京都大学大学院経済学研究科
再生可能エネルギー経済学講座
ディスカッションペーパー

COP26：パリの約束から具体的な行動まで？

－パリ協定第 6 条と気候クラブの展望－

COP26: from Paris's promises to concrete actions?

– Paris Agreement Article 6 and the prospect for climate clubs –

2022 年 04 月

April 2022

Joseph DELLATTE[a b]

[a] Research Fellow for Climate, Energy and Environment in the Asia-Program of *Institut Montaigne*, Paris, France

[b] Associate in the Joint Research project on Renewable Energy Economics*, Kyoto University*, Kyoto, Japan

COP26：パリの約束から具体的な行動まで？

ーパリ協定第 6 条と気候クラブの展望ー

COP26: from Paris's promises to concrete actions?

– Paris Agreement Article 6 and the prospect for climate clubs –

Dr. Joseph DELLATTE[a b]

[a] Research Fellow for Climate, Energy and Environment in the Asia-Program of *Institut Montaigne*, Paris, France

[b] Associate in the Joint Research project on Renewable Energy Economics*, Kyoto University*, Kyoto, Japan

Abstract:

Six years after the Paris Agreement, COP26 is the most significant momentum for countries of the world to agree on concrete pathways to reach the 1.5-degrees target. The summit's critical questions encompass enhancing Nationally Determined Contributions (NDCs), deciding on solid finance packages for developing countries, producing new Public-Private Partnerships(PPPs) for technological breakthroughs, and finalizing the Paris rules book, especially on Article 6. This paper discusses COP 26's achievements on these critical issues. In addition, it further engages the discussion on the implementation of Climate Clubs, as an opportunity for like-minded countries to work together accelerating climate ambition.

Keywords: COP26; Climate change; Article 6; Carbon pricing; UNFCCC; Governance; Political economy; Climate policy

Contents

1. Introduction

197 parties and countless non-state actors gathered last November in Glasgow for the crucial 26th Conference of the Parties. Normally scheduled in 2020 but delayed due to the COVID-19 pandemic, COP26 has been considered a historic opportunity to accelerate climate action. Yet, six years after the Paris Agreement and at the end of the first five-year cycle, countries still have significant barriers to overcome to reach the Paris objectives. On this basis, the conference handled three main categories of issues with more or less success: enhancing ambition, finalizing the Paris Agreement rulebook, and augmenting structural climate finance.

The Paris Agreement provides a universal framework for keeping the world well below 2°C and possibly 1.5°C of warming compared to the pre-industrial baseline (UNFCCC, 2015). The Agreement is a Bottom-up instrument that divides countries through a *Common but differentiated responsibilities Principle*'s spectrum. Consequently, unlike the Kyoto Protocol, it does not stipulate concrete pathways or binding global emissions reduction targets. On the contrary, the Paris Agreement gives each country the responsibility to act according to its self-assessed capability using the Nationally Determined Contribution (NDC) system. Against this background, Glasgow's COP26 happened at a critical momentum, the end of the first NDC cycle, when every country theoretically had to commit new and enhanced NDC, following the Paris Agreement's *Ratchet mechanism*. Seizing this opportunity, the COP26 presidency's slogan, "Keeping 1.5°C alive", reflected the British political determination to increase global ambition with enhanced NDCs.

After years of complex negotiations since COP22 in Marrakesh, COP 26 had as main objective to eventually finalize the Paris Agreement rulebook. Particularly, three key topics still faced significant challenges: i) Establishing a common time frame for climate reporting (NDC cycle...); ii) agreeing on a rulebook for Transparency (Article 13); iii); adopting a rulebook for Internationally Transferred Mitigation Outcomes (Article 6). COP 26 delivered agreements for these three stumble points. Beyond the caveats addressed in this paper, adopting these rules has been a defining momentum to move the Paris Agreement from a rulemaking period to an implementation phase. Moreover, COP26 outcomes have also been a necessary step for the political survival of the multilateral climate negotiation regime (Depledge, 2021).

Finally, the rampant question of Climate finance also highlighted Glasgow. First, with the question of solving the never-ending issue of how to provide enough adaption finance for developing countries (and meeting the 100$bn/yr threshold committed at COP15 in Copenhagen). Second, with opening genuine discussions on Loss and Damage finance demanded by Least Developed and Most Vulnerable Countries.

COP 26 outcomes have been perceived either as a relative success (Espinoza, 2021; Pomeroy, 2021; The Economist, 2021) or dismissed as another lost opportunity, e.g., by prominent climate activist Greta Thunberg that summed the conference up on social media by a famous "Blah blah blah" (Thunberg, 2021). However, this paper displays how COP26 achievements demonstrate that, even in times of pandemic hurdles, the Paris Agreement is working to enable essential decisions for climate action. In this regard, the political dimension of the Glasgow Climate Pact – requesting countries to present a more ambitious climate pledge for COP27 and doubling adaptation finance – is undoubtedly an example of a slow but concrete political move toward much-needed climate actions.

Nevertheless, COP26 opened with an enormous credibility gap between long-term commitments and short-term pledges (UNEP, 2021; Climate Action Tracker, 2021). Indeed, the world after the conference is still not on track to reach the Paris Agreement 1.5°C target (CarbonBrief, 2021). Thus, it raises the question of whether a multilateral climate negotiation regime between competing global powers can generate immediate and sufficient political impetus for bold climate actions in this critical decade? Following this critical question, this paper emphasizes the role Article 6 could play as a potential catalyzer for like-minded countries to move faster together towards higher climate ambition through "minilateral" coalitions called ***Climate clubs***.

Theorized initially as a possible alternative to a global climate agreement, e.g., Nordhaus (2015), climate clubs are not a new concept and come in three possible forms. This paper emphasizes that COP26 saw normative (coalition of jurisdictions following the same norms) or bargaining (coalition of jurisdictions taking a similar pledge) climate clubs materializing. They all have in common of being not legally binding coalitions that are accessible to achieve in the current political context. However, more ambitious and legally binding transformational climate clubs are politically more challenging to establish, as explained by Falkner et al. (2021). In this configuration, members – such as like-minded countries or trade partners – define stringent climate policy targets and conditions for members while sketching sanctions for non-members to fight free-riding (Paroussos et al., 2019; Keohane & Victor, 2016). This paper discusses climate clubs at COP26 and how the conference's results might facilitate this kind of club.

2. Enhancing ambition through coalitions

Following the Paris Agreement Ratchet mechanism, countries had to submit new and enhanced NDCs strengthening emissions reduction pathways compliant with the Paris Agreement target. With this in mind, the main trends of Glasgow have been the emergence of **coalitions** of jurisdictions – and sometimes of corporations – as a new kind of political instrument for enhancing ambition. These instruments can be considered as "light" *bargaining* or *normative* Climate clubs. Against this backdrop, COP26 resulted in three main breakthroughs and two original agendas:

The *Global Methane Pledge*, initiated by the European Union and the United States, assembles 111 countries (including Japan and South Korea), representing half the global methane emissions. Countries pledge to reduce 30% of their methane emissions by 2030, which would entail a direct decrease of 0.2°C of potential warming (Global Methane Pledge, 2021). If this engagement is notable, parts of it are already included in existing climate pledges, according to Climate Action Tracker (2021, November). Also, certain big methane emitters did not follow the engagement like China, Russia, India, and Australia. Furthermore, some projections cast doubt that reducing 30% will be enough to spare 0.2°C of potential warming, emphasizing the need to cut up to 50% of methane emissions by 2030 to reach that threshold (Forster et al., 2021).

A collection of **Coal and Fossil Fuel Divestment Coalitions** has also emerged from the Glasgow Climate talks. Relatively confusing and non-binding, these coalitions consist of three main statements: **Global Coal to Clean Power Transition Statement** (23 countries); **Powering Past Coal Alliance** (48 national and 48 subnational signatories); and other like the **No New Coal Power statement** (7 countries) (PPCA, 2021; Rathi, 2021). Despite their non-binding nature, these declarations move coal more and more towards history by pledging the end of international finance for new coal power plants and the termination of existing coal power capacity (Littlecott et al., 2021). A more concrete achievement is the **South Africa partnership** engaging the US, EU, France, Germany, and the UK to finance up to 8.5$ Bn to South Africa for its coal to clean energy transition. This last example shapes the way for future result-oriented partnerships, mixing concrete energy transition and climate finance, that could be included in a broader climate club.

Beyond coal, the delicate question of global fossil fuel divestment was more challenging to handle in Glasgow. Regardless, it has found media headlines with the *Statement on Fossil Fuel Finance*. Around 39 signatories, including the USA, Germany, and the United Kingdom, promised to “End public support for the international unabated fossil fuel energy sector by the end of 2022” (UKCOP26, 2021). However, in the absence of major players (E.g., China, India, Japan...), this declaration does not avert sponsoring domestic projects and allows for exceptions.

Glasgow also delivered two "technological" not legally binding, Agenda-coalitions contributing to the conference's achievements on enhanced ambition. The most accomplished realization is the *Glasgow Breakthrough Agenda*, endorsed by 40 countries (USA, China, EU, Japan, India…) and some major corporations. This agenda contains few concrete details but sets the first-time-ever plan on a series of technological targets to reach by 2030 (UNFCCC, 2021a). The second technological Agenda-coalition designed at COP26 is more modest and takes the form of a *Zero Emissions Cars Declaration*. This declaration engages signatories to *work towards all sales of new cars and vans being zero-emission* (…) *globally by 2040 and by no later than 2035 in leading markets* (The Climate Group, 2021). Some car manufacturers followed the call (Ford Motor Company, General Motors, Jaguar Land Rover, Mercedes-Benz, and Volvo), but others have dropped out (Toyota, Volkswagen, Renault-Nissan, Stellantis, and BMW). The most significant setback of this declaration is the absence of almost every big car-manufacturing country (USA, Japan, China, Germany, Italy, France…).

In addition to this “coalition” trend, the ***Glasgow Climate Pact*** is also insightful for assessing the move towards more ambition, especially on the crucial question of fossil fuel divestment. For example, Depledge (2021) wrote that India and China had been blamed for rejecting more ambitious wording in the Pact (Coal phase-out). Nevertheless, the sole mention of “coal phase-down” in the conference conclusion is already a historical achievement for ambition.

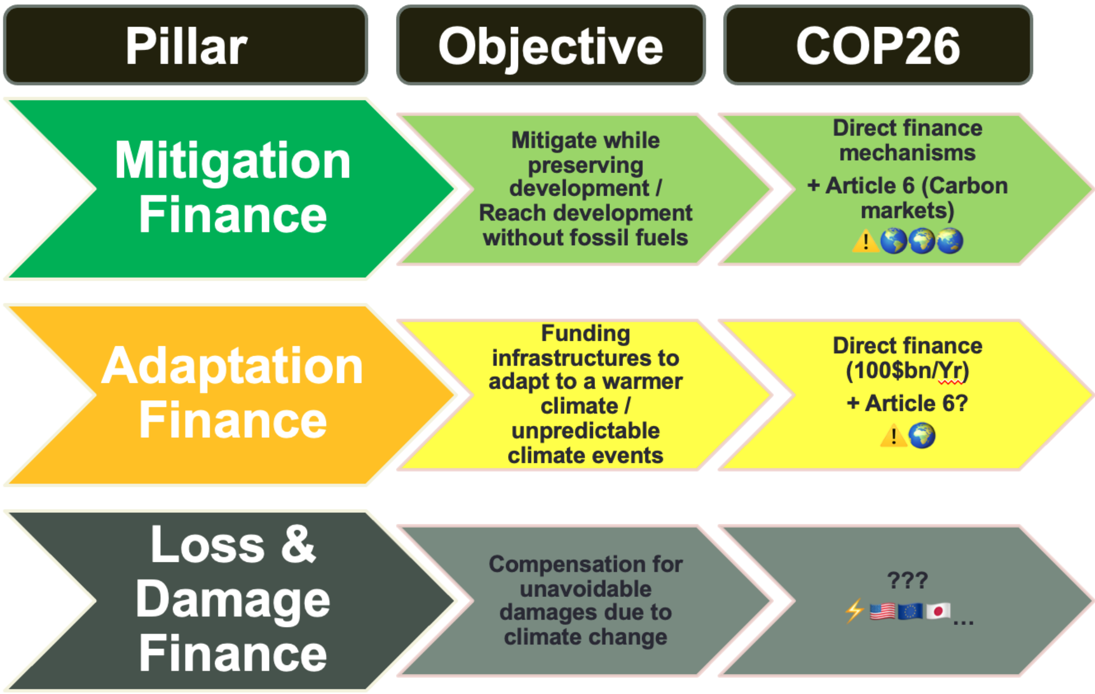
Despite the “coal phase-out battle royal,” India is the country that shined in Glasgow when Narendra Modi, the Indian president, committed his country to reach Net-zero in 2070 for the first time. India was the last major emitter that had not announced its carbon neutrality objective. Content of this pledge entails that 50% of India’s electricity generation coming from renewable sources by 2030, subjected to the obtention of 1$tn in climate finance to help with this transition (McGrath, 2021). While being criticized by some for its late target – 50 years from now – the Indian pledge has been welcomed as a historical step towards more ambition.

If every long-term and short-term commitment delivered or reaffirmed at COP26 are met, projected temperatures warming are getting closer to the well-below 2°C's objective of the Paris Agreement. However, it hides a severe credibility gap between the most optimistic scenario projecting 1.8°C of warming temperatures and current actions leading to 2.7°C of warming resulting in potentially catastrophic impacts (UNEP, 2021; Climate Action Tracker, 2021; CarbonBrief, 2021). Thus, it is fair to write that the coalition's strategy increased ambition at COP26. However, despite a growing strength in these commitments, the world still cruelly lacks concrete implementation to keep warming to 1.5°C realistically. The models of bargaining and normative climate clubs or coalitions are often the best achievable options in the multilateral arena. With respect to enhancing the ambition of these clubs, broader discussions should combine increased climate ambition with other crucial talks on trade and financial issues.

3. Climate Finance

COP26 meant to agree on new and solid Climate Finance packages for developing countries. The talks considered the three pillars of the Paris Agreement as described in this scheme:

Figure.1: Climate Finance at COP26



Related to *Figure 1*, three critical points have emerged at COP26.

First, despite their engagement at COP15 in Copenhagen, wealthy countries have ***failed to meet the target*** of 100$Bn/yr for climate finance in 2020. With only about 80$Bn available in the majority for mitigation purposes (only 10$Bn solely for adaptation in 2019), this lack of achievement resulted in a severe trust issue between developed and developing countries throughout the Glasgow climate talks (OECD, 2021). Furthermore, Loss & Damage finance, considered life-saving by the Most Vulnerable Countries, kept being the estranged cousin of climate policy, with no but any finance available.

The discussion on climate finance also revolved around the delicate question of ***who has to provide***? Currently, only 1992 OECD members – like the USA, the EU, or Japan – must contribute to climate finance schemes. This situation excludes some presently rich nations, like Gulf countries or South Korea, from providing climate finance. Finally, the ***quality of climate finance*** also raised questions in Glasgow. Developing countries and Observers have denounced, for example, the existence of high-interest loans. Another hot topic was the opposition of rich countries to establish a working definition of “Climate Finance” that could define what counts toward these totals (Gabbattiss, 2021; Evans et al., 2021).

COP 26 outcomes on finance comprise an engagement to **double Adaptation finance** enclosed in the Glasgow Climate Pact. It implies doubling the amount of finance provided for adaptation projects in the total climate finance that is, for more than 80% directed to Mitigation projects. COP 26 second major outcome on finance is the adoption of a ***Global goal on Adaptation*** aiming to meet quantifiable and measurable adaptation finance targets for 2025 (with respect to double adaptation finance). In addition, the conference provided new discussions goals for future COPs. First, by keeping open the negotiations on how to reach the 100$bn/yr until 2027. Second, by opening new talks on the currently unresolved scientific assessment of Climate finance needs. Finally, by opening for the first time a genuine dialogue on Loss and Damage finance as claimed by Most Vulnerable Countries (Mountford et al., 2021; UNFCCC, 2021b & 2021c).

4. Article 13 rulebook on Transparency

A critical section of the Paris Agreement rulebook has been solved in Glasgow by adopting rules for transparency and climate reporting (Article 13). Since the adoption of the UN Framework Convention on Climate Change in 1992, only wealthy nations (USA, EU, Australia…) had to regularly report on their GHG emissions and their contribution to climate finance. As a result, existing climate reports present holes for some currently major emitters like China that are less and less justifiable. Talks on climate reports have been going on since the adoption of the Paris Agreement. However, the principal question has been to determine *what should be reported by countries*?[1]

After tumultuous discussions on the definition of transparency[2], COP26 decisions on Article 13 open a new era for Climate reporting and sign the end of the differentiation between developed and developing countries on this issue. Under the new framework, all countries have to produce a ***Biennial Transparency Report*** and a ***National Inventory Report*** collecting information on GHG emissions; Progress towards NDC; Contribution to Climate finance, and; climate impact (UNFCCC, 2021d). This decision on Article 13 may have been less mediatized than other parts of the COP26 outcomes, but it represents a significant step forward for access to indispensable reliable climate data.

5. Article 6 rulebook and the prospect for Climate clubs

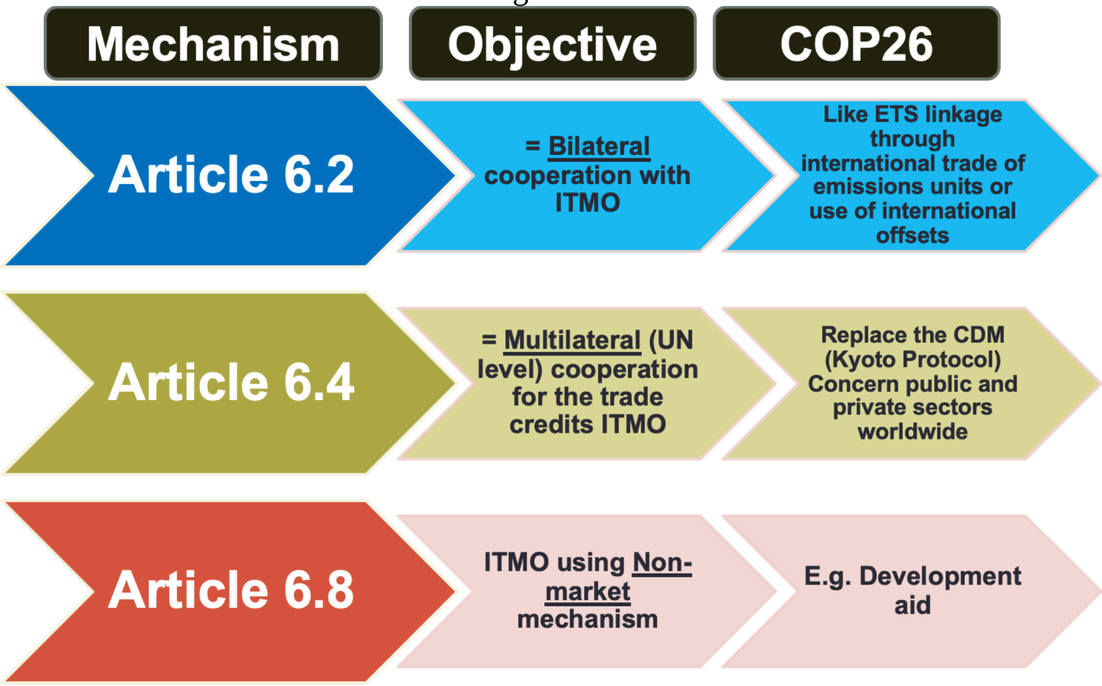
The Glasgow Climate Talks eventually delivered a much-awaited rulebook for Article 6 of the Paris Agreement. Paris Agreement Article 6 promotes voluntary international cooperation using International Carbon Markets (Article 6.2 and 6.4) or non-market approaches (Article 6.8). The objectives are twofold: i) Help countries achieve their climate objectives the most cost-efficiently possible to accelerate and enhance climate actions. ii) Provide finance for climate actions – like mitigation or adaptation projects – using international market-based mechanisms. Mechanisms engendered from Article 6 require rules recognizing and accounting for units called Internationally Transferred Mitigation Outcomes (**ITMO**).

[1] For a deeper analysis on issues around transparency, see: Hoang (2021).

[2] For Chinese and Saudi Arabian reluctance to transparency deal at COP26, see: Webster (2021)

ITMO and International Carbon Markets are widely considered essential for increasing and accelerating ambition. A recent model published by Edmonts et al. (2021) informs that the cost savings potential of using ITMO to achieve Net Zero targets is up to 350$Bn/yr by 2030. Article 6 entails three mechanisms described as follows in **Figure 2**:

Figure 2 – The three mechanisms of Paris Agreement Article 6



The three mechanisms entailed in Article 6 consider ITMO with different approaches. Article 6.2 Mechanisms involve bilateral cooperation between two or more jurisdictions organizing the exchange of Mitigation Outcomes or Offsets. It can be either through linkage of domestic Emissions Trading Schemes (ETS), through the exchange of Offset units, or using special mechanisms like the CORSIA scheme for Aviation. Article 6.4 Mechanism, sometimes called the Sustainable Development Mechanism (SDM), is designed to replace the Clean Development Mechanism (CDM) of the Kyoto Protocol. It aims to organize exchanges of ITMO through an UN-centralized trading hub. Finally, Article 6.8 Mechanism enables other kinds of ITMO exchange without resorting to markets.

Since COP22 in Marrakesh, intense political disagreements have occurred on designing a rulebook for Article 6. These disagreements grew around the fear that, if poorly regulated, Article 6 could endanger the entire environmental integrity of the Paris Agreement (Evans et al., 2019; Mehling, 2021). This paper underlines three types of issues COP26 had to handle to deliver a rulebook for Article 6: **Carbon Accountability**; **Financial questions**; and **Governance building**.

Carbon Accountability

Article 6 has to handle Carbon accountability issues around three main concepts central to guarantee efficient and environmentally effective ITMO.

First, the question of guaranteeing no Double-counting or that transferred mitigation units are not used by more than one party. At COP26, this critical issue for environmental integrity was central for most environmental defenders and some parties like the EU, Japan, and Canada.

The second critical question was to ensure Additionality by ensuring that the transferred units concern emissions reductions that would not have happened otherwise (E.g., Selling Units from an already existing wind farm). This question is equally crucial for environmental integrity and has been a central advocacy point for environmental activists.

Finally, the central concept of Corresponding adjustment requires determining where and when to adjust carbon accountability to reflect the unit transfer in national emissions inventories. This last issue happens to be the most difficult one to resolve due to significant heterogeneities between countries' regulations: Different NDC time frames, different baselines, different metrics… (Schneider & La Hoz Theuer, 2018; Michaelowa et al., 2019).

Article 6 rulebook settles carbon accountability rules by shifting when corresponding adjustments have to be applied, from the traditional "point of use" to the point of authorization in the host country. This measure gives the power of control to the Selling Party while creating a proactive economic incentive to issue projects. On the other hand, it also makes an economic liability to the selling party because it has to adjust its own NDC account of the number of credits sold to the buying party. The measure concern both Article 6.2 and 6.4 mechanisms with different results for:

Article 6.4 (UNFCCC, 2021f):

- Creates a **UN Hub** to account for transferred credits (from 2024)
- Ensures that Corresponding adjustment is applied for all authorized carbon credits, whether they are used towards meeting countries' NDCs or for "other international mitigation purposes."
- Establishes **ITMO transfer limit** of 5%

Article 6.2 (UNFCCC, 2021e):

- Ensures Corresponding adjustment is applied for all authorized carbon credits
- Creates accountability standards dealing with timeframe/target heterogeneities (E.g., use tCO_2e metric).
  - ⇒ One significant weakness is the Averaging approach: Available for CORSIA (Multi-year target), host countries (single-year target) are required to adjust only half of the annual average credits sold (For more see: Siemons & Schneider (2021)).
- Establishes **no limits** to ITMO transfer (Reviewed in 2028)

Financial questions

Financial issues for Article 6 revolved around three problematics that have poisoned the negotiations for quite some time and have been settled at COP26.

First, what to do with the remaining 4Bn tCO2e of unearned CDM credits inherited from the Kyoto Protocol era? The question is explosive for countries with significant reserves of unsold Kyoto credits, first and foremost Brazil, South Korea, and China, that would completely lose Bn$ worth of credits in case of rejection from the Paris-era. On the other hand, the issue is equally explosive for environmental advocates denunciating their potential to endanger Article 6's environmental integrity because of their poor quality and their non-additional nature, called the risk of **Hot Air**. The rulebook established at COP26 allows to carry over up to 2.8Bn tCO2e of Kyoto Credits (Until 2030). This decision has been criticized for allowing not truly additional credits – because they concern existing projects – to enter the Paris era. The rulebook labels these credits to counter-balance this environmental setback, creating a reputational risk for buyers. Despite counter-measures, the carry-over of Kyoto credits, due to the geopolitical reality to obtain a consensus, has been seen as disappointing news by environmental defenders. However, these credits' validity limits and clear traceability might lower their impact (Schneider, 2021; Warnecke et al., 2021).

The second financial question concerning Article 6 debated at COP26 is the Share of Proceeds. Developing countries seek a structural funding system to compensate for under-financed adaptation by claiming the implementation of a transaction tax to ITMO. Article 6 rulebook meets this demand by creating such tax – or share of proceeds – but only for transactions under Article 6.4 and not for bilateral systems falling under Article 6.2. This tax will consist on a mandatory cancellation of 5% of traded credits at the UN Hub level created to account for Article 6.4 ITMO transactions. The value of these withdrawn credits will be donated to adaptation funds (UNFCCC, 2021f). This decision stands as a half-victory for developing countries and adaptation finance advocates.

Finally, the last Article 6 financial hurdles settled at COP26 concerned what to do with the historical 'avoided deforestation credits' generated by the REDD+ system? Despite their importance for countries like Brazil, these controversial credits have been excluded from the Article 6 era (Evans et al.,2021).

Governance building

The last category of Article 6 related issues handled at COP26 concerned governance. How to ensure the new rules and future problems will be properly settled? Related to this question, the Glasgow conference establishes three main institutions:

- An offset dispute mechanism: Disputes around carbon-offsetting projects will be subject to an independent grievance process considering environmental integrity and Human Rights. This proceeding aims to avoid offsets with adverse effects on local populations. Despite the reluctance of some countries (Saudi Arabia and China), it is a notable success for Indigenous Rights advocates and parties promoting Human Rights in the UNFCCC process, like the EU, Canada, or Japan.
- An Article 6.4 supervisory body: UN-organized Hub for ITMO's exchanges and accountability (from 2022). This body is also responsible for establishing methodologies and administrative requirements for the Article 6.4 mechanism.
- ***A Glasgow Committee on Non-Market approach***: Often described as the estranged cousin of Article 6, this committee will take forward the development of climate cooperation under Article 6.8.

Article 6 and Climate clubs

At Madrid COP25, the general feeling was that it was better to have no rules than bad rules. In Glasgow COP26, the common sentiment was that it was better to have imperfect rules than to let the system go wild without an established regulation. Rules for Article 6 open new possibilities for countries to collaborate, not only by trading offsets but also by enabling to go further and faster between jurisdictions willing to create **climate clubs**.

Article 6 should not be perceived as a way for countries to buy their indulgences on international markets to achieve their NDC target effortlessly. On the contrary, it embodies an opportunity to facilitate the implementation of domestic policy reducing GHG emissions. The first of this policy should be carbon pricing mechanisms like a carbon tax or an Emissions Trading Scheme. The main traditional barriers toward carbon pricing implementation are the fear of a higher economic cost and the resulting loss of competitivity for emissions-intensive trade-exposed sectors, leading to carbon leakage. Conversely, international cooperation through climate clubs helps overcome those fears, with the prospect that all actors will play with the same rules: The internalization of a carbon price.

Article 6.2 enables like-minded countries - or trade partners - to come together and work their way toward establishing climate clubs that include a carbon price. However, despite Article 6 rules, political obstacles against implementing international cooperation like ETS linkage will remain. Fear of losing influences from domestic interests groups, reluctance to share governance, and lack of confidence between partners will still be considerable obstacles to resolve (Dellatte & Rudolph, 2021).

Hence, comprehensive climate clubs reuniting countries with common interests should become the spine of future climate policy. This approach allows combining carbon pricing mechanism, trade policy, and climate finance. It represents a necessary step for accelerating the implementation of effective climate policy in this critical decade.

6. Conclusion: The New Geopolitics of Climate

Finalizing the Paris rulebook was a necessity for the continued legitimacy of the multilateral Climate negotiation regime. In this regard, COP26 delivered the best obtainable version of a deal. Nevertheless, far from over-simplifying the immense remaining challenges still on the way to tackle the climate crisis, COP26 results are mixed. The following table summarizes where the discussion stands after the conference.

Achievements	**Missing points**
First breakthrough climate agreement **mentioning fossil fuels** (phase-out of inefficient fossil fuels subsidies) and **coal "phase-down."**	**Last-minute disagreement on Coal "Phase-out"** from big emitters (China, India).
Glasgow climate pact: **GHG emissions have to fall 45% by 2030** **Doubling adaptation finance** **Request countries to present more ambitious mate pledges next year** **Glasgow dialogue on funding Loss & damage**	**Adaptation and Mitigation Finance**: still weak commitments from developed countries to provide enough finance to developing countries on adaptation and Mitigation (Copenhaguen 100bn$/yr) = **The North-South divide persists on Climate Finance**
Deal on **Article 6 rulebook**	Article 6 rulebook weaknesses (6.2 – Averaging rule)
Encourages NDC submission **every five years**	**Not mandatory** five years timeframe
Methane coalition: first agreement mentioning the need to tackle methane emissions	**Loss & Damage**: Island countries and Most Vulnerable countries don't get finance they need (Blocked by US & EU)
US-China climate deal (First since the Paris Agreement)	**Enhanced ambition but still not enough**: New NDC pledges still far from 1.5 °C (estimates between 1.8°C to 2.4°C)

Beyond these specific achievements, the momentum created by COP26 delivered the first US-China joint statement on Climate since COP21. This declaration is essentially a non-binding political statement, without serious content, except for creating a US-China working group on Climate. Nevertheless, it conveys a positive first attempt at a structural direct discussion format between the two super-powers on Climate. With this political declaration US president Joe Biden propelled the US back into the climate arena (Global methane pledge, rulebook negotiation...). Unfortunately, however, the damage is done for the US legitimacy on Climate. Despite Biden's evident willingness to deliver, the US administration arrived almost empty-handed at the conference because of the larval political incapacity of the US congress to pass ambitious climate policy.

The absence of the Chinese president Xi Jinping from the conference, trapped in zero-covid policy China, has disclosed a mixed message. Furthermore, notwithstanding being the biggest absolute emitter globally and having a per capita emission higher than the European average, China strictly strived to keep its developing country's privileges at COP26. However, despite considerable domestic issues regarding its coal-reliant energy production mix, the country still accepted more serious-than-expected wordage on coal phase-down. China also compromised on key issues to reach a deal to finalize the Paris rulebook. However, with its new NDC promising to peak emissions before 2030, one can say that China keeps being faithful to its long-standing climate moto of "undercommitting and overachieving." This "marketing policy" has been successful for the country so far.

Other prominent actors of COP26, the European Union (EU), a usual front-runner for climate negotiation, was relatively less involved in Glasgow. Partially explained by the renewed US commitment to lead the discussions, the EU remains one of the forerunners for enhancing ambition, leading new coalitions like the Global Methane Pledge**.**

The country that stole the show in Glasgow was India. India made stellar announcements on Net-zero, bold climate finance claims, and contributed to the overall dispute on the coal "phase-out" wordage. But, similar to China, the country faces enormous economic challenges, including millions of jobs, to switch its energy mix from the current over-reliance to Coal.

Against this background, COP26 propelled the UN climate negotiation regime from a phase of rulemaking into a new era of implementation. The long nights of negotiations of the aftermath of the Paris Agreement should now make a place for discussions on accelerating domestic ambition. Achieving this new frontline challenge will require enhanced climate finance, technology transfer, and international cooperation combined. Yet, in a general atmosphere of suspicion and lack of confidence, it will not be realizable without confidence-building and overcoming political reluctance to cooperation.

Against this background, Climate Clubs between like-minded partners might be the fastest, easiest solution on the table. The circumstances promoting international cooperation already exist:

- a rising carbon price in the EU ETS,
- the establishment of a national ETS in China,
- the enactment of Green Deals around the world (e.g.; EU, USA, South Korea),
- and especially the discussions around a *Carbon Border Adjustment Mechanism* (CBAM) in the EU.

Furthermore, debates on the possibility to implement a climate club between, for example, between Europe and relevant trade partners, like the USA, Japan, the G7, and even China, already flourish. These debates all have in common to promote upgrading climate policy discussions by combining carbon pricing, trade policy, and industrial policy toward decarbonization. Only such kinds of ambitious discussions can propel ambitious climate clubs genuinely.

7. References

CarbonBrief. (2021, November 10). *Analysis: Do COP26 promises keep global warming below 2C?*. https://www.carbonbrief.org/analysis-do-cop26-promises-keep-global-warming-below-2c

Climate Action Tracker. (2021, November). Warming Projection Global Update. https://climateactiontracker.org/documents/997/CAT_2021-11-09_Briefing_Global-Update_Glasgow2030CredibilityGap.pdf

Dellatte, J., Rudolph, S. (2021). *Understanding Barriers to Linking Heterogeneous Emissions Trading Schemes: Evidence from and Lessons for Northeast Asia*. (Discussion Paper No. 19. Research Project on Renewable Energy Economics, Graduate School of Economics, Kyoto University). https://www.econ.kyoto-u.ac.jp/renewable_energy/stage2/pbfile/m000339/REEKU_DP0030.pdf

Depledge, J. (2021, November 29). Reflexion on Glasgow COP26 beyond the headlines. *Cambridge ZERO₂*. https://www.zero.cam.ac.uk/stories/dr-joanna-depledge-reflections-glasgow-cop-26-beyond-headlines

Espinoza, P. (2021, November 24). 4 key achievements of COP26. *UNFCCC News*. https://unfccc.int/news/4-key-achievements-of-cop26

Evans, S., Gabbattiss, J., McSweeney, R., Chandrasekhar, A., Tandon, A., Viglione, G., Hausfather, Z., You., X., Goodman, J., Hayes, S. (2021, November 15). COP26: Key outcomes agreed at the UN Climate talks in Glasgow. *CarbonBrief*. https://www.carbonbrief.org/cop26-key-outcomes-agreed-at-the-un-climate-talks-in-glasgow

Evans, S., Gabbattiss, J. (2019, December). How Article 6 carbon markets could 'make or break' the Paris Agreement. *CarbonBrief*. https://www.carbonbrief.org/in-depth-q-and-a-how-article-6-carbon-markets-could-make-or-break-the-paris-agreement

Edmonds, J., Yu, S., Mcjeon, H., Forrister, D., Aldy, J., Hultman, N., Cui, R., Waldhoff, S. (2021). How much could Article 6 enhance nationally determined contribution ambition toward Paris Agreement goals through economic efficiency?. *Climate Change Economics*, 12(2), https://www.worldscientific.com/doi/full/10.1142/S201000782150007X

Falkner, R., Nasiritousi, N., Reischl, G. (2021). Climate clubs: politically feasible and desirable?. *Climate Policy*. DOI: 10.1080/14693062.2021.1967717 (accessed 17 January 2022)

Forster, P., Smith, C., Rogelj, J. (2021, November 2). The Global Methane Pledge needs to go further to help limit warming to 1.5°C. *CarbonBrief*. https://www.carbonbrief.org/guest-post-the-global-methane-pledge-needs-to-go-further-to-help-limit-warming-to-1-5c

Gabbattiss, J. (2021, October 10). Why Climate-finance 'flows' are falling short of $100bn pledge. *CarbonBrief*. https://www.carbonbrief.org/analysis-why-climate-finance-flows-are-falling-short-of-100bn-pledge

Global Methane Pledge. (2021, November). Fast Action on Methane to keep a 1.5C future within reach. https://www.globalmethanepledge.org

Huang, J. (2021). Transparency of Action: Issues for COP26. *Center for Climate and Energy Solutions*. https://www.c2es.org/wp-content/uploads/2021/06/transparency-of-action-issues-for-cop-26.pdf

Keohane, R. O., Victor, D. G. (2016). Cooperation and discord in global climate policy. *Nature Climate Change*, 6(6), 570–575.

Littlecott, C., Roberts, L., Fenning, C., Heinrichs, P-S., Levy, S., Senlen, O. (2021, Novermber 11). Coal @ COP26: messy messaging, positive progress, significant substance. *E3G Blog*. https://www.e3g.org/news/coal-cop26-messy-messaging-positive-progress-significant-substance/

McGrath, M. (2021, November 2). COP26: India PM Narendra Modi pledges net zero by 2070. *BBC news*. https://www.bbc.com/news/world-asia-india-59125143

Mehling, M. (2021, October). Advancing international cooperation under the Paris Agreement: Issues and Options for Article 6 (Harvard Project on Climate Agreements discussion paper ES 21-10). https://www.belfercenter.org/publication/advancing-international-cooperation-under-paris-agreement-issues-and-options-article-6

Michaelowa, A., Hermwille, L., Obergassel, W., Butzengeiger, S. (2019). Additionality Revisited: Guarding the Integrity of Market Mechanisms under the Paris Agreement. *Climate Policy*, 19(10), 1211–24.

Mountford, H., Waskow, D., Gonzalez, L., Gajjar, C., Cogswell, N., Holt, M., Fransen, T., Bergen, M., Gerholdt, R. (2021, November 17). COP26: Key Outcomes From the UN Climate Talks in Glasgow. *World Resources Institute*. https://www.wri.org/insights/cop26-key-outcomes-un-climate-talks-glasgow?utm_campaign=wridigest&utm_source=wridigest-2021-11-23&utm_medium=email&utm_content=title

Nordhaus, W. (2015). Climate Clubs: Overcoming Free-Riding in International Climate Policy. *American Economic Review*, 105 (4). 1339-70.

OECD. (2021). Climate Finance Provided and Mobilised by Developed Countries: Aggregate Trends Updated with 2019 Data. *OECD report*. https://www.oecd-ilibrary.org/finance-and-investment/climate-finance-provided-and-mobilised-by-developed-countries-aggregate-trends-updated-with-2019-data_03590fb7-en

Paroussos, L., Mandel, A., Fragkiadakis, K., Fragkos, P., Hinkel, J., Vrontisi, Z. (2019). Climate clubs and the macro-economic benefits of international cooperation on climate policy. *Nature Climate Change*, 9(7). 542–546.

Pomeroy, R. (2021, November 19). COP26: Success or failure?. *World Economic Forum*. https://www.weforum.org/agenda/2021/11/cop26-success-or-failure/

PPCA. (2021). *Powering Past Coal Alliance*. https://www.poweringpastcoal.org

Rathi, A. (2021, September 24). UN Launches Pledge to Stop Building New Coal Power Plants. *Bloomberg Green*. https://www.bloomberg.com/news/articles/2021-09-24/these-countries-plan-to-stop-building-new-coal-power-plants?sref=Oz9Q3OZU

Schneider, L. (2021, November 15). COP26 in Glasgow delivered rules for international carbon markets – how good or bad are they?. *Oeko Institute Blog*. https://blog.oeko.de/glasgow-delivered-rules-for-international-carbon-markets-how-good-or-bad-are-they-cop26/

Schneider, L., La Hoz Theuer, S. (2018). Environmental integrity of international carbon market mechanisms under the Paris Agreement. *Climate Policy*. 19(3), 386-400

Siemons, A., Schneider, L. (2021). Averaging or multi-year accounting? Environmental integrity implications for using international carbon markets in the context of single-year targets. Climate *Policy*. https://doi.org/10.1080/14693062.2021.2013154

The Climate Group (2021, November). *COP26 declaration on accelerating the transition to 100% zero emission cars and vans*. https://www.cop26transportdeclaration.org/en/?contextKey=en

The Economist. (2021, November 14). Was COP26 in Glasgow a success?. *The Economist*. https://www.economist.com/international/2021/11/14/was-cop26-in-glasgow-a-success

Thunberg, G. (2021, November 13). The #COP26 is over [Tweet]. Twitter. https://twitter.com/gretathunberg/status/1459612735294029834

UKCOP26 (2021, November 4). *Statement on International public support for the clean energy transition*. https://ukcop26.org/statement-on-international-public-support-for-the-clean-energy-transition/
UNEP. (2021, October). *Emissions Gap Report*. https://www.unep.org/resources/emissions-gap-report-2021
United Nations Framework Convention on Climate Change (UNFCCC). (2015). *The Paris Agreement*. https://unfccc.int/sites/default/files/english_paris_agreement.pdf
United Nations Framework Convention on Climate Change (UNFCCC). (2021a). *Race to Zero*. https://racetozero.unfccc.int/system/glasgow-breakthroughs/
United Nations Framework Convention on Climate Change (UNFCCC). (2021b). *New Collective quantified goals on climate finance*. https://unfccc.int/sites/default/files/resource/cma3_auv_8e_collective_goal_new.pdf
United Nations Framework Convention on Climate Change (UNFCCC). (2021c). *Glasgow Climate Pact*. https://unfccc.int/sites/default/files/resource/cop26_auv_2f_cover_decision.pdf
United Nations Framework Convention on Climate Change (UNFCCC). (2021d). *Methodological issues relating to the enhanced transparency framework for action and support referred to in Article 13 of the Paris Agreement*. https://unfccc.int/sites/default/files/resource/cop26_auv_2f_cover_decision.pdf
United Nations Framework Convention on Climate Change (UNFCCC). (2021e). *Guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement.* https://unfccc.int/sites/default/files/resource/cma3_auv_12a_PA_6.2.pdf
United Nations Framework Convention on Climate Change (UNFCCC). (2021f). *Rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement.* https://unfccc.int/sites/default/files/resource/cma3_auv_12b_PA_6.4.pdf
Warnecke, C., Forth, T., Schneider, L., Fearnehough, H., Koakutsu, K. (2021, October 21). *The potential impact of transitioning CDM units and activities to the Paris Agreement: Understanding implications of key policy choices on the table in Glasgow*. (Webinar Proceedings held by Oko-Institute and The New Climate Institute on October 21th 2021). https://www.oeko.de/fileadmin/oekodoc/WEBINAR_TransitioningCDMActivitiesUnitstoParisEra.pdf
Webster, B, (2021, November 9). Chinese and Saudis thwart moves towards climate deal. *The Times of London*. https://www.thetimes.co.uk/article/chinese-and-saudis-thwart-moves-towards-climate-deal-5pr86frjv