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Strengthening the Paris Agreement Through Collective Decisions: Achievements and Limitations

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ABSTRACT

Due to its bottom-up architecture, the Paris Agreement succeeded in securing broad participation but remained vulnerable to challenges concerning both the adequacy of national mitigation commitments and their implementation. This paper assesses the extent to which Parties to the Paris Agreement have succeeded in ensuring the effective functioning of the Paris framework through their collective decisions. It analyses two dimensions: the operationalisation of the Paris mechanisms and rules and the coordination of national efforts in the areas of mitigation pathways and climate finance. The analysis shows that collective efforts to strengthen cooperation within the Paris framework have produced mixed results. Although negotiations led to the adoption of detailed and largely common rules in some areas, they also failed to ensure the comparability of NDCs and preserved transparency loopholes. Similarly, collective coordination of national mitigation policies and the mobilisation of climate finance have remained limited. The analysis of Parties' broader preferences regarding climate cooperation suggests that the main obstacle to strengthening the Paris framework through collective efforts lies in divergent views on collective coordination, national discretion and equity. While some outstanding rule-related issues may be addressed through upcoming review processes, persistent divergences among Parties are likely to constrain institutional reform.

1 | The Effectiveness of the Paris Agreement: Dimensions and Perspectives

The Paris Agreement, adopted under the United Nations Framework Convention on Climate Change (UNFCCC) in 2015, marked a turning point in global climate cooperation. It gradually emerged as a response to the political impasse at COP15 in Copenhagen in 2009 and deep dissatisfaction with the earlier global climate architecture (Barrett et al. 2015; Dubash and Rajamani 2010). The Agreement's design represented a renewed effort to reconcile the three cornerstone conditions of effectiveness in global climate regimes—universal participation, ambitious commitments and strong compliance—a challenge that

had long eluded both the UNFCCC and the Kyoto Protocol (Held and Roger 2018).

The Agreement's key institutional feature—its flexible pledge-and-review system—granted countries discretion in determining and implementing their commitments. This flexibility was instrumental in securing participation from major emitters, including the United States (Milkoreit 2019), and quickly achieving near-universal membership. It also underpinned the Agreement's robustness, even in the context of the first US withdrawal (Dijkstra, von Allwörden, et al. 2025). Yet, this high level of embedded flexibility has made it more difficult to achieve the other two criteria of effectiveness: high ambition and strong

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Policy Implications

- Collective decisions to operationalise the Paris Agreement over the past decade have established a common and relatively detailed framework, but persistent flexibility and deadlocks on certain provisions continue to undermine the coherence and comparability of Parties' commitments. Institutional reform beyond minor adjustments is constrained by entrenched divergences among Parties and the consensus-driven decision-making process.
- The potential for large-scale consensus-based decisions has largely been exhausted. Attempts to secure universal commitments on greater alignment of ambition risk repeated failure and may weaken the credibility of the Paris framework.
- The Paris Agreement remains the central framework for guiding global climate ambition, providing transparency and delivering limited resources (e.g., climate finance and technical assistance), but the focus of actual implementation remains uncertain.
- Parties should shift focus from pursuing ambitious consensus-based decisions to prioritising implementation, capacity-building and enabling conditions (e.g., finance, clean technology markets and international credits). Coalition-building, both within and outside the Paris Agreement, may offer a more effective path for advancing action.

compliance. While it remains premature to fully assess the Agreement's overall performance—given that the operationalisation of its rules unfolded gradually over the past decade, with some elements, such as Article 6, only recently put in operation—concerns are growing regarding its ability to deliver on its goals. The scope and ambition of many Parties' pledges fall short of the 1.5°C and even 2°C goal, and global emissions continue to rise, as confirmed by the first Global Stocktake (GST) at COP28 in 2023 (UNFCCC 2024a). Although many countries have adopted net-zero pledges by around mid-century, their implementation pathways remain fragmented and often inadequate (Climate Action Tracker 2025). Even procedural compliance is weakening, with only 64 updated Nationally Determined Contributions (NDCs) submitted before COP30 in 2025 (UNFCCC 2025).

The issues surrounding the Paris Agreement's effectiveness have inspired a growing body of scholarship. First, scholars have debated the potential effectiveness of the Agreement's novel approach to climate cooperation. Some argue that the bottom-up design reflects political realities, yet also caution that it may not deliver sufficient ambition or compliance (Bang et al. 2016; Keohane and Oppenheimer 2016). Other scholars adopt a more optimistic view, highlighting the potential of societal mobilisation and social pressure to drive positive outcomes (Dimitrov et al. 2019; Falkner 2016; Tørstad 2020). Second, the ambition of the pledged NDCs represents another crucial focus of analysis. Existing research indicates that the preparation of NDCs has been treated by most countries as a priority and has contributed to advancing national climate policy-making (Höhne et al. 2017; Röser et al. 2020). Nevertheless, it also highlights inconsistency between the aggregate ambition of the NDCs submitted to date and the collective mitigation goals, as well as implementation

challenges (Dubash 2025; Fransen et al. 2023; Peterson and Van Asselt 2026; Tørstad et al. 2025). Third, a strand of the literature evaluates the institutional design and capacity of the individual mechanisms of the Paris Agreement (Hermwille et al. 2019; Milkoreit and Haapala 2019; Raiser et al. 2020; Rouxel 2020; Weikmans et al. 2020). This body of work highlights several institutional weaknesses, including the absence of common features across NDCs, vague provisions for flexibility and the lack of a systematic review of individual pledges and their implementation.

Despite extensive discussion of the Paris Agreement's design and limitations, little attention has been given to how states have sought to improve its functioning and address inbuilt effectiveness deficits. Addressing this gap, the paper examines how Parties approached available options to enhance the Agreement's effectiveness during its operationalisation phase (2015–2025), directly reflecting on the central question of this special issue: How major international actors defend or transform international institutions in response to global challenges (Dijkstra, Liese, et al. 2026). The paper evaluates the extent to which Parties have succeeded in ensuring the effective functioning of the Paris framework by focusing on two dimensions: (1) the operationalisation and strengthening of the institutional rules and mechanisms of the Paris Agreement and (2) the collective coordination of national actions in the areas of climate mitigation and finance. This evaluation is based on a review of the existing literature and official documents, as well as information derived from interviews and a closed-door expert roundtable. In line with the approach adopted in this special issue, particular attention is paid to the broader preferences of selected UNFCCC Parties, which are also used to provide a partial explanation of the outcomes of the collective efforts analysed.

The structure of the paper is as follows. The next section outlines our analytical approach for studying the Parties' collective efforts to strengthen the Paris framework. The third section analyses the key dividing issues in positions of key Parties. The fourth and fifth sections analyse the operationalisation of the Paris framework and efforts to coordinate national policies in the selected areas. The sixth and final sections summarise our findings and discuss their broader implications.

2 | Collective Efforts to Strengthen the Paris Framework: An Analytical Approach

The goal of this paper is to assess to what extent Parties to the Paris Agreement have succeeded in ensuring the effective functioning of the Paris framework. This requires, in the first place, defining what constitutes such effectiveness. To do so, the paper relies on the well-known concept of the participation–ambition–compliance trilemma, which emphasises a core tension of international climate cooperation (Bang et al. 2016). The trilemma captures the difficulty of simultaneously securing broad participation by states, sufficiently ambitious mitigation commitments and the implementation of these commitments. The advantage of this perspective is that it captures core concerns shared across several theoretical approaches to international climate cooperation (IPCC 2023). The trilemma is most closely associated with collective-action approaches to climate governance, but it also

overlaps with political-economy perspectives concerned with domestic implementation constraints and, to a lesser extent, with transitions-oriented approaches focused on the capacity of institutions to progressively strengthen climate action over time. Equity-oriented approaches, by contrast, place greater emphasis on distributive justice and differentiated responsibilities, dimensions only partially captured by the trilemma.

The Paris framework is based on NDCs applicable to all Parties. This bottom-up architecture was designed primarily to secure broad participation by accommodating diverse national circumstances and political constraints (Dimitrov et al. 2019; Falkner 2016; Guérin and Tubiana 2025; Interview 2; Tørstad 2020). At the same time, the Paris framework remains vulnerable to challenges concerning both the adequacy of national mitigation commitments and their implementation (Bang et al. 2016; Keohane and Oppenheimer 2016). To compensate for its flexibility and the absence of a legally binding status of NDCs, the Paris Agreement established a set of institutional mechanisms intended to progressively strengthen ambition and implementation over time. These include the 5-year NDC cycle, the Enhanced Transparency Framework (ETF) and the GST.

To evaluate the extent to which Parties succeeded in ensuring the effective functioning of the Paris framework through their collective decisions, this paper analyses two dimensions of the framework. First, the paper examines the extent to which Parties succeeded in operationalising and strengthening the institutional mechanisms intended to progressively enhance ambition and implementation. The principal benchmarks of effectiveness in this dimension are the extent to which Parties managed to: (i) enhance the uniformity, comparability, clarity and transparency of NDCs through detailed guidance; (ii) establish a robust and sufficiently universal reporting system under the ETF; and (iii) create procedures through the GST capable of supporting the iterative strengthening of collective ambition over time. Second, the paper analyses the extent to which Parties succeeded in mobilising individual efforts through policy coordination, particularly through mitigation pathways and collective climate finance goals. Here, effectiveness gains are assessed in terms of whether collective decisions succeeded in strengthening coordination of national efforts and collective direction-setting.

In terms of data, the paper draws primarily on secondary literature and official documents. The secondary literature comprises relevant academic publications and professional (grey) literature. The document analysis focused primarily on 108 Earth Negotiations Bulletin (ENB) reports covering COPs 21–29, held between 2015 and 2024. In analysing the key issues identified in the paper, the ENB analysis was complemented, where relevant, by party statements and submissions to the UNFCCC, as well as technical papers, reports and notes prepared by the UNFCCC Secretariat. These additional sources were used to provide further context and insight into the debates surrounding each issue. Rather than being reviewed exhaustively, these documents were selected purposively on the basis of their relevance to the specific debates associated with each issue.

The ENB reports were subjected to qualitative content analysis using NVivo software. The analysis was guided by a predefined codebook derived from the three core dimensions—effectiveness,

democracy and robustness—of the conceptual framework underpinning the research project, whose results are presented in this special issue (Dijkstra, Liese, et al. 2026). In the first step, the analysis coded the positions of selected actors with regard to these three dimensions of the Paris framework. In the second step, we identified and selected those coded positions that were relevant to our two analytical dimensions.

These data were supplemented by information gathered through interviews with stakeholders and experts, as well as reflections from a closed-door expert and stakeholder roundtable discussion (see the List of Interviews and Events). Interview invitations were sent to approximately 40 stakeholders and experts selected from an initial pool of 140 contacts, including representatives of governments, international organisations and bodies, academia and non-governmental organisations. Geographically, the outreach covered EU institutions and member states, several AOSIS members, Australia, Brazil, India and Japan, alongside a number of other experts and NGOs. Despite this broad geographical outreach, the response rate was relatively low, with most responses coming from Europe-based stakeholders. The resulting interview data therefore exhibit a degree of European bias. However, given the primarily exploratory and complementary role of the interviews, they were not treated as a core source of evidence. The interviews were conducted online between March and July 2025 and followed a semi-structured format. They were based on a draft questionnaire shared with interviewees in advance and covered the issues discussed in Sections 4 and 5. The interviews were primarily intended to provide additional insights and contextual perspectives on these issues rather than to constitute a separate and comprehensive source of data.

The roundtable, held in Brussels in May 2025, provided an additional source of input and was primarily intended to test and discuss preliminary findings in the EU context, generate further insights and inform the development of policy recommendations. Participants were invited from the same pool of identified stakeholders, with a stronger focus on European and Brussels-based participants. Approximately 30 invitations were sent, accompanied by an agenda and tentative discussion points. The event brought together around 20 participants, both in person and online. Given that most participants were Brussels-based, the discussion was predominantly EU-centred. Several participants provided introductory remarks, and the discussion was conducted under the Chatham House Rule.

3 | Parties' Broader Preferences on Climate Cooperation

Before analysing the success of Parties in strengthening the Paris framework in Sections 4 and 5, we first examine the broader preferences they expressed during the negotiations in the UNFCCC since the adoption of the Paris Agreement. This exploration serves two purposes. First, it provides important context for the Parties' more specific preferences regarding the operationalisation of the Paris rules and policy coordination discussed in the following two sections. Second, these broader preferences can offer a partial explanation for the limited success of collective efforts—an issue to which we return in Section 6. In terms of actors, our analysis maps the positions of the European

Union (EU) and the United States as two key developed-country actors; the BASIC group (Brazil, South Africa, India and China) and the Like-Minded Developing Countries (LMDCs) as two major groupings representing emerging economies; and the Alliance of Small Island States (AOSIS) and the Least Developed Countries (LDCs) as coalitions representing vulnerable developing countries.¹

3.1 | Party-Driven Process Between National Discretion and Stronger Coordination

The Paris Agreement grants states discretion over the pace and scope of their actions, while expecting that progressively enhanced individual commitments will collectively achieve the Agreement's goals. Two main interpretations of this principle have emerged in post-Paris negotiations.

The first stresses progressively stronger coordination of national action, grounded in multilateralism to build collective ambition. This approach has been championed by the EU, reflecting its historically proactive stance on the Kyoto Protocol and its advocacy for a more top-down framework in Copenhagen (2009) (ENB, COP21#2, COP21#7; COP21#8; COP26#10; European Commission and Spain 2023; European Commission and Belgium 2024; Interviews 1 and 2). The EU is often supported by AOSIS and LDCs, who call for stronger commitments from major emitters, both developed and developing countries, clearer timelines for mitigation and a greater uniformity in NDCs and reporting (AOSIS and LDC Group 2020; AOSIS 2023).

The second interpretation, advanced by the USA and many developing countries of BASIC and LMDCs, stresses party-driven discretion. The USA long resisted stringent international targets, particularly if they did not apply equally to all major emitters, and insisted that agreements must not impose obligations beyond those set out in the UNFCCC to ensure domestic acceptability (ENB, COP29#3). Likewise, LMDCs and, particularly the BASIC, have defended a party-driven process to safeguard national discretion and emphasised that new obligations should not exceed the Paris Agreement's mandate. Amidst growing contestation of global climate governance, especially from the US Trump Administration, China presents itself as a defender of the Paris Agreement and multilateralism, while firmly asserting its national sovereignty (China 2023a, 2023b; Interview 2).

These contrasting interpretations—between sovereignty-driven discretion and coordinated multilateralism—constitute one of the core cleavages shaping post-Paris negotiations. These interpretations are closely linked to a second important cleavage rooted in differing understandings of equity, as many developing countries maintain that the same rules should not apply increasingly uniformly to developed and developing countries.

3.2 | Equity: Between CBDR-RC and Greater Responsibilities Based on Economic Development and Emissions

From signing the UNFCCC in 1992, developed countries accepted primary responsibility for reductions and pledged finance,

embedding the Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) principle (Heimann et al. 2024). The Paris Agreement reaffirmed CBDR-RC but replaced the UNFCCC's fixed Annex categories with self-differentiation, allowing Parties to define their own level of responsibility (Allan et al. 2023).² Although this discretion intended to facilitate gradually higher ambition, our analysis indicates that it has become a deep source of ambiguity and contention and that equitable implementation, rooted in the historic North–South divide, remains a central fault line in the Paris Agreement.

Many developed countries, particularly the EU, continue to acknowledge differences in countries' capacities and national circumstances while questioning rigid differentiation between developed and developing countries in light of evolving emissions patterns and capabilities (ENB, COP24#2). BASIC and other emerging economies now account for a large share of global emissions but have largely maintained their prior negotiating stances, characterised by increasing emissions and continued demands for finance and technology concessions, and occasionally act as effective veto players in UNFCCC negotiations. In response, some developed countries, such as the United States, Canada and Australia, have resisted a strict bifurcation of mitigation commitments between developed and developing countries and have emphasised the need for major developing-country emitters to undertake stronger mitigation efforts (ENB, COP27#Summary). This position continues to fuel disputes over fairness and responsibility. The BASIC, as a bloc and individually, consistently invokes CBDR-RC, framing efforts to dilute these distinctions as unjust. China defends CBDR-RC, criticising gaps in developed countries' finance and calling for capacity-based flexibility in reporting (China 2023a, 2023b; ENB, COP21#3; COP25#8). India likewise consistently stresses climate justice in COP outcomes (India 2022, 2023), whereas South Africa explicitly links national ambition to the provision of support (South Africa 2021).

LDCs and AOSIS, often aligned, continue to advocate CBDR-RC based on limited capacities and acute vulnerability to climate impacts (AOSIS 2022; AOSIS and LDC Group 2020; ENB, COP22#Summary, COP25#9, COP26#Summary, COP28#9, COP29#Summary). They consistently call for stronger and more stringent mitigation commitments, particularly from major emitters. They also condition their own ambition on the provision of adequate financial and technical support, although some of them have relatively high ambition levels in their NDCs not conditioned on support. In comparison to their economic weight, these groups have proven to be quite effective negotiators. Although often sidelined in tense negotiations between developed and BASIC countries, they have been successful in publicly calling out situations when their concerns were ignored.

4 | Improving the Process of Ambition Setting, Reporting and Review

Negotiations over the past decade have focused on operationalising the foundation of the framework established by the Paris Agreement by making it functional, transparent and coherent. A large part of the rules was codified in the 2018 Paris Rulebook, yet many issues remained outstanding, addressed in subsequent decisions or left in deadlock.

4.1 | Ambition Setting (NDC Guidance)

After the adoption of the Paris Agreement, Parties were tasked with developing further guidance on three core NDCs elements: (i) common features of NDCs, (ii) information to ensure clarity, transparency and understanding (ICTU) to make NDCs comparable and (iii) guidance on accounting and tracking progress. Together, these aimed to provide transparency and comparability of Parties' ambitions, while clarifying procedural requirements.

Negotiations from 2016 to 2018 exposed the key dividing line over national discretion in NDC formulation. Developed countries, including the EU, United States and Canada, advocated concrete NDC features to enhance comparability, transparency and overall coherence (COP22#Summary; COP24#Summary; Rajamani and Bodansky 2019: 1029). Many developing countries, particularly LMDCs, including China and India, defended full national sovereignty over the NDC content, viewing 'common features' as a violation of the Paris Agreement's bottom-up nature. China, in particular, supported ambition and transparency only when consistent with party-led control, firmly resisting any dilution of CBDR-RC or expansion of institutional burdens (ENB, COP21#3). As a result, by 2018, NDC features remained in deadlock; the Paris Rulebook reiterated existing provisions in the Paris Agreement (e.g., ambition, clarity, progression) without further elaboration. The decision was to resume talks at CMA7 (which turned to be CMA6 due to cancellation of COP in 2020) in 2024, which did not result in any progress (UNFCCC 2024b). Negotiations on NDC features continue, with limited prospects for bridging entrenched positions.

Because of this deadlock, the NDC guidance adopted as part of the 2018 Paris Rulebook focused primarily on ICTU and accounting rules. It focused on mitigation and left adaptation and means of implementation (finance, technology and capacity-building) voluntary and inconsistently reported (ENB, COP24#Summary; Obergassel et al. 2019: 4–5; UNFCCC 2020a). ICTU negotiations (2016–2018) reflected similar divides: some developed countries and AOSIS sought comparability and clarity, whereas many developing countries, including LMDCs and BASIC, insisted on flexibility under CBDR-RC and objected to uniform baselines and metrics. The compromise retained flexible ICTU standards (ENB, COP24#Summary), with a review scheduled for 2027.

These loopholes left in the 2018 NDC guidance have produced wide disparities in NDC baselines, target years and methodologies. Developed countries typically submit quantifiable targets, whereas many developing countries provide broader, development-oriented plans, sometimes deliberately vague to avoid binding commitments (Savin et al. 2025; Weikmans et al. 2020). This flexibility accommodates national circumstances but complicates cross-country assessment. NDC submission requirements, such as submitting NDCs in official UN languages, preferably English, also pose obstacles for countries with substantial capacity constraints, such as LDCs and AOSIS (UNFCCC 2020b).

4.2 | Individual Reporting and Review (ETF)

In operationalising the ETF during 2016–2018, uniform reporting was a key concern to ensure comparability. Developed countries,

particularly the United States, and AOSIS advocated common unified metrics (ENB, COP22#Summary; Obergassel et al. 2019: 7), whereas many developing countries, especially China and the LMDCs, insisted on 'self-determined flexibility' to account for capacity constraints. The latter proposal risked parallel reporting systems. As a compromise, the Modalities, Procedures and Guidelines (MPGs) adopted at COP24 in 2018 allowed 'bounded' flexibility for developing countries, permitting reporting flexibilities while requiring explicit justification and plans to address obstacles. Subsequent proposals for differentiated reporting occurred during SBI/SBSTA discussions beginning in 2019 when developing countries tabled a proposal to create differentiated Common Reporting Tables (CRT) and Common Tabular Formats (CTF) templates for developed and developing Parties. This proposal was rejected, reaffirming a single format at COP26 in 2021 with finalised templates and training protocols (ENB, COP26#Summary).

Although this single ETF system is a step forward, concerns persist. Flexibility loopholes can enable underreporting or symbolic submissions, and although 'bounded' flexibilities require explicit justification and plans to overcome the obstacles, no mechanisms exist to monitor follow-through. The quality of BTRs varies widely. Developing countries argue the ETF presumes equal baseline capacities, creating disproportionate burdens for weaker states (van Deursen and Gupta 2025). AOSIS and LDCs call for simplified processes and stronger support to address barriers including language, institutional fragmentation and lack of technical staff (ENB, COP22#Summary, COP28#9; AOSIS 2022; AOSIS and LDC Group 2020). South Africa (2024), India (2024) and Brazil (2024) similarly cite procedural complexity and insufficient funding (ENB, COP22#5, COP26#8, COP29#5).

Flexibility alone cannot compensate for weak institutional capacities, as reporting remains resource-intensive (Weikmans et al. 2020). Reform efforts have, therefore, focused on capacity-building. The UNFCCC, the United Nations Development Programme, the World Resources Institute and the Centre for Multilateral Negotiations (CEMUNE), among others, deliver technical support and national-level workshops. The Partnership on Transparency—renamed and incorporated under the Paris Agreement in 2016—supports peer learning.

The scale and complexity of the BTR review process poses additional operational challenges. Nearly 200 BTRs are expected biennially from 2025, yet insufficient reviewer pools, overly detailed formats and delays in processing and publication threaten timely and robust evaluation (Interview 2; ENB, COP28#Summary). After the ETF review process was adopted as part of MPG at COP24 in 2018, subsequent SBI/SBSTA discussions (2019–21) focused on expanding expert pools for TERs, better regional and gender representation and streamlining processes (UNFCCC 2021). Based on these proposals, COP26 (2021) adopted the TER and FMCP guidance and training modules (UNFCCC 2021), whereas the UNFCCC Secretariat has since worked to streamline reviewer recruitment and explore new formats (UNFCCC 2023–2025). Scaling remains constrained by limited finance.

Finally, concerns are growing that procedural compliance is supplanting substantive transparency, with the ETF at risk of

becoming a formal reporting exercise rather than a driver of policy change. The lack of follow-through, like a forum to discuss BTR synthesis reports, exacerbates this problem (Interviews 2, 5 and 6). Parties including the EU and AOSIS advocate stronger integration of ETF findings with the GST and embedding both within COP agendas to enhance accountability and policy impact (Interviews 2–4; European Commission and Poland 2025; AOSIS 2022).

4.3 | Review of Aggregated Results to Assess the Alignment With Collective Goals (Global Stocktake)

The Paris Agreement provided basic rules for the GST, but detailed rules were left to further negotiations. Parties disagreed on which data should be included in the GST and how its findings should inform future NDCs, reflecting differing preferences over transparency, ambition and equity. The operationalisation of equity proved particularly sensitive in the negotiations (ENB, COP24#3, 4; Rajamani and Bodansky 2019: 1036–1038). Some parties, especially the African Group, proposed concrete indicators to evaluate equity progress, whereas many developed countries opposed this, citing the lack of a common understanding of equity and emphasising the GST's collective focus (ENB, COP24#5).

The 2018 Paris Rulebook ultimately did not specify indicators for the GST, drawing criticism from some developing countries for providing insufficient guidance on equity in both inputs and outputs (ENB, COP24#Summary). During SBI/SBSTA sessions (2019–23), Parties including the EU and AOSIS called for stronger links between the GST and enhanced NDC ambition, but discussions remained inconclusive. At COP29 (2024), Parties failed to agree on how to embed GST findings into future NDCs, leaving this key element of the iterative review process in limbo (ENB, COP29#Summary). Consequently, the GST has been operating as a collective, flexible approach that assesses aggregate progress without prescriptive indicators, considers equity without operationalisation and provides no mandatory mechanism to embed findings into NDCs, leaving Parties' discretion over how to respond.

5 | Improving Policy Coordination

Improving policy coordination has been a central focus of the Paris Agreement's operationalisation, aimed at aligning national actions with its collective goals beyond the GST review and NDC update by fostering more coherent and specific collective actions across key areas of mitigation, adaptation and climate finance. In practice, efforts have focused primarily on mitigation pathways, through attempts to establish medium-term targets and sectoral measures, and on climate finance, by mobilising additional resources to support developing countries.

5.1 | Better Alignment on Mitigation Pathways

The bottom-up nature of NDCs is intended to gradually align national actions with collective goals through iterative review. Under the Paris Agreement, developed countries were requested

to adopt economy-wide quantified targets, but developing countries retained full discretion over their mitigation ambition. Since then, policy coordination efforts sought to encourage major emitters from both developed and developing countries to increase ambition, establish collective medium-term mitigation targets and adopt sectoral measures such as fossil fuel phase-outs.

More stringent targets aligned with the IPCC findings and stronger ambitions by major emitters were endorsed by AOSIS, LDCs and the EU (AOSIS and LDC Group 2020; AOSIS 2023; ENB, COP26#10, COP26#Summary; European Commission and Spain 2023; European Commission and Belgium 2024; European Commission and Poland 2025), which emphasised that 'major emitters have major responsibility' (ENB, COP25#10, COP26#10). The EU further insisted on sectoral approaches and economy-wide mid-century targets for major emitters, offering timeline flexibility for other developing countries (ENB, COP21#5, COP26#10; Obergassel et al. 2022).

Many developing countries resisted these measures as top-down reinterpretations of CBDR-RC. BASIC and LMDCs opposed standardised targets, 'cherry-picked' GST outcomes, and proposals without financial guarantees (ENB, COP23#7, COP27#11, COP29#10). China, in particular, insisted on party-led control and rejected obligations that could undermine CBDR-RC or establish new obligations beyond the text of the Agreement (ENB, COP21#3). Many developing countries also asserted the right to later emission-peak dates and called on industrialised nations to 'take the lead by increasing ambition' (China 2023a, 2023b; India 2022, 2023; ENB, COP28 Summary). BASIC and Russia (via BRICS) increasingly advocated consumption-based accounting, noting that many Global South emissions serve Northern consumption (Interview 1).

At COP27 (2022), proposals by the EU and AOSIS to introduce medium-term targets under the Mitigation Work Programme (MWP) met strong opposition. LMDCs argued this would 'introduce new elements beyond the Paris mandate' and preferred to end the MWP by 2023. As a compromise, the MWP was extended to 2026 without new mandates (ENB, COP27#Summary). Similarly, proposals for a global emissions peak by 2025 were blocked, prompting frustration at declining ambition after COP26 (2021) and concerns that 'ambition' rhetoric was used to mask the lack of willingness to provide adequate support for developing countries (ENB, COP27#Summary).

Efforts to achieve greater alignment on energy transition pathways likewise proved contentious. Although Parties retain the right to decide on energy choices, some Parties, including the EU and AOSIS, pushed for coordinated sectoral mitigation. At COP26 (2021), the proposal tabled phasing out fossil fuel subsidies and coal (ENB, COP26#Summary). China, India and other developing countries strongly opposed 'phase-out' language, resulting in softened text on 'phasing down unabated coal' (ENB, COP26#Summary). AOSIS and LDCs continued to demand stronger-aligned targets and fossil fuel phase-outs, citing existential threats such as sea-level rise (AOSIS and LDC Group 2020; AOSIS 2023; ENB, COP26#Summary), while also

criticising opaque negotiation processes of the final text (ENB, COP26#Summary).

Resistance persisted after COP26. At COP28 (2023), LMDCs, India, China and Saudi Arabia continued to resist stronger phase-out language. Finally, Parties agreed only on 'transitioning away from fossil fuels [...] in a just, orderly, and equitable manner' (ENB, COP28#Summary). Voluntary pledges to triple renewables, double energy efficiency, with aspirational goals of achieving 'net zero energy systems [...] well before or by mid-century' (ENB, COP28#Summary) partially offset dissatisfaction, but opposition to specific mitigation targets intensified. At COP29 (2024), final text 'barely whispered about fossil fuels' (ENB, COP29#Summary). LMDCs, the COP Presidency (Azerbaijan) and the Arab Group, particularly Saudi Arabia, viewed discussions as 'attempts to pull and creatively re-weave threads of the Paris Agreement', in ways that might ultimately undermine nationally determined approaches and equity principles (ENB, COP29#Summary). Apparently, this outcome resulted in much disappointment, as explicitly expressed by AOSIS (ENB, COP29#Summary).

5.2 | A More Ambitious Collective Financial Goal

Under the Paris Agreement, the provision of finance remains the obligation of developed countries. One partial change introduced was an invitation for developing countries to contribute voluntarily to climate finance and to report *ex ante* and *ex post* on their contributions, but still only on a voluntary basis. The COP decision accompanying the adoption of the Paris Agreement only reiterated a collective financial goal for developed countries to mobilise US\$100 billion in climate finance annually by 2020, which was adopted in 2009 by COP15 in Copenhagen.

Arguably, climate finance has represented the most contentious and politically charged issue in the recent UNFCCC negotiations, having faced several challenges (Bergsvik et al. 2024). First, developing countries increasingly argued that the \$100 billion target was quantitatively inadequate. They also stressed that the climate finance provided by developed countries must be 'new and additional', with a strong preference for public over private financing. Second, they criticised the overwhelming focus on mitigation and limited investment in adaptation, as well as excessive reliance on loans rather than grants. Third, as 2020 approached, developed countries were still far from achieving the \$100 billion target, and progress remained incremental. According to a 2024 OECD report, they finally met the annual goal in 2022 by mobilising US\$115.9 billion (OECD 2024).

For developing countries, climate finance has been viewed as the cornerstone of the Paris Agreement's key priorities that make their climate (mitigation) pledges possible (ENB, COP28#Summary, COP29#Summary; Ruiz-Campillo 2024). By 2024, 111 of the 195 parties to the Paris Agreement submitted conditional NDCs that depend on finance, technical assistance and capacity-building (Jordan 2024; Pauw et al. 2019). LDCs and AOSIS stressed the need for scaled-up international support, particularly finance and capacity-building, to implement their NDCs (AOSIS 2022; ENB, COP29#3). China and India consistently demanded that developed countries

increase ambition and fulfil finance pledges (ENB, COP25#8; COP26#8; COP28#Summary; COP29#7; India 2022), and Brazil advocated for more inclusive climate finance governance and a 'balance between mitigation, adaptation, and means of implementation' (ENB, COP24#2) (ENB, COP23#2; COP25#Summary).

In turn, developed countries have increasingly pointed to shrinking finance budgets and stressed the importance of scaling up voluntary contributions. The EU, as the largest donor, consistently recognises the financial obligations of developed countries (ENB, May 2024#Summary; COP29#Summary), but stresses the role of private investment and expects developing countries to mobilise domestic resources alongside internationally provided finance. Over time, the EU has also called for greater contributions from emerging economies. Climate finance is further affected by the USA's retreat from financial assistance: Although the Biden Administration's policies largely mirrored the EU (ENB, COP26#Summary), reductions under the Trump administration have already raised concerns. This increasingly limited availability of finance has fuelled growing dissatisfaction, particularly among LDCs and AOSIS.

At COP29 (2024), Parties adopted the New Collective Quantified Goal on Climate Finance (NCQG), with the goal of mobilising US\$300 billion in climate finance annually by 2035. Once again, developing countries have criticised this target as insufficient. In fact, this decision does not represent much real growth, because the current level of finance provided (taking inflation into account) is already close to the new target (Interview 7). Although COP29 also stipulated that climate finance should be raised to US\$1.3 trillion annually by 2035, this language was non-binding and did not reiterate that this financing should be 'new and additional' (Pauw 2025). The 2024 decision also lacked specific provisions to improve finance distribution, such as balancing grants and loans or ensuring equitable allocation between mitigation and adaptation. This has led to growing dissatisfaction, particularly among the LDCs and AOSIS, who even temporarily walked out of the finance negotiations at COP29, expressing frustration that the proposals for a new NCQG were too low and too vague (ENB, COP29#Summary).

On the quantity of climate finance, only limited increases of available resources appear feasible in the near future. The standard package-deal approach, where developed countries raise contributions in exchange for stronger mitigation from developing countries, could, in principle, provide a basis for such increases. However, three important limitations simultaneously constrain this possibility. First, developing countries (excluding China) are estimated to require at least US\$1 trillion annually for necessary reforms (Oberghassel et al. 2025), far beyond what any collective target could realistically deliver (Pauw et al. 2022). Second, current financial reserves and political conditions do not allow OECD countries to scale up their financial commitments substantially. Third, emerging economies' insistence on CBDR-RC further limits the prospects of raising the collective target (Chandrasekhar et al. 2024; Oberghassel et al. 2025). Although they have gradually accepted mitigation commitments, they continue to reject formal financial obligations within the UNFCCC, citing the historical responsibility of industrialised countries.

6 | Discussion

Our assessment shows that efforts to strengthen the Paris Agreement's effectiveness through more uniform and detailed rules and stronger coordination towards collective goals have yielded mixed results. The persistent deadlock over common NDC features has resulted in only very limited guidance on NDCs. Although the ICTU rules were agreed with relative ease, their flexibility provisions limited NDC comparability. The ETF similarly advanced reporting but introduced 'bounded' flexibility for developing countries that created transparency and comparability loopholes, whereas still leaving many developing countries feeling overburdened by its complexity, despite enhanced UNFCCC capacity-building and funding during these years. The GST, designed as a flexible mechanism, has likewise shown limited ability to steer Parties towards collective goals.

Collective mitigation coordination has also been limited. Medium-term targets and emissions peak commitments faced persistent resistance by some Parties or groups, and broader alignment beyond partial commitments on unabated coal (COP26) and transitioning away from fossil fuels (COP28) remains elusive, as emerging economies reject standardised approaches in favour of Party-driven discretion. Although the adoption of a new collective quantified goal (COP29) represented a step forward on climate finance, insistence on CBDR-RC by both least developed and emerging economies has entrenched climate finance as a recurring fault line, with prospects for a more ambitious target uncertain.

In line with the approach adopted in this special issue, this article has primarily focused on analysing Parties' efforts to enhance the effectiveness of the Paris framework, rather than providing a comprehensive explanation of the outcomes of these efforts. Nevertheless, consistent with the actor-centred perspective of the special issue, we draw on the analysis of Parties' broader preferences presented in Section 3 to offer a partial explanation. This analysis suggests that the limited progress achieved has been at least partly driven by divergent preferences and distributive efforts, understood here as Parties' efforts to promote institutional arrangements they perceived as advantageous to their interests. With regard to the operationalisation of the Paris rules, progress has been constrained primarily by tensions between demands for stronger coordination and greater uniformity—preferred mainly by the EU, among others—and preferences for flexibility and national discretion, defended by the USA and many developing countries within BASIC and LMDCs. These tensions were reflected in debates over the extent to which NDC content should be standardised or left to national discretion, disagreements between proponents of more uniform rules under the ETF and advocates of greater flexibility for developing countries, and disputes over whether NDC updates following the GST should require stronger alignment and increased ambition or allow greater flexibility in the interpretation of outcomes.

In policy coordination, longstanding concerns over equity and burden-sharing between developed and rapidly industrialising countries, as well as fears of the latter's free-riding, complicated efforts to maintain common positions (for the

continued relevance of the North–South divide, see also Genovese et al. 2023). These tensions surfaced in debates over mitigation, where stricter transparency and economy-wide targets confronted Parties' demands for discretion, in the relative prioritisation of mitigation over adaptation, and in climate finance, where calls for increased contributions from developed countries clashed with demands for greater emerging-economy involvement and with concerns over mobilising on private finance rather than scaling public funding.

The core obstacle for the strengthening of the Paris framework through collective efforts thus remains divergent Party positions, rooted in contrasting views on national discretion and equity. This pattern of selective understandings of effectiveness, combined with distributive efforts, corresponds with findings of other contributions to this special issue (Choi and Liese 2026; Parizek and Weinhardt 2026). Consensus-based decision-making further limits the ability to overcome this patchwork of divergencies through a comprehensive package, as analysed in this special issue by Petri and Karlas (2026). Although package deals are a standard technique in international negotiations to reach ambitious outcomes under conditions of heterogeneous preferences and consensus requirements, they have only occasionally—and to a limited extent—proved effective in overcoming inter-party conflicts in the recent UNFCCC negotiations. Their future use is likely to remain constrained, as most package deals would be conditioned by substantial increases in developed-country financial support, which are unlikely under the current conditions.

Looking ahead, scheduled reviews of the ICTU in 2027 and for the ETF and GST in 2028 may offer opportunities for reflection, but significant progress towards more uniform and stringent systems remains unlikely. Many developing countries continue to view greater uniformity as incompatible with equity and sovereignty. In this context, informal agreements and voluntary initiatives may become the main avenue for advancing ambition, though their overall impact is likely to remain modest (Hovi et al. 2019). In particular, the UNFCCC Action Agenda could represent an important alternative for accelerating implementation and ambition beyond formal treaty negotiations.

7 | Conclusion

Efforts to operationalise the rules of the Paris Agreement and align Parties' climate actions have produced mixed results. Although negotiations on the Paris Rulebook led to the adoption of detailed and largely common rules in some areas, they also preserved transparency loopholes and failed to ensure either the comparability of NDCs or the setting of more ambitious collective goals. Collective coordination of national mitigation policies and the mobilisation of climate finance have likewise remained limited. The decade of negotiations following the adoption of the Paris Agreement has shown that despite establishing a new cooperation framework, the Agreement did not manage to reconcile fundamental differences in Parties' broader preferences regarding climate cooperation. Although the Agreement established self-selection of national goals and self-differentiation as key principles, Parties continued to diverge significantly in their

views on the appropriate degree of international coordination, national discretion and equity. These divergent preferences have constrained efforts to strengthen the Paris framework through collective decision-making.

Given the persistence of these broader disagreements, transformative and order-changing reforms of the Paris framework appear unlikely. More realistically, occasional tweaks to the Paris Rulebook or marginal improvements in policy coordination through voluntary pledges or coalitions of willing may occur, though outcomes are likely to remain mixed. Such developments correspond to reforms focused on internal functioning or formal changes below the threshold of treaty change (Dijkstra, Liese, et al. 2025). If progress is limited to marginal or procedural improvements, the Agreement's overall effectiveness may further erode, promoting further scrutiny. In the worst scenario, it risks becoming a bureaucracy, persistent but failing to deliver on its core mission. These scenarios may possibly drive Parties to explore options beyond the current framework, such as dedicated implementation bodies with stronger enforcement. Although rigid compliance mechanisms remain politically infeasible post-Kyoto, reforms can focus on exploring soft compliance mechanisms, though their scope remains uncertain. Proposals such as Brazil's UN Climate Council remain undeveloped (Martins and Petri 2025) and would likely require treaty reform, which is a highly improbable step given current Parties' divisions. This suggests that such arrangements are more feasible outside the treaty.

Finally, deepening geopolitical rivalries, as discussed across this special issue, may accelerate trends towards looser cooperation under the UNFCCC and stimulate engagement in alternative, block-based arrangements (Colgan and Genovese 2025). This can include narrower frameworks with better-aligned members' preferences, such as climate clubs, whose developments are closely linked to the future of the global trade regime (Parížek and Weinhardt 2026). The future role of the USA will remain particularly consequential. While the Paris Agreement has withstood the first US withdrawal, aggressive US anti-climate diplomacy since 2025 raises questions about its future impact on the Agreement's functioning.

List of Interviews and Events

Number	Date	Interviewee/Event	Location
1	05/16/2025	Non-party stakeholder	Online
2	05/21/2025	Party stakeholder	Online
3	05/23/2025	Party stakeholder	Online
4	05/23/2025	Party stakeholder	Online
5	05/23/2025	Party stakeholder	Online
6	05/27/2025	Party stakeholder	Online
7	05/28/2025	UNFCCC-affiliated institution	Online
8	05/27/2025	Closed-door roundtable	Hybrid

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Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Endnotes

¹ For the full list of UNFCCC negotiation groups, see: <https://unfccc.int/process-and-meetings/parties-non-party-stakeholders/parties/party-groupings>.

² No consistent classification of development status exists, either across the UN system or beyond (see Farias 2023).

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