

DECEMBER 2024

POLICY PAPER

CLIMATE
CHANGE CONFERENCE

NOVEMBER 11-22

FROM ONE COP TO THE NEXT: How Has the Climate Finance Commitment Evolved During the Past Decades?



LARABI JAÏDI, RIM BERAHAB & SABRINE EMRAN



This paper assesses the outcomes of COP29 in Baku, focusing on its achievements and shortcomings in advancing global climate governance. Key milestones included the adoption of the new collective quantified goal (NCQG), the tripling of climate finance commitments to \$300 billion annually by 2035, and progress on Article 6 carbon markets to mobilize international cooperation and finance. However, finance remains insufficient to meet the needs of developing countries, and unresolved issues such as transparency and the risk of greenwashing challenge the integrity of carbon markets. The conference also failed to maintain momentum on fossil-fuel divestment, reflecting geopolitical divisions and waning ambition. As the world prepares for COP30 in Belém, Brazil, the credibility of the COP process depends on addressing these gaps and delivering stronger, actionable commitments to meet the Paris Agreement’s aim of keeping global warming within 1.5°C.

LARABI JAÏDI, RIM BERAHAB & SABRINE EMRAN

1. INTRODUCTION

The 29th Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change (UNFCCC), a cornerstone of global climate governance, concluded on November 23, 2024, in Baku, Azerbaijan. COPs have become a defining annual ritual in the fight against climate change, marked by intense negotiations, dramatic deliberations, and often last-minute agreements celebrated with standing ovations. Beyond the theatrics, however, the stakes remain profoundly high: governments (parties) gather each year to measure progress and to advance consensus on strategies to limit global warming to 1.5°C above pre-industrial levels (UNFCCC, 2023a).

While governments are expected to play a major role in achieving this goal, COPs are also surrounded by formal and informal discussions throughout the year. The ‘formal’ negotiations form the basis for the conference’s decisions and take place months before the annual meeting at the ‘pre-COP’. Several technical decisions are also taken and negotiated in advance of the COP, in preparation for the main event (LSE, 2024). The Kyoto Protocol, which was adopted at COP3 in Kyoto, Japan, in 1997, and which entered into force on February 16, 2005, was the first major international treaty to require emissions reductions by industrialized countries. This agreement underscored the principle that developing countries should not be held to the same emission-reduction standards as their developed counterparts (United Nations, 2022). Since then, many important agreements have been reached, but the effective implementation of these commitments has often faced hurdles.

This urgency reached new heights in 2024, during which the global average temperature rose by an unprecedented 1.62°C over 12 months (Climate Change News, 2024)—a critical warning signal. Should this trend continue for at least six consecutive years, the fundamental goals of the Paris Agreement risk becoming irretrievably out of reach. Although the 1.5°C threshold has not yet been crossed, the situation is deteriorating rapidly. Greenhouse gas emissions, a key driver of climate change, continue to rise. In 2023, emissions increased by 1.9% over the previous year, reaching a staggering 53 gigatons of CO₂ equivalent (European Commission, 2024). These alarming figures set the stage for COP29, which was burdened with mounting challenges and deepening tensions.

This policy paper examines the evolution of climate finance commitments, tracing their development from COP15 to COP28. It examines the key expectations for COP29, analyses the critical outcomes of the conference, and highlights the pressing challenges that remain unresolved in its aftermath.

2. COP29 AMID AN UNFAVOURABLE GEOPOLITICAL ENVIRONMENT

- **The New United States Landscape**

The re-election of Donald Trump as President of the United States cast a significant shadow over the geopolitical climate surrounding COP29. President Trump, who has long been vocal about his skepticism about UN climate negotiations, has consistently downplayed global warming as a pressing issue, framing it as exaggerated or outright baseless. His administration’s track record offers ample reason for concern: during his previous tenure in 2016, the United States withdrew from the Paris Agreement, undermining global efforts to address the climate crisis.

The potential implications for the COP process of his re-election are profound yet uncertain. There is a strong likelihood that under Trump's renewed leadership, the United States may again exit the Paris Agreement, signaling a retreat from the commitment to limit global warming to 1.5°C. Furthermore, an even more radical stance cannot be ruled out: the possibility of the United States withdrawing from the United Nations Framework Convention on Climate Change (UNFCCC) altogether would constitute an unprecedented repudiation of international climate governance.

The ramifications extend beyond symbolic gestures. As a major economic and political power, the United States plays a critical role in shaping global climate efforts. Under the Paris Agreement, all signatory nations are required to submit and periodically update their Nationally Determined Contributions (NDCs), detailing how they plan to reduce greenhouse gas emissions. The publication of an updated U.S. NDC was a much-anticipated milestone expected during COP29 or shortly thereafter. However, the new administration under President Trump could delay, obstruct, or entirely block the release of this critical document, leaving U.S. partners uncertain, and further destabilizing the fragile momentum of international climate negotiations.

As the world's largest historical emitter, the actions—or inactions—of the United States carry outsized implications for global climate efforts. A renewed U.S. withdrawal from climate commitments would not only jeopardize the +1.5°C limit but could embolden other nations to backtrack on their pledges, further fracturing the already fragile international consensus.

- **The European Union: A Weakened Position on the Global Climate Stage**

Unlike in previous COPs, the European Union (EU) entered COP29 in a considerably weakened state, marked by internal fragmentation and a diminished ability to lead on climate issues. The delayed formation of the new European Commission further constrained its negotiating capacities, leaving the EU less prepared to assert its customary influence. Following the European elections of June 2024, the Commission took office on December 1, 2024, ushering in a new team of 26 Commissioners tasked with navigating a precarious five-year term.

The Commission faces internal challenges that have already begun to undermine the EU's credibility on climate leadership. At her recent confirmation hearing before the European Parliament, the future Environment Commissioner failed to reassure Members of the European Parliament (MEPs) on her environmental expertise. While this is a minor issue in itself, it is emblematic of broader institutional fragility and partisan conflicts that threaten to derail Ursula von der Leyen's second term as Commission President.

Von der Leyen has sought to strike a delicate balance between ambition and pragmatism. Ahead of her re-election, she announced an ambitious target to reduce the EU's net CO₂ emissions by 90% by 2040 compared to 1990 levels. However, this commitment is being made in an increasingly hostile political and social environment. Across Europe, farmers have voiced their discontent, industrial leaders have complained about excessive ecological regulations, and a growing number of European heads of state, including France's Emmanuel Macron, have openly called for a 'pause' in the European Green Deal.

Von der Leyen's position is, thus, precarious. She must safeguard the European Green Deal, her flagship policy initiative to combat global warming, while navigating mounting opposition. As a member of the conservative European People's Party (EPP), she faces pressure from her political base to scale back or revise some of the 60 legislative texts that have been already adopted—or are in progress—under the Green Deal. At the same time, she must contend with the far-right's staunch resistance to the perceived constraints of ecological transition, further complicating consensus-building within the EU.

The absence of France's Emmanuel Macron and Germany's Olaf Scholz from COP29 further highlighted the EU's diminished influence. Both leaders cited domestic political fragility and constrained climate budgets as reasons for their non-attendance. France's diplomatic tensions with Azerbaijan added another layer of complexity, keeping Macron away from Baku. Meanwhile, Germany's coalition government collapsed amid disagreements over the downgrading of European Green Deal measures, further eroding its ability to project leadership.

The withdrawal of these two pivotal EU actors—the traditional drivers of the Union's climate transition—further weakened the EU's negotiating position at COP29. Without their leadership, the EU risks losing credibility and leverage in advancing its climate ambitions on the global stage.

As the European Union grapples with internal challenges and waning political will, its role as a climate leader is under threat. The fragmentation within the Union and the absence of its key leaders from COP29 are emblematic of deeper systemic issues. These developments raise critical questions about the EU's ability to sustain its climate commitments and influence global negotiations at a time when unified action is most urgently needed.

- **China: The Developing Country with Global Power**

China, the world's largest economic power and leading emitter of greenhouse gases, occupies a unique position in global climate negotiations: it remains officially classified as a developing country. This designation provides Beijing with significant strategic advantages, sparking calls from countries such as the United States to reclassify China as a developed nation. Critics argue that China's wealth and global influence set it apart from the traditional Global South, yet its current classification exempts it from binding financial obligations under the United Nations Framework Convention on Climate Change (UNFCCC).

As a result, China's climate finance contributions are voluntary and governed by its own terms, bypassing the transparency and reporting requirements imposed on developed nations. The Paris Agreement explicitly allows for such voluntary contributions, and China has leveraged this flexibility to position itself as a leader in South-South cooperation. Since 2016, Beijing claims to have mobilized \$24.5 billion to support the ecological transition in poorer nations, a figure underscoring its dual role as a major power and an advocate for the Global South.

China's financial engagement extends beyond conventional aid. It is a key driver in financing green and low-carbon technology development in developing countries, contributing to significant infrastructural and technological shifts. According to the World Resources Institute, China invested €45 billion in such initiatives between 2013 and 2022. This expansive financial footprint enables Beijing to maintain influence across the Global South, bolstering its narrative as both a benefactor and a partner in sustainable development.

From Beijing's perspective, its approach to climate finance reflects a fundamental disagreement with the policy demands of developed nations, particularly the EU. Chinese officials have consistently criticized European proposals as misaligned with the realities and developmental needs of the Global South. European demands, Beijing argues, are not appropriate; they are tailored to their own systems and will disproportionately harm developing countries by restricting their ability to grow.

- **Developing Countries: Eroded Confidence in Climate Negotiations**

The confidence of developing countries in international climate negotiations has been deeply eroded, diminishing their commitment to these diplomatic processes over time. This skepticism

arises from a persistent gap between the promises made by major industrialized nations and their actual adherence to pledges. Beneath the surface of these negotiations lies a broader debate on climate justice and the governance of international institutions, reflecting deep-seated concerns about fairness and equity in global climate policymaking.

A prominent source of this mistrust is the recurring failure of developed countries to fulfill their financial pledges. Central to the COP agenda has been the commitment of industrialized nations—historically responsible for the majority of greenhouse gas emissions—to provide financial aid to support the climate transition in developing countries. The target of \$100 billion per year, set for 2020, was achieved two years late, further exacerbating the frustrations of the Global South. For developing nations, this delay is emblematic of a broader pattern of unfulfilled promises, undermining their confidence in the reliability of these negotiations.

This erosion of trust is compounded by the declining fiscal capacity of many industrialized nations. Increasing debt pressures have significantly constrained the ability of developed countries to deliver on their public development aid commitments, including climate finance. This financial strain was starkly evident at the last COP16 on biodiversity held in Cali, Colombia in 2024, where negotiations broke down over disagreements about financial transfers from North to South. These failures highlight the difficulty of achieving consensus on climate finance, even as the need for such aid becomes ever more urgent.

From the perspective of developing countries, these tensions over financial aid and energy policies reveal the underlying power dynamics that shape climate negotiations. Many view these power imbalances as far more influential than the formal diplomatic framework represented by the COP process. In their eyes, the ability of developed nations to dictate terms, while failing to meet their own obligations, undermines the credibility of multilateral climate diplomacy.

The challenge for the international community is not merely technical or financial—it is fundamentally about restoring trust. Without addressing the historical grievances and structural inequities that fuel skepticism among developing nations, global efforts to combat climate change risk being derailed by a fractured and disillusioned coalition of stakeholders.

- **Azerbaijan: An Unprepared Host for COP29**

Azerbaijan, the host of COP29, entered the conference with significant structural and institutional challenges, raising concerns about its preparedness to effectively lead a major international climate summit. In 2021, the oil and gas sector accounted for 64% of Azerbaijan's GDP, surpassing even the United Arab Emirates (52%), which hosted the previous year's COP. Additionally, 90% of Azerbaijan's export revenues in the same year were derived from oil and gas, according to the International Energy Agency (IEA). These figures underscore the critical dependence of the Azerbaijani economy on fossil fuels, positioning the country in stark contrast to the global decarbonization goals central to COP negotiations.

Compounding this structural dependence on hydrocarbons was Azerbaijan's limited experience in climate diplomacy. Unlike the United Arab Emirates, which leveraged its significant resources and diplomatic expertise to prepare for COP28, Azerbaijan's presidency displayed minimal engagement in the lead-up to COP29. This lack of proactive involvement hindered the preparation process, with work progressing slowly and leaving the Baku meeting notably less well-organized than previous COPs.

The combination of Azerbaijan's economic reliance on fossil fuels and its inexperience in leading global climate negotiations highlighted the challenges of hosting a COP in a context misaligned

with the summit's core objectives. These shortcomings not only diminished the strategic focus of the event but also underscored the broader difficulty of aligning national and global priorities in the fight against climate change.

3. THE EVOLUTION OF CLIMATE FINANCE: A HISTORICAL OVERVIEW FROM COP15 TO COP28

Over the years, the series of COPs has significantly shaped the global climate finance landscape, with significant milestones and setbacks along the way. The Copenhagen Accord (COP 15 in 2009) marked a critical moment in this evolution by stipulating that developed nations should supply adequate financial support for adaptation efforts in developing countries, with 'adequacy' referring to the necessary funding to fulfill the adaptation requirements of developing nations, or enough financial resources to address their adaptation expenses (Nor and Mohamed, 2024). However, COP15 is considered as one of the key moments when the conference of the parties ended in failure and disappointment, because of the lack of binding commitments in Copenhagen.

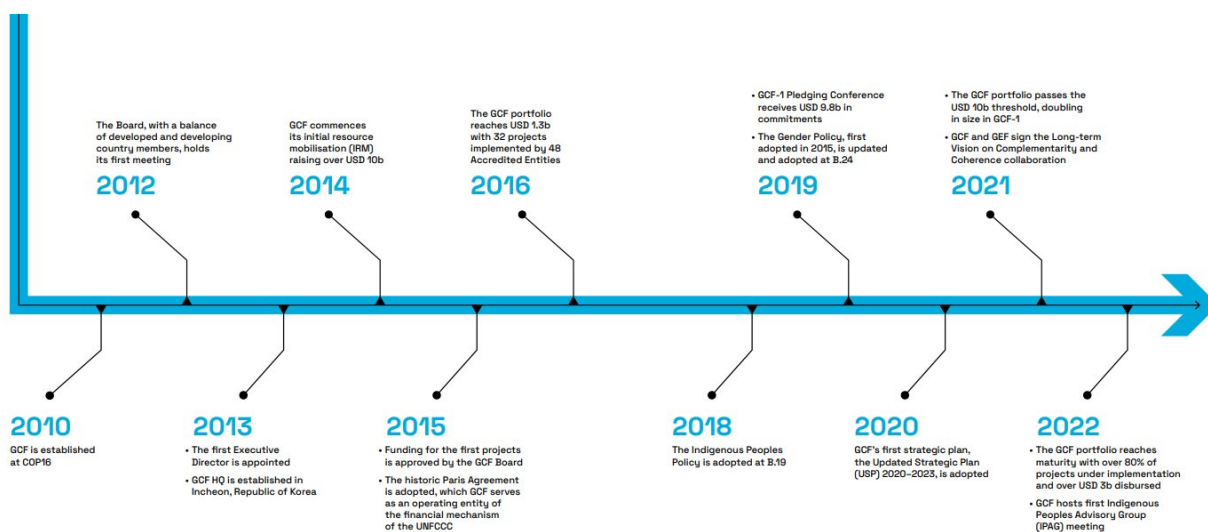
While the official agenda included formulating a plan to succeed the Kyoto Protocol, developing countries were sceptical. A commitment led by the United States to provide at least \$100 billion annually in new funding by 2020 persuaded many, but a minority remained obstinate. Their grievances centred around both inadequate funding and exclusion from crucial negotiations. Ultimately, the Copenhagen summit concluded as a diplomatic letdown, significantly undermining the credibility of climate diplomacy (Victor, 2023). Subsequent COPs have sought to restore confidence in international climate negotiations. For example, COP16, in 2010, in Cancun established the Green Climate Fund (GCF), as a dedicated financing vehicle for developing countries. However, it was only in 2015 that the GCF saw the approval of its first project fund. By 2016, GCF had developed a portfolio of 35 projects, valued at over \$1.5 billion. In 2018, GCF launched its first ever replenishment, committing over \$5 billion to climate change projects, and by 2019, contributors had pledged more than \$9.8 billion for the GCF-1 programming period (GCF, 2024).

At COP17, discussions led to the creation of the Durban Platform for Enhanced Action, which aimed to forge a legally binding agreement by 2015, including a commitment to a second Kyoto Protocol commitment period. However, uncertainties remained about the funding mechanisms for the Green Climate Fund (Retallack, 2011). Following that, COP18 saw the adoption of an amendment for a second Kyoto commitment period and intense advocacy by vulnerable nations for stronger emission pledges and finance commitments. One hundred and ninety-four countries consented to prolong the Kyoto Protocol and committed to establishing a new agreement by 2015. This extension helped avert a significant setback in climate discussions; however, it did not completely capture the critical urgency required to address the challenges posed by global warming (Kyte, 2012).

COP19 then established the Warsaw International Mechanism for Loss and Damage, a significant move to address financial needs arising from climate impacts. This period also saw each country present its Intended Nationally Determined Contributions (INDCs), although financial pledges fell short of expectations (Gov.UK, 2015). The momentum continued into COP20 in Lima, where a draft text for the Paris Agreement was agreed, and the Green Climate Fund (GCF) crossed the \$10 billion mark.

Figure 1

Timeline of the Green Climate Fund



Source: Green Climate Fund, 2024.

COP21 in Paris was a landmark event, leading to the adoption of the Paris Agreement, which set targets to limit global warming to well below 2°C, and re-emphasized the \$100 billion finance goal. The Paris Agreement operates on a five-year cycle of increasingly ambitious climate action, or ratcheting up, carried out by countries. Since 2020, countries have been submitting their National Climate Action Plans, also known as Nationally Determined Contributions, each aiming to increase the degree of ambition compared to previous versions. Under the Paris Agreement, developed countries should be leading in terms of financial assistance to vulnerable countries, encouraging voluntary contributions by other parties. It constitutes a key stone in climate finance for both mitigation, to reduce emissions for instance, and adaptation, to the adverse effects of climate change (UNFCCC, 2024a).

In 2016, **COP22 in Marrakech** followed with the adoption of a work plan for the Warsaw Mechanism and a call for increased financial contributions, reflecting a continued emphasis on balancing adaptation and mitigation funding. Although countries approved a five-year workplan on 'loss and damage', there were unresolved 'orphan issues' such as common timeframes for future climate pledges and a new goal for climate finance. The creation of a fair 'rulebook' however was a key theme of the COP22, including confidence in cross-country assessments of climate pledges (Yeo, 2016).

COP23 resolved that the Adaptation Fund would support the Paris Agreement, established the functioning of a platform for local communities and indigenous people, initiated a new gender action plan, and committed to addressing agricultural issues. Concurrently, the EU and California formed an agreement to collaborate on emissions trading and zero-carbon transportation, while the EU and China decided to work together on carbon markets. Additionally, the EU planned to ratify the Doha Amendment to the Kyoto Protocol, which concerns pre-2020 climate actions by developed countries, by the end of 2017 (European Parliament, 2017).

The decisions from **COP24 in Katowice** included the production of a rulebook for the Paris Agreement, and standardizing reporting and transparency requirements. But issues related to international cooperation mechanisms were left unresolved. The rulebook included common rules

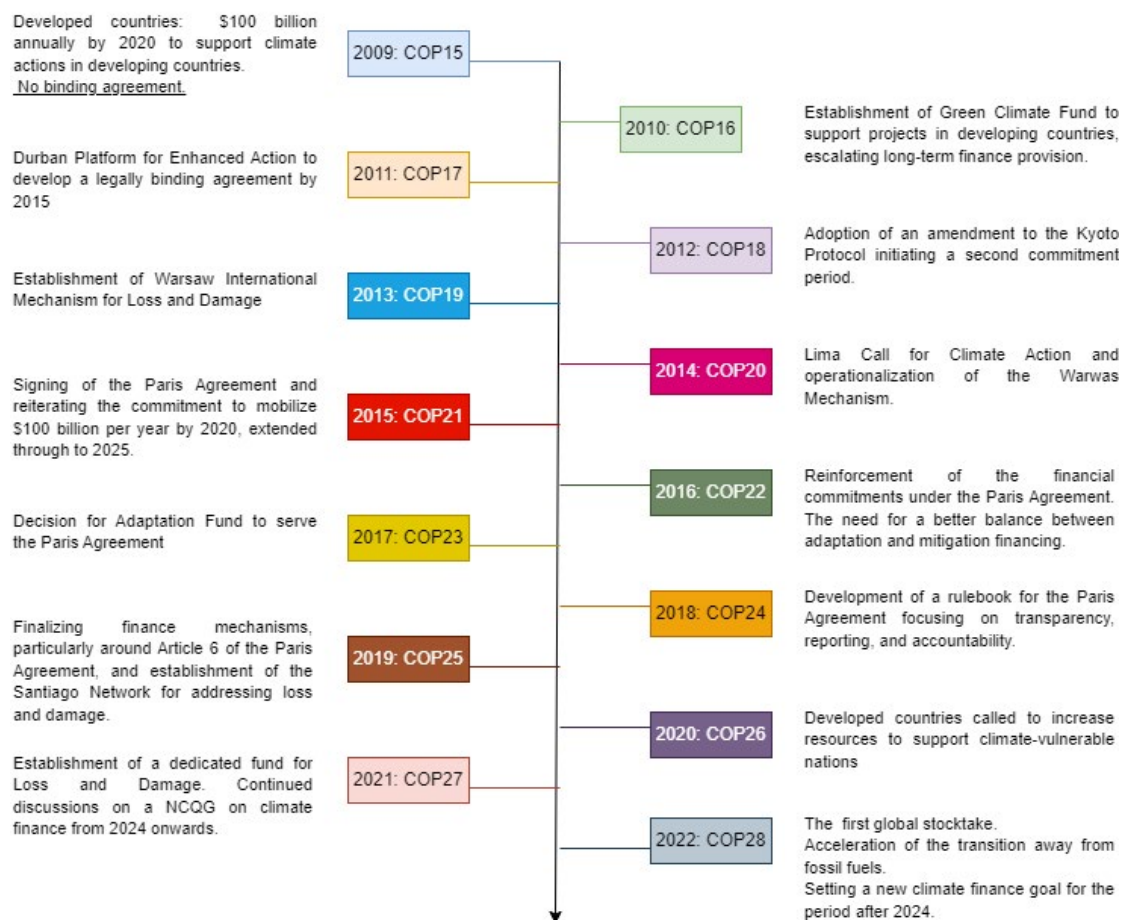
for measuring and reporting greenhouse gas emissions, finance and adaptation, a definition of processes for the five-yearly global stocktake of the effectiveness of climate action, and a committee to review non-performance of parties (such as failure to submit NDCs or reports, or not acting on technical reviews), with the consent of the concerned party (European Parliament, 2018).

Madrid’s COP25 saw the establishment of the Santiago Network to address loss and damage. Aside from financing, this network aims to connect vulnerable developing countries with providers of technical assistance, resources, and knowledge, to address climate risks to address and minimize loss and damage (UNFCCC, 2019). However, the conference failed once again to finalize the rulebook for the Paris Agreement. Just like at COP24 in Katowice, the parties were unable to agree on rules to implement Article 6 on cooperative approaches.

The urgency of climate finance was highlighted at **COP26 (2021, Glasgow)**, where developed nations were urged to increase their financial support for vulnerable countries. One hundred and fifty-one countries submitted updated Nationally Determined Contributions (NDCs), aimed at reducing their emissions by 2030. Additionally, these countries committed to operationalize and finance the Santiago Network on Loss and Damage, which was created during COP25 in Madrid, to provide effective technical support to developing nations in managing climate-related loss and damage (Waksow et al, 2021).

Figure 2

Evolution of Climate Finance Commitments at UNFCCC COP Meetings (2009-2023)



Source: Authors based on the section above, 2024.

At **COP27**, a critical advancement was the establishment of a dedicated fund for loss and damage (L&D), aimed at supporting vulnerable countries affected by severe climate-induced disasters such as floods and droughts. This fund marked a significant recognition of the need for targeted financial mechanisms to address the catastrophic effects of climate change. This came with the support of developed nations for the fund after several years of negotiations (World Economic Forum, 2023). In the UN climate framework, loss and damage refers to consequences of climate change that go beyond what people are able to adapt to, such as loss of coastal heritage because of rising sea levels, or loss of homes and lives due to extreme floods. It also applies to situations in which adaptation is possible, but the resources are not accessible for the community (Warszawski et al, 2024). There is a need to distinguish between 'economic' and 'non-economic' loss and damage, the latter being the less-tangible aspects of life which are highly valued by people affected by climate change. Non-economic losses can be defined as the remainder of items that are not commonly traded in markets, such as ecosystem services, cultural heritage, and psychological health (van Schie et al, 2024).

At **COP28**, commitments to address loss and damage were supported by a decision taken on the first day for new funding for loss and damage (L&D), including a new dedicated fund under the UNFCCC. Commitments to address L&D started flowing, totaling over \$600 million to date. However, the projected economic cost of loss and damage by 2030 alone is estimated to be \$400 billion per year (Baarsch et al, 2015), and between \$290 billion and \$580 billion in developing countries alone (Mechler et al, 2019). By 2050 the economic cost of loss and damage in developing countries is estimated to be between \$1 trillion to 1.8 trillion (Heinrich Boll Stiftung, 2024).

4. HIGH EXPECTATIONS FOR COP29 ON MULTIPLE FRONTS

COP29 set ambitious goals with a strong emphasis on finance, cooperation, and global responsibility. These complex negotiations were expected to consolidate the gains made at COP28, particularly on fossil-fuel phase-out, and to make progress on climate finance and carbon markets.

- **Consolidating the Progress of COP28: Advancing the Fossil Fuel Phase-Out**

COP28 saw the adoption of an agreement that marked the 'beginning of the end' of the fossil-fuel era, laying the foundations for a rapid, just, and equitable transition, underpinned by strong emissions reductions and increased financing.

The centerpiece of COP28 was the Global Stocktake, a comprehensive assessment that provides the blueprint for countries to formulate more ambitious climate action plans by 2025. The findings of the Global Stocktake were stark: global greenhouse gas emissions must be reduced by 43% by 2030 relative to 2019 levels to keep the 1.5°C temperature increase limit within reach. Achieving this goal requires translating commitments into tangible economic and policy outcomes, demanding immediate action from both governments and the private sector.

Box 1: The Global Stocktake (GST)

The GST is a key part of the reinforced transparency framework of the Paris Agreement, serving as a review process each five years for the implementation of the Paris Agreement, and assessing the progress made by Parties and non-Party actors on a collective basis (Zhu et al, 2023). It is intended to inform the next round of NDCs, to be put forward by 2025.

The first phase of the GST was a data-collection phase in 2021, when a wide range of inputs was collected from Parties, international bodies, and non-Party stakeholders. The years 2022 and 2023 were followed by technical dialogue across three meetings, with a broad scope of discussion including mitigation, adaptation, and support, as well as L&D and response measures (UNFCCC, 2023b). The technical dialogue of the first global stocktake published by the UNFCCC included 17 key findings under the Paris Agreement, ranging from the achieved progress to the threat of climate change, and systems transformation to achieve net-zero.

Selected Key Findings From the First Global Stocktake Technical Discussions Related to Climate Adaptation:

Key Finding 1: There is a strong global commitment to the Paris Agreement, and it has sparked substantial progress in addressing climate change through mitigation and adaptation efforts; however, there is still a significant gap between current actions and the long-term goals of the agreement.

Key Finding 3: Transformations required to address climate change come with both opportunities and challenges. While these systemic shifts can advance climate resilience, they risk being disruptive if implemented too rapidly, pointing to the need for balanced and managed transformation processes.

Key Finding 9: Collective progress on adaptation and L&D needs a significant boost to meet the ambition set forth by the Paris Agreement. Transformative actions are required to close the gap between current efforts and expected outcomes.

Key Finding 10: Adaptation efforts observed so far are mainly fragmented, incremental, focused on sectors, and unequally distributed across regions. This calls for adaptation planning as an iterative process, starting with understanding the risks and then accelerating towards more ambitious and effective adaptation action and support. It should also entail efforts to build resilience, reduce vulnerability, and strengthen adaptive capacity. Transparent reporting on adaptation enhances understanding, implementation, and international cooperation.

Key finding 11: Adaptation efforts that are tailored to local contexts, needs, and priorities are more effective and can drive transformational change. Opportunities for adaptation exist across multiple sectors and are often integrated into ongoing development processes. A key step for advancing adaptation is delivering climate information through climate services to guide policy, planning, and action. International cooperation is crucial for sharing successful practices, overcoming challenges, and learning from diverse adaptation experiences across different contexts.

Key finding 12: Averting, minimizing, and addressing loss and damage requires urgent action across climate and development policies to manage risks comprehensively and to provide support to impacted communities. Projected impacts will surpass the limits of adaptation, especially in natural systems, with some effects becoming irreversible if temperatures

rise beyond 1.5 °C. To effectively manage risks and prevent, reduce, and address loss and damage, there is a critical need for greater knowledge, understanding, support, policy, and action to identify and respond to potential tipping points.

Key finding 13: Adaptation support and financing for loss and damage must scale up rapidly through diverse, innovative funding sources aligned with climate-resilient development. Current financial flows should be reviewed to prevent maladaptation, with a focus on effectively meeting the urgent adaptation needs of developing countries.

Figure 3

Climate Adaptation Needs in the Global Stocktake



By 2023, the parties were not on track to meet the Paris targets. The Stocktake emphasized critical steps to address the global shortfall in climate action. It called for: **(i)** tripling renewable energy capacity worldwide, **(ii)** doubling improvements in energy efficiency by 2030, **(iii)** accelerating the reduction of coal-fired power generation, **(iv)** eliminating inefficient fossil-fuel subsidies, and **(v)** advancing measures to transition away from fossil fuels.

In the short term, parties are expected by 2025 to update their NDCs with ambitious emissions-reduction targets. These updates must reflect the heightened urgency and integrate actionable strategies to align with the 2030 goals.

A major breakthrough at COP28 in Dubai was the explicit inclusion in the final agreement of the need for a “gradual phase-out of fossil fuels”. This language represented a significant step forward, although its adoption into the broader vocabulary of international diplomacy remains fraught with resistance. For example, the G20, which includes major fossil-fuel producers such as Saudi Arabia and Russia, engaged in protracted negotiations before agreeing to include this phrasing in its final communiqué during its summit in Brazil, held alongside COP29. The G20’s cautious approach underscores the persistent geopolitical tensions surrounding the global energy transition.

COP29 was expected to build on the momentum of COP28 by delivering an “*unambiguous signal*” to reinforce the commitment to phasing out fossil fuels. This includes not only accelerating the phase-out but also urging countries to remove all direct and indirect fossil-fuel subsidies, and to redirect these resources toward climate action. With phasing out fossil-fuels both necessary and technologically feasible, COP29 presented a critical opportunity to advance global consensus and ensure meaningful progress toward a sustainable energy future.

- **Advancing Climate Finance**

Significant progress has been made in supporting developing countries in enhancing their resilience to the effects of climate change. One notable achievement is the historic agreement to operationalize the Loss and Damage Fund. Further advancements in the loss and damage agenda were realized with the decision to establish the Santiago Network Secretariat under the auspices of the UN Office for Disaster Risk Reduction and the UN Office for Project Services. This platform aims to provide vital technical assistance to vulnerable developing countries. Additionally, Parties agreed on specific targets for the Global Goal on Adaptation (GGA) and its framework, emphasizing the need for financial, technological, and capacity-building support to achieve these objectives.

Climate finance, a “*key catalyst for climate action*”, saw increased commitments, including (UNFCCC, 2023c): **(i)** a second replenishment of the Green Climate Fund (GCF), with pledges from 31 countries totaling \$12.8 billion; **(ii)** contributions from eight donors to the Least Developed Countries Fund (LDCF); **(iii)** allocations of \$174 million to the Special Climate Change Fund; **(iv)** \$188 million in new resources for the Adaptation Fund.

While these commitments represent important steps forward, they fall short of the scale of financial support required by developing countries to meet their climate goals effectively.

The Global Stocktake highlighted the urgent need to reform the multilateral financial architecture and accelerate the establishment of new and innovative sources of climate finance. Ongoing discussions have been focused on setting a new collective quantified goal (NCQG) for climate finance in 2024, reflecting the specific needs and priorities of developing countries. This new goal is fundamental to shaping and implementing national climate plans by 2025, consolidating the mitigation work program launched at COP27, and fostering transitions to decarbonized economies and societies.

- **Toward a New Collective Climate Finance Goal**

The pledge made by developed countries at the 2009 Copenhagen Conference to provide \$30 billion between 2010 and 2012, and to mobilize \$100 billion annually by 2020 for developing nations, has not been fulfilled. Further commitments were made at COP21 in 2015, where parties agreed to establish a new collective quantified goal (NCQG), beginning at a baseline of \$100 billion per year, reflecting the evolving needs and priorities of developing countries.

While there is consensus that climate finance should continue to include public funding for developing countries and the mobilization of private finance, debates persist over its composition. Key discussions center on whether to incorporate private, philanthropic, and domestic sources alongside international public finance. There are also discussions about whether to set thematic sub-targets in areas including mitigation, adaptation, and loss and damage, and whether the goal should focus on total investment flows to developing countries or encompass global investments for climate action (Vallejo, 2024).

One of the key aspects of the NCQG’s relevance is its aim to address the persistent gaps in climate

finance. As the High-Level Expert Group on Climate Finance has noted, the financial needs of developing countries have expanded significantly. These nations need substantial concessional financial support to implement effective mitigation and adaptation strategies, construct resilient infrastructure, and shift towards sustainable energy systems (World Economic Forum, 2024).

At COP29, for the first time in 15 years, countries were set to reassess the financial support that developing countries receive for climate action, leading to the establishment of a NCQG on climate finance (Larsen et al, 2024). This new assessment must be built upon previous financial commitments under the Paris Agreement while ensuring that it is socially equitable, aligned with the polluter pays principle, and supported by diverse funding sources, including public, private, and innovative mechanisms.

Developing countries have called for a predictable EU financing mechanism to ensure the delivery of adequate European climate-finance commitments. These demands highlight the need for greater transparency and accountability in climate finance, as emphasized during COP28 negotiations on the enhanced transparency framework. This framework aims to develop robust tools for reporting and reviewing financial contributions by all Parties.

Therefore, it is crucial that the negotiation process includes broad representation from developing countries and the private sector, ensuring that the NCQG aligns with both the ambitious financial targets and the actual capacities of developed nations, and with the urgent needs of developing countries. In addition, the NCQG must be structured to learn from past lessons, addressing several critical areas: **(i)** the timeframe for achieving goals, **(ii)** the quantum of finance necessary to meet developing countries' needs, and a robust structure that includes links with existing funds such as the Green Fund. Equally important are **(iii)** transparent tracking and evaluation mechanisms that not only monitor progress but also ensure that any financial contributions are used effectively and equitably. These elements will facilitate an equitable distribution of funds and foster a just and inclusive approach to global climate finance.

Looking ahead, COP30 will be a critical juncture. Governments must present updated NDCs that cover the entire economy, address all greenhouse gases, and align fully with the 1.5°C temperature limit. This ambition hinges on achieving consensus on the NCQG at COP29, ensuring that developing countries have access to sufficient resources to drive mitigation and adaptation efforts. The establishment of a new collective financial target at COP29 will also lay the groundwork for the post-2025 climate finance framework. This target must be predictable and equitable, offering a pathway to meeting the global climate challenge while addressing the specific needs of the most vulnerable nations.

- **Operationalizing the Loss and Damage Fund**

Building on the progress achieved at COP27 and COP28, discussions at COP29 were expected to advance the operationalization of the Loss and Damage Fund, a mechanism designed to support vulnerable communities disproportionately affected by climate change, particularly Small Island Developing States (SIDS) and Least Developed Countries (LDCs). While mitigation efforts aim to reduce greenhouse-gas emissions, and adaptation addresses preemptive climate risk management, loss and damage focuses on providing assistance to those who have already experienced the impacts of climate change. As climate change increasingly surpasses the limits of adaptation, as highlighted in the IPCC's Sixth Assessment Report, this element of global climate action is becoming ever more critical. The report emphasized the distinction between 'soft' adaptation limits, constrained by financial or institutional barriers, and 'hard' limits, beyond which no solutions remain to prevent catastrophic impacts, particularly for vulnerable populations (IPCC, 2023).

To address the diverse and complex nature of loss and damage, a multifaceted financial strategy is required. No single form of finance can effectively manage the range of impacts experienced across different regions and communities. A layered financial approach is essential, combining multiple types of intervention to address both immediate and long-term needs. This includes funding for emergency response, post-disaster recovery and rehabilitation, disaster risk reduction, social protection measures, and planned relocation and migration strategies. Such an integrated approach not only strengthens resilience but also prevents vulnerable populations from falling into cycles of decline following repeated crises (ISCCAD, 2022).

The Fund's Board of Directors has made critical decisions, including approving the Host Agreement and Trustee Arrangements with the World Bank, which provide the structural foundation for the Fund. The appointment of the Fund's Executive Director further establishes its governance framework. These steps enable the Fund to disburse financial resources for the first time in 2025, following years of negotiations since its creation at COP27 and the decision to operationalize it at COP28.

- **Scaling-Up Climate Adaptation Finance**

Climate adaptation finance has become an increasingly urgent focus as the impacts of global warming manifest in diverse and intensifying ways. While reducing greenhouse gas emissions remains indispensable, adapting territories and lifestyles to higher temperatures and more frequent climate hazards is equally critical. Historically, COP negotiations have emphasized mitigation, leaving adaptation somewhat underexplored. However, adaptation is not an optional component but a necessary pillar of comprehensive climate action.

The challenge lies in defining clear objectives for adaptation and, by extension, quantifying the financial resources required to meet these goals. Unlike mitigation, which is anchored by the clear and measurable target of limiting global warming to 1.5°C (as established in the 2015 Paris Agreement), adaptation lacks a comparable universal benchmark. Adaptation is inherently multifaceted and highly localized, encompassing issues such as rising sea levels, endemic droughts, and forest degradation. While criteria for climate risk exposure or vulnerability can provide some guidance, they remain less concrete and tangible than the 1.5°C limit.

Other reasons why climate change adaptation poses a significant challenge in today's climate discussions are inadequate finance, the knowledge gaps, and institutional constraints, mainly when it comes to developing countries. In this sense, international agreements such as the Global Goal on Adaptation, the Global Stocktake, and comprehensive National Adaptation Plans play key roles in climate change adaptation, and in filling the gaps related to it (UNDP, 2024).

Box 2: Global Goal on Adaptation & National Adaptation Plans (NAPs)

- **Global Goal on Adaptation (GGA)**

Under Article 7.1 of the Paris Agreement, the Global Goal on Adaptation (GGA) represents a collective commitment to strengthening the world's adaptive capacity, enhancing resilience, and reducing climate change vulnerability. The GGA was proposed by the African Group of Negotiators in 2013, and then established in 2015, serving as a unifying framework to drive finance, political action for adaptation, to meet the same level as mitigation (Hussein et al, 2024).

The GGA focuses on key identified targets for the adaptation framework including water management, food security, health, infrastructure development ecosystem conservation, poverty alleviation, and preservation of cultural heritage. This comprehensive approach aims to ensure that all relevant aspects are considered in the formulation and implementation of climate adaptation strategies, with a focus on the nexus between the nature of climate adaptation efforts and broader sustainable development objectives (Wubet, 2024).

Moreover, the GGA includes four targets for the adaptation cycle: climate risk and vulnerability assessments, planning, implementation and monitoring, and evaluation and learning. Before COP28, the progress made with the GGA was rather slow. The indicators to measure progress of the GGA are already used in other contexts. However, from the UN's 2024 Bonn climate negotiations onwards, countries agreed on mapping existing indicators and identifying gaps. However, there is no universal metric for adaptation, while the UNFCCC secretariat confirmed that there is a lack of indicators that can be aggregated to the global level (Williams et al, 2024).

The operationalization of the GGA in the future and its role in driving accelerated adaptation actions remains subject to addressing three key challenges. First is conceptually defining what adaptation on a collective level stands for. Numerous intertwined frameworks and concepts are already in place and also target adaptation efforts. The global scaling of adaptation measures lacks the definition of the tracking tools for progress, based on national goals or sectoral plans for instance. Second, metrics should not be the core focus of the GGA but rather fair processes with the same goal of ensuring a Just Energy Transition. Quantitative measuring alone might not be sufficient as context and qualitative data often characterize adaptation. This calls for the implementation of robust methodological frameworks, especially for developing countries with limited resources. In this context, country-based systems can have a stronger role to play, through synergies with national priorities under different frameworks such as the Sendai Framework for Disaster Risk Reduction and the Sustainable Development Goals (SDGs).

- **National Adaptation Plans (NAPs)**

The National Adaptation Plan (NAP) process was created under the Cancun Adaptation Framework, allowing Parties to the UNFCCC to formulate and implement their NAPs as a way to identify medium- and long-term adaptation needs, and to develop and implement strategies and programs addressing these needs (FAO, 2024). The overarching objectives of NAPs are to reduce vulnerability to the impacts of climate change by building adaptive capacity and resilience, and integrating adaptation into new and existing policies, mainly development strategies (UNEP, 2024).

However, the NAPs still face key challenges. While nations need to define clear strategies for adapting to the impacts of climate change, the least-developed countries still struggle with finding financing to implement their NAPs. This explains why even if the NAP framework was established over a decade ago, several LDCs still struggle to formulate and execute their plans. Sudan, for instance, submitted its NAP in 2016 without being able to implement its plans because of insufficient funding, but obtained a grant for the GCF Readiness Program and was able to start actioning its plan with two GCF country projects being implemented (Yassin, 2023). This showcases the importance of capitalizing on available sources of financing that can strengthen adaptation efforts when LDCs lack the necessary resources to move forward with their NAP.

Despite these challenges, progress has been made. At COP27, governments agreed to advance work on the Global Goal on Adaptation (GGA), with nearly 500 indicators identified to measure progress. A framework for adaptation targets was further developed at COP28, with discussions continuing. On the financial side, COP26 in Glasgow set a target to double global adaptation finance by 2025 compared to 2019 levels. Adaptation funding rose from \$20 billion in 2019 to approximately \$35 billion in 2022, according to OECD data, making the doubling target achievable. However, this remains far below the estimated annual needs of \$215 billion to \$387 billion for developing countries during the 2021–2030 period, as outlined by UNEP.

At COP27, progress on adaptation finance included over \$230 million in new pledges to the Adaptation Fund, helping vulnerable communities implement concrete solutions, including flood defenses and ecosystem restoration. The Sharm el-Sheikh Adaptation Agenda aimed to strengthen the resilience of the most climate-vulnerable populations by 2030, supported by efforts such as the UNFCCC Standing Committee on Finance, which prepared a report on doubling adaptation finance, which was presented at COP28.

The Sharm el-Sheikh Implementation Plan emphasized that a global transformation to a low-carbon economy will require investments of \$4 trillion to \$6 trillion annually. Achieving this will necessitate a rapid and systemic overhaul of the financial architecture, involving governments, central banks, commercial banks, institutional investors, and other financial actors. This transformation is critical to meeting climate finance targets and ensuring equitable resource allocation. Concerns remain about the unmet commitment of developed countries to jointly mobilize \$100 billion annually by 2020, a goal that had still not been achieved by 2022. Developed countries are urged to meet this target, while multilateral development banks and international financial institutions are called on to scale-up climate finance mobilization.

At COP29 in Baku, expectations were high that the New Collective Quantified Goal (NCQG) for climate finance will allocate a significant share specifically to adaptation projects, such as building seawalls and restoring natural habitats. These projects typically lack financial returns, unlike renewable energy investments such as solar-panel installations, making public subsidies essential. The NCQG must address this gap by ensuring robust public funding for adaptation, recognizing the critical role of subsidies in supporting vulnerable communities to build resilience against escalating climate impacts.

- **Adopting Carbon Pricing Worldwide**

COP29 placed significant emphasis on finalizing the operational aspects of Article 6, a key mechanism under the Paris Agreement designed to enable global carbon markets. This mechanism is critical for raising climate ambition, mobilizing financial resources, and ensuring equitable resource flows

to developing countries. Introduced as part of the Paris Agreement in 2015, Article 6 provides a framework for international cooperation on climate targets through both carbon markets and non-market approaches. Though the Paris Agreement entered into force in 2016, the detailed operational guidelines for Article 6 were only agreed at COP26 in Glasgow in 2021 (UNFCCC, 2021). Despite this progress, COP28 revealed several unresolved issues, underscoring the urgency of achieving consensus at COP29 to unlock the full potential of global carbon markets.

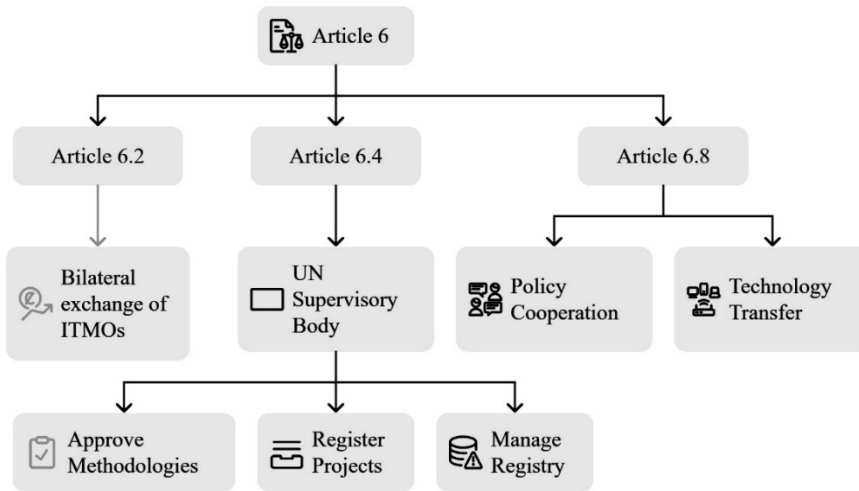
At its core, Article 6 facilitates the trade in carbon credits, each representing one metric ton of CO₂ (or equivalent gases) reduced or removed from the atmosphere. These credits are generated from diverse projects, including renewable energy initiatives, reforestation efforts, methane capture, and energy efficiency improvements. Article 6 mechanisms offer a pathway to leverage these credits to meet global climate targets while creating economic incentives for emissions reduction.

The mechanisms under Article 6 include three distinct approaches:

- **Article 6.2:** This provision allows countries to engage in bilateral or multilateral trading of internationally transferred mitigation outcomes (ITMOs), which can be counted toward their NDCs. While momentum is growing, with several bilateral agreements signed, and Switzerland and Thailand completing the first ITMO trade in 2024, the slow pace of implementation reflects the lack of domestic frameworks necessary to operationalize these trades effectively.
- **Article 6.4:** Known as the Paris Agreement Crediting Mechanism (PACM), this framework establishes UNFCCC-regulated processes for validating, verifying, and issuing high-quality carbon credits. The Supervisory Body oversees methodologies, project registrations, and the credit registry. However, progress has been stalled by unresolved issues, such as defining methodologies for carbon removals, creating uncertainty for project developers and investors.
- **Article 6.8:** Unlike the market-based mechanisms of Articles 6.2 and 6.4, this article focuses on non-market approaches, such as policy cooperation and technology transfer. It includes a UNFCCC platform for listing mitigation projects and seeking support, but remains less defined than other mechanisms.

Despite the promise of Article 6, carbon pricing solutions currently cover only 24% of global emissions, a figure insufficient to meet the Paris Agreement's targets. Countries are encouraged to follow examples such as the EU's emissions trading scheme and border carbon adjustment mechanism, in order to establish or enhance their own carbon pricing frameworks. COP28 highlighted the lack of consensus on several critical issues, such as reporting and authorization requirements under Article 6.2, and methodologies for credit validation under Article 6.4, leaving these areas unresolved.

The lack of finalized rules has greater implications for Article 6.4, on which delays hinder the development of a globally accepted crediting mechanism. Without clear criteria, many countries may opt for the flexibility of bilateral agreements under Article 6.2, potentially undermining the integrity of the global market. Key areas of focus include whether authorizations for carbon credits can be revoked, whether emissions avoidance projects qualify for credits, and the role of the UN-managed international registry.

Figure 4**Overview of Article 6 and its Mechanisms**

Source: Authors based on Granziera et al, 2023.

COP29 was expected to address these issues by finalizing the Agreed Electronic Format tables to standardize reporting methods, clarify the scope of eligible projects, and establish the role of the UN registry. Achieving consensus on these elements is crucial for ensuring transparency, maintaining high standards, and fostering trust in the global carbon market.

Article 6 has the potential to significantly reduce the costs of global emissions reductions, potentially saving up to \$250 billion by 2030 while facilitating financial flows to developing countries. To fully realize this potential, it is essential to strike a balance between the flexibility of bilateral trades under Article 6.2 and the centralized integrity of Article 6.4. Establishing a credible, transparent, and high-integrity framework is critical to ensuring the success of international carbon markets and the broader goals of the Paris Agreement.

5. CONCLUSION OF COP 29 IN BAKU: A MAJOR DISAPPOINTMENT?

At the close of COP29 in Baku, negotiators reached a hard-won agreement, though it fell short of fully addressing critical issues.

- **Waning Momentum for Fossil Fuel Phase-Out**

The gradual reduction of oil, coal, and gas use to mitigate global warming, a cornerstone of the agreement reached at COP28 in Dubai, has seen its momentum wane over the past year. Despite being a central element of global climate commitments, this critical issue appears to have been relegated to a lower priority, with some parties even questioning its necessity (Mersie, 2024).

The final communiqué from the G20 summit in Rio was notably silent on the topic, reflecting a weakening international consensus. Similarly, COP29 in Baku revealed a diminished focus on the imperative of transitioning away from fossil fuels, despite their status as the primary contributors to the greenhouse-gas emissions driving global warming. Discussions in Baku largely sidestepped the issue, signaling a troubling shift in emphasis at a time when urgent action is needed.

The challenge of North-South financing, which remains central to the broader climate agenda, is intrinsically linked to the financial demands of facilitating a transition away from fossil fuels. Without addressing this transition, equitable and effective global climate action becomes unattainable. The financial support required for developing nations to shift their energy systems is fundamental, yet the lack of concrete commitments hampers meaningful progress. The EU, a vocal proponent of increased accountability, pushed for annual monitoring of efforts to phase out oil, gas, and coal. However, this proposal faced strong opposition, particularly from Saudi Arabia, and failed to gain sufficient support.

The primary texts adopted at COP29 contain no explicit references to reducing reliance on fossil fuels. Instead, they merely allude to the commitments made at COP28, which were secured under significant pressure from parties such as the EU. This omission underscores the persistent difficulties in maintaining momentum internationally for fossil-fuel reductions.

The retreat from explicit commitments at COP29 highlights the challenges of sustaining a unified global approach to fossil-fuel phase-out, even as the scientific consensus underscores its critical importance. Without clear and actionable agreements, the path to achieving global climate goals remains fraught with uncertainty.

- **COP29 Climate Finance Commitment: Ambitions Undermined by Persistent Gaps**

COP29 in Baku concluded by securing a commitment from developed nations to triple their annual climate finance contributions to developing countries, reaching \$300 billion annually by 2035. This commitment, recognized as the new collective quantified goal (NCQG) on Climate Finance, represents a long-anticipated increase over the previous \$100 billion annual target established in 2009. The agreement also aims to leverage a broader total of \$1.3 trillion per year from public, private, and alternative sources by 2035 to meet the external financing needs of developing countries (UNFCCC, 2024b). However, it generated mixed reactions.

The NCQG underscores a leadership role for developed nations, which have been identified since 1992 as historically responsible for climate change. The funding is expected to come from public funds, private investments mobilized or guaranteed by these countries, and potential alternative sources, such as global taxes on aviation, shipping, or wealth—although these remain under discussion. The agreement highlights the intention to set an example for other actors, encouraging wider participation in scaling up climate finance.

The \$300 billion annual target is designed to address critical gaps in financing for climate adaptation and mitigation in vulnerable nations, aligning with the estimated external funding needs assessed by UN-appointed experts. For many climate-vulnerable countries, this increased commitment offers a crucial opportunity to access funding for projects that address the impacts of climate change.

While the NCQG represents progress, it also reveals significant limitations. The \$300 billion commitment falls significantly short of the \$1 trillion to \$2 trillion annually requested by climate-vulnerable nations, such as Pakistan (Edie, 2024). When adjusted for inflation, the increase from the previous \$100 billion target appears far less ambitious than it seems on paper, drawing criticism from experts and stakeholders (Mersie, 2024). A major concern is the lack of specificity in the composition of this funding. The agreement allows the \$300 billion to be sourced from a “wide variety of sources”, without specifying the proportion of public finance or grants (Mersi, 2024). This raises fears that much of the funding could come in the form of loans, potentially exacerbating debt burdens for developing nations that are already grappling with economic challenges. The negotiations in Baku thus exposed deep divisions between developed and developing countries.

Further tensions arose from calls from Western countries to expand the pool of contributors to include wealthier non-developed nations, such as China, Singapore, and Gulf States. China, the world's largest emitter and second-largest economy, strongly opposed any revisions to the 1992 UN framework, which assigns climate-finance responsibilities exclusively to developed nations. Proposals from Canada and Switzerland to base contributions on national income levels and carbon emissions were also met with resistance, leaving the final agreement to merely "invite" non-developed nations to contribute on a voluntary basis.

The NCQG agreement marks a critical step in advancing global climate finance, but falls short of supplying the actual financing needed to address climate change. Its limitations underscore the challenges of achieving equitable and effective funding mechanisms. The lack of concrete commitments on the balance between public and private finance, combined with the unresolved tensions over contributor responsibilities, highlights the need for continued negotiation and accountability. Looking ahead, the success of the NCQG will depend on its implementation. Ensuring that funding is accessible, equitable, and focused on grants rather than loans will be essential to avoid worsening the economic vulnerabilities of developing countries. Additionally, broader participation in financing efforts, including contributions from emerging economies, will be crucial to address the global scale of the climate crisis.

- **Carbon Markets: Progress and Persistent Challenges**

At COP29 in Baku, significant progress was made on operationalizing Article 6 of the Paris Agreement, particularly regarding carbon markets. This marks a historic milestone after nearly a decade of negotiations, with agreements on the frameworks governing country-to-country trading (Article 6.2) and a centralized carbon crediting mechanism (Article 6.4). While these developments are crucial steps toward mobilizing climate finance and boosting global ambition, they have also drawn criticism for lingering gaps in transparency, accountability, and environmental integrity.

The agreed framework for Article 6.2 and 6.4 provides clearer guidance on how these trades are authorized and tracked through registries, with technical reviews introduced to ensure upfront environmental integrity (UNFCCC, 2024b). It offers promising opportunities for developing countries, particularly in Africa and Asia. These mechanisms could unlock substantial climate finance, with estimates suggesting that carbon markets could provide \$80 billion in financing for Africa alone (Mersie, 2024). For nations facing funding shortfalls, such as Zambia, Benin, and Jordan, bilateral agreements are already proving valuable, with 91 deals covering 141 pilot projects signed by November 2024. Examples of early projects include Switzerland's agreements with Ghana to reduce methane emissions from waste, and with Thailand to finance electric buses in Bangkok. Proponents of these mechanisms highlight their potential to generate income for developing countries while contributing to global emissions reductions.

Despite these achievements, significant challenges remain. Critics argue that Article 6.2 leaves too much latitude for misuse. The framework does not require full transparency or accountability in addressing double counting—where both the buying and selling country claim the same emissions reduction (Mersie, 2024). While countries are requested to avoid such practices, no binding measures exist to enforce compliance, potentially undermining the credibility of reported reductions.

Similarly, the centralized system under Article 6.4, while more stringent, is not yet operational. Experts have raised concerns about the transition of projects from the Kyoto Protocol's Clean Development Mechanism (CDM) to the new framework. These legacy projects may bypass additionality tests, despite evidence of inefficiencies and questionable impacts under the CDM. Ensuring that these projects meet updated standards is crucial for maintaining the integrity of the system.

Concerns over potential 'greenwashing' persist, particularly with the risk that wealthy nations might prioritize purchasing credits over implementing meaningful emissions reductions domestically. Without stricter guidelines, carbon markets could inadvertently allow high-emitting countries to delay critical transitions at home.

The outcomes of COP29 highlight both progress and the need for vigilance. While carbon markets offer a pathway to mobilize critical financing and drive global ambition, their effectiveness will hinge on addressing the remaining gaps to ensure they contribute meaningfully to emissions reductions and climate justice. As such, the work on carbon markets is far from complete. The Supervisory Body regulating Article 6.4 must finalize methodologies, tools, and standards to ensure robust safeguards and address reversal risks. Additionally, stakeholders are calling for further refinements to enhance transparency, enforce compliance, and ensure that nature-based solutions and affected communities are protected adequately. While Article 6.2 is now operational, its success will depend on how effectively countries adhere to its principles and improve accountability mechanisms over time. For Article 6.4, operationalization is unlikely before late 2025, leaving significant work for the Supervisory Body to establish a credible system that reflects the goals of the Paris Agreement.

CONCLUSION

The road to COP30 in Belém, Brazil, in 2025, is fraught with challenges, as the outcomes of COP29 in Baku have left open critical gaps. Despite some progress, such as the adoption of a new collective quantified goal for climate finance, and advancements in operationalizing Article 6 carbon markets, the lack of ambitious and unified action threatens the global climate agenda.

The failure to sustain momentum on the fossil-fuel phase-out underscores the persistent geopolitical tensions that hinder global consensus. Similarly, while the tripling of climate finance commitments to \$300 billion annually by 2035 marks a notable increase, it remains insufficient to meet the demands of developing nations or to address the scale of climate impacts effectively. The reliance on a mix of funding sources without clear guidelines for public and private contributions raises concerns about equity and accessibility, particularly for vulnerable nations.

The operationalization of Article 6 mechanisms has laid the groundwork for carbon markets, yet unresolved issues, such as transparency, accountability, and the risk of greenwashing, highlight the limitations of these frameworks. The need for stricter oversight and robust safeguards to protect vulnerable communities and ensure environmental integrity remains paramount.

As multilateralism shows signs of strain, the urgency of restoring credibility and building trust in international climate governance has never been greater. COP30 will be a critical juncture in delivering on the promises of the Paris Agreement, particularly staying within 1.5°C. Success will require a concerted effort to address the shortcomings of COP29, align financial mechanisms with the needs of the most vulnerable, and reinforce global commitments to a sustainable and equitable energy transition. Without substantial progress, the credibility of the COP process and the broader multilateral framework could be further undermined, jeopardizing the collective effort to combat climate change.

ANNEX

Table 1

Climate Adaptation Needs in the Global Stocktake

	Global Stocktake (GST)	Global Goal on Adaptation (GGA)	National Adaptation Plans (NAPs)
Purpose	Assess collective global progress on climate goals (adaptation, mitigation, finance)	Set a global objective to enhance adaptive capacity, resilience, and reduce vulnerability	Provide country-specific strategies for managing climate risks and vulnerabilities
Scope	Global, evaluating overall progress	Global, focusing on broad adaptation objectives	National, focusing on specific adaptation actions and priorities
Timing	Conducted every five years; first GST technical assessment phase runs until mid-2023	Ongoing, with measurable progress tied to adaptation metrics	Country-specific; NAPs are prepared and submitted on individual timelines
Information Source	NAPs and other national reports feed into GST for progress assessment	Informed by metrics, indicators, and adaptation reporting from the Adaptation Committee (AC)	Developed by each country through vulnerability assessments, consultations, and adaptation planning
Metrics and Indicators	Uses metrics from NAPs and the GGA to assess collective progress	Calls for standardized metrics, inspired by frameworks like SDGs.	Country-defined metrics and Monitoring, Evaluation, and Learning (MEL) systems
Level of Detail	High-level overview of global progress and gaps	Broad global objectives with a focus on measurable adaptation outcomes	Detailed, context-specific adaptation actions, including local and sectoral integration
Focus on Equity	Recognizes contributions of developing countries and highlights equity considerations	Emphasizes equitable resilience and adaptation for all countries	Incorporates local realities, community involvement, and Indigenous knowledge
Lessons and Best Practices	Aggregates insights from national experiences for global learning	Aims to create a unified approach to adaptation outcomes across countries	Captures local lessons and challenges, contributing to global knowledge exchange
Examples of Influence	Findings from GST help guide national adaptation and policy updates	Adaptation Committee develops metrics based on SDGs and SFDRR approaches	Influences other countries' NAPs through shared experiences and documented case studies

REFERENCES

- Baarsch, F et al. 2015. *Impacts of Low Aggregate INDCs Ambition*. Technical Summary. Research commissioned by OXFAM. [Impacts of Low Aggregate INDCs Ambition: Research commissioned by Oxfam](#), Accessed November 01, 2024.
- Climate change news, 2024, *In numbers: The state of the climate in 2024*, <https://www.climatechangenews.com/2024/11/11/in-numbers-the-state-of-the-climate-in-2024/#:~:text=2024%20is%20on%20track%20to%20be%20the%20first%20year%20above%201.5C&text=The%20global%20average%20temperature%20for,above%20the%201991%2D2020%20average>.
- Diab, K., 2024. COP29: Carbon markets need to be fixed but are no quick fix for climate crisis. Carbon Market Watch. Press Release. [COP29: Carbon markets need to be fixed but are no quick fix for climate crisis - Carbon Market Watch](#), Accessed October 21, 2024.
- European Commission, 2024. *GHG emissions of all world countries- 2024 report*. Emissions Database for Global Atmospheric Research.
- European Parliament. 2017. COP 23 climate change conference: Outcomes. [COP 23 climate change conference: outcomes](#), Accessed November 01, 2024.
- _2018. COP24 climate change conference: Outcomes. [https://www.europarl.europa.eu/RegData/etudes/ATAG/2019/633139/EPRS_ATA\(2019\)633139_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/ATAG/2019/633139/EPRS_ATA(2019)633139_EN.pdf), Accessed November 01, 2024.
- FAO, 2024, Climate Change. National Adaptation Plans., <https://www.fao.org/climate-change/action-areas/policy-support/national-adaptation-plans/en>, Accessed December 03, 2024
- GCF (Green Climate Fund). 2024. *About GCF. Timeline | Green Climate Fund*, Accessed November 01, 2024.
- Gov.UK. 2015. *Outcomes of the COP19 international talks on climate change*. [Outcomes of the COP19 international talks on climate change - GOV.UK](#), Accessed November 01, 2024.
- Granziera, B., Hamrick, K. & Verdieck J. 2023. *Article 6 Explainer: Questions and Answers About The Cop Decisions On Carbon Markets And What They Mean For NDCs, Nature, And The Voluntary Carbon Markets*. The Nature Conservancy.
- Heinrich Boll Stiftung. 2024. *Unpacking finance for Loss and Damage*. [Unpacking finance for Loss and Damage | Heinrich Böll Stiftung | Washington, DC Office - USA, Canada, Global Dialogue](#), Accessed November 01, 2024.
- Hussein, F, et. Al, 2024, *Understanding the Paris Agreement's 'Global Goal on Adaptation*, World Resources Institute <https://www.wri.org/insights/global-goal-on-adaptation-explained>, Accessed December 03, 2024
- ICCCAD. 2022. *Financing loss and damage: four key challenges*. [Briefing. 21141iied.pdf](#), Accessed November 01, 2024.
- Kyte, R. 2012. *Doha: keeping hope alive – just*. World Bank Blogs. <https://blogs.worldbank.org/en/climatechange/doha-keeping-hope-alive-just>, Accessed November 01, 2024.
- IEF (International Energy Forum). 2024. *COP29 is a critical opportunity to unlock Article 6 and power global carbon markets*. [COP29 is a critical opportunity to unlock Article 6 and power global carbon markets](#), Accessed November 01, 2024.
- IPCC. 2023. *Climate Change 2023 Synthesis Report*. [IPCC_AR6_SYR_LongerReport.pdf](#), Accessed November 01, 2024.
- Larsen, G. et al. 2024. *Will COP29 Unlock a New Era of Action? What to Watch at the 2024*

- Climate Summit*. World Resources Institute. <https://www.wri.org/insights/cop29-climate-summit-what-to-expect>, Accessed November 01, 2024.
- LSE (London School of Economics and Political Science). 2023. *What are the UN 'COP' climate change conferences?* Explainers. International action on climate change. [What are the UN 'COP' climate change conferences? - Grantham Research Institute on climate change and the environment](#), Accessed November 01, 2024.
 - Mechler, R. et al. 2019. *Loss and Damage from Climate Change. Concepts, Methods and Policy Options*. Book.
 - Mersie, A, 2024, COP29 special edition: *Big promises, small Band-Aids, and Big Oil drama*, Devex, <https://www.devex.com/news/cop29-special-edition-big-promises-small-band-aids-and-big-oil-drama-108833> , Accessed December 03, 2024
 - Nor, M.I., & Mohamed, A.A. 2024. *Investigating the complex landscape of climate finance in least developed countries (LDCs)*. *Discov Environ* 2, 76 (2024).
 - Retallak, S. 2011. *Durban: our reflections on COP17*. Insights. Carbon Trust. [Durban: our reflections on COP17 | The Carbon Trust](#), Accessed November 01, 2024.
 - United Nations. 2022. *Marking the Kyoto Protocol's 25th anniversary*. [Marking the Kyoto Protocol's 25th anniversary | United Nations](#), Accessed November 01, 2024.
 - United Nations Environment Programme (UNEP), *National Adaptation Plans : Science-based adaptation planning*, <https://www.unep.org/gef/index.php/focal-areas/climate-change-adaptation/our-work/national-adaptation-plans> , Accessed December 03, 2024
 - UNDP. 2024. *What is climate change adaptation and why is it crucial?* <https://climatepromise.undp.org/news-and-stories/what-climate-change-adaptation-and-why-it-crucial>, Accessed December 03, 2024.
 - UNFCCC (United Nations Framework Convention on Climate Change). 2019. *About the Santiago Network*. [About the Santiago Network | UNFCCC](#), Accessed November 01, 2024.
 - _2021. *COP26 Reaches Consensus on Key Actions to Address Climate Change*. UN Climate Press Release. [COP26 Reaches Consensus on Key Actions to Address Climate Change | UNFCCC](#), Accessed October 21, 2024.
 - _2023a. *How COPs are organized - Questions and answers*. [How COPs are organized - Questions and answers | UNFCCC](#), Accessed November 01, 2024.
 - _2023b. *Implementation must accelerate to increase ambition across all fronts, taking an all-of-society approach to make progress towards the Paris Agreement goals and respond to the climate crisis, finds technical report on first global stocktake*.
 - _2023c. *L'accord de la COP28 marque le « début de l'ère des combustibles fossiles »*. Communiqué ONU, le 13 décembre 2023. <https://unfccc.int/fr/news/l-accord-de-la-cop28-marque-le-debut-de-la-fin-de-l-ere-des-combustibles-fossiles#:~:text=La%20COP%2028%2C%20conf%C3%A9rence%20des,%C3%A9missions%20et%20un%20financement%20accru>, Accessed December 12, 2024.
 - _2024a. *The Paris Agreement. What is the Paris Agreement?* [The Paris Agreement | UNFCCC](#), Accessed November 01, 2024.
 - _2024b. *COP29 UN Climate Conference Agrees to Triple Finance to Developing Countries, Protecting Lives and Livelihoods*. [COP29 UN Climate Conference Agrees to Triple Finance to Developing Countries, Protecting Lives and Livelihoods | UNFCCC](#), Accessed December 03, 2024.
 - Vallejo, L. 2024. *COP29 on climate: a finance COP*. Blog Post, IDDRI. [COP29 on climate: a finance COP | IDDRI](#), Accessed November 01, 2024.

- Van Schie, D., et.al. 2024. Economic and non-economic loss and damage: a harmful dichotomy? *Global Sustainability*. 2024;7:e42. doi:10.1017/sus.2024.40.
- Victor, D.G. 2023. *COP28 and the ghosts of Copenhagen*. Commentary. Brookings Institute. [COP28 and the ghosts of Copenhagen](#), Accessed November 01, 2024.
- Waksow, D. et al. 2021. *COP26: Key Outcomes from the UN Climate Talks in Glasgow*. World Resources Institute. [COP26: Key Outcomes From the UN Climate Talks in Glasgow | World Resources Institute](#), Accessed November 01, 2024.
- Warszawski, N et al. 2024. What Is 'Loss and Damage' from Climate Change? 8 Key Questions, Answered. World Resources Institute. [What to Know About "Loss and Damage" from Climate Change | World Resources Institute](#), Accessed November 01, 2024.
- World Bank Group. 2022. *What You Need to Know About Article 6 of the Paris Agreement*. Feature Story. [Climate Explainer: Article 6](#), Accessed October 21, 2024.
- World Economic Forum. 2023. *COP28 agrees to establish loss and damage fund for vulnerable countries*. [COP28 agrees to establish loss and damage fund for vulnerable countries | World Economic Forum](#), Accessed November 01, 2024.
- _2024. *The NCQG: What is it and why does it matter? The NCQG: What is it and why does it matter? | World Economic Forum*, Accessed November 01, 2024.
- Wubet. S, 2024, *Adapting to the Inevitable: The Global Goal on Adaptation and the Urgency of Action*, <https://gca.org/adapting-to-the-inevitable-the-global-goal-on-adaptation-and-the-urgency-of-action/>, Accessed December 03, 2024.
- Yassin. L, 2023, *National Adaptation Plans: LDCs need financing to turn words into reality*, International institute for Environment and Development, <https://www.iied.org/national-adaptation-plans-lDCs-need-financing-turn-words-reality>, Accessed December 03, 2024.
- Yeo, S. 2016. *COP22: Key outcomes agreed at the UN climate talks in Marrakech*. UN Climate Talks, Carbon Brief. [COP22: Key outcomes agreed at the UN climate talks in Marrakech - Carbon Brief](#), Accessed November 01, 2024.
- Zhu, Mengye, et al. *Bridging the global stocktake gap of climate mitigation: A framework to measure political economy progress*, [Bridging the global stocktake gap of climate mitigation: A framework to measure political economy progress](#), Accessed December, 03, 2024.

ABOUT THE AUTHORS



LARABI JAÏDI

Larabi Jaïdi is a Senior Fellow at the Policy Center for the New South and an Affiliate Professor at Mohammed VI Polytechnic University. His areas of expertise include international economy, economic policies, international economic relations, regional economies, social development, international relations, and Mediterranean studies. He also served on the Special Commission on the New Development Model of Morocco, a consultative body created in November 2019 to formulate the country's new developmental guidelines. [Read more](#)



RIM BERAHAB

Rim Berahab is Senior Economist at the Policy Center for the New South, which she joined in 2014. She is currently working on themes related to energy issues and their impacts on economic growth and long-term development. Her research areas also cover trade and regional integration challenges in Africa. Previously, she has also worked on questions related to gender inequalities in the labor market of North African countries. [Read more](#)



SABRINE EMRAN

Sabrina Emran is a Finance graduate specializing in financial markets and commodities. She holds a Grande Ecole master's degree in Management from IESEG School of Management and ISCAE Group, as well as a Specialized master's degree in Financial Markets from Paris Dauphine University and ENSAE ParisTech. [Read more](#)

ABOUT THE POLICY CENTER FOR THE NEW SOUTH

The Policy Center for the New South (PCNS) is a Moroccan think tank aiming to contribute to the improvement of economic and social public policies that challenge Morocco and the rest of Africa as integral parts of the global South.

The PCNS pleads for an open, accountable and enterprising "new South" that defines its own narratives and mental maps around the Mediterranean and South Atlantic basins, as part of a forward-looking relationship with the rest of the world. Through its analytical endeavours, the think tank aims to support the development of public policies in Africa and to give the floor to experts from the South. This stance is focused on dialogue and partnership, and aims to cultivate African expertise and excellence needed for the accurate analysis of African and global challenges and the suggestion of appropriate solutions.

[Read more](#)

All opinions expressed in this publication are those of the authors.

Policy Center for the New South

Rabat Campus of Mohammed VI Polytechnic University,
Rocade Rabat Salé - 11103
Email : contact@policycenter.ma
Phone : +212 (0) 537 54 04 04
Fax : +212 (0) 537 71 31 54

www.policycenter.ma

