four ministries—the MOE, the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Agriculture, Forestry and Fisheries, and the Fisheries Agency—established a 'Blue Carbon Liaison Council' to "promote government-wide efforts to utilize blue carbon ecosystems."
  - **Satoumi Creation**: In the Seto Inland Sea and other enclosed waters, the MOE promotes efforts to conserve, restore, and create seaweed beds and tidal flats that contribute to biodiversity and ensure abundant fishery resources.
  - **Case Study on Blue Carbon Initiatives in Japan**: In December 2023, the MOE's Blue Carbon Liaison Council published two extensive presentations detailing, in English, the variety and wide extent of Japan's blue carbon activities and initiatives, calling the restoration and conservation of coastal ecosystems "a Solution to Climate Change."

- **Ministry of Land, Infrastructure, Transport and Tourism (MLIT)**: MLIT aims to create "carbon-free ports" by using blue carbon ecosystems to absorb CO_2. Among other efforts, it established study groups in 2017 to explore the role of blue carbon in preventing global warming and supports research and development in utilizing blue carbon for CO_2 absorption, particularly around ports and coastal infrastructure.
- **Fisheries Agency**: The Fisheries Agency supports local governments and regional organizations in conserving and restoring blue carbon ecosystems, which are vital for healthy fisheries. It has also developed and published guides, which are often written and updated by a dedicated National Council, such as the "Guidelines for Measures against Seawater Burn"to counteract marine heatwaves from seawater burns.

Local Government Actions

As evidenced by numerous news reports and openly published studies, Japan's local governments are actively engaging in blue carbon conservation and restoration efforts by collaborating with various stakeholders, including local communities, research institutions, and private companies. These initiatives are consistent with national policies to enhance carbon sequestration while promoting sustainable development and economic growth. Local actions range from developing and operating carbon offset systems to creating seaweed beds, conducting public awareness campaigns, and promoting regional cooperation to foster a sustainable blue carbon economy.

- The **Yokohama Blue Carbon Project** of Yokohama City, Kanagawa Prefecture aims to reduce CO_2 emissions and enhance marine ecosystems through the restoration of seagrass and seaweed beds in Yokohama. The city partnered with the Yokohama City Fisheries Cooperative Association, which earned credits for their cultivation activities. The project also includes educational activities in collaboration with local entities including Yokohama Hakkeijima Sea Paradise, such as involving children in cultivating wakame seaweed to promote marine conservation. The project aimed to create a "friendly ocean" for citizens by enhancing biodiversity, improving water quality, and stimulating local economic benefits

- The **Hakata Bay Blue Carbon Offset Program** of Hakata Bay, Fukuoka Prefecture is an initiative that began in 2020 and focuses on restoring and enhancing eelgrass and seaweed beds. The program generates carbon credits from the carbon sequestration of these ecosystems, which are then sold to offset emissions from local businesses and individuals. The revenue from these credits supports further conservation efforts, such as expanding eelgrass beds and other marine restoration projects.
- The **Hayama Eelgrass Council** of Hayama Town, Kanagawa Prefecture are planting eelgrass in the town's coastal seas, and gradually adding seaweed and marine mollusc species to their activities over time. Initiated in 2018 and working closely with local fishers, schools, and community groups, the initiative aims to boost marine health, support sustainable fisheries, and raise environmental awareness.

C. Private, Commercial Third-Party Research & Projects

Private Corporations and Investment Groups

Japan's private sector is playing a crucial role in advancing blue carbon initiatives, driven by the dual motivations of environmental social responsibility and the economic benefits of achieving carbon neutrality. Companies are investing in projects both domestically and globally, collaborating with diverse partners such as research institutes and foreign capital NGOs. Their involvement represents a significant force in Japan's blue carbon efforts. They help Japan to stand out on the global stage since private engagement in blue carbon in many other countries currently remains rare.

- **Sumitomo Corporation** is advancing blue carbon initiatives as part of its efforts to achieve carbon neutrality by 2050. In partnership with local communities and other corporations, they have supported Hirono Town in Iwate Prefecture to secure Blue Credits that are generated from seaweed bed restoration projects. Sumitomo Corporation is also expanding its blue carbon initiatives to Indonesia by supporting the restoration and conservation of mangrove ecosystems. The company aims to leverage Indonesia's mangrove forests to enhance carbon sequestration and generate more carbon credits.
- **Idemitsu Kosan** started its blue carbon projects in Japan through a collaboration with Hatch Blue—a venture capital firm focused on investing in companies in the marine ecosystem sectors—in an investment called the "Blue Revolution Fund." The partnership focuses on developing blue carbon businesses that enhance carbon absorption capabilities. Idemitsu Kosan aims to contribute to regional revitalization, decarbonization, and sustainable fisheries, as well as its goal of achieving carbon neutrality by 2050.
- **ENEOS Corporation's** blue carbon project focused on restoring and creating seagrass and seaweed beds in coastal areas of Japan in collaboration with multiple research institutes and universities. The project will contribute to ENEOS' objective of reducing Scope 1 and 2 CO_2 emissions by 46% compared to FY2013 by FY2030 and the realization of carbon neutrality in its Scope 1 and 2 CO_2 emissions by FY2040.

Universities and Research Institutes

Some universities and research institutes in Japan are engaged in research and conservation efforts related to blue carbon ecosystems. Notably, there are several established, specialized laboratories and research centers dedicated to studying blue carbon. Domestically, their focus is primarily on seagrass meadows, which are abundant in Japan's coastal regions. These institutions also collaborate internationally, particularly on mangrove research. Japanese universities work closely with government agencies and private businesses, supporting both scientific research and practical applications to enhance blue carbon ecosystems.

- **Hokkaido University** conducts blue carbon research through its Field Science Center for Northern Biosphere, focusing on the social and ecological aspects of coastal communities that depend on blue carbon ecosystems. The university's researchers are currently studying the social vulnerabilities of these communities, particularly in Southeast Asia, by assessing the impacts of blue carbon ecosystem degradation. Their research also aims to look for conservation strategies to enhance resilience and sustainable management.
- **Yokohama National University** is an important partner of the **Blue Carbon Project** of Yokohama City. It also hosts international conferences in collaboration with international bodies like UNESCO to advance scientific knowledge on blue carbon ecosystems, with a special emphasis on mangroves and their role in carbon sequestration.
- The **Aquatic Field Science Laboratory** at Kyushu University focuses on developing technologies for the evaluation, utilization, and creation of blue carbon ecosystems to support a low-carbon, recycling-oriented society. The lab conducts research on studying the ecology and conservation biology of freshwater and brackish water organisms.

NGOs and Non-Profit Organizations

NGOs involved in blue carbon initiatives are established in collaboration with public and private agencies to play a supportive role in advancing these efforts. Their primary responsibilities include communication and education, raising awareness about the importance of blue carbon ecosystems. Some of these organizations also participate in the direct conservation and restoration of blue carbon ecosystems.

- **Japan Blue Carbon Network (JBCN)**: Established by Miraisozobu (For Future Company) and certified as a non-profit organization in 2022, JBCN aims to promote blue carbon initiatives across Japan by sharing knowledge, technologies, and best practices. It also provides environmental education, public awareness campaigns, and technical support to relevant public and private groups.
- **Japan Blue Economy Association (JBE)**: Approved by the Ministry of Land, Infrastructure, Transport, and Tourism in 2020, JBE manages the “J Blue Credit” scheme, which certifies and issues blue carbon credits for activities enhancing carbon sequestration in marine ecosystems.
- **Blue Carbon Belt Riviera Institute**: The organization advocates for the “Blue Carbon Belt®” to connect seaweed beds along the coastline of Sagami Bay. Their activities include seaweed bed restoration, marine debris removal, and community engagement through environmental education and awareness programs.

D. Public, Governmental International Engagements on Blue Carbon

Treaties & Agreements

- Japan participates in the **International Partnership for Blue Carbon (IPBC)**, a global alliance aimed at promoting the protection and sustainable use of blue carbon ecosystems. Through this partnership, Japan collaborates with other countries, NGOs, and scientific organizations to share knowledge, build capacity, and develop policies for blue carbon conservation.
- Japan also participates in the **Blue Carbon Initiative**, a global program dedicated to managing coastal blue carbon ecosystems. This initiative is supported by organizations including Conservation International, the International Union for Conservation of Nature (IUCN), and the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO). It provides technical guidance and promotes the inclusion of blue carbon in Nationally Determined Contributions (NDCs) under the Paris Agreement.

Statements at International Conferences

- During the COP28 summit in Dubai in late 2023, Japan hosted a seminar titled **"Sustainably Developing Global Blue Carbon through International Cooperation"** as a side event. Various representatives from Japan participated in the seminar, including **Fumio Ito, Director of the Decarbonized Society Promotion Office at the Ministry of the Environment**, **Hiroetsu Aoyama, Director for Environmental Policy at the Ministry of Land, Infrastructure, Transport, and Tourism,** and **Kazuaki Takahashi, Director of Climate Change Policy Headquarters, City of Yokohama.** The seminar focused on promoting international cooperation and sharing experiences to advance global blue carbon initiatives.
- In January 2023, the **International Conference on "Blue Carbon Ecosystems for Sustainable Development"** was held at Yokohama National University, where some scholars emphasized the need for innovative solutions and collaborative research on blue carbon studies. Professor Hiroyuki Matsuda discussed local restoration efforts; Dr. Tomomi Inoue outlined the role of mangroves in carbon sequestration; and Professor Ryo Kohsaka also stressed the importance of preserving blue carbon ecosystems.
- In April 2023, Japan became the first country to report the amount of carbon absorbed by mangrove forests in its FY2021 report to the Secretariat of the United Nations Framework Convention on Climate Change.

Cross-Border Joint Projects & Partnerships

- Japan is the leading country of the **Comprehensive Assessment and Conservation of Blue Carbon Ecosystems and their Services in the Coral Triangle (BlueCARES).** It is a trilateral initiative involving Japan, the Philippines, and Indonesia. Supported by the Japan International Cooperation Agency (JICA) and the Japan Science and Technology Agency (JST), Japan offers important assistance to the other countries on the conservation of mangroves and seagrasses in the Coral Triangle region.

E. Keeping An Eye On...

Considering the wide adaptation of blue carbon credits in Japan, ensuring the credibility and reliability of blue carbon credits is crucial for Japan's carbon market. The accurate measurement of carbon absorption rates from blue carbon ecosystems with more advanced scientific methods and technologies is vital, especially as there are differences in carbon sequestration rates due to environmental factors, seasonal changes, and differences between ecosystems that can be overlooked. If not conducted with the utmost diligence, the credibility of blue carbon credits could be entirely undermined and risk facing both accusations of being "greenwashed" as well as a diminished environmental and financial value. In terms of financial value, Japan has successfully established a carbon trading system, but currently blue carbon is not formally included. Including blue carbon credits in the carbon market would allow Japan to fully leverage the financial potential of these ecosystems, creating even greater economic incentives for their protection and restoration.

Blue carbon credits—like all the other nature based carbon sequestration solutions—face the risk of potential leakage if ecosystems are damaged by natural disasters, pollution, or human activities, which can reverse the stored carbon back into the atmosphere. This vulnerability necessitates stronger management, monitoring, and restoration protocols to guarantee the long-term stability of blue carbon ecosystems. The Japanese government's increasingly structured approach to acknowledging and jointly addressing blue carbon ecosystems provides Japan with a solid foundation for such protocols to be successfully established and benefited from.

Additionally, although many universities' environmental research departments and scholars have initiated individual studies related to blue carbon conservation, overall investment in blue carbon research remains insufficient. Funding specifically targeting blue carbon scientific research is not as robust compared to other environmental research areas, which may hinder further advancements. Given the active involvement of government and private enterprises, both Japanese and foreign, there should be greater collaboration between these parties and universities to enhance the scientific rigor of related research. Universities are typically able to engage in long-term projects with slower economic returns, but such projects and the data they generate are precisely what blue carbon research lacks and desperately needs. Continuing to openly present itself on the global stage as a leader in the field of blue carbon and carbon credits could help Japan to draw others potential partners into productive joint blue carbon developments, especially when so much of the world is climate-conscious.

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

Note: This study was conducted in English and Japanese. The research in Japanese was completed with the assistance of a translator, which may introduce some inaccuracies.

Scientific Research and Beyond

Scientific Research Results & Releases

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Major Government Statements & Actions

Key Government Speeches on Climate Issues

- July 11, UK Parliament: "King's Speech 2024: Energy security, net zero, environment and agriculture"
- July 12, President of African Development Bank Group Akinwumi Adesina: "Food Security and Financial Sustainability in Africa: The Role of the Church"
- July 15, French Ambassador to South Africa David Martinon: "Speech by Ambassador Martinon on the occasion of Climate Resilience Symposium 2024"
- July 22, The White House: "Statement from President Joe Biden on Climate Pollution Reduction Grants"
- July 22, UN Climate Change Executive Secretary Simon Stiell: "Simon Stiell from Wuhan: "Cooperation is our only viable solution to this global climate crisis."
- July 23, U.S. Agency for International Development: "Deputy Administrator Isobel Coleman at the White House Summit on Reducing Climate Super Pollutants"
- August 12, Minister for Industry and Science Ed Husic: "Australia's new National Science Statement and Priorities to drive industrial transformation"
- August 16, Convention on Biological Diversity: "Closing statement by Astrid Schomaker, Executive Secretary of the Convention on Biological Diversity"
- August 19, UNDP Zimbabwe Resident Representative Dr. Ayodele Odusola: "Collective Action Key to Addressing Environmental Challenges"
- August 29, UNDP China Resident Representative Beate Trankmann: "Remarks by Ms. Beate Trankmann at the 2024 Green Investment Conference"
- September 10, World Bank Group Senior Managing Director Axel van Trotsenburg: "Remarks by Axel van Trotsenburg at the Innovate 4 Climate 2024 Conference, Berlin"
- September 12, Singapore Ambassador for Climate Action & Senior Adviser Ravi Menon: "Three Priorities and Three Enablers for Asia's Climate Transition"
- September 17, UK Foreign Secretary David Lammy: "The Kew Lecture: Foreign Secretary's speech on the climate crisis"

- September 17, UK Secretary of State for Energy Security and Net Zero Ed Miliband: "Energy UK conference 2024: keynote speech by Ed Miliband"
- September 24, U.S. President Joe Biden: "Remarks by President Biden on Climate at the Bloomberg Global Business Forum | New York, NY"
- September 24, Brazilian President Luiz Inácio Lula da Silva: "Speech at the opening of the 79th UN General Assembly in New York"
- September 26, Australian Minister for Climate Change and Energy Chris Bowen: "ABC Statewide Drive Victoria interview with Minister for Climate Change and Energy Chris Bowen"

Government Reports & Regulations on Climate Issues

- On July 1, The White House released a progress update titled "Building a Thriving Clean Energy Economy in 2023 and Beyond: A Six-Month Update," which details how the U.S. has taken steps to deploy clean energy technologies and progress in domestic climate goals over the last six months.
- On July 9, the U.S. Energy Information Administration (EIA) released its Short-Term Energy Outlook, forecasting rising electricity demand and higher natural gas prices in the second half of 2024. EIA highlighted that increased reliance on renewables will help fill the gap in electricity generation and projected a 42% increase in solar energy generation.
- On July 9, Chris Stark was appointed to lead the UK's "Mission Control" for clean power, a new initiative that will coordinate with key energy stakeholders to accelerate the transition from fossil fuels to renewable energy.
- On July 17, the European Court of Auditors published a report assessing the EU's progress on renewable hydrogen, noting mixed results. While the European Commission has laid a solid legal foundation, challenges persist across the hydrogen value chain, and the EU may not be able to meet its 2030 production and import targets.
- On July 18, the Canadian government announced $89.1 million in funding for 10 nature conservation projects under the Nature Smart Climate Solutions Fund. These funds aim to reduce greenhouse gas emissions by preserving carbon-rich ecosystems like forests, wetlands, and grasslands. Projects in British Columbia received nearly $50 million to support local biodiversity and species at risk.
- On July 23, the Irish Ministry for Children, Equality, Disability, Integration and Youth announced €457,861 in funding for 10 new youth-led climate justice projects through the Youth Climate Justice Fund. The fund supports initiatives that empower young people to engage with climate justice at various levels, building their knowledge and agency.
- On July 23, South African President Cyril Ramaphosa signed South Africa's Climate Change Bill into law. It aligns policies to ensure South Africa transitions to a low-carbon economy while mitigating job losses and fostering opportunities in the green economy. The law also defines the roles of the Presidential Climate Commission and regional governments in achieving climate goals under the Paris Agreement.
- On July 29, the U.S. Bureau of Ocean Energy Management released its final Environmental Impact Statement for a proposed wind energy project offshore Maryland. The project could generate up to 2,200 megawatts of clean energy, powering approximately 770,000 homes.
- In July, the Forum Ökologisch-Soziale Marktwirtschaft of Germany released a policy brief advocating for indexation of environmental taxes to inflation. This proposal aims to increase public revenues while promoting sustainability, suggesting adjustments to taxes like the energy tax and national CO_2 price.

- On August 2, the Chinese State Council released a notification on accelerating the establishment of a dual-control system for carbon emissions. The plan aims to control both the total volume and intensity of carbon emissions to ensure the country meets its carbon peak and neutrality goals.
- On August 9, Fiji launched its National Hub for Coral Reef Conservation to protect its 7,600 square kilometers of coral reef systems. This initiative is aligned with Fiji's broader environmental strategies. The next major step is drafting a Coral Reef Action Plan, expected to be released by March 2025.
- On August 22, Mozambique launched a national roadmap to achieve "Early Warnings for All" by 2027, which aims to improve weather and climate observations to protect against hazards like floods and cyclones. Supported by the World Meteorological Organization, the plan will establish new weather stations and upgrade existing infrastructure.
- On August 22, the Australian Senate passed the Treasury Laws Amendment (Financial Market Infrastructure and Other Measures) Bill to help "maximise the economic opportunities of cleaner, cheaper and more reliable energy and strengthen Australia's financial system."
- On August 29, 2024, the Constitutional Court of Korea ruled on the constitutionality of the country's greenhouse gas reduction targets as set by the Carbon Neutrality Framework Act. The court found that, while the 2030 reduction target of 40% from 2018 levels was constitutional, the Act lacked clear targets for the years 2031 to 2049, which violated the principle of sufficient protection. The Act remains in force, but must be amended by 2026 to rectify these issues.
- On September 4, the Ministry for the Environment of New Zealand released the *Coastal Wetland Blue Carbon Policy Research in Aotearoa* report, which was conducted "to look at the barriers and opportunities for enabling blue carbon projects in New Zealand to participate in blue carbon markets."
- On September 17, New Zealand's Ministry for the Environment released the first quarterly report on Government Target 9, a plan aimed at reducing net greenhouse gas emissions. The report indicates that New Zealand is on track to meet its first emissions target, keeping net emissions below 290 megatonnes from 2022-2025. The second target for 2026-2030 is also achievable with the proposed policies.
- On September 18, Canadian British Columbia announced $56 million in funding for 78 disaster risk reduction and climate adaptation projects. This project is supported by the Community Emergency Preparedness Fund, and will help 65 communities improve resilience to climate-related threats such as flooding, erosion, and heat events.

Cross-National Meetings & Engagements on Climate Issues

- From July 7-13, the U.S. Acting Assistant Secretary Jennifer R. Littlejohn traveled to the Philippines and the Republic of Korea to discuss environmental and scientific cooperation. In the Philippines, she focused on climate action, marine protection, and future scientific collaboration. In Korea, she attended meetings on environmental cooperation, plastic pollution, and the next "Our Ocean" conference in 2025.
- On July 15, the U.S. Assistant Secretary Geoffrey R. Pyatt traveled to Brazil for discussions on energy security, energy transition, and critical minerals. He visited Belo Horizonte to engage with state officials, industry leaders, and the Brazil Mining Association to explore partnerships in decarbonization, clean energy, and mineral supply chains.
- On July 17, the United Nations Development Programme published a policy note emphasizing the growing need for strategic adaptation and resilience to climate mobility in Latin America and the Caribbean. The document highlights the increasing displacement driven by climate shocks, and it calls for enhanced data collection, stronger policy coordination, and targeted adaptation strategies to help vulnerable communities prepare for these climate-related risks.

- On July 23, the UN announced a series of regional fora to encourage countries to increase their ambition in the next round of Nationally Determined Contributions (NDCs) under the Paris Agreement. The forums will provide government officials with peer-learning opportunities, share financing models, and integrate co-benefits with other global sustainability goals.
- On July 30, representatives from Australia and New Zealand held a 2+2 Climate and Finance Dialogue in Brisbane, where they agreed to a joint statement outlining their plans for future joint action to meet climate commitments, enhance climate resilience and address climate investment and climate finance.
- On August 6, UNDP and Uzbekistan's Ministry of Ecology, Environmental Protection, and Climate Change deepened their partnership to address environmental and climate challenges. The collaboration focuses on the Eighth Phase of the GEF Small Grants Programme, promoting biodiversity conservation and the Yashil Makon initiative for tree nurseries.
- On August 15, New Zealand and the UK agreed to collaborate to unlock the potential of New Zealand's offshore wind industry. The UK, being a leader in offshore wind, will share its expertise in financing, regulatory alignment, and supply chain development to help New Zealand meet its climate objectives and grow its green economy.
- On August 27, the African Union (AU) held consultations in Nairobi to finalize a Common African Position on Climate Change, Peace, and Security. Key outcomes included calls for climate security strategies, integrating climate sensitivity into peacebuilding, and holding major polluters accountable. The final draft will be shared with AU member states and submitted for potential adoption by the AU Peace and Security Council.
- On August 28, the U.S. announced more than US$10 million additional support for Pacific Island nations at the Pacific Islands Forum. This funding will enhance climate resilience, disaster preparedness, and good governance across the region.
- On September 5, the two-day Forum on China-Africa Cooperation Summit in Beijing concluded with the adoption of the *2025-2027 Action Plan*. The plan emphasizes industrialization, infrastructure development, trade facilitation, and green energy projects, aiming to support Africa's modernization and sustainable development efforts.
- On September 11, the Government of Japan and the UNDP launched a US$4.9 million project to enhance urban resilience to climate risks in Central Asia. The project will leverage regional cooperation and introduce innovative approaches to climate and disaster risk assessments, ensuring cities are better equipped to face future climate challenges.
- On September 13, the Government of Kazakhstan and the UNDP launched a climate reporting project under the UNFCCC framework. The project will produce Kazakhstan's First Biennial Transparency Report by 2024 and the combined Ninth National Communication and Second Biennial Report by 2026.
- From September 17-18, the Nigerian Maritime Administration and Safety Agency hosted a Global Deep Seabed workshop to train Nigerian stakeholders to engage with international experts so Nigeria can "tap into these resources sustainably, balancing economic growth with environmental protection."
- From September 28-29, the 25th Tripartite Environment Ministers Meeting among Korea, China and Japan was held in Jeju, Republic of Korea to discuss "environmental issues of common concern including climate change, marine and biodiversity protection."

Third-Party Analyses & Commentaries

National political leadership transitions leave observers wondering about the future of climate policy.

- Far-right win in French election could deal blow to climate policy, say expert (*The Guardian*, July 2)
- Roundtable: Europe's summer of change and EU-China climate cooperation (Dialogue Earth, July 10)
- Mexico's new leader is a climate expert. Can she save an oil nation? (*The Washington Post*, July 11)
- The energy and climate diplomacy of the new European Commission (Royal Institute Elcano, July 12)
- How will climate cooperation look after the elections? (Brookings, August 13)
- What 2024's Historic Elections Could Mean for the Climate (World Resources Institute, August 14)
- Bridging the Gap: How Political Transitions in the UK, the EU, and France impact Asia's Climate Finance Priorities (Asia Society, September 19)
- Can President-elect Sheinbaum deliver on her green promises? (*Mexico News Daily*, September 26)
- Hard Truths Come for Germany's Climate Prophet (*Foreign Policy*, September 27)

Ahead of the U.S. presidential election, climate concerns remain in play, albeit minimally.

- US Election 2024: Climate Treaties & Agreements Report Card (CleanTechnica, July 9)
- Nobody's Moving to US 'Climate Havens.' The Federal Government Could Help (*Bloomberg*, July 10)
- J.D. Vance Is an Oil Booster and Doubter of Human-Caused Climate Change (*The New York Times*, July 15)
- How a Republican election sweep could transform U.S. climate policy (*The Washington Post*, July 18)
- Biden's Last Chance at Climate Diplomacy With China (*Foreign Policy*, July 24)
- From Line 3 to 'carbon-free': Minnesota Gov. Tim Walz's record on environment and climate (*The Minnesota Star Tribune*, August 7)
- Project 2025 Would Jeopardize Global Climate Action (Center for American Progress, August 19)
- Why Democrats are so quiet about climate change right now (*The Washington Post*, August 22)
- Why talk of fighting climate change is muted in the U.S. presidential campaign (*CBC*, September 12)
- Inside Tim Walz's not-quite-green record in Congress (*E&E News*, September 13)
- Polls to Policy: Energy and Climate Cooperation after the United States and India's 2024 Elections (Observer Research Foundation, September 17)

China's domestic growth and expansion in green technologies is being monitored and mostly applauded.

- Stifling China's green energy boom would be a disaster (*Financial Times*, July 4)
- Looking Back to Look Ahead: An Analysis of Provincial 14th Five-Years Plans (2021-2025) (Berkeley California-China Climate Centre, July 15)
- Why the Era of China's Soaring Carbon Emissions Might Be Ending (*The New York Times*, July 18)
- China's push into deep-sea mining gathers speed (Dialogue Earth, August 5)
- The Green Leap: China dominates several renewable energy technologies. Can the U.S. find a way around them? (*The Wire China*, August 18)
- China dominates global supply of solar panels and wind turbines (*Nikkei Asia*, September 11)
- Weekend Long Read: China's Clean Energy Rise Offers Lessons for the West (*Caixin Global*, September 21)
- China's accelerating green transition (*Financial Times*, September 26)
- How the US Lost the Solar Power Race to China (*Bloomberg*, September 30)

China's climate-related activities in partnership with other nations and global parties maintains attention.

- Many US solar factories are lagging. Except those China owns (*Reuters*, July 17)
- We must not mistake China's success on green energy for a global one (*Financial Times*, July 21)
- China: still the world's biggest emitter, but also an emerging force in climate diplomacy (*The Conversation*, July 26)

- The Climate Reform Agenda: How China Enables and Undermines U.S. Leadership at the World Bank (Council on Foreign Relations, August 6)
- China-Africa Energy and Climate Cooperation: Prospects for FOCAC 2024 (South African Institute of International Affairs, August 26)
- Analysis: China's Solar Manufacturers Scour the Globe Amid Trade Tensions, Cutthroat Competition (*Caixin Global*, September 13)
- What Happens if China Stops Trying to Save the World? (*The New York Times*, September 16)

The reliance of human health, livelihoods and food supplies on a stable climate draws attention.

- The Killer Stalking Sri Lanka's Men (*The New York Times*, July 8)
- Chinese Solar Farms Are Crowding Out Much-Needed Crops (*The Wall Street Journal*, August 1)
- Korean court's ruling on climate suit recognizes the rights of future generations (*Hankyoreh*, August 30)
- South Korea's Climate Law Ruling a Win for Human Rights (Human Rights Watch, September 9)
- Investing in Nature for People and the Planet (The Nature Conservancy, September 18)
- Australia desperately needs a strong federal environmental protection agency. Our chances aren't looking good (*The Conversation*, September 18)
- These Seven Food Entrepreneurs Are Changing Eco-Conscious Dining (*Bloomberg*, September 19)
- What We Know (and Don't Know) About 'Forever Chemicals' in Food (*The New York Times*, September 21)
- Young people in island nations face an existential question: Should they stay or should they go? (*The Washington Post*, September 25)

Efforts in climate cooperation across varying levels and regions appear minimal but ongoing.

- Climate Cooperation Disparities: An Analysis of the Global South's Limited Participation in Intergovernmental Cooperation on Climate Change Mitigation (World Resources Institute, July 9)
- Roundtable: Europe's summer of change and EU-China climate cooperation (Dialogue Earth, July 10)
- Brazil's opportunity to lead the global dialogue on energy and climate (International Energy Agency, July 18)
- Forging a sustainable future: Brazil's opportunity to lead in steel decarbonization (Global Energy Monitor, August 2024)
- Africa is showing the world a greener path (Global Landscapes Forum, September 18)
- PM Modi to address Summit of Future: How India leads Global South in climate diplomacy (*Firstpost*, September 22)
- They've Got a Plan to Fight Global Warming. It Could Alter the Oceans. (*The New York Times*, September 23)

Observers and scientists are charting climate changes in the ocean with new warnings of lasting damage.

- The obvious idea that slashes shipping's climate impact (*BBC*, July 2)
- Carbon Capture is No Silver Bullet, But Holds Opportunities for Shipping (*The Maritime Executive*, July 5)
- Turning the Tide for Imperiled Arctic Biodiversity (Wilson Center, July 15)
- Conservation collides with local rights in fight over Chagos Islands (Dialogue Earth, July 16)
- Russia's War in Ukraine Is Aggravating the Caspian Sea Environmental Crisis (Carnegie Endowment, July 23)
- Unexploded ordnance has become an ocean time bomb (Dialogue Earth, August 8)
- China's changing fisheries, in numbers (Dialogue Earth, August 19)
- Our Very Strange Search of 'Sea Level' (*The New Yorker*, August 19)

Extreme rainfall and flooding plagues several continents, sparking debates on extreme weather changes.

- How Close Are the Planet's Climate Tipping Points? (*The New York Times*, August 11)
- Extreme Rain Is a Growing Climate Threat to the Northeastern US (*Bloomberg*, August 27)
- How climate change made Shanshan more likely and more devastating (*The Japan Times*, August 30)
- Is Climate Change Causing the Deadly Floods in Europe? (*TIME*, September 18)
- Why parts of the Sahara desert are turning green this month (*The Washington Post*, September 19)
- Confronting Our New Reality (*The New York Times*, September 25)
- What Hurricane Helene tells us about climate change (*The Boston Globe*, September 30)

Now that people understand what carbon credit capture is, the climate finance market is expanding.

- Scaling Marine Carbon Removal (*Sea Technology*, July 16)
- The great climate change wealth transfer is here (*The Japan Times*, July 22)
- How 'carbon cowboys' are cashing in on protected Amazon forest (*The Washington Post*, July 24)
- Our Take: The Shifting United Nations Stance on Carbon Credits and Offsets (Gordian Knot Strategies, July 30)
- Where (and How) Americans Are Taking Advantage of Clean Energy Tax Credits (*The New York Times*, August 8)
- Australia's mandatory climate-related disclosures legislation passed: What you need to know (SLR Consulting, August 28)
- China's carbon market is moving from burden to boon (Dialogue Earth, September 10)
- Australia's new climate-related financial disclosure regime (Monash University, September 11)
- Clean Energy Investments Are Boosting the U.S. Economy (Center for American Progress, September 12)
- Indigenous Peoples and Local Communities Must Be at the Heart of the Reformed Voluntary Carbon Market (The Integrity Council for the Voluntary Carbon Market, September 25)

Technological expansions breathe new life—and new complications—into environmental debates.

- Assessing the United States' Solar Power Play (Center for Strategic & International Studies, July 1)
- A.I.'s Insatiable Appetite for Energy (*The New York Times*, July 11)
- A.I. Needs Copper. It Just Helped to Find Millions of Tons of It. (*The New York Times*, July 15)
- Can the solar industry keep the lights on? (*Financial Times*, July 22)
- Solar balconies are booming in Germany. Here's what you need to know about the popular home tech (*Euro News*, July 23)
- Turning hydrogen demand into reality: Which sectors come first? (International Chamber of Shipping, August 1)
- The secret behind Germany's record renewables buildout (*Financial Review*, September 4)
- Scientists have captured Earth's climate over the last 485 million years. Here's the surprising place we stand now. (*The Washington Post*, September 19)
- Is it better for the environment to drive an electric or hybrid vehicle? The answer might surprise you (*Clemson News*, September 24)

The quest to lay claim on—or discover new—critical minerals persists.

- Q&A: What does deep-sea mining mean for climate change and biodiversity loss? (*CarbonBrief*, July 30)
- The Arctic Institute's Arctic Extractivism Series 2024: Introduction (The Arctic Institute, August 15)
- Australia's climate ambitions have a modern slavery problem: examining the origins of our big batteries (Australian Strategic Policy Institute, September 6)
- The Clean Energy Powerhouses: US Lithium Imports Soar 49% and Argentina's Copper Ambitions (*Carbon Credits*, September 19)

Blue carbon habitats remain of interest and concern, but primarily at the local level.

- Are China's blue carbon credits a free pass to harm its oceans? (Dialogue Earth, July 11)
- Educating to Protect: Audubon Americas and the Exhibition on Panama's Mangroves (Audobon, August 23)
- Advancing Blue Carbon in New Zealand's Coastal Wetlands (The Nature Conservancy, September 3)
- Shallow Waters Make the Best Carbon Sinks (*Eos*, September 10)
- Seagrasses and salt marshes can store more carbon than trees. Adding it up is easier said than done. (*The Boston Globe*, September 11)
- Mapping the Decline of Eelgrass Along Maine's Coast (*The New York Times*, September 17)
- Thailand turns to mangrove carbon credits despite scepticism (Dialogue Earth, September 24)

Images of the Month

July 2024

Britain's Climate Change and Net Zero Secretary Ed Miliband speaks on the second day of the annual Labour Party conference in Liverpool, north-west England, on September 23, 2024.

Behind the Image: After 14 years of Conservative rule, the UK's newly elected Labour government is pursuing an ambitious agenda to make the country a "clean energy superpower" both domestically and internationally.

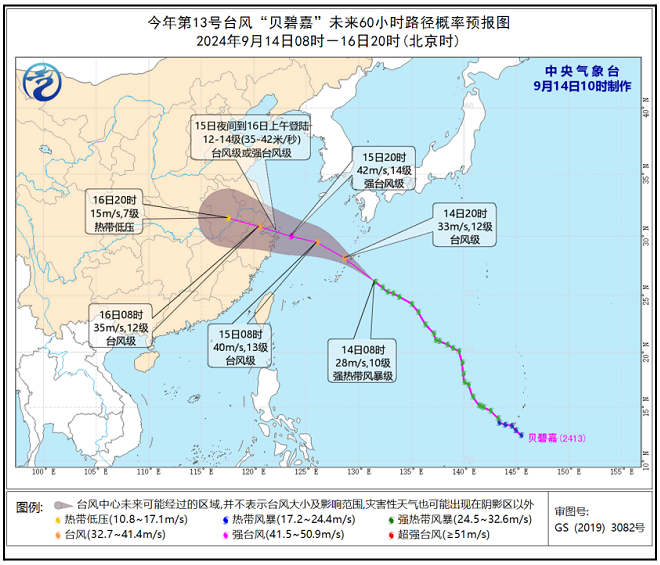
Source: [(Photo by OLI SCARFF/AFP via Getty Images)]

August 2024

Volunteers and staff from Greece's Hellenic Red Cross worked alongside the firefighters and emergency services, trying to put out a severe wildfire near Athens.

Behind the Image: A massive wildfire has burned 25,000 acres on the edge of Athens, Greece, following the country's hottest summer on record.

Source: [Climate Centre via flickr (CC BY-NC 2.0)]



September 2024

The projected path of Typhoon Bebinca as of September 14, projected to make landfall in Shanghai, China within the next 1-2 days, as a severe tropical storm.

Behind the Image: Less than two weeks after Typhoon Yagi hit Southeast Asia, Typhoon Bebinca hit eastern China, Guam, and the Philippines. Bebinca made landfall in Shanghai, China, becoming the strongest typhoon to hit the city since Typhoon Gloria in 1949.

Source: [China Meteorological Administration (Public Domain)]

Climate-Focused Quotes of the Quarter

"Recent research estimates that the world suffered at least 2.8 trillion USD in loss and damage from climate change between 2000 and 2019 – that equates to a cost of 16 million USD per hour."

- *Volker Türk, United Nations High Commissioner for Human Rights, speaking at 56th Session of the Human Rights Council on July 1, 2024*

"New nuclear power stations may not be needed for Britain to hit targets for net-zero because there are cheaper, low-carbon alternatives that could back up intermittent renewable power."

- *Jonathan Adair Turner, Lord Turner of Ecchinswell, chair of the Energy Transitions Commission, commented in a report by The Times on July 8, 2024*

"'No country should choose between fighting poverty and fighting climate change': that is what the Paris Pact for people and the planet is about. We have a lot of solutions to offer. French companies are actively part in the energy transition in South Africa."

- *David Martinon, French Ambassador to South Africa, speaking at the Climate Resilience Symposium 2024 on July 15, 2024*

"My Government recognises the urgency of the global climate challenge and the new job opportunities that can come from leading the development of the technologies of the future. It is committed to a clean energy transition which will lower energy bills for consumers over time."

- *His Majesty King Charles III, King of the United Kingdom, speaking to both Houses of Parliament on July 17, 2024*

"We know that too much native vegetation clearing has adverse effects. Among other things, it can impact regional communities, threatened species habitats, trade opportunities, climate action and the health of the Great Barrier Reef."

- *Leanne Linard, Member of the Queensland Legislative Assembly of Australia, talking about Environmental Protection and the Great Barrier Reef on July 17, 2024*

"When I think of climate change, I think about jobs – good-paying, union jobs that put Americans to work, rebuild our nation's aging infrastructure, and support our transition to a clean energy future."

- *Joe Biden, President of the United States, making a remark on Climate Pollution Reduction Grants on July 17, 2024*

"As governor of Minnesota, I bring those experiences together so we can tackle some of those hard problems: inequities, climate change, all of the things that we care about."

- *Tim Walz, Governor of Minnesota and U.S. vice-presidential candidate, speaking at a campaign event in Detroit, Michigan on August 7, 2024*

"There is this prevailing narrative – and a lot of it is being pushed by the fossil fuel industry and their enablers – that climate action is too difficult, it's too expensive...It is absolutely critical that leaders, and all of us, push back and explain to people the value of climate action, but also the consequences of climate inaction."

- *Selwin Hart, Assistant Secretary General of the United Nations, commenting on the global "backlash" against climate action on August 8, 2024*

"There is no silver bullet policy solution for climate mitigation. It's the broadest empirical evidence to date for the insight that policy mixes or combinations of policies are needed to reduce greenhouse gas emissions."

- *Jonas Meckling, associate professor at University of California Berkeley and a Climate Fellow at Harvard Business School, calling on countries to adopt more effective climate change policies on August 22, 2024*

"Climate change is a global security issue. It knows no borders, nor boundaries. It respects no sovereignty, and it can't be reasoned with...The U.S. national security community has been clear-eyed about these challenges for decades. We've taken climate change into account in everything we do at every level."

- *Kathleen Hicks, Deputy Defense Secretary of the United States, explaining the urgency of tackling climate change and the actions of the U.S. Department of Defense on August 23, 2024*

"I am in Tonga to issue a global SOS – Save Our Seas – on rising sea levels...Rising seas are a crisis entirely of humanity's making, a crisis that will soon swell to an almost unimaginable scale, with no lifeboat to take us back to safety. But if we save the Pacific, we also save ourselves."

- *António Guterres, United Nations Secretary General, warning during a visit to Tonga on August 26, 2024*

"Never have we so hurt and mistreated our common home as we have in the last two hundred years. Reducing greenhouse gases requires honesty, courage and responsibility."

- *Pope Francis, writing in his 'Encyclical on Climate Change' released on September 13, 2024*

"The threat (climate change) may not feel as urgent as a terrorist or an imperialist autocrat. But it is more fundamental. It is systemic, it's pervasive and accelerating towards us at pace."

- *David Lammy, Foreign Secretary of the United Kingdom, speaking in his maiden speech on September 17, 2024*

"In times of increasing polarization, expressions such as "deglobalization" have become commonplace. But it is impossible to "deplanetize" our life in common. We are condemned to the interdependence of climate change."

- *Luiz Inácio Lula da Silva, President of Brazil, speaking in his remarks at the opening of the 79th Session of the United Nations General Assembly on September 24, 2024*

"The climate crisis transcends borders and politics. Climate action cannot be a victim of geopolitical competition."

- *António Guterres, UN Secretary General, speaking to the Group of 20 Foreign Ministers on September 25, 2024*

Climate-Focused Conferences & Events

Multinational Conferences & Global Forums

UN/Austria Symposium 2024 Climate action: transforming space-based technology projects into sustainable services that support policy-making
United Nations
July 17-18
Hybrid

- From the Organizer: "The symposium is aimed at offering a possibility to share lessons learnt and success factors in transforming projects into sustainable services for climate action, bridging the gap between space applications and technologies providers, users and wider community."
- Primary Objectives:
  - Identify initiatives based on space applications that have been developed and implemented globally, and promote sustainable services that help developing countries in facing climate change.
  - Discuss the space-based services that support climate policies and awareness of the Space for Climate Observatory, space-related activities, services and cooperation programs.
  - Create opportunities for cooperation and collaboration with funding organizations and international organizations.

Coalition of Finance Ministers for Climate Action (CFMCA) Asia and the Pacific Regional Meeting
Asian Development Bank
August 27-28
Manila, Philippines

- From the Organizer: "This two-day regional meeting will bring together ministries of finance from the Asia and the Pacific region to discuss crucial topics, including the role of finance ministries in the nationally determined contribution (NDC) 2025 process, adaptation and resilience, nature finance, and national transition plans."
- Primary Objectives:
  - "Raise awareness among government and non-government stakeholders in the Asia and the Pacific about the CFMCA as a venue for advocating and amplifying positions on climate finance policies and tools that can advance climate action and socioeconomic development in the region.
  - Support peer-to-peer exchanges between CFMCA member country deputies, as well as knowledge sharing between representatives from CFMCA member countries and countries in Asia and the Pacific that are not members of the Coalition.
  - Activate CFMCA workstreams and identify follow-up deliverables across the six Helsinki Principles as well as three supplementary areas of nature, transition finance, and adaptation.

Global Landscapes Forum Africa 2024: Greening the African Horizon
Center for International Forestry Research and World Agroforestry
September 17
Nairobi, Kenya

- From the Organizer: "Can Africa show the world a sustainable way forward? The climate crisis is taking a toll on Africa – and especially on rural communities that depend on natural resources for their livelihoods. How should the continent respond to these challenges, and what lessons can it teach the rest of humanity?"

- Primary Themes: Sustainable agrifood systems; Scaling landscape restoration; Partnerships and finance; Rights and livelihoods in shifting landscapes; Governing the just transition; Technology and data
- Forum Outcome: "3,400 people gathered in Nairobi, Kenya, and online from 119 countries to start greening the African horizon – and set an example for the rest of humanity to follow."

Public Events & Panel Discussions

-Upcoming Events-

The Story Behind Climate Security and What it Means for US Foreign Policy
Event by Wilson Center | October 1

Trade and Tradeoffs: Are U.S. Trade and Climate Policies At Odds?
Event by Center for Strategic & International Studies | October 3

Atlantic Council Regional Conference on Clean and Secure Energy
Event by Atlantic Council | October 9-10

Global Status of CCS 2024 Report Launch – Asia Pacific
Event by Global CCS Institute | October 16

APSA 2024 Conference - Global Resilience: Thriving Amidst Planetary Challenges for a Sustainable Future
Event by Ateneo de Manila University | October 26-27

European Cement Decarbonisation Summit 2024
Event by Active Communications International | October 30-31

-Past Events-

Climate Week NYC
Event by Climate Group | September 22-29

Towards Our Perpetual Planet: Venture, Exploration and Innovation
Event by South China Morning Post & Rolex | September 26

Green Shiptech China Congress 2024
Event by Ridge China | September 26-27

How Can the Economic System Drive Decarbonization?
Event by Wilson Center | September 25

This is Climate Summit: The Global Stakes
Event by The Washington Post | September 23

Advancing Biodiversity for Community Resilience and Global Stability: Insights Ahead of COP16
Event by Wilson Center | September 20

The European Carbon Dioxide Utilization Summit 2024
Event by Active Communications International | September 18-19

Nature and Climate Nexus: Nature-Based Solutions for Urban and Rural Landscapes
Event by Asian Development Bank, The Nature Conservancy, & Others | September 17-19

Crossing the Climate Threshold: Urgent Actions for Southeast Asia's Sustainable Future
Event by ISEAS-Yusof Ishak Institute | September 17

4th Marine & Offshore Renewables 2024
Event by The Institute of Marine Engineering, Science and Technology | September 10

The Implications of Climate Lawsuits for Energy Security
Event by Hudson Institute | September 10

Climate change as a threat multiplier: Implications for US defense and global security
Event by Atlantic Council | September 9

Climate Change and Cities: Advancing Science and Engaging with the IPCC
Event by Asia-Pacific Network for Global Change Research, & Others | September 6

Marine Renewable Energies Webinar
Event by European Space Agency | September 4

The United States, China, and the Climate Crisis: Imperative for Action in the Context of Competition
Event by Center for American Progress | August 27

Bringing Climate and Health Together in Japanese and American Cities
Event by Wilson Center, Institute for Global Environmental Strategies, & Others | August 16

Carbon Dioxide Utilization Online
Event by Active Communications International | August 6

Taiwan's Energy Transition
Event by Hudson Institute | August 1

Rising Seas Triggered Climate Lawsuits: What Now?
Event by Carnegie Endowment for International Peace | July 31

Speaker Series: Making the US FOREST Act work? Key climate policy considerations from reflecting on the European Deforestation-Free Regulation
Event by East-West Center | July 22

Climate Crossroads Summit 2024
Event by Climate Crossroads | July 16-17

Future of Ships, Shipping and Environmental Sustainability Conference
Event by The Institute of Marine Engineering, Science and Technology | July 9

ICAS & BCCC Program Updates

Academic Engagement

Dr. Nong Hong Holds Academic Visit in Greater Boston

Monday, July 8, 2024

On July 8, 2024, ICAS Executive Director Dr. Nong Hong held an academic visit in the Greater Boston area, joined by Yilun Zhang, ICAS Trade n' Technology Program Manager, Research Associate, and Amanda Jin, ICAS Research Assistant. Mr. Jinsong Xi, Vice President of National Institute for South China Sea Studies (NISCSS), and Dr. Zhenwei Cai from NISCSS also participated in the group visit and academic exchanges.

At Harvard Kennedy School, ICAS and NISCSS scholars had a round table discussion with Professor Henry Lee, Program Director of Belfer Center Environment and Natural Resources Program and other fellows of the Belfer Center. The discussion addressed topics including U.S.-China academic exchanges, decarbonization policy and blue carbon efforts in China, as well as multilateral governance and sustainable development in the Arctic region.

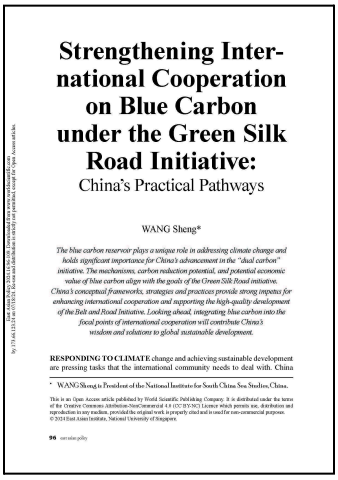
Continue Reading: https://chinaus-icas.org/event/dr-nong-hong-holds-academic-visit-in-greater-boston/

Journal Article

Strengthening International Cooperation on Blue Carbon under the Green Silk Road Initiative: China's Practical Pathways

By Wang Sheng

July 18, 2024



Strengthening International Cooperation on Blue Carbon under the Green Silk Road Initiative:
China's Practical Pathways

WANG Sheng*

The blue carbon reservoir plays a unique role in addressing climate change and holds significant importance for China's advancement in the "dual carbon" initiative. The mechanisms, carbon reduction potential, and potential economic value of blue carbon align with the goals of the Green Silk Road initiative. China's conceptual frameworks, strategies and practices provide strong impetus for enhancing international cooperation and supporting the high-quality development of the Belt and Road Initiative. Looking ahead, integrating blue carbon into the focal points of international cooperation will contribute China's wisdom and solutions to global sustainable development.

RESPONDING TO CLIMATE change and achieving sustainable development are pressing tasks that the international community needs to deal with. China

* WANG Sheng is President of the National Institute for South China Sea Studies, China.

Abstract:

The blue carbon reservoir plays a unique role in addressing climate change and holds significant importance for China's advancement in the "dual carbon" initiative. The mechanisms, carbon reduction potential, and potential economic value of blue carbon align with the goals of the Green Silk Road initiative. China's conceptual frameworks, strategies and practices provide strong impetus for enhancing international cooperation and supporting the high-quality development of the Belt and Road Initiative. Looking ahead, integrating blue carbon into the focal points of international cooperation will contribute China's wisdom and solutions to global sustainable development.

Read the Article:
https://chinaus-icas.org/research/strengthening-international-cooperation-on-blue-carbon-under-the-green-silk-road-initiative-chinas-practical-pathways/

MAP Commentary

Opportunities, Challenges, and the Uncertain Future of Sino-Russian Cooperation in the Arctic

By Nong Hong

September 3, 2024

With Chinese Premier Li Qiang and Russian Prime Minister Mikhail Mishustin meeting on August 21 in Moscow and pledging deeper economic partnerships, it appears that China and Russia are making strides in their long-discussed cooperation in the Arctic. However, while the political will for collaboration in the Arctic is evident, this partnership presents both opportunities and challenges, making it difficult to be fully optimistic about its long-term success.

The opportunities for Sino-Russian cooperation in the Arctic are significant across several areas. The Arctic is home to vast, untapped reserves of oil, natural gas, and minerals...

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https://chinaus-icas.org/research/opportunities-challenges-and-the-uncertain-future-of-sino-russian-cooperation-in-the-arctic/

BCCC Commentary

U.S. Proposed Carbon Border Tax: Protectionism Disguised as Environmental Policy

By Zhangchen Wang

July 16, 2024

In a recent interview with Financial Times, John Podesta, U.S. Senior Advisor to the President for International Climate Policy, indicated that the U.S. is exploring a range of options for carbon pricing on imports to combat "freeriding" by foreign producers of carbon-intensive goods. In other words, the United States is considering implementing a carbon border tax to address carbon emissions associated with imported goods.

The 'carbon tariff' is no longer an innovative concept...

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TnT Commentary

U.S. tariffs on Chinese EVs are anti-EV, anti-climate

By Yilun Zhang

July 2, 2024

Tariffs on Chinese electric vehicles (EVs) have reached a pivotal moment over the past month. Following months of misleading overcapacity claims, the United States announced a sharp increase in its Section 301 tariffs on Chinese EVs from 25 percent to 100 percent...

...The 100-percent tariffs on Chinese EVs are a product of a complex interplay of economic, political, and environmental considerations. Beyond their immediate economic impact, these tariffs reflect a broader ambivalence towards developing the EV industry within the Biden administration. While rhetoric may emphasize support for U.S. jobs and a "cleaner future," such punitive, rash, and untailored tariffs reveal Washington's lack of confidence about

the future of the American EV industry and the U.S. energy transition. This disconnect undermines not only U.S. leadership in global climate cooperation but also the efforts to build strength in the U.S. domestic industries. Through the 100-percent EV tariffs, the Biden administration is, in fact, betraying the U.S. auto industry and its own commitment to "worker-centric" trade policy.

Continue Reading: https://chinaus-icas.org/research/u-s-tariffs-on-chinese-evs-anti-ev-anti-climate/

MAP Spotlight

MAP Spotlight: IUU Fishing

By Jessica Martin
September 23, 2024

Illegal, unreported and unregulated fishing (IUU fishing) is a broad term that generally refers to the fishing and fishing-related activities that violate or circumvent fisheries laws and regulations that are designed to prevent overfishing and the resulting dangerous ecological imbalances. Able to occur both intentionally and unintentionally, it also includes fishing occurring in unmanaged areas without oversight. IUU fishing most commonly occurs intentionally and for the sake of short-term economic gain in the amount of tens of billions of dollars. A relatively new term inspired by long-standing concerns, the issue is considered by many, including the International Maritime Organization, to be "one of the greatest threats to marine ecosystems" and a major inhibitor to long-term ocean sustainability.

The ecological concerns of IUU fishing primarily circulate around two factors: overfishing and damage to the marine environment such as coral reefs. The rapid reduction of fish stocks—the direct result of overfishing—causes ecological imbalances that erode the remaining sea life in a downward, widespread spiraling effect if not corrected...

Continue Reading: https://chinaus-icas.org/research/map-spotlight-iuu-fishing/

ICAS Announcement

Save the Date: ICAS Annual Conference 2024

On December 12, the Institute for China-America Studies will be holding its Annual Conference 2024 in Washington, D.C., gathering scholars and experts from the United States, China, and around the world to exchange ideas in an open dialogue on how to mediate areas of conflict and promote areas of cooperation on a variety of issues.

About ICAS Annual Conferences: https://chinaus-icas.org/events-2/annual-conferences/

Watch Past ICAS Annual Conferences:
https://www.youtube.com/playlist?list=PLs4oA4vJ3iF5-_3DVl-wOcD2i6crV_7X-

Stay Informed: https://chinaus-icas.org/subscribe/

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

ISSN (Print): 2837-3952 *ISSN (Online): 2837-3979*

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