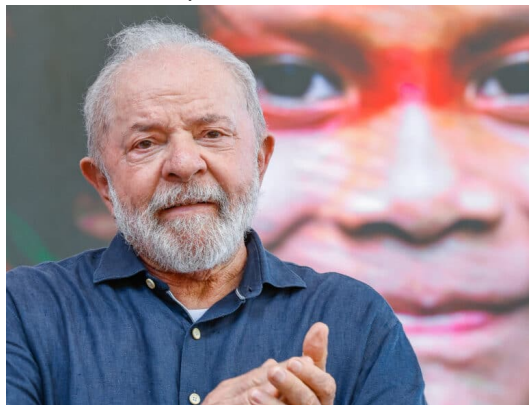


Entrenching a new era of climate colonialism: Carbon Dioxide Removal, carbon markets and Nature Based Solutions at COP30

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As the world turns its attention to Brazil for COP30, the United Nations Framework Convention on Climate Change (UNFCCC) once again faces scrutiny regarding its legitimacy, equity, and effectiveness. Despite grand rhetoric about transformative climate ambition, the process remains mired by unequal financialization processes and corporate capture.

This is visible in the shortcomings of the Tropical Forest Forever Facility (TFFF) that aims to launch yet another ineffective and unequal financialized portfolio, the COP30 Presidential Action Agenda's focus on voluntary partnerships over enforceable fossil fuel reductions, and Brazil's proposal for a new Open Coalition for Carbon Market Integration, all of which threaten to entrench financialized profit-making and speculative offset schemes rather than drive real emission cuts at source.

In June, Ana Toni, the CEO of COP30 and Brazil's National Secretary for Climate Change, stated that Brazil did not oppose carbon credits but warned that countries should not over-rely on buying carbon credits to meet climate targets. In an about-face, weeks before hosting the COP30, the Brazilian Ministry of Finance announced a proposal to establish a new Open Coalition for Carbon Market Integration.

The voluntary coalition will form part of the New Brazil – Ecological Transformation Plan, a strategy by the Brazilian government to use economic growth to legitimize extractive practices in the name of sustainability. The Open Coalition for Carbon Market Integration aims to link existing global carbon credit trading systems to boost the sector, sending a signal to the implementation process of the Paris Agreement's market-based climate mitigation efforts, which fall under Article 6.

As the implementation process of Article 6 carbon market mechanisms looms, key components of Article 6 at COP30 deserve further scrutiny, including: the upcoming opaque Article 6.2 Ambition Dialogue, the new standard on non-permanence and reversals under Article 6.4, and the corporate-heavy Carbon Dioxide Removal (CDR) Pavilion. This article will explore these fault lines and highlight key flashpoints at COP30 where the integrity of international climate ambition long lost its moral compass.

Implementing Article 6: What's at stake in Belém?

At COP30 in Belém, the agenda around Article 6 will shift increasingly from rule-setting to implementation and showcasing. The overarching rules for Article 6.2 and 6.4 are largely in place, but many technical and methodological details remain. Article 6 proponents will aim to convince attendees of the integrity of the emerging Article 6 markets to push for a drive toward actual trades and transfers of Internationally Tradable Mitigation

Outcomes (ITMOs), and to claim Article 6.4 compliance credits are ready to test in a “real-world” global market, while several Parties will insist that Article 6 trades must be implemented fast to make up for the shortfall in climate finance.

Article 6.2: Bilateral carbon trading will place the burden of climate ambition onto the South

Article 6.2 of the Paris Agreement concerns bilateral agreements between countries, such as through Reducing Emissions from Deforestation and Forest Degradation (REDD+) or CDR projects, used to meet a country's Nationally Determined Contribution (NDC) through trading ITMOs.

Bilateral announcements from Parties eager to showcase their political will to jumpstart Article 6 markets will be highlighted at this COP in pavilions, side events, and other spaces. Bridging NDCs with carbon trading is particularly relevant to COP30 because renewed NDCs are now due. Mandated by the Paris Agreement, NDCs are to be updated every five years, with 2025 being a crucial year for NDC re-ups. If a Party intends to use Article 6 trades to meet their NDCs, this will be a year to read the fine print in NDCs to see how a Party intends to calculate their commitments (or cover up any lack thereof).

The Article 6.2 framework effectively separates both buyers and sellers from the long-term risks tied to extraction, reinforcing existing global inequities. The system assigns liability elsewhere — or reduces it to token ITMO trades — leaving frontline communities to shoulder the genuine ecological, cultural, and social consequences when things go wrong. Polluters continue to pollute, while something somewhere else is supposed to compensate.

There will not be Article 6.2 negotiations at COP30. However, the governing body of the Paris Agreement (the CMA) requested that the UNFCCC secretariat organize a dialogue in conjunction with the Subsidiary Body for Implementation (SBI). The second dialogue will take place at COP30 in a two-day Article 6.2 Ambition Dialogue on the **10th and 12th of November** in order to “accelerate implementation”.

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- Efforts to speed up roll-out through the Article 6.2 Ambition Dialogue
 - Increased bilateral carbon trading announcements between Parties
 - Inclusion of REDD+ projects and Carbon Dioxide Removals (CDR) infrastructure scale-ups in NDCs and bilateral agreements instead of emissions reductions at source
 - Climate finance mobilized via carbon markets
 - Technical Expert Reviews (TERs) are another area to question into 2026, including interpreting the rules on significant or persistence inconsistencies and High Forest Low Deforestation (HFLD) requirements below business-as-usual baselines.

Article 6.4: Rules and standards are getting weaker and weaker

Article 6.4, officially termed the Paris Agreement Crediting Mechanism (PACM), is the UN-run carbon offset platform set to replace the Clean Development Mechanism (CDM) of the Kyoto Protocol.

Although negotiations for Article 6 carbon trading mechanisms are finalized, several remaining technical rules and standards of Article 6.4 are ongoing through the Article 6.4 Supervisory Body, and will likely be addressed at COP30 and throughout 2026.

The Article 6.4 Supervisory Body has been busy this year working on PACM registration and preparatory processes including: the designated national authorities (DNAs) registration, methodology approvals, the building of the PACM registry, the Appeal and Grievance Mechanism (AGM) rules and body, and various standards, ongoing Methodology Expert Panel (MEP) work, and first issuance. After several ongoing delays, the full operational PACM is now expected sometime in 2026.

A key outstanding contention is the Article 6 non-permanence and reversal standard. The Article 6.4 Supervisory Body conditionally approved the draft non-permanence and reversal standard on October 10th following a four-day meeting in Bonn, Germany, drawing strong criticism for entrenching weak assumptions about the long-term stability of carbon storage in land-based sectors. Far from ensuring environmental integrity, the latest non-permanence and reversal standard provides excessive flexibility, vague risk definitions, and inadequate monitoring requirements that mask reversal risks.

The new non-permanence and reversal standard is a weakened version of the former draft standard. The previous version included indefinite monitoring obligations with technical recommendations the land-based CDR industries did not like. However, the decision to relax permanence requirements weakens the scientific and technical guidance put forward by the Methodological Expert Panel (MEP), the advisory panel within the Article 6.4 Supervisory Body responsible for developing these standards.

According to the MEP recommendations, stricter rules would have applied to so-called Nature Based Solutions (NBS), including initiatives like afforestation, soil carbon storage, and mangrove restoration. However, the new standard replaces the MEP recommendations with an incoming risk assessment tool, elaborated buffer-pool accounting, case by case monitoring periods and, controversially, third party insurance or guarantees recognized by proponents as valid safeguards. The buffer-pool functions like an emergency fund, whereby certain trades will pay a percentage into the buffer pool fund. The money can later be made available to pay for losses such as forest fires and other reversals. The trades will also see an increase in insurance companies looking to turn a profit.

According to the UNFCCC, *“At COP30, under CMA agenda item 15(b), countries will consider the Supervisory Body’s annual report to the CMA and can respond to the recommendations from the Body and provide additional guidance on the operation of the mechanism.”* Keep an eye on the blue boards for potential CMA negotiations. In addition, the Secretariat of Article 6.4 usually hosts an open side event.

Nature Based Solutions (NBS): Permanence in Nature is Fleeting

The new weakened version of the non-permanence and reversal standard backs the polluting industries’ illogic of *“once credits are issued, we’ve locked in the carbon.”* But this argument withers when a rainforest—that took centuries to accumulate biomass—can be lost in one season. Crucially, the credit system detaches the seller and buyer from the risk, entrenching global inequality. From a climate justice perspective, this is troubling: many NBS projects are located in the Global South and on Indigenous Peoples’ lands, where the land connection assumes long-term reciprocal relationship and survival. Yet, liability is placed elsewhere or limited to mere “buffers,” shifting the final responsibility onto communities who carry the real ecological, cultural, and social risks. The standard is crucial for NBS because forests, oceans, and mangroves may be destroyed by political changes, wildfires, pests, drought, or land-use shifts after credit issuance.

Moreover, the standard can perpetuate inequities by enabling polluting industries to buy “cheap” NBS credits while Indigenous Peoples, women, and local communities risk reversals and ecosystem collapse. When a forest project in a tropical region fails due to climate impacts or insufficient local governance, the communities may suffer the loss of livelihoods, biodiversity, and ecosystems, while the offset buyer has already counted their credits and moved on. The standard does little to guarantee meaningful Free, Prior and Informed Consent (FPIC) and/or participation of communities in decision-making, nor does it ensure the crediting scheme allocates risk and benefit equitably.

Further, the new non-permanence and reversal standard ignores the research and ongoing warnings of governance gaps, unclear accountability and unintended trade-offs, and the serious consequences that ensue when projects are scaled. The October meetings produced a new standard, but many of the most contentious issues remain unresolved, including differentiation by activity type, monitoring/termination periods, risk thresholds, buffer-pool accounting, the role of insurance providers and liability models.

Engineered Removals: CDR gets its own pavilion at

COP30, as well as a slice of the Article 6 pie

Geological carbon storage through Carbon Capture and Storage (CCS) is presented as secure, but real-world evidence demonstrates that long-term containment is unlikely: leakage, pressure migration, and incomplete monitoring remain unresolved. For Biomass with CCS (BECCS), these problems multiply because feedstocks are tied to volatile land systems vulnerable to fire, soil loss, and climate impacts, as explained in the section above, creating a chain of impermanence from plantation to injection well.

By allowing short or undefined monitoring periods and leaving liability diffuse, the new non-permanence and reversal standard risks legitimizing credits with lifespans far shorter than the emissions they claim to offset. Therefore, Article 6.4 will become a vehicle for accounting fiction, one that obscures emissions rather than reducing them, and at the same time, allows corporations mostly located in the Global North to turn a bigger profit.

In order for big energy, big oil, big ag, and big conservation to secure the big funds for CDR infrastructure via Article 6 carbon markets, the first ever CDR Pavilion will be showcased at COP30. Several countries have made their own new policies to release public funds into building up CDR infrastructure. The industry-backed pavilion is set to push a dangerous message that scaling up CDR is essential to correct the planet's recent warming overshoot.

Key Flashpoints:

- CMA negotiations including recommendations on the new non-permanence and reversal standard
- The UN Article 6.4 Secretariat and the Supervisory Body of Article 6.4 (SBM) usually host a side event
- Information being divulged on the appeal and grievance process
- PACM as a climate finance tool, and how large-scale grid connected hydroelectric dams and REDD+ processes will be integrated into it
- The fact that tree plantations are labeled as Agriculture, Forestry, and Other Land Use (AFOLU) in PACM
- Debates around removals at the CDR Pavilion, and the extent to which CDR will take center stage in Just Transition negotiations

CDM Transition: What Happened to the CDM Fund and Where Will the Money Go?

Several CDM projects have already requested transitions into PACM. However, there are ongoing concerns over the legacy of CDM as the integrity of the CDM remains low (for more detail on this issue, see here). Several projects aiming to transition to the PACM come with questionable additionality concerns, which threaten the optics of the PACM. For example, large grid-connected hydroelectric dams (regarded as renewable energy) remain on alert.

Beyond the lack of integrity of the CDM, the key negotiating points revolve around when the CDM will end and how to use the remaining CDM trust fund resources estimated in the US30 million dollar range. Several party blocks including the Africa Group of Nations (AGN) and the Alliance of Small Island States (AOSIS) continue to argue for the remaining funds to be transferred to the Adaptation Fund, while countries, mostly in the Global North, argue the money should be used to build the PACM. It is no surprise that the members of the EU, Norway and Switzerland argue for PACM to receive the funds because that is where the PACM is being built, and by many of the same CDM architects.

Key Flashpoints:

- The integrity of CDM projects that are transferred to PACM
- Getting to the bottom of how much money is really left in the CDM fund, what has happened to it in recent months, who is accountable for it, and whether it will go to the Adaptation Fund or to PACM
- Numerous questions remain on Party accountability

Conclusion: From bad to worse

As COP30 convenes in Belém, Article 6 has never looked more hollow. The upcoming global market for trading pollution rights is a false solution that rewards the biggest polluters on the planet and legitimates financial speculation while real-world emissions continue to rise. The push for new coalitions and carbon trading mechanisms only deepens financialization, turning the atmosphere into an accounting exercise rather than a shared responsibility.

The weaknesses in the non-permanence and reversal standard, the opacity of bilateral trades, and the prioritization of offsets over fossil fuel phase-outs are not technical flaws but political choices. They reflect a world still unwilling to confront the root causes of the climate crisis: extraction, inequality, power, and profit.

True climate ambition cannot be found in ever more elaborate market instruments. It lies in stopping emissions at their source, protecting ecosystems, upholding the rights of Indigenous Peoples, women, and communities, and ending the extractive systems that created the crisis in the first place. Without that shift, Article 6 risks entrenching yet another new era of climate colonialism.