GLOBAL CCS INSTITUTE

INSIGHT

CARBON MANAGEMENT IN AN ERA OF CLIMATE IMPLEMENTATION

INSIGHTS FROM BONN AND THE ROAD TO COP31

NOORA AL AMER
Senior Global Advocacy Lead

JULY 2026

CONTENTS

Audience: This Insight paper is intended for policymakers, industry, finance, research and climate stakeholders seeking to understand what the Bonn discussions mean for carbon management and what should be prepared ahead of COP31.

Definition: In this paper, carbon management refers to carbon capture and storage (CCS), including CCUS where utilisation delivers durable storage or a verifiable climate benefit, and engineered carbon dioxide removal (CDR). The report uses carbon management as the umbrella term and refers to CCS or CDR where the distinction matters. For more information, *see Factsheet: Carbon Management and the Paris Agreement.*

Note: This report refers to Party positions as expressed through *negotiating groups* where relevant. UNFCCC Parties often negotiate through groups that reflect shared interests or circumstances, although individual Parties may also intervene separately.

EXECUTIVE SUMMARY

International climate governance is entering a more practical phase. After years spent building the Paris Agreement architecture for ambition, transparency and accountability, the central question is now how national commitments can be implemented, financed and monitored. At the *Bonn Climate Change Conference,* comprising the 64th sessions of the Subsidiary Bodies, United Framework Convention on Climate Change (UNFCCC) Executive Secretary Simon Stiell framed this phase around three priorities: improving the efficiency of the process, delivering mandated outcomes and strengthening the *Global Climate Action Agenda* as a vehicle for implementation.

For carbon management, this shift is important because the enabling conditions that will influence the scale and credibility of deployment are increasingly being discussed across several parts of the climate process. Mitigation discussions are placing greater attention on industrial delivery; NDCs can provide clearer signals for investment and project preparation; Article 6 and transparency processes are testing market integrity, accounting and reporting systems; the IPCC's forthcoming methodology work will be relevant to national inventory treatment of CDR and CCS; and discussions on technology, finance, just transition, response measures and trade are all shaping the wider policy environment in which projects may move from policy reference to bankable deployment.

The wider context also matters. As climate issues become harder to advance through influential political and economic forums such as the G7 and G20, the UNFCCC, COP Presidency initiatives and voluntary cooperation channels are becoming more important as connected spaces for delivery in a diminished political landscape.

The road to COP31 therefore requires the carbon management community to connect formal negotiating work with voluntary implementation channels. The practical test is whether carbon management can support credible national transition strategies, measurable emissions reductions, durable removals, shared infrastructure, transparent accounting and public trust.

Key takeaways and action items for the carbon management community

- **Translate NDC references into delivery plans:** Where countries reference carbon management, support the next layer of detail: priority sectors, storage assessment, regulatory frameworks, MRV systems, finance pathways and project pipelines.
- **Bring evidence into the Mitigation Work Programme and GST2:** The industry focus creates an opening to show where CCS and CDR are relevant, what barriers remain and what forms of policy and finance support are needed.
- **Engage Article 6 and transparency work early:** Carbon management activities will need strong host-country systems, clear authorisations, robust accounting, lifecycle analysis, permanence arrangements and monitoring over time.
- **Use technology support as a bridge to finance:** Technical assistance should be structured around project preparation, including storage data, permitting, feasibility studies, commercial models and MDB engagement.
- **Frame deployment through transition, trade and development realities:** Credibility will depend on sectoral need, secure storage, measurable emissions outcomes, safeguards, community confidence, jobs, competitiveness and national circumstances.
- **Work through the Action Agenda, Carbon Management Challenge and emerging Presidency initiatives:** These channels can help organise coalition-based support, especially for developing countries moving from early interest to bankable projects.

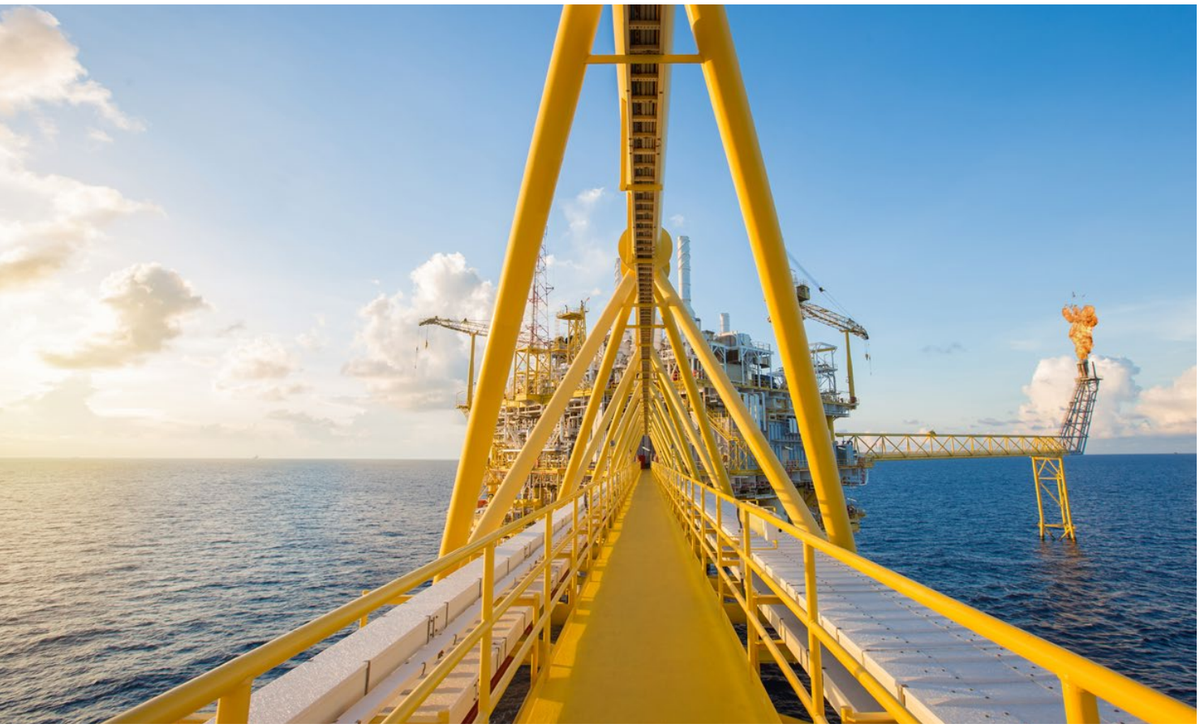
1.0 THE BONN SIGNAL ON IMPLEMENTATION

Bonn rarely produces headline political agreements. Its role is to refine negotiating text, advance mandated work programmes and prepare decisions for the next COP. SB64 fulfilled that function, but it also showed how far the climate process has moved from negotiating the broad architecture of the Paris Agreement towards testing the institutions and partnerships needed for delivery.

The Paris Agreement, completion of the Paris Rulebook and first Global Stocktake answered many of the earlier diplomatic questions: what countries should communicate, how progress should be measured and how ambition should be strengthened over time. The harder question now is whether those commitments can be implemented in real economies, with the finance, infrastructure, regulation and public confidence required to change investment decisions.

Carbon management sits within this implementation agenda. Its relevance in the UNFCCC is not confined to a single technology discussion. It appears where industrial decarbonisation, Article 6, national planning, technology cooperation, finance, transparency and transition impacts intersect. The future role of carbon management will therefore depend less on general recognition in climate pathways and more on whether it is integrated into credible policy frameworks, project development systems and accounting rules.

This is also why the implementation ecosystem beyond the negotiating rooms matters. The Global Climate Action Agenda, proposed *Global Implementation Accelerator*, *Belém Mission to 1.5*, *transition-away-from-fossil-fuels initiative*, the *Carbon Management Challenge* and Regional and City Climate Weeks, including Yeosu and London, are becoming ever more important channels for organising practical cooperation, testing investable models and linking the formal UNFCCC process with the institutions that determine whether projects proceed.



2.0 CARBON MANAGEMENT ACROSS THE BONN NEGOTIATIONS

Mitigation and industrial delivery

Industry is the 2026 theme of the Sharm el-Sheikh *Mitigation Ambition and Implementation Work Programme* (MWP), making it one of the few formal spaces where hard-to-abate sectors were discussed in detail. Negotiations focused on the future of the programme and whether it should continue beyond COP31, but Party interventions also revealed a practical concern: the programme has not yet done enough to connect mitigation opportunities with project preparation, investors, technical experts and bankable outcomes.

That matters for carbon management. The *seventh global dialogue report* from *UNFCCC Climate Week in Yeosu* referenced CCUS in hard-to-abate sectors, shared CO_2 transport and storage infrastructure, industrial clusters, infrastructure gaps and robust MRV. If the MWP continues and becomes more delivery-oriented, it could provide a useful forum for discussing the conditions needed for industrial carbon management, including project pipelines, shared infrastructure, investment barriers and enabling policy.

NDCs and the second Global Stocktake

NDCs were not only a mitigation issue in Bonn. They were also a question of investment clarity. For companies, investors and project developers, a headline target is not enough. Practical delivery depends on priority sectors, expected technologies, enabling policies, infrastructure requirements, financing routes and timelines. Without that detail, NDCs can set direction without giving the market enough confidence to develop projects.

More than 60 countries reference CCS, CCUS or CDR in NDCs in some form. *The 2025 NDC synthesis report* identified carbon capture targets amounting to 39 $MtCO_2$ per year by 2035, alongside references to DACCS and BECCS measures. That figure sits alongside a wider deployment picture, including approximately 64 $MtCO_2$ per year of operational CCS capacity identified in the Global CCS Institute's 2025 *Global Status Report.* The comparison suggests that NDCs do not always reflect the full extent of domestic policy, industrial strategy and project activity. In some countries, NDCs lead implementation; in others, implementation activity is ahead of NDC language.

India's updated NDC is a useful example of the direction of travel. It is the first time CCUS has appeared in India's NDC, where it is included among mitigation activities that may be considered under Article 6 cooperation and is linked to the country's broader low-emissions development pathway. The important question is now whether such references are translated into practical signals: priority sectors, storage and transport planning, regulatory frameworks, MRV systems and financeable opportunities.

GST2, which begins at COP31, could reinforce this shift from recognition to evidence. After the first GST recognised abatement and removal technologies, including CCUS in hard-to-abate sectors, the second Stocktake can help assess whether countries have the policy signals, finance, infrastructure, MRV systems and project pipelines needed for deployment. Business and investor input will be important if GST2 is to understand barriers to implementation rather than only aggregate emissions outcomes.

Article 6, transparency and methodology

At SB64, Article 6 discussions continued to move from rulemaking towards operationalisation. Under Article 6.2, Parties focused on the systems needed for cooperative approaches, including authorisation, registries, technical expert review, capacity-building and funding for Article 6 infrastructure. Developing countries stressed that participation should not be limited by cost, complexity or weak institutional capacity.

For carbon management, these issues are technically demanding. CCS-linked mitigation and engineered removals will need host countries to authorise activities, apply corresponding adjustments where required, track transfers and report outcomes clearly. They will also need to address permanence, reversal risk, lifecycle emissions, storage monitoring and liability. Article 6.4 raises related questions through the ongoing work of the Supervisory Body on methodologies, removals, monitoring and accountability. Credibility will depend on evidence that CO_2 has been captured or removed, stored securely, monitored over time and accounted for consistently.

The Enhanced Transparency Framework and the Intergovernmental Panel on Climate Change's forthcoming *2027 Methodology Report on Carbon Dioxide Removal Technologies and Carbon Capture, Utilization and Storage* for National Greenhouse Gas Inventories are therefore highly relevant. As countries reflect carbon management in plans, inventories and reports, they will need more consistent treatment of captured, transported, utilised, stored and removed CO_2, especially where activities involve cross-border movement, Article 6 transfers or different categories of removals.

Technology, finance and project preparation

Technology discussions in Bonn addressed a core issue for developing countries: how to move from identifying a technology need to preparing a project that can attract finance. The *Technology Mechanism* is demand-driven. Countries need to identify carbon management as relevant to their national circumstances, reflect that through national processes and submit requests that can become *technical assistance.*

The most consequential discussion concerned the link between the Technology Mechanism and the Financial Mechanism. Technical assistance can support capacity-building, enabling frameworks and project concepts, but it does not provide deployment capital. Early-stage carbon management work often sits well before final investment decision: storage resource assessment, source mapping, regulatory design, permitting, MRV systems, feasibility studies, commercial structuring and engagement with financiers. Better linkage with finance could help countries move from technical assistance towards bankable concepts.

Finance remained the hardest political issue at Bonn. The new *Climate Finance Work Programme* exposed familiar divisions over developed-country obligations under Article 9.1 and the wider finance architecture, while the Veredas Dialogue focused on aligning financial flows with low-emission, climate-resilient development under Article 2.1(c). For carbon management, the point is practical: CCS and CDR projects are capital-intensive, infrastructure-heavy and exposed to long-term policy risk. Public finance, concessional support and risk-sharing will be especially important in emerging and developing economies, while private finance will depend on clearer revenue models and credible policy frameworks.

Just transition, response measures and trade

The *Just Transition Work Programme* remained difficult, including debates on its review and the possible operationalisation of a just transition mechanism. For carbon management, the relevance lies in the industrial dimension of transition. Decarbonising cement, steel, chemicals, refining and other emissions-intensive sectors is not only a technology question. It affects employment, regional economies, competitiveness, trade exposure, environmental safeguards and development strategies.

This framing requires care. Some Parties remain cautious about technology discussions that appear to prescribe pathways, shift burdens onto developing countries or prolong fossil fuel production without clear sustainable development outcomes. Carbon management will be most credible where it is tied to specific sectors, measurable emissions reductions, workforce and regional impacts, environmental safeguards, air and water considerations and the national circumstances of the countries concerned. The *Impact on the implementation of response measures* agenda reinforces the same point: industrial decarbonisation cannot be separated from economic structure, diversification and the impacts of mitigation policies on developing countries.

The first *UNFCCC Dialogue on Trade and Climate* brought these issues into sharper geopolitical focus. Developing-country groups raised concerns about unilateral trade-related climate measures, including carbon border measures, due diligence requirements and product standards. Developed countries often framed trade as an enabler of clean technology deployment and Paris implementation. For carbon management, trade matters because lower-emissions steel, cement, chemicals, hydrogen, ammonia and refined products will depend on credible embedded-emissions accounting. Where CCS reduces production emissions, trade systems will need robust MRV and comparable treatment of emissions reductions across different production routes.

3.0 IMPLEMENTATION BEYOND THE NEGOTIATING ROOMS

Alongside the formal agenda, Bonn showed a more structured approach to voluntary implementation. The Global Climate Action Agenda is being organised around thematic axes, key objectives and Activation Groups designed to coordinate existing initiatives, demonstrate solutions and develop plans through to the end of the current Global Stocktake cycle. For carbon management, this creates a clearer route into the wider climate process. The CMC is included in Activation Group 2 on zero and low-emission technologies in hard-to-abate sectors, placing carbon management within the Action Agenda's industrial decarbonisation work alongside initiatives on steel, cement, hydrogen, aviation, shipping and industrial transition.

The proposed Global Implementation Accelerator is another relevant channel. Developed by Brazil, Türkiye and Australia under the guidance of the COP30 and COP31 Presidencies, it is intended to help countries implement NDCs and national adaptation plans by selecting high-impact solutions from the Action Agenda and linking them with finance, technology, capacity-building and implementation partners. In Bonn, AOSIS called for measurable outcomes and transparent tracking, the LDCs stressed keeping 1.5°C within reach, the LMDCs emphasised that the initiative should remain Party-driven and voluntary, and the Arab Group highlighted solutions that have received less international support, including CCUS and CDR.

The Belém Mission to 1.5 is similarly relevant because it seeks to identify high-impact opportunities, barriers and practical solutions for NDC and NAP implementation, international cooperation and investment, with a report expected ahead of COP31. These Presidency-led initiatives are not substitutes for negotiation. Their value is in creating delivery routes where coalitions can organise practical support around finance, project readiness, capacity and sectoral implementation.

The commitment to transition away from fossil fuels in energy systems is a parallel and politically sensitive context. The UAE Consensus placed that commitment alongside language on accelerating zero- and low-emission technologies, including abatement and removal technologies such as CCUS, particularly in hard-to-abate sectors. The Santa Marta conference co-hosted by Colombia and the Netherlands showed that countries are now exploring practical cooperation on national and regional roadmaps, financing barriers, labour transitions and fossil fuel-related trade. For carbon management, the test is whether deployment supports credible transition pathways, measurable emissions reductions and engineered removals rather than weakening the signal for deep emissions cuts.

London Climate Action Week (LCAW), held shortly after Bonn, provided a practical counterpart to the negotiations and reflected the growing importance of city-based, investor-facing and cross-sector platforms in the climate implementation landscape. For carbon management, it offered a useful setting to connect discussions on policy, finance, infrastructure and public confidence with the practical conditions needed for deployment. The week also unfolded against the backdrop of a severe heatwave across the UK and Europe, giving discussions a more immediate connection to the climate risks already affecting public health, infrastructure, investment and communities.

4.0 GROUNDING CARBON MANAGEMENT FOR COP31

The wider signal from Bonn is that the road to COP31 will depend on both negotiated outcomes and delivery-focused initiatives. The priority now is to connect these formal and voluntary channels so that countries, investors and other stakeholders have a clearer understanding of where carbon management is relevant, what enabling conditions are needed, and how deployment can be made accountable.

This is important because the carbon management debate often falls into two weak framings. The first treats carbon management as a broad climate solution without enough attention to the specific sectors where it may be needed, or to the practical conditions that determine whether projects can succeed, including geology, infrastructure, energy and water systems, regulation and public trust. The second treats carbon management mainly as a contested technology category, without recognising that some countries and sectors are already moving towards deployment and therefore need credible rules, finance, safeguards and implementation support.

A credible COP31 agenda should hold both realities together. Carbon management should be positioned as part of wider efforts to deliver deep emissions reductions and, where appropriate, durable engineered removals. At the same time, its use must be governed by transparent accounting, robust MRV, secure storage, measurable outcomes, environmental safeguards and national circumstances. The implementation agenda beyond Bonn will matter most where it helps turn policy references into outcomes that can be measured, financed and trusted.

PRACTICAL CHECKLIST FOR COP31

- **For governments.** Clarify whether carbon management is relevant to national circumstances and, where it is, identify priority sectors, storage options, regulatory needs, public engagement requirements and potential finance routes.
- **For industry and project developers.** Bring forward evidence on project readiness, emissions sources, CO_2 transport and storage needs, expected costs, permitting timelines and the policy signals required for final investment decisions.
- **For finance and development partners.** Move earlier into the project cycle by supporting feasibility studies, storage appraisal, risk-sharing instruments, concessional finance and aggregation models that can turn early concepts into investable opportunities.
- **For technical and research organisations.** Support transparent MRV, lifecycle accounting, storage confidence, permanence approaches and clear distinctions between emissions reductions, avoided emissions and removals.
- **For coalitions.** Use voluntary cooperation to match country needs with practical support, especially on developing-country project preparation, storage assessment, regulation, Article 6 readiness and finance mobilisation.
- **For communicators and conveners.** Keep the framing grounded in climate impact, industrial transition and public trust, avoiding generic claims and showing where carbon management can deliver measurable outcomes with appropriate environmental safeguards.

Global CCS Institute
Level 23, Tower 5,
727 Collins Street
Docklands VIC 3008 Australia

globalccsinstitute.com