Global Climate Governance in 2025: Rethinking the Role of the UNFCCC and the COP Process

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Abstract

The Conference of the Parties (COP) has become the central forum for international climate governance, facilitating landmark agreements and institutional innovations under the UNFCCC. It is critical in advancing climate ambition, shaping global norms, and mobilizing finance. However, its growing procedural complexity and political centrality raise new questions about its effectiveness in delivering transformative climate outcomes. While existing literature has focused heavily on negotiation outcomes and treaty design, it has insufficiently examined the underlying structural and institutional dynamics that hinder implementation. Little attention has been paid to how compliance incentives, mechanisms, and governance fragmentation influence national and global climate performance. This study aims to assess the institutional effectiveness of the COP process in achieving global climate goals while identifying key systemic barriers and overlooked opportunities for innovation. The research integrates a systematic review from 1990 to 2024 with a structured cause-and-effect analytical framework. The results reveal five interconnected dynamics that currently impede the COP's capacity to deliver results: (1) institutional innovation accompanied by procedural drift; (2) a political economy of compliance shaped by domestic incentives; (3) climate diplomacy fatigue and declining outcome ambition; (4) broadened participation without power redistribution; and (5) fragmentation as a potential strength through polycentric governance models. These findings suggest that, to remain effective, the COP must evolve into a more flexible, participatory, and equity-oriented platform. Ultimately, embedding accountability, enhancing structural inclusion, and leveraging governance diversity are essential for achieving global climate goals and restoring legitimacy to the multilateral process.

Keywords: Climate change, climate governance, UNFCCC, Conference of the Parties (COP), climate policy.

Key policy insights

- **Institutional innovation meets procedural drift** - The COP has advanced global climate norms but struggles with complexity and weak implementation mechanisms.
- **Political economy of compliance** - Domestic incentives, not just capacity, shape countries' climate commitments and outcomes.
- **Climate diplomacy fatigue** - Negotiation processes increasingly lack transformative substance, risking symbolic rather than structural progress.
- **Inclusivity without influence** - Broader participation exists, but decision-making power remains concentrated, limiting equity and impact.
- **Fragmentation as opportunity** - Polycentric and modular governance models could enhance flexibility, innovation, and effectiveness in global climate action.

1. Introduction

The climate crisis is one of the most urgent and complex challenges of the 21st century (Frieler et al., 2017; Pattberg & Widerberg, 2017). Its impacts are increasingly severe, multidimensional, and interlinked, evident in rising global temperatures, altered precipitation patterns, accelerating sea level rise, and the growing frequency and intensity of climate-related disasters (Pattberg & Widerberg, 2017; Samaradiwakara H.S., 2023). These changes are already disrupting ecological systems, intensifying pressure on freshwater resources, undermining agricultural productivity, increasing public health risks, and destabilizing economies, especially in regions with heightened vulnerability (Frieler et al., 2017). Despite growing global awareness and mounting scientific consensus, meaningful progress in addressing climate change remains uneven and contested (Girón & Ivanova, 2023; Puciato et al., 2022; Samaradiwakara H.S., 2023; Wewerinke-Singh, 2016).

Since its establishment in 1995, the United Nations Framework Convention on Climate Change (UNFCCC) has served as the principal institutional framework guiding the international response (Samaradiwakara H.S., 2023). Central to this effort is its governing body, the Conference of the Parties (COP), which has facilitated key milestones in global climate governance (Betsill et al., 2015; Falkner, 2016; Waite, 2020). Landmark agreements, most notably the Kyoto Protocol (1997) and the Paris Agreement (2015), have articulated progressively ambitious goals aimed at limiting global warming and fostering sustainable, climate-resilient development (Girón & Ivanova, 2023; Samaradiwakara H.S., 2023; Waite, 2020; Wewerinke-Singh, 2016). The Paris Agreement, ratified in April 2016, sets out three core objectives under Article 2: (1) to hold the increase in global average temperature to well below 2°C above pre-industrial levels, while pursuing efforts to limit the increase to 1.5°C; (2) to enhance adaptive capacity and build resilience in a manner that safeguards food security; and (3) and align financial flows with pathways toward low greenhouse gas emissions and climate-resilient development.

Yet nearly a decade after the adoption of the Paris Agreement, the realization of these goals remains precarious (Bäckstrand, 2017; Betsill et al., 2015; Puciato et al., 2022; Wang et al., 2022). Numerous assessments, including the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), confirm that current national commitments, Nationally Determined Contributions (NDCs), are insufficient to limit warming to 1.5°C (Frieler et al., 2017). Even under optimistic scenarios, global greenhouse gas (GHG) emissions must be cut by 45% by 2030 compared to 2010 levels and reach net zero by mid-century (Frieler et al., 2017). However, international bodies such as the International Energy Agency warn that the world is off track, with the probability of meeting the 1.5°C goal as low as 5%. The persistent rise in atmospheric CO_2 concentrations, coupled with long-lived GHGs and delayed mitigation efforts, implies that the temperature threshold could be breached within the next two decades (Girón & Ivanova, 2023; Samaradiwakara H.S., 2023). This reality raises fundamental questions about the feasibility and credibility of current climate governance structures (Bäckstrand, 2017; Betsill et al., 2015; Puciato et al., 2022; Štreimikienė, 2013; Wang et al., 2022). Although COP negotiations have produced legally binding agreements and voluntary pledges (Girón & Ivanova, 2023; Pattberg & Widerberg, 2017; Samaradiwakara H.S., 2023), implementation gaps (Bäckstrand, 2017; Puciato et al., 2022; Wang et al., 2022), inconsistent national actions (Betsill et al., 2015; Y. Wang et al., 2022), and weak accountability mechanisms threaten to derail global progress (D. Wang & Fang, 2024; Y. Wang et al., 2022). Recent trends also reveal that the ambition-implementation gap is widening (D. Wang & Fang, 2024). As evidenced by the mixed performance of major emitters in meeting their NDCs, a lack of political will, institutional capacity, and equitable financial mechanisms continues to hinder progress, especially in vulnerable and developing countries (Bäckstrand, 2017; Betsill et al., 2015; Puciato et al., 2022; Y. Wang et al., 2022).

Moreover, the complexity of the climate crisis has required increasingly multifaceted responses across scales from global frameworks to national legislation and local adaptation plans (Y. Wang et al., 2022). Governance responses have multiplied accordingly, ranging from emissions trading schemes and climate risk regulations to technology transfer mechanisms and adaptation finance. However, while many of these measures are now widely accepted in principle, their practical implementation often triggers resistance when questions of fairness, responsibility, and feasibility are raised (Bäckstrand, 2017; Betsill et al., 2015; Y. Wang et al., 2022). Three critical questions persist: *To what extent has the COP process been effective in advancing climate action? What factors and structural barriers have undermined its implementation? And how can its institutional architecture be strengthened to close the gap between negotiated outcomes and real-world impact?*

This study seeks to identify the key successes, limitations, and potential reforms of the COP process. It highlights how political inertia, insufficient accountability mechanisms, fragmented stakeholder participation, and unequal financial flows continue to limit the transformational potential of global climate negotiations. It also proposes valuable recommendations for enhancing its role as a legitimate, effective, and equitable driver of international climate action in the post-2030 era.

1.1 Genesis of the COP: early agreement and foundational principles

The United Nations Framework Convention on Climate Change (UNFCCC) emerged from the growing scientific consensus about anthropogenic climate change (Frieler et al., 2017; Pattberg & Widerberg, 2017; Samaradiwakara H.S., 2023). By the late 1980s, comprehensive scientific research had shown a clear

correlation between human activities and increased atmospheric greenhouse gas concentrations (Frieler et al., 2017). This scientific evidence catalyzed the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988 (Falkner, 2016; Samaradiwakara H.S., 2023), which is responsible for evaluating scientific, technical, and socio-economic data pertinent to comprehending climate change. The IPCC's first assessment report, published in 1990, highlighted the need for global action and significantly influenced the subsequent dialogues that led to the UNFCCC (Falkner, 2016). Ratified at the 1992 Rio Earth Summit, the UNFCCC established a framework for international cooperation to address climate change (Betsill et al., 2015; Falkner, 2016). The fundamental concepts, notably "common but differentiated responsibilities, and respective capabilities" (CBDR-RC), continue to inform global climate negotiations, emphasizing equity and the varying capacities of nations to tackle climate change (Puciato et al., 2022; Waite, 2020; Wewerinke-Singh, 2016). Through Article 7, the UNFCCC established the Conference of the Parties (COP) as the principal decision-making authority of the Convention (Pattberg & Widerberg, 2017; Samaradiwakara H.S., 2023), responsible for reviewing and evaluating the efforts made to achieve the Convention's objectives of mitigating human impact on the earth's climate system. In addition, it decides how to better achieve its goals, such as by bypassing resolutions that start the UNFCCC's additional legal instrument negotiations, such as the Kyoto Protocol (1997) and the Paris Agreement (2015) (Betsill et al., 2015).

1.2 Key milestones under the UNFCCC

Conferences of the Parties (COPs), led by the UNFCCC, are still pivotal platforms for international cooperation in the fight against climate change (Betsill et al., 2015; Falkner, 2016). Over the years, COPs have evolved into crucial venues for negotiating and implementing global climate policy, reflecting both scientific urgency and political consensus (Y. Wang et al., 2022). In 1997, the third Conference of the Parties (COP3) in Kyoto established the framework for future climate action by approving the Kyoto Protocol, which mandated industrialized nations to reduce their emissions of greenhouse gases and introduced market-based mechanisms such as the Clean Development Mechanism (CDM) and Joint Implementation to enhance global collaboration and facilitate emissions trading (Samaradiwakara H.S., 2023).

Building on this foundation, the 7th Conference of the Parties (COP7) in Marrakesh advanced the adaptation agenda through the Marrakesh Accords, which created the Least Developed Countries Work Program, launched the National Adaptation Programs of Action (NAPAs), and established funding instruments like the Adaptation Fund (AF) and the Least Developed Countries Fund (LDCF)(Chelminski, 2022). These measures are aimed at strengthening the resilience of the world's most climate-vulnerable countries (Gewirtzman et al., 2018). Progress continued at COP16 in Cancun, where global adaptation frameworks were officially institutionalized through the establishment of National Adaptation Plans (NAPs), providing a more structured approach to long-term adaptation planning (Y. Wang et al., 2022).

As adaptation needs grew, developing countries began in 2008 to call more strongly for financial support to implement their climate strategies, rooted in the principle of common but differentiated responsibilities. These calls culminated in the creation of the Green Climate Fund (GCF), intended to provide much-needed financial assistance to support mitigation and adaptation in developing countries (Chelminski, 2022; Gewirtzman et al., 2018).

With this increasing momentum, all participating nations formally agreed at the 21st Conference of the Parties (COP21) in Paris to pursue efforts to keep the global temperature increase well below 2 degrees Celsius, and preferably below 1.5 degrees Celsius, above pre-industrial levels(Wewerinke-Singh, 2016). This milestone Paris Agreement marked a paradigm shift by promoting nationally driven climate action through Nationally Determined Contributions (NDCs), while reinforcing the global commitment to equity, transparency, and ambition(Seo, 2017; Wewerinke-Singh, 2016). Further operational progress was achieved at the 26th Conference of the Parties (COP26) in Glasgow, where the rulebook on carbon markets and transparency was finalized, and the longstanding pledge to provide USD 100 billion annually to support developing countries was reiterated (Chelminski, 2022; Y. Wang et al., 2022). In parallel, the urgency of limiting temperature rise to 1.5°C was strongly emphasized as a critical threshold to avert the most catastrophic climate impacts.

Through each of these milestones, the COP process has continually adapted and expanded to meet the evolving challenges of climate change (Y. Wang et al., 2022). It has fostered ambitious global goals, addressed principles of equity through differentiated responsibilities, and promoted cooperation through mechanisms for finance, technology transfer, and capacity building(Ockwell & Byrne, 2016). COPs thus reflect the trajectory of global climate action anchored in scientific consensus, shaped by political negotiation, and sustained by a shared imperative to protect the planet (Falkner, 2016; Seo, 2017). As the climate crisis deepens, collaboration and innovation remain central to advancing effective and inclusive solutions (Fankhauser et al., 2016).

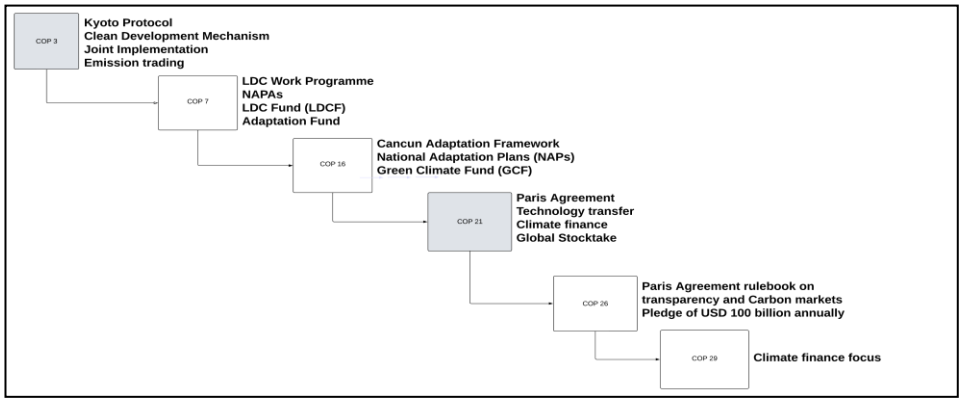

Figure 1. Key milestones under the UNFCCC

1.3 Kyoto Protocol and its aftermath: binding commitments and emerging challenges

The Kyoto Protocol represents a pivotal progression in global climate policy by introducing legally bound carbon reduction objectives for developed nations (Štreimikienė, 2013; Y. Wang et al., 2022). This signifies the initial endeavor to adopt a top-down strategy for climate change mitigation (Betsill et al., 2015) establishing explicit objectives and timelines for the reduction of greenhouse gas emissions. In the initial phase of the Protocol (2008-2012), participating nations pledged to decrease their emissions by an average of 4.7% relative to 1990 levels. Achieving this target successfully with an 11.2% reduction beyond the 2012 target (figure 2), nations committed again to the Protocol's second phase (2013-2020) via the Doha Amendment, aiming for an average reduction of at least 18% below 1990 levels, which led later to a reduction of 22% (Štreimikienė, 2013). Despite these successes, the final efficacy of the Kyoto Protocol was significantly diminished by various constraints, notably:

- The ambiguity in the top-down approach that endorsed only developed nations.
- Lack of a robust financial mechanism, which has led to distrust between developed and developing countries.
- Vague monitoring, reporting, and evaluation protocols.
- Limited participation of major emitting nations such as China and India.
- The refusal of Japan, Russia, and New Zealand to engage in the second phase of the agreement, as well as the categorical and total withdrawal of the United States in 2001 and Canada in 2011.

These issues and events considerably diminished the Protocol's capacity to effectively mitigate global emissions, resulting in considerable disruption to the likelihood of success (Puciato et al., 2022). This has resulted in the establishment of the Paris Agreement, which seeks to engage all nations in equitable and balanced collective endeavors (Bodansky, 2016; Wewerinke-Singh, 2016).

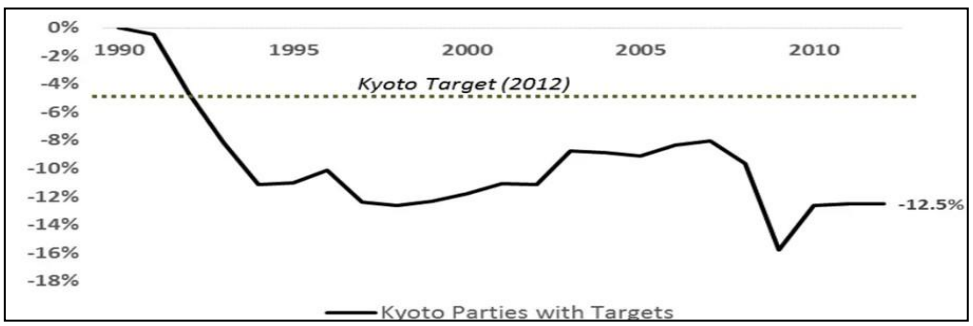

Figure 2. Kyoto Protocol carbon emissions, 1990-2012.

1.4 The Paris Agreement: A new era of Nationally Determined Contributions (NDCs)

Following the Kyoto Protocol, the adoption of the Paris Agreement in 2015 marked a transformative moment in global climate governance (Bodansky, 2016; Wewerinke-Singh, 2016). This agreement introduced a more flexible and inclusive framework, reflecting an evolution in thinking about how to mobilize collective action in a fragmented global landscape (Falkner, 2016). Unlike its predecessor, which imposed binding targets primarily on industrialized nations, the Paris Agreement called on both developed and developing countries to take climate action, encouraging each to contribute according to its capacities, development priorities, and national circumstances (Bodansky, 2016; Seo, 2017; Wewerinke-Singh, 2016). At the heart of this new approach lies the concept of Nationally Determined Contributions (NDCs), country-specific emission reduction plans submitted every five years. This bottom-up structure represented a clear departure from the top-down approach of the Kyoto Protocol (Falkner, 2016). By granting countries autonomy to define their climate commitments, the Paris Agreement aimed to foster greater national ownership, enhance participation, and encourage broader engagement in climate action.

However, this flexibility has also exposed inherent weaknesses (Bäckstrand, 2017; Puciato et al., 2022; Y. Wang et al., 2022). The reliance on voluntary pledges has led to a pronounced “ambition gap,” a disconnect between the cumulative NDCs and the level of emissions reduction required to limit global temperature rise to 1.5°C or even 2°C, as stated in the agreement’s core objectives (Puciato et al., 2022; Y. Wang et al., 2022; Wewerinke-Singh, 2016). Despite growing political support for these temperature goals, many NDCs remain insufficient, especially given the absence of strong enforcement mechanisms and disparities in national capacities (Puciato et al., 2022; Waite, 2020; Wewerinke-Singh, 2016). The uneven translation of NDCs into actual, equitable global efforts has raised concerns about the effectiveness of this model

(Fankhauser et al., 2016; Gewirtzman et al., 2018). To bridge this gap, Article 2 of the agreement emphasizes the importance of climate finance, particularly the responsibility of developed countries to support developing nations in their mitigation and adaptation efforts (Chelminski, 2022). Originally, Parties pledged to mobilize USD 100 billion annually by 2020, and this target was later revised upward to USD 300 billion by 2024 during COP24, underscoring the centrality of financial solidarity within the Paris framework.

Yet, despite these commitments, concerns about transparency, adequacy, and fairness in climate finance persist (Fankhauser et al., 2016). Reports highlighting the inconsistency of funding flows and the lack of predictable mechanisms have sparked criticism and diminished trust in the system (Betsill et al., 2015; D. Wang & Fang, 2024). Furthermore, geopolitical dynamics continue to shape the agreement's future (Seo, 2017). The anticipated withdrawal of the United States in 2025, a nation both among the largest historical emitters and key funders of climate finance, has also posed a serious challenge to the collective ambition and credibility of the Paris Agreement (Hubinger, 2018).

1.5 Role of key actors: states, non-state actors, private sectors, and civil society

Building on the participatory foundation introduced by the Paris Agreement, the UNFCCC process has increasingly embraced a broader constellation of actors in shaping climate governance (Bäckstrand, 2017; Betsill et al., 2015; D. Wang & Fang, 2024). While states remain the central figures in negotiating and committing to international obligations, the complexity and interconnectedness of climate challenges have underscored the need for inclusive, multi-actor engagement (D. Wang & Fang, 2024). In response, the role of non-state and subnational stakeholders, ranging from the private sector and civil society organizations (CSOs) to academic institutions, local communities, and Indigenous peoples, has gained growing prominence at all levels of the UNFCCC framework (Bäckstrand, 2017).

Each actor contributes uniquely to the climate process. The private sector, especially those operating in carbon-intensive industries, plays a dual role as both a contributor to emissions and a catalyst for innovation and investment in low-carbon solutions. CSOs, meanwhile, serve as watchdogs, advocates, and mobilizers, promoting ambitious climate policy, holding states accountable, and amplifying the voices of vulnerable populations (Bäckstrand, 2017). Academic institutions contribute critical knowledge, modeling, and policy analysis, helping to inform and guide decision-making (Betsill et al., 2015). Simultaneously, subnational governments, including cities and regions, have emerged as front-runners in climate action, often implementing ambitious policies that surpass national targets and demonstrating what localized leadership can achieve. Yet, the negotiation space remains shaped by competing interests and power dynamics, revealing the complexity of harmonizing diverse agendas under one multilateral process (Flavell, 2023; Štreimikienė, 2013).

Coalitions of states such as the Alliance of Small Island States (AOSIS) and the Independent Alliance of Latin American and Caribbean Countries (AILAC) have also leveraged their collective influence to push for equity-based outcomes and heightened ambition in negotiations (Waite, 2020). In parallel, constituencies like the Women and Gender Constituency (WGC) have brought attention to the disproportionate impacts of climate change on women and advocated for gender-responsive climate policies (Flavell, 2023). Ultimately, the degree to which the UNFCCC process delivers meaningful outcomes is closely tied to the inclusivity and influence of its diverse stakeholders (Fankhauser et al., 2016; D. Wang & Fang, 2024). While broader participation has enhanced legitimacy, the challenge lies in ensuring that

engagement translates into action and that all voices, particularly those historically marginalized, have a substantive role in shaping the climate future (Bäckstrand, 2017; Puciato et al., 2022).

1.6 Mechanisms and instruments: mitigation, adaptation, loss and damage

In alignment with the multifaceted commitments outlined in the Paris Agreement, the COP process has developed an array of mechanisms designed to address the diverse dimensions of the climate crisis (Parker et al., 2015; Y. Wang et al., 2022). Given the complexity of its objectives, the COP employs a combination of strategies centered on mitigation, adaptation, and loss and damage, each tailored to specific aspects of climate risk and responsibility (Betsill et al., 2015; Calliari, 2018).

Mitigation efforts focus on reducing greenhouse gas emissions at their source and increasing their sinks, primarily by enhancing energy efficiency, transitioning to renewable energy systems, and decarbonizing key sectors of the global economy (Betsill et al., 2015). These actions aim to limit future climate impacts by addressing the root causes of global warming. In parallel, adaptation measures seek to confront the unavoidable consequences, reduce vulnerability, and increase resilience to climate change. Through improved infrastructure, resilient agricultural practices, and disaster preparedness, these strategies are intended to strengthen the capacity of vulnerable communities and ecosystems to cope with present and anticipated climate stresses (Betsill et al., 2015). Where adaptation is no longer sufficient, loss and damage mechanisms have emerged to confront the residual and often irreversible impacts of climate change (Calliari, 2018; Gewirtzman et al., 2018). These include slow-onset events and extreme weather disasters that exceed communities' ability to adapt, such as sea-level rise affecting low-lying islands or devastating droughts and floods (P.N.R.J, 2022). For those on the frontlines of climate vulnerability, these mechanisms are critical for recovery, compensation, and long-term resilience.

However, the effectiveness of all three pillars, mitigation, adaptation, and loss and damage, hinges on robust implementation, adequate financing, and sustained international cooperation (Chelminski, 2022; Fankhauser et al., 2016; D. Wang & Fang, 2024). Climate finance remains a central enabler, intended to support especially developing nations in implementing their mitigation and adaptation plans (Chelminski, 2022). Yet, despite repeated pledges, the consistent mobilization of sufficient funds remains elusive (Puciato et al., 2022; Tørstad & Sælen, 2017). This persistent shortfall not only undermines trust but also highlights the urgent need for innovative financing mechanisms and renewed global commitments that match the scale of the climate emergency (Pattberg & Widerberg, 2017; Tørstad & Sælen, 2017).

2. Research Methodology

This study employs a systematic literature review complemented by a structured cause-and-effect analytical framework to examine the effectiveness of the Conference of the Parties (COP) in achieving the goals of the United Nations Framework Convention on Climate Change (UNFCCC). The systematic review was designed to capture the evolution of climate policy discourse and practice over time, integrating both peer-reviewed and grey literature published between 1990 and 2024. No language restrictions were applied to ensure inclusivity and breadth in capturing global perspectives.

The review was conducted in a series of stages to ensure rigor and transparency. (1) First, relevant keywords were identified, including *climate goals*, *environmental goals*, *green targets*, *climate governance*, *climate finance*, and *climate justice* to guide the search process. These keywords were applied across major academic databases such as Scopus, Web of Science, JSTOR, PubMed, Semantic Scholar, Google Scholar, and ResearchGate. (2) The second stage involved screening and reviewing retrieved publications, using

predefined inclusion criteria: clarity of objectives, methodological transparency, and direct relevance to COP mechanisms (e.g., NDCs, climate finance, stakeholder engagement). Studies that did not align with the study its objective, non-empirical, duplicative, published before 2000, or irrelevant to the COP process were excluded. (3) Each publication was assessed for quality based on four dimensions: clarity, rigor, relevance, and data credibility, and subsequently categorized into high or moderate quality before mapping and summarizing the selected literature. This process followed established guidance in general research methodology and management and business research methodologies (Easterby-Smith, 2015).

To complement the literature review and deepen the explanatory potential of the study, a cause-and-effect analytical framework was applied to systematically explore the institutional and policy dynamics underpinning the COP process. As in Figure 3, this framework follows a logical sequence: *Driving Forces → State → Consequences → Reactions*. It enables the mapping of causal pathways and institutional interactions that shape global climate governance. Key driving forces identified in the literature include the adoption of Nationally Determined Contributions (NDCs), formal climate finance commitments, the inclusion of loss and damage mechanisms, and the promotion of a just transition. These inputs correspond to the state of implementation, which reflects measurable gaps such as delayed or inadequate emissions reductions, underfunded adaptation programs, and constraints on technology transfer.

The resulting consequences spanning economic, political, social, and institutional dimensions are characterized by inequitable outcomes, reduced trust between developed and developing countries, and fragmented responses. These, in turn, trigger policy reactions such as the Global Stocktake, the operationalization of climate finance instruments (e.g., Green Climate Fund, GEF, Adaptation Fund), and support mechanisms like the Warsaw International Mechanism for loss and damage. While the analysis remains primarily qualitative, it is grounded in observable indicators (e.g., NDC ambition levels, finance disbursement rates, implementation timelines) to enhance its analytical robustness.

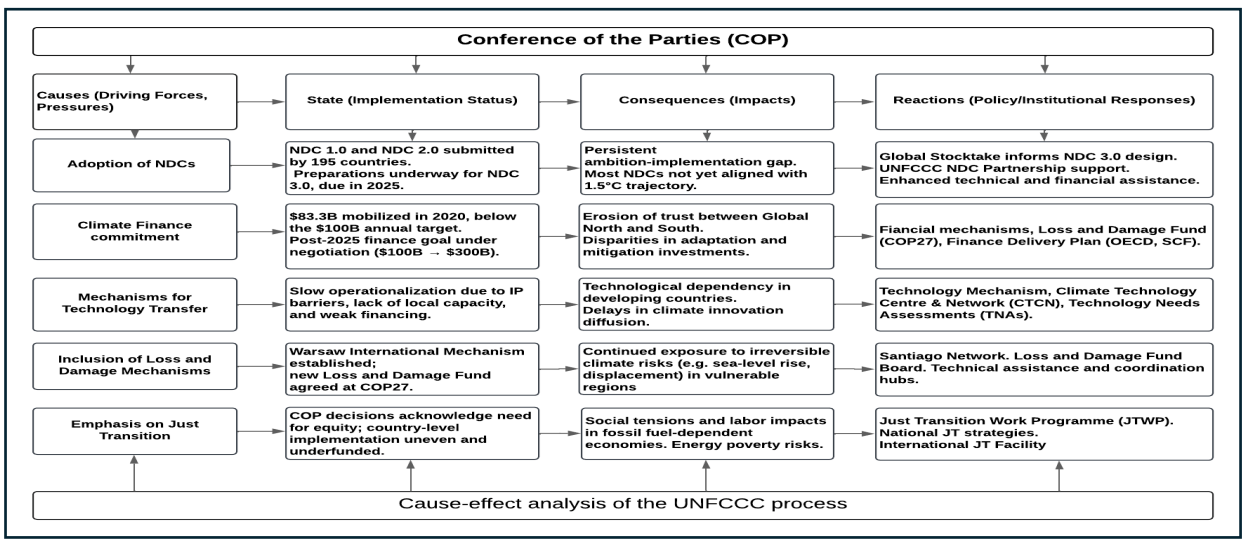

Figure 3. Cause-and-effect analysis sequence of the COP.

3. Results and Discussion

This study reveals that the COP process has not only shaped global climate governance but has also become a contested space where ambition and inertia coexist, often creating paradoxes in policy effectiveness (Girón & Ivanova, 2023; Khan et al., 2024). The systematic literature review and cause-effect analysis uncovered five key dynamics that define the current state of the COP process, some widely recognized, others less visible but increasingly influential.

3.1 **COP as a Platform for Normative Innovation and Institutional Creep**

The Conference of the Parties (COP) has undeniably institutionalized a new global climate logic, one that reframes climate change as a shared, collective responsibility transcending national borders (Betsill et al., 2015; P.N.R.J, 2022). This logic is operationalized through Nationally Determined Contributions (NDCs), the Global Stocktake, and the Enhanced Transparency Framework (Falkner, 2016). Together, these instruments constitute what can be described as a "normative innovation" in global governance, formalizing the principle of universal participation and embedding iterative cycles of ambition, review, and accountability into international climate diplomacy. This architecture has recalibrated expectations for global environmental cooperation, shifting the emphasis from legally binding emission reduction targets to a more dynamic, nationally driven process that encourages voluntary but transparent commitments (Girón & Ivanova, 2023; Ockwell & Byrne, 2016).

However, the study also identifies signs of what may be termed *institutional drift,* a condition where the institutional machinery becomes increasingly complex and procedural, thereby diluting the COP's transformative capacity. This drift is evident in the growing disjunction between global climate norms and national implementation practices. For instance, although NDCs have emerged as the centerpiece of national climate policy frameworks, their proliferation without harmonized guidelines or robust comparability mechanisms has led to significant goal fragmentation (Puciato et al., 2022). With over 190 countries submitting individualized climate pledges, each with differing baselines, metrics, timeframes, and levels of ambition, the global climate regime risks becoming a patchwork of incoherent efforts (D. Wang & Fang, 2024). This fragmentation may reinforce national ownership and flexibility but also undermine collective progress by fostering ambiguity and inconsistency in ambition, monitoring, and outcomes. As a result, the gap between global aspirations and measurable impact continues to widen, highlighting the tension between inclusivity and effectiveness in global climate governance (Betsill et al., 2015).

3.2 **The Political Economy of Climate Compliance**

A novel and underexplored insight emerging from this study is the identification of a political economy of compliance, wherein a country's ability, and critically, its willingness to meet climate targets, is shaped less by normative alignment with global goals and more by deeply embedded structural incentives and domestic politics. These reframing challenges conventional assumptions that climate underperformance is primarily a result of limited technical capacity or institutional weakness. Instead, the analysis reveals a more complex interplay: climate risk perception is filtered through political risk aversion, meaning that governments often prioritize short-term political stability and economic continuity over long-term environmental resilience.

In high-income countries with diversified, service-based economies, well-established regulatory frameworks, and relative energy independence, the pathways to compliance are more straightforward and less politically fraught(P.N.R.J, 2022). These states, such as many in the European Union, have greater fiscal flexibility to subsidize green technologies, implement carbon pricing, and retrain workers in declining industries (Bodansky, 2016). Their institutions are also more capable of absorbing the social costs of

decarbonization, whether through welfare expansion, labor protection, or green industrial policy, thereby making climate action not only feasible but electorally viable (Ockwell & Byrne, 2016).

In contrast, fossil fuel-dependent economies or those with large informal sectors often face a starkly different equation. For many such states, ranging from major emitters like India and Brazil to oil-exporting nations in the Gulf, the economic and political costs of compliance are profound. Transitioning away from carbon-intensive industries risks undermining employment, state revenues, and social cohesion, particularly in regions where the fossil fuel sector plays a central developmental role (Girón & Ivanova, 2023). In these contexts, climate ambition becomes politically expensive, and inaction or limited action is often a rational political choice(Cai et al., 2023). Moreover, authoritarian and semi-authoritarian regimes may face fewer electoral constraints but often lack the transparent governance systems and civic pressure required to drive ambitious, accountable climate policies. Meanwhile, in low-income countries and climate-vulnerable states, the issue is compounded by a lack of financial and technical resources, weak institutional capacity, and dependency on external support, creating a compliance landscape shaped more by conditionality and vulnerability (Gewirtzman et al., 2018).

This misalignment is illustrated in Table 1, where countries such as Brazil and India, despite articulating relatively ambitious Nationally Determined Contributions (NDCs), have struggled to translate these pledges into commensurate policy outcomes or emissions reductions. The finding suggests that contemporary climate leadership is less about moral authority or rhetorical ambition and increasingly about the strategic management of domestic risk portfolios (Parker et al., 2015). This evolution in climate politics has dual implications: it could enable more pragmatic, context-sensitive pathways to action, or it could entrench asymmetries that paralyze collective progress, particularly if high-emitting states prioritize short-term political survival over long-term climate stability.

Country	National commitment	Actual outcomes	Status
United States	Reduce emissions by 61-66% below 2005 levels in 2035.	Reduction of 21% (2020)	Lower progress
China	Achieve carbon neutrality by 2060 and lower CO_2 emissions per unit of GDP by 60 to 65% from the 2005 level	Increase of 1.7% (2020)	Not on track
EU	Reduce GHGs by at least 55% by 2030 compared to 1990.	Reduction of 20% (2020)	Partially on track
India	Reduce emissions intensity by 45% below 2005 levels by 2030.	Reduction of 7.93% (2020)	Lower progress
Brazil	Reduce emissions by 59 to 67% below 2005 levels by 2035.	Increase of 9.5% (2020)	Not on track

Table 1 Comparison of the NDC commitments of the major CO2-emitting countries.

3.3 **Climate Diplomacy Fatigue: Negotiation without transformation**

Another underexplored yet increasingly critical insight revealed by this study is the emergence of what can be termed climate diplomacy fatigue, a form of institutional exhaustion that is subtly, but unmistakably, reshaping the trajectory of global climate governance. Detected from literature, this fatigue reflects a growing dissonance between the frequency of engagement and the substance of delivery. As countries convene year after year, now been nearly three decades since the first COP (Y. Wang et al., 2022), the scale of participation has grown (Bäckstrand, 2017), but the transformative potential appears to be stagnating (Štreimikienė, 2013). This phenomenon is manifested in several ways. Most visibly, it is reflected in the dilution of language in COP decision texts, shifting from firm mandates to vague encouragements (Puciato et al., 2022), and from deadlines to undefined “aspirations.” Negotiated language often accommodates political sensitivities at the expense of enforceable outcomes, resulting in final documents that are more symbolic than operational (Betsill et al., 2015; Y. Wang et al., 2022). Recycled commitments further

exacerbate this trend, with successive COPs reaffirming past promises rather than generating new, actionable breakthroughs (D. Wang & Fang, 2024). In many cases, headline pledges are celebrated despite lacking the legal, financial, or institutional mechanisms necessary for delivery (Chelminski, 2022; Gewirtzman et al., 2018).

Stakeholders and reports also point to a pattern of performative ambition, public displays of commitment, such as updated NDCs or announcements of net-zero emissions, which serve diplomatic or reputational purposes but are not accompanied by domestic regulatory reforms or fiscal realignment. This performativity risks undermining the trust and urgency that once fueled the UNFCCC process (Puciato et al., 2022). As expectations rise and delivery lags, disillusionment among observers, civil society, and vulnerable nations deepens, further eroding the legitimacy of the multilateral process (Tørstad & Sælen, 2017). In this context, the COP process risks becoming a stage for symbolic diplomacy rather than a vehicle for structural transformation. The repetition of climate commitments without disruption to entrenched energy, economic, and development models suggests the emergence of a dangerous norm: the institutionalization of delay. What was once seen as a temporary gap between ambition and action is, in some cases, becoming normalized as an accepted feature of the process.

The implications of climate diplomacy fatigue are profound. It indicates that the procedural logic of the COP, once celebrated for its inclusiveness and flexibility, may now be undermining its effectiveness. If left unaddressed, this fatigue could cement a cycle in which multilateralism remains alive, but its capacity to drive systemic change is paralyzed.

3.4 Broadening Participation Without Deepening Influence

One of the most celebrated aspects of the COP process in recent years has been its growing inclusivity (Falkner, 2016; Parker et al., 2015). Each new cycle of climate negotiations brings with it greater visibility for a diverse constellation of actors: Indigenous Peoples, youth activists, women leaders, local communities, civil society organizations, trade unions, and subnational authorities. Their presence, once peripheral, is now woven into the formal architecture of the UNFCCC, with official constituencies, dedicated events, and increasing engagement across negotiation spaces (Flavell, 2023; Parker et al., 2015). Yet, this study reveals a deeper, more unsettling pattern: representation has expanded, but real influence remains largely unchanged. Many stakeholders are invited to participate, but not to decide. Their contributions are often symbolically acknowledged in preambles, side events, or thematic platforms but rarely integrated into the decision-making structures where the technical, financial, and political levers of climate governance reside.

A clear example of this dynamic can be found in the treatment of Indigenous knowledge systems (Tørstad & Sælen, 2017). These systems are increasingly referenced in adaptation and resilience dialogues, praised for their holistic and place-based understanding of ecosystems. However, they remain marginal within science-policy bodies, such as the IPCC and SBSTA, which continue to rely predominantly on Western scientific paradigms and top-down models (P.N.R.J, 2022). This reflects a broader epistemic hierarchy in which knowledge is welcomed rhetorically but excluded structurally. Similarly, youth and women's constituencies, while highly visible in plenaries and high-level dialogues (Flavell, 2023), often find themselves disconnected from the negotiating rooms where real power is exercised. Despite efforts like the Gender Action Plan and the LCIPP, decision-making still occurs in state-dominated spaces, where negotiations are often opaque and inaccessible to those outside formal delegations. Even where participation mechanisms exist, they are frequently underfunded, overly consultative, or procedurally complex, limiting meaningful engagement (Fankhauser et al., 2016; Puciato et al., 2022).

This gap between procedural inclusion and structural influence reinforces existing inequalities within global climate governance (D. Wang & Fang, 2024). It suggests that while the COP is evolving toward inclusivity in form, it is not yet inclusive in function. Equity remains more of a rhetorical commitment than an operational principle, and without deliberate institutional redesign, this inclusion gap risks becoming entrenched.

3.5 The Opportunity Hidden in Fragmentation

An unexpected yet compelling insight from this study is the possibility that fragmentation within the COP process is not merely a symptom of dysfunction but a latent source of strength. While policy fragmentation is often cited as a barrier to coherence, ambition, and effective implementation, this analysis suggests that, under the right conditions, it may serve as a strategic feature of the climate regime, enabling flexibility, experimentation, and innovation in ways that centralized governance cannot.

The COP has evolved into an expansive and multilayered ecosystem encompassing a wide range of issue areas, mitigation, adaptation, finance, loss and damage, transparency, capacity building, and technology transfer, each with its own institutional pathways, actors, and implementation logics (Dong, 2022; P.N.R.J, 2022). This institutional pluralism, though sometimes criticized for diluting focus, has in practice allowed for parallel progress even in moments of high-level political deadlock. For instance, while consensus on emissions reduction targets has often stalled, climate finance mechanisms such as the Green Climate Fund, the Adaptation Fund, and the Loss and Damage Fund have advanced, disbursing billions in support to vulnerable countries (Chelminski, 2022; Gewirtzman et al., 2018). Similarly, technology cooperation and capacity-building initiatives have developed in specialized forums, drawing on technical expertise and bypassing the political bottlenecks of plenary negotiations (Ockwell & Byrne, 2016). This decentralized structure has created pockets of momentum, allowing action to proceed even when formal negotiations slow.

This finding aligns with the theory of polycentric governance, which posits that complex global problems are often best addressed through overlapping, semi-autonomous centers of authority that operate at multiple scales. Rather than viewing fragmentation as a breakdown of order, polycentrism sees it as a system of distributed problem-solving, where diversity becomes an asset rather than a liability. Within the COP framework, this could take the form of coalitions of the willing, regional climate blocs, or issue-specific implementation hubs that test and scale climate solutions in context-specific ways.

The future of the COP, then, may not rest in imposing uniformity or harmonizing every component of the climate regime. Instead, it could lie in embracing modularity: reimagining the COP as a flexible platform that enables differentiated pathways, layered commitments, and targeted innovation across climate policy domains. This modular approach would maintain a global framework for accountability anchored in transparency, reporting, and global stocktakes while giving countries and non-state actors the space to advance progress where they can act most effectively. Critically, such a model would need safeguards to prevent fragmentation from reinforcing inequality or weakening ambition. Strong coordination mechanisms, equitable financing, and binding procedural norms are essential to ensure that decentralized action remains aligned with collective goals. But if these elements are in place, fragmentation can be harnessed not as a failure of multilateralism, but as a strategic evolution of it.

Conclusion

This study has critically examined the evolution and effectiveness of the COP process, revealing it as both a driver of climate innovation and a space constrained by systemic inertia. Five interconnected dynamics

were identified: the institutionalization of global climate norms, the political economy of compliance, the rise of climate diplomacy fatigue, the limits of inclusive participation, and the paradoxical potential of policy fragmentation. The analysis confirms that the COP has been instrumental in framing climate change as a global governance priority. It has catalyzed new mechanisms such as NDCs, climate finance instruments, and platforms for stakeholder participation that collectively embody a transformative normative architecture. Yet, as this architecture has expanded, its coherence and impact have become increasingly challenged by the political and economic realities of implementation. Notably, the study introduces the concept of a political economy of compliance, highlighting how national climate performance is less about moral commitment and more about the strategic management of political risk. This lens reveals that climate ambition is often constrained not by capacity but by domestic trade-offs, reinforcing structural inequities in the global regime. Similarly, while the inclusivity of the COP process has grown, real decision-making power remains concentrated in state actors and high-emitting economies, leaving many civil society and Indigenous voices marginalized in outcomes, if not in presence.

The findings also point to the onset of climate diplomacy fatigue, a phenomenon where rising participation coexists with declining substance. The ritual of annual negotiations, while symbolically important, risks legitimizing delay when ambition is not backed by enforcement, financing, or domestic transformation. And yet, amid these challenges, the study finds unexpected promise in the system's fragmentation. If embraced strategically through polycentric and modular approaches, fragmentation can become a strength, enabling flexibility, regional leadership, and innovation in ways that rigid consensus cannot. Taken together, these insights suggest that the COP is at a critical inflection point. The question is no longer whether multilateralism can deliver on climate goals, but how the multilateral system must evolve to do so. The path forward requires more than technical adjustments; it demands a rethinking of global climate governance as a shared and negotiated space of transformation, not merely a platform for pledges.

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