GLOBAL CCS INSTITUTE

BRIEF

COP29 HALF-TIME: CCS DEVELOPMENTS IN INTERNATIONAL CLIMATE CHANGE POLICY

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HIGHLIGHTS

- Political momentum continues for CCUS after the first global stocktake, with ongoing negotiations on the path forward to implement paragraph 28 on energy
- Countries are to send their first Biannual Transparency Report to assess progress towards Paris Climate Goals by December 2024, and updated NDCs by February 2025
- The IPCC begins its seventh reporting cycle with a dedicated methodology report on CDR and CCUS
- The GCF funds its first CCS-related activity in Trinidad and Tobago while negotiations ensue in Bonn on the new climate finance goal
- Article 6 expands work outputs on removals, including on social and environmental safeguards and linkages to the SDGs
- COP29 Presidency of Azerbaijan to focus on delivering on finance, COP30 Presidency of Brazil brings an opportunity for CCUS implementation and nuance, while Australia and Türkiye bid for COP31
- Awareness is rising on matters related to the “just transition” in the energy sector, bringing the perspective of affected workers, communities and countries in addressing climate change

COP29 HALF-TIME

SCENE SETTING

Carbon Capture, Utilisation and Storage (CCUS) is increasingly being recognised as a key technology to implement the objectives of the Paris Agreement. In first global stocktake (GST) decision at COP28, countries are called to accelerate CCUS, particularly in hard-to-abate sectors. This GST is designed to inform the third generation of Nationally Determined Contributions (NDCs 3.0), due by February 2025. CCUS was also one of the main themes of the Mitigation Action and Implementation Work Programme (MWP) last year, with an adopted decision and published report by the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat. Outside of the negotiating rooms, the COP28 Presidency co-hosted a high-level event on Carbon Management with the Carbon Management Challenge Co-Sponsor governments[1], reinforcing the importance of the initiative and its relevance to the international climate change action process. Further momentum for abatement technologies has been seen at the Group of 7 (G7) and Group of 20 (G20), including various other platforms and initiatives, with outcomes detailed in last year’s Institute reports CCS Milestones on the *Road to COP28* and *Six Key COP28 Outcomes for CCS.*

DEVELOPING THE SCIENCE

The year 2024 began with the 60th Session of the Intergovernmental Panel on Climate Change (IPCC-60), the United Nations body created to assess the science related to climate change. The Chair of IPCC, Jim Skea, presented his vision for the seventh reporting cycle (AR7) with three main themes: policy relevance, inclusivity and the intertwining of climate with biodiversity, ecosystem services and pollution.

An intense round of negotiations by the IPCC’s standards ensued with the final list of outcomes for the upcoming reporting cycle. This includes publishing a Methodology Report on Carbon Dioxide Removal (CDR) Technologies and CCUS by the end of 2027. Before producing the report, an expert meeting to collect evidence and identify gaps will be held in July in Vienna. The information will serve as additional input for the follow-up scoping meeting in October to draft the report outline. Like the sixth reporting cycle (AR6), the IPCC’s AR7 will have three working groups, with Working Group III: Mitigation of Climate Change – most relevant to CCUS – being led by the United States and Malaysia as Co-Chairs.

[1] Brazil, Canada, Indonesia, United Kingdom and United States

MULTI-LATERAL AGREEMENTS AND CCUS

G7 Ministerial Meeting on Climate, Energy and Environment

In the run-up to Bonn, signalling their intention to implement wider COP28 energy outcomes to transition away from fossil fuels in energy systems, the G7[2] ministers met in Turin, Italy and underscored the important role that carbon management technologies play in the transition to net zero. In the published communiqué, carbon management technologies, including CCU/carbon recycling, CCUS and CO_2 removal measures, particularly in hard-to-abate sectors, are recognised as an essential component of the energy transition as underlined in the first GST.

The communiqué continues to affirm the importance of the significant increase in the pace and scale of deployment of carbon management technologies and infrastructure, as well as promoting the development of export/import mechanisms for CO_2. The communiqué further notes the work of countries participating in the Carbon Management Challenge to support a global goal of advancing carbon management projects reaching gigatonne scale by 2030. Ministers also agreed to phasing out existing unabated coal power generation by 2035.

Bonn Climate Change Conference: Highlights

The UNFCCC Bonn Climate Change Conference consists of two weeks of intense negotiations across a range of issues where progress is needed on the path to the next COP. Arriving at a half-way point in this critical decade for action, the conference opened with Simon Steill, Executive Secretary of the UNFCCC, saying that: "This new round of national climate plans – NDCs 3.0 – will be among the most important policy documents produced so far this century", with the rest of the statement focused on finance and transparency. The Executive Secretary has previously communicated that new NDCs will need to "incorporate investment plans that give a clear signal to the world, to investors, and to donors, of how countries plan to tackle climate change".

The first round of enhanced reporting through the Biennial Transparency Reports (BTRs), are due by 31 December 2024 at the latest and every two years thereafter. BTRs provide an opportunity to assess progress towards the Paris climate goals – and through that – the deployment of mitigation technologies including CCUS. BTR components involve national inventory reports (NIR), progress towards NDCs, policies and measures, climate change impacts and adaptation, levels of financial, technology development and transfer and capacity-building support, capacity-building needs and areas of improvement.

At the top of the agenda in Bonn and crucial for success in Baku, was an agreement on a New Collective Quantified Goal (NCQG) to guide the provision of climate finance. Progress on these negotiations were slow and tense. The outcome of the NCQG will impact any financing available for developing countries to pursue mitigation projects that may include CCUS.

Linkages between the Technological and Financial Mechanisms were also discussed in Bonn. With NDCs 3.0 in the making, side-events at Bonn involved an increased attention to making updated NDCs ambitious and investment-ready through Technology Action Plans (TAPs), as part of the Technological Mechanism[3]. TAPs are a critical component of the Technology Needs Assessment (TNA) process, which outline country-driven actions and projects for technologies. So far, 100 developing countries have undertaken their TNA, with two identifying CCUS: Thailand and Trinidad and Tobago (see Success Story for Trinidad and Tobago's climate financing developments). A further 34 countries have TNAs in progress. Going into the next round of NDCs, countries will need to align their NDCs, TNAs and TAPs according to their technology priorities to help unblock support and investment at scale.

Increasingly becoming a key area of contention, countries were not able to agree on any outcome for the Mitigation Ambition and Implementation Work Programme (MWP) at Bonn. Discussions included how the programme can also contribute to the implementation of the GST elements, specifically paragraph 28 on energy, which includes a reference to CCUS, particularly in hard-to-abate sectors, along with renewables, hydrogen and nuclear.

In a report published by the forum on the impact of implementation of response measures, the social, economic and environmental impacts of CCUS was assessed. This includes recommendations to develop a regulatory framework for CCUS at the national and/or global level with a high safety standard; strengthen policy support and incentives; and promote the technology's effective application of use to stimulate early achievement of net zero emissions.

The report comes as an output of the current six-year workplan (2020-2025), with the next workplan discussed in Bonn. An area of contention includes the topic of just transition, part of the current workplan, which has since spun out to create the United Arab Emirates Just Transition Work Programme (JTWP) in COP28. The JTWP aims to discuss pathways to achieve the goals of the Paris Agreement that considers energy, socio-economic dimensions and the workforce. Mentions of the term 'just transition in NDCs have been increasing, and the JTWP brings the perspective of affected workers, communities and countries to what a truly "just" transition means, and any actions needed to ensure needs are met. The first dialogue under the JTWP on pathways to achieve the goals of the Paris Agreement through NDCs, NAPs and LT-LEDs took place in Bonn, with a second scheduled later this year.

SUCCESS STORY: TRINIDAD AND TOBAGO

The Green Climate Fund (GCF), the world's largest climate fund, included CCS in its governing instrument at COP17, meaning CCS technologies have been eligible for climate finance for over a decade. In May, Trinidad and Tobago, in collaboration with The University of West Indies (UWI), and the University of Trinidad and Tobago (UTT), IEA GHG and the University of Texas, became the first country to receive funding from the GCF for a CCS-related project.

Through the GCF Readiness and Preparatory Support Programme, funding will go towards assessment of the islands' storage potential to produce a national storage atlas, as part of a broader GCF project with Suriname. Trinidad and Tobago also launched Carbon Capture Utilisation and Stroage Collaborate (CCUS-C) to create a centre of research in CCUS.

[2] Canada, France, Germany, Italy, Japan, the United Kingdom and the United States

[3] Consideration of linkages started in COP18. Since then, there have been efforts by the Technological Executive Committee (TEC) Climate Technology Centre and Network (CTCN) and others to foster greater synergy between the Technology Mechanism and the Financial Mechanism.

STATUS OF NEGOTIATIONS

	ARTICLE 6	MWP		NCQG	TM/FM LINKAGES	RM/JTWP
Bonn outcome	Talks were mainly around Article 6.2 (the bilateral and multilateral trade of Internationally Transferable Mitigation Outcomes – ITMOs), as Article 6.4 the (improved mechanism for global carbon credit trading to replace the Clean Development Mechanism – CDM, trading Emission Reductions – ERs) will be handled under the Article 6.4 Supervisory Body. There was some progress on Article 6.2 issues on transparency of carbon trades. At the moment countries can claim some credits as “confidential”, where the UNFCCC was given a mandate to create a code of conduct for treating and reviewing confidential information, is up for discussion in COP29. Whether to include credits generated through emissions avoidance, i.e. payments for not carrying out an emitting activity, was decided to be reconsidered in 2028, when the whole mechanism is assessed.	No consensus on way forward. Given the lack of agreement, this item will be automatically included in the agenda of the next SB session in Baku, as per Rule 16 of UNFCCC Draft Rules of Procedure.		No consensus, with an input paper displaying a divergence of views. The Co-Chairs from Australia and South Africa are to provide a new, streamlined input paper ahead of COP29 for countries to discuss.	Countries agreed to consider linkages, taking into account submissions by stakeholders, the synthesis report prepared by the secretariat and the in-session workshop. A draft text was agreed to negotiate in Baku.	In response measures, work began to inform the next five-year workplan and a new table of activities. In the JTWP, there was no consensus on their workplan.
Issues to unlock	While Article 6.2 is already in operation, transparency around bilateral and multilateral agreements are needed to ensure Article 6 rules are adhered to Paris-aligned. Issues remain on how credits are authorised and whether countries can revoke credits once they have already been sold. The development of methodologies for Article 6.4 activities, including the need for methodologies for different types of activities including Direct Air Capture (DAC) and other technology-based removal activities is still under discussion.	Diverging views on way forward of the MWP, with some countries wanting to include the outcomes of the GST as part of the work programme, specifically paragraph 28. Disagreements stem from different interpretations of paragraph 186 of the GST, which “invites relevant work programmes to integrate relevant outcomes in planning their future work, in line with their mandates”.		The target quantum is undecided, with country proposals currently going up from a floor of US$100 billion/year based on previous agreement in Paris to US$1.3 trillion/year based on more recently published UN-backed reports. A decision is needed on whether money should be sourced from public funds in developed countries or also include “layers” of finance to reach the goal, including money from the reform of MDBs and the private sector. The question of whether to expand the contributor base to include richer developed countries is a key sticking point.	Differences in views created some stalled negotiations for a group that consistently delivers. There has been a wide variety of views expressed in stakeholder submissions on successes, gaps and challenges regarding linkages between the two mechanisms and the needs to further strengthen them. Discussions included streamlining the process into bankable projects, multi-year programmes rather than a project-by-project basis and allocating adequate funds to support implementation of the TNAs.	In response measures, there were diverging views on linkages with the JTWP. In the JTWP, the work plan proposal includes following up on paragraph 28 of the GST, which includes language on CCUS, particularly in hard-to-abate sectors.

STATUS OF NEGOTIATIONS CONTINUED

	ARTICLE 6	MWP		NCQG	TM/FM LINKAGES	RM/JTWP
CCS analysis	Negotiations are mainly technical on various aspects of the Article 6 crediting mechanism. Most relevant for CCUS are the guidance and methodologies on removals, by the Article 6.4 Supervisory Body. After two years of stalled negotiations on the subject, the new year saw an approved 2024 workplan and several new methodological products, including expanding the work on removals and the inclusion of transboundary and emission reduction activities. Addressing concerns from COP28, the Supervisory Body requested the Secretariat to revisit the draft sustainable development tool in order to reinforce proposed safeguards criteria and guiding questions applied for "novel" carbon dioxide removal (CDR) activities (which includes geo-storage-based CDR). A new annex is also agreed that includes assessing positive and negative impacts against the 17 Sustainable Development Goals.	The Institute has provided submissions this year towards the work programme, as a contribution to the ongoing dialogue on CCUS as summarised in the annual report of findings referenced in the programme's COP28 decision. Under this year's MWP theme, "Cities, buildings, and urban systems", CCUS offers a promising pathway to significantly reduce carbon emissions, especially when considering the cement and concrete sector, as well as public-private partnerships in urban areas, in the form of CCUS hubs, networks and cross-industry projects. Looking towards the future of what the MWP could deliver, the integration of paragraph 28 of the GST into the MWP can further facilitate the acceleration of CCUS, particularly in hard-to-abate sectors, as per the decision. Given that MWP events are investment-focused, the inclusion of finance players holds the potential for accelerated action using mitigation technologies.		Like other mitigation technologies, the quantum of climate finance will determine the amount available for projects in developing countries. With the GCF funding its first CCUS project, this gives precedent for further CCUS funding proposals. While there are different levels of complexities and views when it comes to country priorities on climate finance, an enhanced financial mechanism can be structured for economies to become more attune to the financing of mitigation projects. For CCUS-specifically, this includes and is not limited to the CCUS Trust Fund, where MDBs can act as catalyst for private sector financing by de-risking initiatives at scale.	Gaps identified in stakeholder submissions include the complexity of the procedures for using the GCF Readiness and Preparatory Support Programme and CTCN technical assistance, the program Trinidad and Tobago received funding for its CCUS project. The CTCN recognises the value of a programmatic (an umbrella project) approach to funding. Using a programmatic approach for technologies through a CCUS network project, the GCF and other climate finance entities can cost-effectively finance abatement needs in developing countries. Crafted carefully with a focused stakeholder consultation process and aligned with NDCs, TNAs, TAPs and the Sustainable Development Goals (SDGs), the approach can provide participating countries with meaningful and ambitious project financing solutions, particularly for the hard to abate sectors.	In a follow-up to the paper published under the current response measures workplan, a proposed activity in the new workplan includes to "assess and analyse the environmental, economic, and social implications of accelerating zero- and low-emission technologies, including abatement and removal technologies such as carbon capture and utilisation and storage, particularly in hard-to-abate sectors". During the scene-setting at the dialogues at Bonn, it was emphasised that NDCs, NAPs and LT-LEDS must incorporate just transition pathways and create synergies between climate targets and the Sustainable Development Goals (SDGs). With increase of public awareness and multilateral discussions on just transition with the GST, and in order for CCUS technologies to be deployed at rapid scale smoothly, there needs to be an equally rapid and comprehensive understanding of the various ecological and social dimensions that the technology offers, balanced with what aspect may need to be addressed for improvement.

PRESIDENCY OUTLOOK

COP29 BAKU, AZERBAIJAN

The Azerbaijan Presidency has highlighted that they will work to support countries to raise ambition of NDCs, NAPs and BTRs. The Presidency has also identified the agreement of a fair and ambitious new climate finance goal through NCQG and the full functioning of Article 6 as key deliveries at COP29, now dubbed the 'Finance COP'. The Presidency has recognised the role of Multilateral Development Banks (MDBs) and International Financial Institutions (IFIs) to mobilise low-cost and high levels of financing to better meet climate needs. With challenges in NCQG, the Presidency has scheduled a retreat for heads of delegation in July, with more meetings scheduled in October to substantively progress the agenda item. On matters relating to energy, and continuing the legacy from COP28, the COP29 Presidency organised the high-level dialogues with the International Energy Agency (IEA) to deliberate on paragraph 28 of the GST.

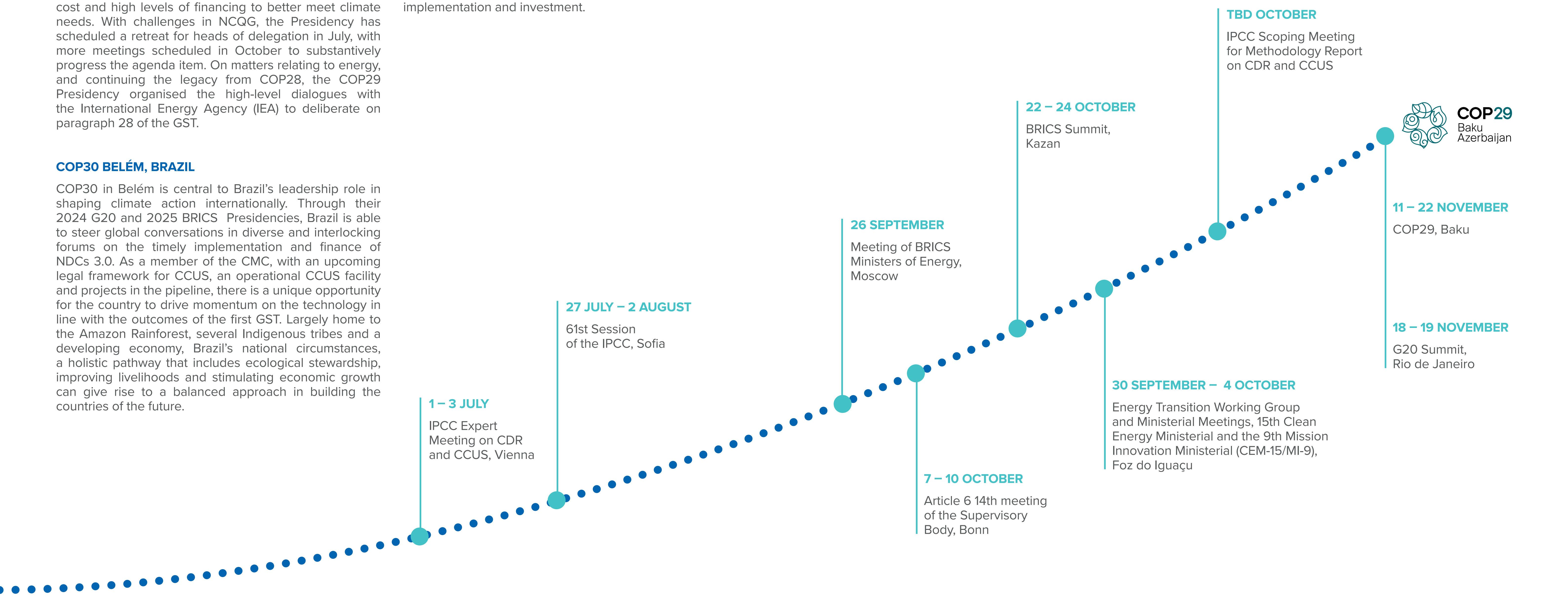
COP30 BELÉM, BRAZIL

COP30 in Belém is central to Brazil's leadership role in shaping climate action internationally. Through their 2024 G20 and 2025 BRICS Presidencies, Brazil is able to steer global conversations in diverse and interlocking forums on the timely implementation and finance of NDCs 3.0. As a member of the CMC, with an upcoming legal framework for CCUS, an operational CCUS facility and projects in the pipeline, there is a unique opportunity for the country to drive momentum on the technology in line with the outcomes of the first GST. Largely home to the Amazon Rainforest, several Indigenous tribes and a developing economy, Brazil's national circumstances, a holistic pathway that includes ecological stewardship, improving livelihoods and stimulating economic growth can give rise to a balanced approach in building the countries of the future.

COP31

Bidding is underway between Australia and Türkiye for COP31, representing the "Western Europe and Others" UN regional group. Australia's Labor Party proposed to host the COP alongside a Pacific Island nation, which has been supported publicly by the United States and Switzerland. The Australian delegation have said that they are conscious of the timing of COP31 in acting after COP29's NCQG and COP30's NDCs 3.0 and will therefore deliver a practical focus towards implementation and investment.

ROAD TO COP29



2024 RECOMMENDATIONS

Many of the outcomes, discussions and negotiations highlighted provide several opportunities and learnings for progress on CCS at COP29 this year. Until then, policy leaders, industry players, researchers and stakeholders in the CCUS, CDR and climate action community can pursue further efforts through several routes, including through the following recommendations:

1. **Alignment** of CMC joiner countries' NDCs to consider the collective goal of advancing carbon management projects to gigatonne scale by 2030

2. **Action** by government and industry on the outcomes of paragraph 28 of the first GST

3. **Awareness raising** with interested developing countries on the necessity of alignment of CCUS in their NDCs, TNAs and TAPS for climate financing

4. **Research, development and knowledge-sharing** on cost-effective climate finance using the programmatic approach through CCUS networks, particularly for the hard-to-abate sectors

5. **Engagement** by the CCUS community and stakeholders on matters related to the just transition and the SDGs, which can support current discussions in the negotiations process

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