GLOBAL CCS INSTITUTE

BRIEF

COP30 BELÉM: IMPLICATIONS FOR CARBON MANAGEMENT IMPLEMENTATION

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1.0 NEGOTIATED: THE BELÉM POLITICAL PACKAGE

Context

The United Nations Framework Convention on Climate Change (UNFCCC) Thirtieth Conference of the Parties (COP30) proved to be a more dramatic conference than usual. The Brazilian hosts had significant ambitions for this summit in Belém, a port city situated where the Amazon River system meets the Atlantic. Early in the second week, there was discussion of concluding ahead of schedule, with the release of a draft cover text. However, substantive disagreement among Parties on key issues meant the conference extended a day beyond its scheduled close, concluding on Saturday evening amid evident frustration in the plenary. The challenges were compounded when a fire broke out in the pavilion area on the final Thursday, forcing the evacuation of the entire Blue Zone.

COP30 marked a pivotal moment as the UNFCCC process moved from political consensus toward implementation frameworks, and for the first time, negotiators acknowledged the likelihood of overshooting 1.5°C. At COP28 in Dubai, the UAE Consensus acknowledged the role of abatement technologies including Carbon Capture, Utilisation and Storage (CC*U*S), settling a long-running debate about their place in the response to climate change. COP30 was tasked with converting these political signals into operational mechanisms.

The suite of decisions, known as the *Belém Political Package* or “Global Mutirão” (a Portuguese term meaning collective effort), advanced frameworks for carbon management technology deployment while leaving fundamental questions unresolved. According to Presidency consultations, over 80 countries supported binding roadmaps for fossil fuel transition, but consensus could not be reached. Instead, voluntary roadmaps were announced to be developed outside the formal UNFCCC process, with Colombia and the Netherlands to co-host the first International Conference for the Phase-Out of Fossil Fuels in Santa Marta, Colombia on 28–29 April 2026.

Global media reported on civil society analysis that identified over 1,600 fossil fuel-affiliated attendees at COP30, more than any single national delegation except Brazil. This reflects both industry engagement and ongoing civil society scrutiny of corporate influence on negotiations. COP30 was also the first summit requiring non-government participants to publicly disclose funding sources.

The carbon management community maintained an active presence throughout the conference. Organisations including the Global CCS Institute, CCS Brasil, The Intenrational Energy Agency Greenhouse Gas R&D Programme (IEAGHG), the Carbon Capture and Storage Association (CCSA), the International CCS Knowledge Centre (ICCSKC), and the University of Texas at Austin (UT) hosted and participated in various UNFCCC, NGO and national pavilion side events led by or with the participation of global governments. Programming ranged from science-based presentations and myth-busting sessions to discussions on finance, trade policy, and regulatory frameworks.

Meanwhile, the London Register of Subsurface CO_2 Storage released its first *annual report* during the first week *of* COP30, documenting 383 million tonnes of CO_2 safely stored underground since 1996. This provided timely empirical evidence of operational CCS at scale, reinforcing the technology’s credibility at a moment when implementation frameworks were under negotiation.

Five Key Takeaways

The outcomes of COP30 confirm that operational and financial frameworks for carbon management, along with other mitigation solutions, are being established within the UNFCCC’s emerging implementation architecture. For carbon management technologies to access these international mechanisms, they must be rigorously integrated into national reporting. The Nationally Determined Contribution (NDC) acts as the critical political gateway, providing the sovereign mandate for carbon management deployment and signaling national priority to investors. A preliminary assessment indicates that as of 9 December 2025, 60+ countries have integrated carbon management in their NDCs, either explicitly or via national policies (Annex 1). Of these, 55% are developed countries and 45% are developing countries. This political signal is essential for unlocking finance globally. The recent obligation of Biennial Transparency Reports (BTRs) provides the data needed to track and verify global progress. The full reporting pipeline also requires Long-Term Low Emission Development Strategies (LT-LEDS), which offer the multi-decade commitment needed for capital-intensive carbon management infrastructure to secure long-term finance. Climate finance (funding directed toward climate action in developing countries) is further validated by Technology Needs Assessments (TNAs), which formally prioritise carbon management needs in developing countries.

1. Climate finance roadmap advances, but binding mechanisms deferred

COP30 advanced the operationalisation of the New Collective Quantified Goal (NCQG) agreed at COP29, which targets US$1.3 trillion annually by 2035 for climate action in developing countries, of which US $300 billion represents the core mobilisation goal from developed countries.

- The roadmap identifies five action fronts ("5Rs": Replenishing, Rebalancing, Rechannelling, Revamping, Reshaping) to scale finance flows.
- A *report* published by the International High Level Expert Group (IHLEG) on Climate Finance in November indicates roughly half of the US$1.3 trillion in external finance could come from private sources, with the remainder from multilateral, bilateral and concessional flows. This suggests a potential opportunity for infrastructure grade financing of CCS hubs, provided that enabling conditions and de-risking mechanisms are in place.
- The roadmap explicitly references the need for investment in "low-carbon technologies" and infrastructure that supports NDC implementation, language broad enough to encompass carbon management where included in national plans.
- However, the roadmap is non-binding: COP30 only "took note" of its contents rather than formally adopting implementation mechanisms. There was wider hope for increased scale-up of funding from developed to developing countries, but agreement was limited to a roadmap for future mobilisation rather than concrete near-term commitments.

The finance architecture does not earmark funding for carbon management specifically, but the emphasis on private capital mobilisation and infrastructure investment creates pathways for CCS hubs where they align with national priorities. Project developers in developing countries could engage with national climate finance strategies to ensure carbon management is positioned within NCQG-aligned investment plans.

2. Article 6 carbon markets moving to implementation

The Article 6 rulebook was effectively completed at COP29 in Baku, with COP30 focused on implementation. High-integrity standards for carbon removals were maintained despite pressure from stakeholders and some governments to lower the stringency of permanence and liability requirements for, aimed at reducing the financial burden to accelerate market deployment and lower the unit cost of credits under Article 6.4.

- Article 6.4 provides the framework for the first UN-regulated global carbon market, replacing the Kyoto Protocol's Clean Development Mechanism (CDM). Geological storage remains eligible under the mechanism's standards on removals and permanence, creating a pathway for CCS-based credits to be used toward NDC compliance.
- Under the Article 6.4 mechanism, the standard for permanence and reversals was a major subject at COP30. Draft rules created earlier this year had recommended indefinite, long-term post-crediting monitoring until stored CO_2 or sequestered carbon could be shown to present negligible reversal risk. This indefinite monitoring was seen as particularly burdensome for nature-based projects, prompting heavy stakeholder response from market actors and nature-based/forestry stakeholders. Supported by some Parties, at COP30, this pressure drove a compromise: the final standard makes permanence conditional on methodology design. As a result, each removal project, whether geological CCS, bioenergy with storage, or nature-based sequestration, must submit its own methodology specifying monitoring duration, risk thresholds, and reversal risk management/ compensation.
- The Supervisory Body is scheduled to finalize removals methodologies, standards and tools, specifically on reversal risk assessment in 2026.
- COP30 extended the deadline for CDM project transition requests to 30 June 2026, a six-month extension. Civil society groups warned that this risks allowing lower-quality legacy credits into the Article 6.4 market, potentially undermining price signals.
- Norway-Switzerland Bilateral: The June 2025 agreement under Article 6.2 established one of the first frameworks for cross-border transfer of Carbon Dioxide Removal (CDR) with geological storage. The agreement enables Swiss entities to purchase certified CDR carried out and geologically stored in Norway, with corresponding adjustments by both countries. Private buyers in the initial transactions are reported to include Swiss International Air Lines, Swiss Post, Swiss Re, UBS, and Zürcher Kantonalbank. This transaction may represent an early model for cross-border durable CDR under Article 6.2.
- US$26.8 million will transfer from the CDM Trust Fund to support Article 6.4 implementation, with up to US$5 million for capacity-building in developing nations. This funding will support methodology development and registry infrastructure, essential for bringing CCS project types into the operational market. This allocation will be managed by the Article 6.4 Supervisory Body, which is responsible for setting the Resource Allocation Plan and prioritizing the development of methodology standards.
- Article 6 engagement: According to the 2025 NDC Synthesis Report (which reviewed NDCs submitted before September 2025), 89% of submitting Parties indicate plans to engage in voluntary cooperation under Article 6, signaling growing confidence in carbon market mechanisms. This may create potential demand for verified carbon management credits as countries seek cost-effective pathways to meet their targets.

The finalisation on permanence standards provides clarity for project developers. Project developers can continue to track carbon methodology development by the Article 6.4 Supervisory Body, due to be finalized in 2026, and align with emerging requirements.

3. Just Transition Mechanism agreed, with implications for project development.

COP30 agreed to develop a Just Transition Mechanism under the UAE Just Transition Work Programme (JTWP), one of the conference's most significant institutional outcomes. The mechanism embeds human rights, labour rights, and Indigenous Peoples' rights (including Free, Prior and Informed Consent) as core considerations for climate action.

- A draft mechanism will be developed by the Bonn intersessional in June 2026, with operationalisation expected at COP31.
- The mechanism does not mandate specific financial prerequisites tied to these rights, but its emphasis on community consent and workforce planning creates de-facto social licence expectations for major infrastructure projects. For CCS developments, which often involve significant surface facilities, pipeline corridors, and subsurface access rights, early and sustained community engagement will be increasingly expected.
- References to unilateral trade measures and critical minerals were removed from the final text following opposition from developed countries and China respectively.

The Just Transition framing offers both opportunity and obligation for carbon management projects. The technology can be positioned as a tool for maintaining industrial employment during decarbonisation. The UK, for example, has estimated that a mature CCUS sector could support up to 50,000 jobs across the UK by the 2030s. Project developers can anticipate enhanced expectations around workforce planning, skills development, and community benefit-sharing as the mechanism takes shape. Projects that proactively address these considerations will be better positioned as social license requirements strengthen. It is worth noting that enhanced community engagement requirements may extend project timelines, as evidenced by opposition to pipeline and storage projects in the United States.

4. Technology Implementation Programme launched, with potential pathway for cabron management

At COP30, Parties established the Technology Implementation Programme (TIP) to strengthen the deployment of technologies identified in developing countries' NDCs, National Adaptation Plans (NAPs), and LT-LEDS. The TIP is designed to respond directly to the first global stocktake's mandate to enhance support for technology priorities in developing countries.

- The Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) have provided technical assistance to developing countries for years, but a 2023 assessment found critical gaps: limited resources, insufficient follow-up after technical assistance is delivered, and inadequate support for national focal points. The TIP is intended to fill these gaps by helping countries actually implement technology projects on the ground.
- Includes global and regional dialogues (from 2027)
- Project eligibility and prioritization criteria are not yet fully defined and will be developed in 2025-2027.
- Funding arrangements and implementation modalities remain unspecified and it is unclear whether TIP will provide direct grants, technical assistance, or facilitate access to other funding sources.
- Despite some Parties urging focus on new and emergng technologies including CCUS in Bonn, disputes on the TIP's scope and linkage to global stocktake outcomes were resolved through a country-driven, technology-neutral approach. The programme will be reviewed in 2034, though annual reporting and a 2028 ministerial dialogue will provide earlier checkpoints on implementation progress.

The TIP is based on technology priorities in developing coutnries, and while it does not specifically reference CCS and CDR nor the global stocktake, its mandate essentially supports technology deployment for NDC implementation. Countries with geological storage potential, including several in Southeast Asia, Latin America, and Africa, may use the TIP to request technical assistance for site characterisation, regulatory framework development, and institutional readiness. Carbon management projects with credible feasibility studies may also be able to access TIP support, though eligibility and prioritisation criteria have not yet been fully defined. The carbon management community can actively engage with the TEC and CTCN in securing the *integration of carbon management technologies into the TIP's eligibility criteria and capacity-building activities. The 2034 review will be the formal opportunity to assess whether carbon management is being adequately supported within the programme, though the 2028 high-level ministerial dialogue on technology may offer an earlier moment for engagement.*

5. Transparency framework establishes accountability baseline

BTRs are standardised reports that countries submit every two years under the Paris Agreement's Enhanced Transparency Framework, detailing their greenhouse gas emissions inventories, progress toward NDCs, and climate finance flows, with the first round submitted by 31 December 2024. The first synthesis of BTRs provide the accountability architecture for tracking national climate action, including carbon management contributions.

- *First BTR Synthesis Report:* Released ahead of COP30, the UNFCCC synthesis of 101 BTRs provides the first comprehensive picture of Paris Agreement implementation. All submitting countries reported steps toward their NDCs, with over 3,400 policies documented across sectors. This establishes the reporting infrastructure through which carbon management deployment could be monitored against national targets.
- The second round of BTRs (due 2026) represents an early opportunity for countries to begin systematically reporting carbon management deployment, building on the first BTRs.

The transparency framework creates both opportunity and obligation. Projects contributing to NDC targets will require robust MRV systems aligned with BTR reporting requirements; project developers can begin this alignment now, found in the "Paris Rulebook" for transparency[1]. Conversely, the accountability infrastructure provides a pathway for carbon management to demonstrate measurable contributions to national commitments, potentially strengthening the case for public support and private investment. The explicit inclusion of carbon management in a growing number of NDCs provides important policy signals; however, inclusion in an NDC does not guarantee implementation support, and significant gaps remain between stated ambitions and deployed capacity.

Note: Article 6 methodologies provide the specific, rigorous MRV standards for quantifying emission reductions at the project level, which must then be reported within national BTRs with corresponding adjustments to ensure accurate global accounting and prevent double counting. Early movers like Switzerland and Singapore are already reporting Article 6 transfers and corresponding adjustments in their BTRs, though many countries are still building the necessary registry infrastructure and reporting capacity.

[1] The Paris Rulebook for transparency: *Modalities, Procedures and Guidelines for the Enhanced Transparency Framework (ETF) Common Reporting Tables (CRTs) and Common Tabular Formats (CTFs) ETF Technical Handbook*

2.0 VOLUNTARY: COP30 ACTION AGENDA

To operationalise climate and industrial goals in a structured way, COP30 established the COP30 Action Agenda, a framework to mobilise voluntary climate action from civil society, businesses, investors, cities, subnational governments, and national governments. The Agenda aims to intensify emission reductions, climate adaptation, and transitions to sustainable economies. The COP30 Presidency translated the results of the first global stocktake into six thematic pillars and thirty key objectives. The six pillars cover:

TRANSITIONING ENERGY, INDUSTRY, AND TRANSPORT

STEWARDING FORESTS, OCEANS, AND BIODIVERSITY

TRANSFORMING AGRICULTURE AND FOOD SYSTEMS

BUILDING RESILIENT CITIES, INFRASTRUCTURE, AND WATER SYSTEMS

FOSTERING HUMAN AND SOCIAL DEVELOPMENT

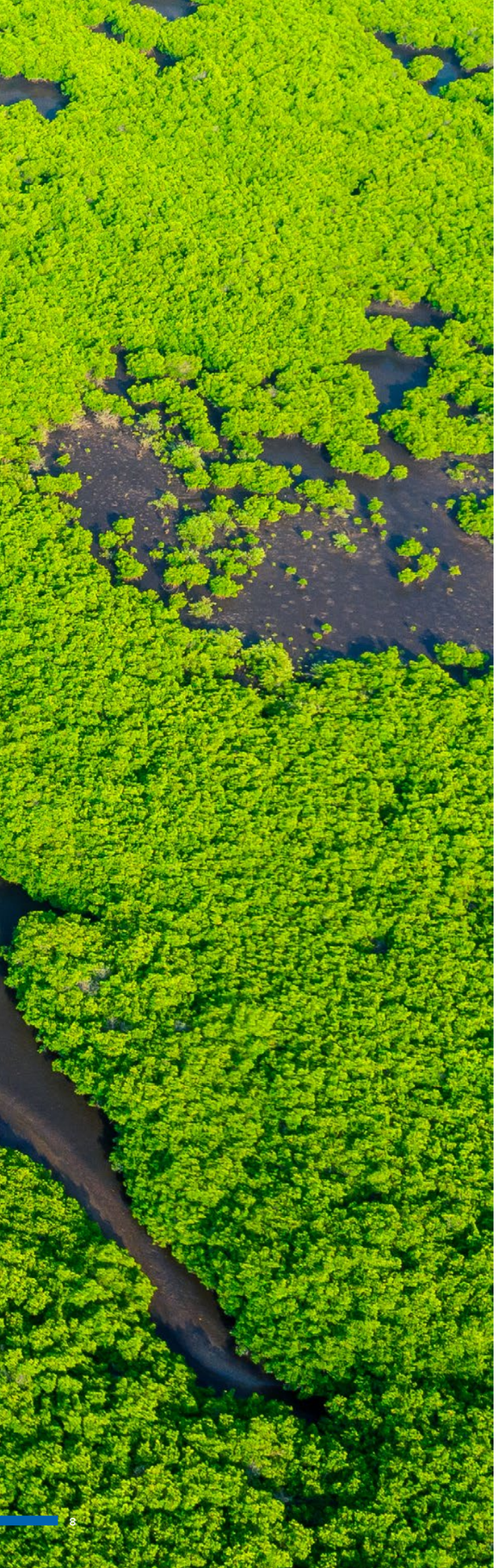
ENABLING FINANCE, TECHNOLOGY, AND CAPACITY BUILDING

Thirty "Activation Groups" were created under the Action Agenda to coordinate efforts around the thirty objectives. These groups draw on a subset of previously existing initiatives identified by the Presidency. During the COP30 High-Level Event, 117 "Plans to Accelerate Solutions" were announced, consolidating efforts from more than 480 past and ongoing initiatives. Activation Groups and related initiatives are expected to operate through the current global stocktake cycle, which runs until 2028, with progress reviewed at future COPs and potential continuation or adaptation thereafter.

For carbon management stakeholders, industrial decarbonisation could align with Axis 1, which focuses on accelerating zero- and low-emission technologies in hard-to-abate sectors and transitioning away from fossil fuels in a just and equitable manner, with relevant work coordinated through Activation Groups 2 and 4. The Agenda highlights "hundreds of clean industrial projects and novel carbon removal technologies that are being accelerated under the Agenda's framework," suggesting potential entry points for engineered carbon removal solutions.

For the first time, carbon dioxide removal (CDR) received formal recognition within the COP30 Action Agenda, with references across multiple areas, including agricultural and land-restoration initiatives and decarbonisation of hard-to-abate sectors. This represents an important institutional acknowledgment of carbon removal as part of the global climate response, although the Agenda remains voluntary and technology-neutral.

Activation Groups operate under the 4-step activation cycle: Coordinate, Measure, Showcase, Scale, providing a framework for initiatives to report progress, share lessons, and scale impact, although participation is voluntary and coverage may vary. Because COP30's official deliverables remain technology neutral, any inclusion of carbon management under the Agenda depends on actions by individual countries or organizations. Currently, the Carbon Management Challenge (CMC) and Clean Energy Ministerial (CEM) Carbon Capture Utilisation and Storage (CCUS) Initiative are registered members of Activation Group 2.



The industrial dimension of COP30 outcomes was reinforced through the *Belém Declaration on Global Green Industrialisation,* launched on 14 November by the COP Presidency with the Climate High-Level Champions and UNIDO. The Declaration provides "a shared framework for coordination and action to accelerate industrial transformation while expanding opportunities for sustainable growth and innovation across all regions," aiming to "catalyze the development and scaling of the next generation of clean industries that drive prosperity, competitiveness and climate stability worldwide."

The Declaration was launched with support from 35 countries, international organisations, and initiatives. It recognises that "without deep emissions cuts from heavy industry and advances in clean technology industries... global carbon emissions reduction goals, in line with the Paris Agreement, cannot be met." It emphasises that "addressing industrial decarbonisation is a global challenge that requires valuing and leveraging the specific technological pathways, resources, and strengths of each region and country," language that allows for a range of regionally appropriate decarbonisation strategies in industry. The text also calls for "transparent and science-based criteria for defining and certifying green industrial products as key enablers to create demand for low-carbon goods."

For carbon management stakeholders, the Declaration's flexible framing means that industrial decarbonisation strategies could potentially include carbon management in hard-to-abate sectors, while approaches like BECCS or biochar could be integrated through agriculture, land use, and bioeconomy initiatives. Although the Declaration does not explicitly reference carbon management, its broad language provides a pathway for countries and non-state actors to incorporate these technologies according to regional context and national priorities.

Alongside the Declaration, a Working Group on Green Industry Support for Emerging Markets and Developing Economies unveiled a package of concrete actions, including the establishment of a new US$30 million facility to support in-country industrial decarbonisation efforts. Progress under the Declaration will be reviewed at future COPs, with implementation guided by four main pillars: mobilising investments, driving demand through procurement and standards, strengthening competitiveness and supply chains, and enhancing transparency through harmonised carbon accounting.

In an industry-led effort, ResponsibleSteel announced bilateral agreements with China's CISA and Europe's LESS at COP30, establishing interoperability between steel standards covering approximately *60-70%* of global production, aiming to lay the foundations for a global market in near-zero steel.

3.0 LOOKING FORWARD

Towards COP31 and COP32: Türkiye, Australia and Ethiopia

Breaking a stalemate over hosting rights, Türkiye will host COP31 in Antalya in 2026, under a novel arrangement in which Australia will lead the negotiations. This dual-Presidency opens potential opportunities for carbon management stakeholders. Australia brings operational experience in CCS and several projects under development, while Türkiye has industrial decarbonisation ambitions.

Ethiopia will host COP32 in 2027 in Addis Ababa. For carbon management stakeholders, COP32 will likely emphasise climate finance accessibility for developing countries, technology transfer under TIP provisions, African perspectives on just transition, and integration of nature-based and geological carbon storage approaches.

Recommendations and Watch Points for 2026-2028

Looking ahead to COP31 and the 2026–2028 implementation cycle, several areas may warrant continued attention:

1. Follow developments under Article 6, especially methodology work relevant to carbon management, as the Supervisory Body continues refining rules.
2. Monitor how countries operationalise carbon management-related elements in their updated NDCs, including any emerging targets, investment frameworks, or enabling policies.
3. Track the evolution and clarifications around the TIP, which could become a channel for capacity-building and support for carbon-management technologies, by engaging with the the programme design phase to ensure carbon management technologies are explicitly recognized in eligibility criteria and that the specific technical requirements for geological storage are understood.
4. Watch for emerging expectations under the Just Transition Work Programme, including workforce planning, skills development, and community inclusion in decarbonization, especially where CCS or industrial transformation is involved.
5. Evaluate how existing and forthcoming MRV/reporting frameworks, such as under the Enhanced Transparency Framework (ETF), might incorporate carbon management project data, ensuring accountability and credibility of carbon removal and storage efforts moving forward.

Collectively, these areas illustrate where carbon management stakeholders may find useful entry points as the post-Belém implementation phase develops.

ANNEX 1 : CARBON MANAGEMENT IN CURRENT NDCS

#	COUNTRY	NDC YEAR	CONTEXT
1	*Australia*	2025	Via the Net Zero Plan.
2	*Azerbaijan*	2025	Explicitly part of mitigation actions.
3	*Bahrain*	2025	Explicitly part of mitigation actions.
4	*Botswana*	2024	Promoting CCS for clean coal.
5	*Brazil*	2024	CCUS in bioenergy and fossil fuels sectors.
6	*Canada*	2025	Explicitly part of mitigation actions with CDR.
7	*Cambodia*	2025	Retrofit existing coal plants.
8	*China*	2025	Via national climate policies.
9	*Egypt*	2023	Via Low Carbon Roadmap.
10	*El Salvador*	2025	Explicitly part of mitigation scenarios.
11-37	*EU-27*	2025	Via the Net-Zero Industry Act, mainly hard to abate sectors, removals for global net negative emissions.
38	*Iceland*	2025	Supports CCS with focus on EU-ETS industries.
39	*Iran*	2015	Explicitly part of mitigation actions.
40	*Japan*	2025	CO_2 transport and storage.
41	*Kazakhstan*	2025	Explicitly part of mitigation actions and through Article 6.
42	*Kuwait*	2021	Explicitly part of mitigation actions.
43	*Malawi*	2022	Support industries developing CCS and deployment in sub-critical coal power stations.
44	*Malaysia*	2025	Legal framework to enable CCUS for long-term decarbonisation.
45	*Mexico*	2025	Promote actions for CCUS.
46	*Morocco*	2025	Via Industrial Decarbonisation Roadmap.
47	*Nigeria*	2025	Adoption after 2035.
48	*Norway*	2025	Financial support for CCS.
49	*Oman*	2025	Explicitly part of mitigation actions.
50	*Pakistan*	2025	CCUS pilots.
51	*Qatar*	2025	Explicitly part of mitigation actions.
52	*Rwanda*	2025	Informed by the global stocktake.
53	*Russia*	2025	Via the Energy Strategy.
54	*Saudi Arabia*	2022	Explicitly part of mitigation actions.
55	*Singapore*	2025	Invest in and foster international cooperation on CCUS.
56	*Switzerland*	2025	NZE target by 2050, net-negative thereafter, underscoring CCS in hard-to-abate sectors.
57	*Thailand*	2025	Exploring and evaluating feasibility of CCUS.
58	*Togo*	2021	Developing CCS.
59	*United Arab Emirates*	2024	Explicitly part of mitigation actions.
60	*United Kingdom*	2025	Explicitly part of mitigation actions.
61	*United States**	2024	Explicitly part of mitigation actions.
62	*Uruguay*	2024	Studies to analyse capture of CO_2 in cement.
63	*Vietnam*	2022	Engage in international cooperation on CCS R&D, specifically coal power/heavy industry.
64	*Zambia*	2025	Informed by the global stocktake.

*Withdrawal from the Paris Agreement takes effect 27 January 2026.

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