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Recommended Citation

Lisa Benjamin & David A. Wirth, *From Marrakesh to Glasgow: Looking Backwards to Move Forward on Emissions Trading*, 11 *Climate L.* 245 (2021).

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FROM MARRAKESH TO GLASGOW

Looking Backwards to Move Forward on Emissions Trading
(forthcoming, *Climate Law*, 2021)

Lisa Benjamin* and David A. Wirth**

ABSTRACT

The Paris Rulebook – nearly complete, but with the “markets” text tied to article 6 of the Paris Agreement unadopted after nearly three years – invites comparison with a similar effort under the Kyoto Protocol, the Marrakesh Accords. An in-depth analysis of the negotiating history as well as the text of both instruments yields trenchant and perhaps unexpected conclusions. This Article employs a comparison between the Paris Rulebook and the prior Marrakesh Accords implementing the Kyoto Protocol as a vehicle for further exploring the similarities and differences in regulatory design between the two sub-regimes, and their implications for sustainability and climate integrity. The piece then offers conclusions about the fundamentally different purpose of the “markets” text of the Paris Rulebook by comparison to its Kyoto/Marrakesh precursor.

* * *

I. Introduction

II. Market Mechanisms and the UN Climate Regime

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III. Implementing the Kyoto Protocol and the Paris Agreement

- A. The Marrakesh Accords
- B. The Paris Rulebook

IV. Learning from Marrakesh in the Rulebook Negotiations

- A. Political and economic obstacles in the Article 6 negotiations (LB & DW);
- B. Paris Rulebook vs. Marrakesh Accords

IV. Conclusion

I. INTRODUCTION

Market mechanisms have been part of the climate regime for several decades. However, the politics and economics of climate change have changed dramatically since these flexible mechanisms were initially included as part of the Kyoto Protocol. This article examines the role of trading mechanisms in the climate regime, and in particular how changing dynamics and treaty structures have affected negotiations around the rules of market mechanisms.

Specific rules on the operation of market mechanisms were initially codified in the Marrakesh Accords – the rulebook for implementation -- which established the modalities, rules, and guidelines for emissions trading under the Kyoto Protocol. The Kyoto Protocol reflected what was then considered to be a traditional environmental treaty, with set emission reduction targets, binding only on developed countries, monitored through a robust compliance mechanism to ensure developed country parties were faithful to their commitments. At that time, carbon trading mechanisms were a controversial innovation at the global level, and not all states were supportive of their inclusion.

In addition, developing countries expected financial benefits to flow equitably from the trading mechanism to the Clean Development Mechanism (CDM) to assist them with adaptation efforts. The Kyoto Protocol world ended up being very different in practice. The US never ratified the treaty, many developing countries were disappointed by the operation of the CDM, Canada withdrew, and the second commitment period set out in the Doha Amendment failed to engage much of a constituency beyond the European Union.

By the time the second commitment period came to an end at the end of 2020, Kyoto was already more of a memory than an operative force, having been largely supplanted in policy discourse by forward-looking perspective focused on the Paris Agreement. Many scholars were either unaware, or dismissive, of Doha, and Paris was largely a reaction to the perceived inadequacies of the prior regime. For instance, while the enforcement branch of the compliance committee continued to be active, UNFCCC parties subsequently declined to mirror that compliance approach in the Paris Agreement.

The Paris Agreement represents a very different treaty landscape, with binding, largely procedural, obligations of conduct and performance, but non-binding and differentiated emission reduction trajectories for developed and developing countries, along with a facilitative, advisory,

and non-punitive compliance mechanism. Nationally determined contributions (NDCs) are self-differentiated. Despite these differences, the shadow of the Kyoto Protocol and the Marrakesh Rulebook still hovers over the article 6 negotiations.

This Article employs a comparison between the Paris Rulebook and the prior Marrakesh Accords implementing the Kyoto Protocol as a vehicle for further exploring the similarities and differences in regulatory design between the two sub-regimes, and their implications for sustainability and climate integrity. More specifically, the piece examines the role of trading mechanisms in the climate regime, lending a historical perspective of the negotiations and content of the Marrakesh Accords to inform an evaluation of the current status of the article 6 rulebook negotiations. The analysis scrutinizes whether the changing dynamics and structure of the Paris Agreement adequately explains the roadblocks encountered during the article 6 negotiations, and offers lessons learned from the Marrakesh process to help parties navigate the article 6 negotiations.

The piece begins by briefly reviewing market mechanisms in the UN climate regime, laying a foundation for the subsequent analysis. This contribution to the symposium on article 6 then reviews the Marrakesh Accords and the Paris Rulebook, again with an eye to the relationships between the two. The Article then examines the dynamics of the negotiations on the portion of the Paris Rulebook implementing article 6 of the Agreement, informed by prior experience with the Marrakesh Accords, in an attempt to explain the impediments that have plagued this remaining piece of the Paris Rulebook puzzle. Last, the analysis assesses the two instruments – the Marrakesh Accords and the Paris Rulebook article 6 drafts – as illuminating the strengths and weaknesses of the two self-consciously divergent approaches.

II. MARKET MECHANISMS AND THE UN CLIMATE REGIME

Market-based mechanisms have been around for a long time, and were initiated originally by non-state actors such as BP and Shell.¹ They are designed to lead to greater efficiency in environmental and energy policies by reducing the costs of implementing and complying with environmental measures, and so incentivizing technological change.² An effective carbon trading system relies on robust and binding emissions targets to ensure that the permits are scarce and not oversupplied, and therefore that trading of permits will generate revenue and incentivize emissions reductions.³ It also requires strict reporting and strong compliance mechanisms to monitor, track and verify emission reductions, and to force state compliance with the regime.⁴

Trading was originally included in the Kyoto Protocol as one of the “flexible mechanisms,” designed to help Annex I parties meet their emission reduction targets. The Kyoto

1. David G. Victor and Joshua C. House, ‘BP’s Emission Trading System’ (2006) 34 Energy Policy 2100, 2103.

2. David Pearce, ‘The Political Economy of an Energy Tax: The United Kingdom’s CCL’ (2006) 28 Energy Economics 149, 149.

3. Lisa Benjamin, *Companies and Climate Change: Theory and Law in the United Kingdom* (CUP: 2021), 132.

4. Farhana Yamin and Joanna Depledge, *The International Climate Change Regime: A Guide to Rules, Institutions and Procedures* (CUP 2004) 156.

Protocol trading mechanism was the inspiration for the EU Emission Trading System – now one of the most mature and integrated carbon trading systems in the world.

However, market mechanisms have been largely unsuccessful at ensuring adequate emission cuts in developed countries to date, particularly as a result of the reduction in carbon prices due to the 2008 financial crisis.⁵ How the more recent Covid-19 public health and commensurate economic crisis, combined with low oil prices, might affect emissions trading mechanisms remains to be seen, but the agreement of rules around article 6 of the Paris Agreement will be critical to the success of a global carbon trading system. Market mechanisms are not ideologically neutral⁶ and states often rely heavily on industry expertise to design and implement them.⁷ Therefore the level of ambition integrated into rules around article 6 could make or break the achievement of the long term temperature goals, and therefore the success of the Paris Agreement itself.⁸ Issues of ambition and governance are at stake in the article 6 negotiations.

The original international emissions trading mechanism is found in the Kyoto Protocol (KP), and offsets can be flexibly implemented through use of the clean development mechanism (CDM) and the joint implementation (JI) mechanism. As a direct “descendent” of the UNFCCC, the Kyoto Protocol reflects the strict binary approach to nation states, found in the UNFCCC.⁹ The UNFCCC itself reflects the post-cold war context of profound divisions between superpowers and post-colonial states.¹⁰ These two groups are strictly divided by the text into Annex I (developed countries), identified by name, and non-Annex I (developing countries). Article 4.2 of the UNFCCC stipulates that Annex I parties will take the lead in emission reductions, and the Berlin Mandate (the precursor COP legally non-binding political agreement that served as a mandate for negotiation of the KP) made it clear that no new commitments would be imposed on non-Annex I parties.¹¹

5. There is some philosophical opposition to using market mechanisms as they put a price on ecosystem services, see Erik Gomez-Baggethun and others, ‘The History of Ecosystem Services in Economic Theory and Practice: From Early Notions to Markets and Payment Schemes’ (2009) 69(6) *Ecological Economics* 1, 1.

6. Gomez-Baggethun (n 5), 7.

7. Larry Lohmann, ‘Financialization, Commodification and Carbon: the Contradictions of Neoliberal Climate Policy’ (2012) 48 *Socialist Register* 85, 87.

8. Noah Sachs notes the Paris Agreement’s already fragile architecture, ‘The Paris Agreement in the 2020s: Breakdown or Breakup?’ *Ecology Law Quarterly* 46 (2019) 865.

9. This all-or-nothing structure, going back to the Convention adopted in 1992, is something of an “original sin” that continues to hobble the UN climate negotiations even now. Article 3(1) of the FCCC itself articulates the need for “*common but differentiated responsibilities*” (emphasis supplied). A comparison to the Montreal Protocol, which gave low-consuming parties an extended compliance period, but engaged all parties in the common enterprise of protecting the stratospheric ozone layer, is informative. See David A. Wirth & Daniel A. Lashof, *Beyond Vienna and Montreal -- Multilateral Agreements on Greenhouse Gases*, 19 *Ambio* 305 (1990).

10. Maria Jernnas and Bjorn-Ola Linner, ‘A discursive cartography of nationally determined contributions to the Paris climate agreement’ (2019) 55 *Global Env Change* 73, 73.

11. Decision 1/CP.1 para 2(a) and 2(b).

The Kyoto Protocol mechanism established patterns and expectations that may or may not be reflected in the article 6 mechanisms. These include that emissions trading is designed to be supplemental to parties' domestic emissions cuts. However, the KP made very limited demands on states parties to that agreement¹² to reduce emissions. While the KP is often described as a "top down" treaty,¹³ non-Annex I parties were not subject to binding emissions targets. Annex I parties "agreed" their targets under the KP, by proposing their own scheduled commitments. The Annex I targets enshrined in the KP were not ambitious, and were submitted and negotiated in a process similar to the "bottom up" structure of the Paris Agreement, in that parties put forward their own national targets and self-differentiated based on their own national circumstances. The Kyoto Protocol, moreover, was understood to be a first cut or "shot across the bow" in addressing the global challenge of climate integrity, designed in part to provide a conceptual model for future, more ambitious undertakings, including those that could extend to non-Annex I states.

The moral hazard at the heart of carbon trading is that the low level of commitments can lead to delays by countries in making domestic reductions.¹⁴ The use of tradable permits in the KP was introduced to overcome the rigidities of the targets, but permit allocations were often made without cost in order to "buy the acceptance" of industry of the new cap and trade regime.¹⁵ The "grandfathering in" of existing pollution levels through the free allocation of permits effectively froze the status quo of emissions.¹⁶ The low level of ambition in the international carbon market led to an oversupply of international carbon credits, keeping the price of carbon at very low levels.¹⁷ The KP built in "hot air" by allowing parties, particularly economies in transition, to overestimate their emissions way above business as usual.¹⁸ These gaps and oversights were all

12. Bradley C Parks and J. Timmons Roberts, 'Climate Change, Social Theory and Justice' (2010) 27(2) *Theory, Culture & Society* 134, 135.

13. The "top-down" moniker for Kyoto, while widely employed, is eminently misleading. Like all legally binding agreements governed by public international law, the Kyoto Protocol, including its differentiated emissions reduction schedule, contains undertakings strictly of consensual, contractual origin. At the risk of stating the obvious, there is no international legislature with the power to force obligations upon states that decline to accept them.

14. Mark Purdon, 'Neoclassical Realism and International Climate Change Politics: Moral Imperative and Political Constraint in International Climate Finance' (2014) 17 *JIRD* 301, 317.

15. Judith Rees, 'Markets- the Panacea for Environmental Regulation?' (1992) 23(3) *Geoforum* 383, 391. In but one of the many ironies surrounding the Kyoto Protocol, the concept of trading through the flexible mechanisms was originally proposed by the United States, which signed but never ratified the Kyoto Protocol. The U.S. proposal in the Berlin Mandate [check] and the Kyoto Protocol was expressly modeled on its domestic of apportionment of tradeable emissions rights for sulfur as a mechanism for addressing the domestic and international challenge of acid precipitation.

16. Incremental reductions were to have taken place under the second commitment period of the KP.

17. Sampo Seppanen, 'Demand in a Fragmented Global Carbon Market: Outlook and Policy Options' (March 2015), 44.

18. Tom Vardyck et al., 'A global stocktake of the Paris pledges: implications for energy systems and economy' (2016) 41 *Global Env Change* 46, 47.

part of the context against which the Marrakesh rulebook was negotiated. Consequently, a focus on the process, drafting, roadblocks and outcomes of that process can be instructive for current efforts to agree rules around article 6.

III. IMPLEMENTING THE KYOTO PROTOCOL AND THE PARIS AGREEMENT

Despite the complexity and length of negotiations leading to final agreement, both the Kyoto Protocol and the Paris Agreement were understood at the time of their adoption to represent the skeletal outlines of regimes that required subsequent further elaboration. Consequently, work on what became the Marrakesh Accords and the Paris Rulebook began almost immediately, and, indeed, was anticipated in the mandates accompanying both agreements' adoption.

Both agreements represented innovations for their time, and the Paris Agreement a direct response to the perceived failings of Kyoto.¹⁹ In both cases, it was anticipated that the mechanisms for doing so would be COP decisions, at least as a formal matter non-legally binding. The subsequent trajectories for each of these instruments further amplifies and elucidates the divergences in regulatory design between the Protocol and the Agreement (a protocol in everything but name).²⁰

A. The Marrakesh Accords

Given the agreement's complex structure, establishing a multilaterally-standardized accounting system was essential to the Kyoto Protocol's implementation. Indeed, accounting for emissions in a manner not too dissimilar to the financial equivalent can be viewed as the central challenge of the Protocol's implementation.²¹ But unlike currencies, whose content is fixed, know-able, countable, and consequently tradeable, standards for measuring and accounting for emissions of GHGs had to be established from scratch.

It is all too easy to forget the tenuous situation of the Kyoto Protocol at the time. COP 6 had concluded in November 2000 with a lengthy, heavily bracketed text reflecting considerable remaining disagreement on the major issues relating to the rules for implementing the Kyoto Protocol. After the disputed presidential election of 2000 in the United States, in March 2001 the U.S. announced its decision not to ratify the Kyoto Protocol, threatening not only U.S. participation in the Kyoto regime but also the Protocol's entry into force.²²

19. Frequently lost or overlooked in the policy debate is the objective confirmation that states parties to Kyoto have been uniformly successful in implementing their obligations. See I. Shishlov, R. Morel & V. Bellassen, *Compliance of the Parties to the Kyoto Protocol in the First Commitment Period*, *Climate Policy*, no. 16 (6), 768-782 (2016). This suggests that, once agreed, states take obligations in this area seriously. While there has been intense interest in the implementation of NDCs, it is probably too early to come to any analogous conclusion with respect to the Paris Agreement.

20. See David A. Wirth, *The Paris Agreement as a New Component of the UN Climate Regime*, 12(4) *Int'l Org. Res. J.* 185-214 (2017).

21. See Daniel Bodansky, "Bonn Voyage: Kyoto's Uncertain Revival," 65 *The National Interest*, no. 65, 45-55 (Fall 2001); "Salvaging Climate Pact," 36 *Economic and Political Weekly* no. 30, 2799 (Jul. 28 - Aug. 3, 2001).

22. See Karsten Nowrot, *Saving the International Legal Regime on Climate Change: The 2001*

Nowhere was the challenge more apparent in the complex architecture of the Protocol than in the implementation of the trading mechanisms of articles 6 (joint implementation), 12 (Clean Development Mechanism), and 17 (international emissions trading).²³ The negotiation of the Marrakesh Accords²⁴ revealed the multiple junctures at which the cogs in the Kyoto machine could encounter friction, or potentially seize up altogether.²⁵ So, for example, emissions across the six gases had to be scaled for comparability through reduction to the common metric of carbon equivalents – a relatively non-controversial task, relying on global warming potentials established by the IPCC.

At a greater level of complexity, reliable emissions data were required, not least for the base year of 1990 against which further obligatory national reductions would be measured and for determining entry into force of the Protocol by reference to a quantitative measure of emissions in that year. Emissions data had to be gathered from widely disparate sectors, such as power plants, manufacturing facilities, and motor vehicles, which – relatively speaking – appeared to be straightforward. In principle, an immense virtual ledger could be imagined, in which baselines, emissions, reductions, and trades could be inscribed and audited.

By contrast, the burning of wild forest, whether purposeful or accidental, was perceived to be emblematic of the obstacles presented by the land use, land use change, and forestry sector (LULUCF). Similarly, emissions from agricultural practices such as rice cultivation -- not to mention from soils themselves – seemed to be invitations to uncertainty, and consequently to potential abuse, whether intentionally or through technical limitations. Credits for “sinks,” such as afforestation efforts designed to sequester carbon, were particularly controversial. Comparability had to be established across all of the three mechanisms to assure tradability of emissions rights among them.

The CDM from its very structure created leakage from the closed system of Annex I states with emission reduction obligations. The requirement for “additionality” consequently loomed large as a potential weak link in the system, a concern that has proved to be prescient.²⁶

Conferences of Bonn and Marrakesh, 44 *German Y.B. Int'l L.* 396 (2001). Cf. Warwick J. McKibbin and Peter J. Wilcoxon, *The Role of Economics in Climate Change Policy*, 16 *J. Economic Perspectives* no. 2, 107-129, 127 (Spring 2002) (“The Bonn and Marrakesh revisions in 2001 postponed the Protocol's collapse by reducing its stringency, but did nothing to address the underlying design flaws. Further negotiations will accomplish little of substance as long as they remain focused on establishing a targets-and-timetables approach to climate change policy.”)

23. See generally Matthew Vespa, *Climate Change 2001: Kyoto at Bonn and Marrakech*, 29 *Ecology L.Q.* 395-420 (2002).

24. UN Doc. FCCC/CP/2001/13/Add.1-4 (2002) [hereinafter *Marrakesh Accords*]. The Marrakesh Accords are a group of draft decisions proposed to the first Meeting of the Parties to the Kyoto Protocol, which were formally adopted as the Kyoto rulebook by COP 11/CMP 1 held in Montreal in 2005.

25. See David A. Wirth, *The Sixth Session, Part Two, and Seventh Session of the Conference of the Parties to the Framework Convention on Climate Change*, 96 *Am. J. Int'l L.* 648 (2002) (negotiating history of Marrakesh Accords). See generally Christiaan Vrolijk, *The Marrakesh Accords: A Brief Point-by-Point Description and Comments* (Chatham House 2001).

26. See section ___ infra.

There was great concern for the vigor of compliance procedures²⁷ as linked to the integrity of the reporting and accounting essential to the Protocol's functioning.²⁸ Some concerns drifted toward the philosophical, as in discussion over whether access to the mechanisms ought to be unburdened and broadly accessible, or limited to an ancillary tool to ensure compliance at the margins.

The final "crunch" issues and their resolution gives an excellent insight into questions that the negotiators considered the highest priority in the Marrakesh Accords.²⁹ For instance, nuclear power installations in the end were excluded from the JI scheme³⁰ and the CDM.³¹ The "commitment period reserve" -- a constraint on "supplementarity" designed to discourage over-reliance on trading to meet reduction targets -- was set at 90 percent of a party's 1990 baseline emissions, or 100 percent of the level of the most recent emissions inventory, whichever is lower. This provision was a proxy for concern about the treatment of "hot air" from states such as the former USSR, which experienced artificially premature reductions during the *perestroika* transitional period that would be available for sale as credits.

"Sinks," consistent with their highly controversial character, generated a number of compromises. Sinks are controversial as to their definition and character. For example, sinks may be counted against a party's emission reduction target provided that the activities are "human-induced" and have occurred since 1990. Sinks are mutable in character. For example, agricultural and forestry practices can change considerably, therefore changing their sequestration properties. Parties agreed that agricultural practices could only produce emission credits to the extent that the net effect is to sequester more carbon. Forest management (e.g., conservation of existing forests) is also subject to a global limitation of about 83 million tons of carbon per year, apportioned by formula among Annex B countries (excluding the United States).

In the CDM, the Accords reflected a compromise deal. It confines projects eligible for credits to afforestation and reforestation during the first commitment period. It does this by limiting net credits earned for these sink-related activities in the CDM to no more than 1 percent of a party's base-year emissions. The parties delegated the responsibility to elaborate further accounting methodologies to the SBSTA for this category of activities. In the Marrakesh meeting

27. See René Lefeber, *From the Hague to Bonn to Marrakesh and Beyond: A Negotiating History of the Compliance Regime under the Kyoto Protocol*, 14 *Hague Y.B. Int'l L.* 25 (2001).

28. See generally *Implementing the Climate Regime: International Compliance* (Olav Schram Stokke, Jon Hovi Geir Ulfstein eds. 2005).

29. See, e.g., E. Boyd & E.L. Schipper, *The Marrakech Accord— At the Crossroad to Ratification: Seventh Conference of the Parties to the United Nations Framework Convention on Climate Change*, *Journal of Environment & Development*, 11(2), 184-190 (2002).

30. Marrakesh Accords, *supra* note __, Guidelines for the implementation of Article 6 of the Kyoto Protocol Decision -/CP.7 (Article 6) pmb1 ¶ 4 ("Parties included in Annex I are to refrain from using emission reduction units generated from nuclear facilities to meet their commitments under Article 3, paragraph 1 [of the Protocol]").

31. Marrakesh Accords, *supra* note __, Modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol, Dec. -/CP.7 (Article 12) pmb1 ¶ 5 (same). Parties included in Annex I are to refrain from using certified emission reductions generated from nuclear facilities to meet their commitments under Article 3, paragraph 1 [of the Protocol]").

the Russian Federation, having identified the absolute necessity of its ratification for the Protocol's entry into force after the U.S. announcement of non-ratification, successfully negotiated for an increase in its ceiling for forest-management credits. This exception allowed that party to roughly double what the earlier negotiations had allocated it, illustrating the many loopholes, exceptions and complexity contained in the Marrakesh negotiations, which would later plague the article 6 negotiations.

Significantly, all these matters boil down to rules that, but for the items being counted, would be reasonably familiar to a tax accountant. Which sheds a great deal of light on the negotiators' view of the product. Whether motivated by issues of principle or national interest, the portions of the Marrakesh Accords dealing with the flexible trading mechanisms are all framed in the forms of, literally, operative instructions as to how to count. And if nothing else emerged from Marrakesh, it was crystal clear to everyone involved the effort involved articulating those rules – more than 200 pages of them, every comma agreed by consensus – with the greatest precision and specificity possible.³²

B. The Paris Rulebook

The structure of the Paris Agreement reflects very different emissions levels and political economies around climate change than existed in the UNFCCC and Kyoto Protocol worlds. The G77 & China is an increasingly diversified and stratified group than it was during the Kyoto negotiations, and global climate governance became increasingly hybridized after the Kyoto Protocol.³³ The negotiation roadmap in the lead up to the Paris Agreement reflects this changing world. The Durban Mandate provided parties with various options, including a variety of legal forms, that the new agreement could take.³⁴ The U.S. was one of the main drivers of this hybrid approach, jettisoning a binding legal protocol, a third commitment under the Kyoto Protocol or an amendment to the UNFCCC, in favour of an approach that would be more palatable to it.³⁵

The U.S. made it clear that a bottom-up approach could include a mixture of both legally binding commitments and non-binding statements within one legal text.³⁶ The US-China Joint Agreement in November of 2014 was critical in articulating an amended principle of differentiation, being common but differentiated responsibility, respective capacities with the addition of evolving national circumstances.³⁷ This added a level of dynamism to what had

32. See S. Dessai & E.L. Schipper, "The Marrakech Accords to the Kyoto Protocol: Analysis and Future Prospects," 13 *Global Environmental Change*, no. 2, 149-153 (2003). Contra: Christoph Bohringer, *Climate Politics from Kyoto to Bonn: From Little to Nothing?*, 23 *Energy J.* no. 2, 51-71 (2002) ("the Marrakesh conference was mainly concerned with technical and legal details in the implementation of emissions trading (e.g., monitoring and verification) as well as concrete sanction mechanisms in the case of non-compliance").

33. Jermnas and Linner (n 10), 581.

34. Providing for 'a protocol, another legal instrument or an agreement outcome with legal force under the Convention applicable to all parties' FCCC/CP/2011/9/Add.1 ¶ 2 .

35. David Wirth, 'Cracking the American Climate Negotiators' Hidden Code: United States Law and the Paris Agreement' (2016) 6 *Climate Law* 152, 155.

36. *Ibid*, 156.

37. US-China Joint Presidential Statement on Climate Change (November, 2014),

otherwise become a strict and stultified principle under the Kyoto Protocol, evidenced through binary Annexes. This modified principle lent a context-specific quality to differentiation, which was subsequently folded into each element of the Paris Agreement as parties felt appropriate.³⁸

The Paris Agreement reflects this hybridization through its flexible provisions.³⁹ There are nuanced levels of differentiation which shift and change between each article of the Agreement. Its main characteristics are the non-binding,⁴⁰ bottom-up nature of the NDCs, combined with stricter, internationally negotiated procedural rules which introduce discipline into the process of submission of NDCs.⁴¹ The provisions strike a careful balance between a bifurcated approach with reference to the UNFCCC, and more of a spectrum of differentiated commitments with reference to provisions that are applicable to all.⁴²

This nuanced approach applies to mitigation commitments as well. They are bifurcated in that developed countries – by and large the Annex I parties to the Kyoto Protocol -- must produce NDCs that are, analogous to the KP, absolute and economy-wide. Developing countries agree to enhance their mitigation commitments, and work towards NDCs that are economy-wide.⁴³ Existing established guidance and methodologies exist for the reporting requirements of absolute, economy-wide NDCs, borrowing from the experience of Annex I parties reporting under the KP. But even here, developed countries can choose either single year or multiyear targets. For developing countries, it is unclear which methodologies will be adopted for the vast diversity of content of NDCs, and the Katowice rulebook does not provide much guidance in this respect.⁴⁴ Differentiation thereby applies to both the content of the contribution and the form of the commitment in terms of what the targets will look like.⁴⁵

NDCs have three key factors: (1) they are universal; (2) they provide significant flexibility to

<https://obamawhitehouse.archives.gov/the-press-office/2015/09/25/us-china-joint-presidential-statement-climate-change#:~:text=In%20November%202014%2C%20President%20Barack,well%20as%20a%20new%20pillar.>

38. Christina Voigt and Felipe Ferreira, 'Differentiation in the Paris Agreement' (2016) 6 *Climate Law* 58, 63.

39. Daniel Bodansky, 'Reflections on the Paris Conference' (15 Dec 2015) *Opinio Juris*, 2-3.

40. Cf. *The International and Domestic Law of Climate Change: A Binding International Agreement Without the Senate or Congress?*, 39 *Harv. Envtl. L. Rev.* 515 (2015) (arguing that U.S. could have agreed binding emissions targets even in executive agreement, without Senate advice and consent to ratification).

41. *Ibid.*

42. Voigt and Ferreira (n 38), 63; Lavanya Rajamani and Jutta Brunnée, 'Legality of Downgrading NDCs under the Paris Agreement' (2017) 29 *Journal of Environmental Law*, 537.

43. Article 4(4) Paris Agreement.

44. Meinhard Doelle, 'Heart of the Paris Rulebook: Communicating NDCs and Accounting for Their Implementation' (noting the rulebook does not provide much more detail sufficient to provide parties with consistency and clarity), *Climate Law* (2019) 13.

45. Voigt and Ferreira (n 38), 66.

countries to tailor their ambitions to their national priorities; and (3) they must go through five-yearly cycles of review to progressively upgrade ambition.⁴⁶ Besides those commonalities, there is a huge diversity in what NDCs cover, in terms of different targeted contributions, sectors, and activities. Unsurprisingly, many NDCs submitted by developing countries are conditional on finance, technology transfer, or capacity building.⁴⁷ The vast diversity of mitigation contributions reflects the country driven process of developing NDCs which was critical to the successful adoption of the Paris Agreement.⁴⁸ It also reflects the rushed nature of the development of the first round of NDCs, which were submitted on ratification of the Paris Agreement, and which largely reflected countries' initial INDCs.⁴⁹ In upgrading their NDCs, developing countries in particular must build expertise, gather data, align NDCs with existing national policies and gain support for mitigation contributions from public and private actors.⁵⁰

IV. LEARNING FROM MARRAKESH IN THE RULEBOOK NEGOTIATIONS

Much of the public debate over the article 6 portion of the Paris Rulebook has an eerily familiar ring to veterans of the Marrakesh Accord negotiations. Avoiding double-counting, assuring the integrity of the system and individual trades under its auspices by reference to a sustainability metric, and the like are all familiar themes. But the Rulebook is emerging by reference to a different regime from Kyoto, one including all parties in contributing mitigation measures and multiple base years and metrics, some of which may not be quantitative. ITMOs, moreover, exist against a non-binding backdrop that is significantly different in kind from their precursors in Kyoto's three flexible mechanisms. The transition from the Kyoto regime, particularly the CDM, is another challenge that did not face the negotiators of the Marrakesh Accords.

A. Political and economic obstacles in the Article 6 negotiations

Article 6 is complex, and so negotiating detailed rules to implement it are also complex. Article 6 establishes three different types of trading mechanisms, all based on voluntary co-operation. Only the first two mechanisms will be covered here as they reflect more traditional carbon trading mechanisms. The first mechanism is found under articles 6(2)-(3) and is a market-based mechanism. It allows internationally traded mitigation outcomes (or ITMOs) to be generated by one country and transferred to another to count towards the second country's NDC contributions. Paris Agreement parties can do this by using a cap and trade system, a banking/credit approach, or simply bilateral cooperation.⁵¹

46. WP Paus et al., 'Conditional nationally determined contributions in the Paris Agreement: foothold for equity or Achilles heel?' (2020) 20(4) Climate Policy 468, 469.

47. Ibid, noting that 136 of the 186 NDCs submitted as of June 2019 were conditional upon one or more types of support.

48. Frauke Roser et al., 'Ambition in the Making: analysing the preparation and implementation process of the Nationally Determined Contributions in the Paris Agreement' (2020) 20(4) Climate Policy 415, 416.

49. Doelle (n44), 15.

50. Roser (n48), 416.

51. Matthieu Wemaere, 'Article 6: Voluntary Cooperation/NDCs' in Van Calster and Leonie

The first mechanism establishes a decentralized process, which was designed by the parties to provide flexibility to market participants.⁵² However, the safeguards and limitations some parties are suggesting to include in the article 6 rulebook would require a more centralized governance approach.⁵³ The provisions use a prescriptive “shall” - that the mechanism shall promote sustainable development, environmental integrity and transparency - and so some parties are insisting on environmental and sustainable development safeguards.⁵⁴ Conversely, many parties see the concept of sustainable development as nationally driven, and so resist a strict assessment of whether an ITMO contributes to sustainable development.⁵⁵ Some countries such as India and Saudi Arabia, are insisting on flexibility around the metrics of what counts in an ITMO, and the ability of countries to rely on non-GHG metrics like kilowatts of electricity produced.⁵⁶ Other countries have pushed back and requested a “buffer registry” to convert these non-GHG metrics into GHG metrics, which would require a more centralized registry system.⁵⁷

The second mechanism is found under articles 6(4)-6(7), and is referred to as the “sustainable development mechanism.” It is similar to the CDM, and designed as an apparent successor to it, but all countries (not just developing countries) can host an activity.⁵⁸ Activities are defined broadly and can include projects, programmes, or policies.⁵⁹ It anticipates a more centralized process via a Supervising Body. This mechanism is supposed to contribute to overall mitigation in global emissions (or OMGE). This overall mitigation is envisioned to achieve net global emissions reductions, and not just by offsets between country A and country B. OMGE is only mentioned in article 6(4), although there is a strong push to have it apply to the first mechanism as well by setting aside or cancelling a fixed number of credits to benefit the world’s atmosphere as a whole.⁶⁰

Reins (eds) *The Paris Agreement: A Commentary* (EE: 2021).

52. Asian Development Bank, ‘Decoding Article 6 of the Paris Agreement’ (Dec. 2020), 6

53. Para 6.11

54. Strictly as a matter of public international law, this phraseology, self-evidently intended to amplify the vigor of the operative language, does not alter the non-binding character of the principles set out in the Rulebook. That is, notwithstanding the use of “shall” as the language of command, the Rulebook, like the Marrakesh Accords, is formally non-binding as contained in COP decisions, and not governed by international law.

55. Ibid, para 6.17.

56. Ibid, para 6.15.

⁵⁷ For example, see Draft Text on Matters Relating to Article 6 of the Paris Agreement: Guidance on cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement, at III.B.10 (this proposal by the President, version 3 of 15 December 00:50hrs is text still under negotiation).

⁵⁸ See Draft Text on Matters Relating to Article 6 of the Paris Agreement: Guidance on cooperative approaches referred to in Article 6, paragraph 4, of the Paris Agreement, at para 7(g) proposing transition of activities from the CDM under the Kyoto Protocol to Article 6(4) mechanism (this proposal by the President, version 3 of 15 December 1:10 hrs is text still under negotiation).

59. Wemaere (n 51), para 6.28.

60. Carbon Brief Summary – COP25 Key Outcomes’, 20.

The CDM has proven to be a flash point, both in implementation of the Kyoto Protocol under the Marrakesh Accords and in the article 6 negotiations on the Paris Rulebook. In principle, the CDM can provide benefits to developing countries, as the name suggests. In practice, the CDM has been subject to near-universal criticism from neutral observers.⁶¹ Criticisms have focused on the difficulty of applying the but-for test of additionality, and the concentration of projects in the industrial sector and in China.⁶² It is disappointing that the Kyoto parties did not learn more from the CDM mistakes, or more accurately, actually implement fixes for the mistakes and loopholes the parties were aware of from the CDM. A meaningful response requires allowing independent, neutral technical experts -- appointed in their private capacities and fully insulated from pressures from stakeholders -- to develop methodologies that truly achieve global mitigation outcomes. These are technical issues that could have been addressed, but the opportunity unfortunately has been foregone.⁶³

A case in point in the article 6 negotiations is that many states such as India, China, and Brazil are advocating for credits earned under the KP to be transferred to the new trading mechanisms under article 6, effectively introducing “hot air” again to the market trading process. They argue that these credits have been accepted in the UNFCCC system and are therefore durable and transferable to the new article 6 mechanisms. Vulnerable countries, such as members of AOSIS, are critical of attempts to introduce hot air, and want to ensure that the new trading mechanism does not repeat the mistakes of the KP.⁶⁴ Parties introduced progression over time into the ratchet mechanism of NDCs as a forward-looking principle, encapsulating the approach of “no backsliding” from existing KP commitments.⁶⁵ The introduction of “hot air” would seemingly contravene this principle of progression. Many market participants, such as oil and gas companies, are watching the negotiations around the rules of article 6 closely, and support flexible, market-based approaches through groups like the International Emissions Trading Association (or IETA). Undervalued credits would make it much cheaper for polluters to buy offsets.⁶⁶ But lower priced offsets would mirror the lack of success and replicate the mistakes of the Kyoto Protocol.

61. E.g., U.S. Government Accountability Office, *Climate Change Issues: Options for Addressing Challenges to Carbon Offset Quality*(GAO-11-345 Feb. 2011); Voigt, Christina. “Is the Clean Development Mechanism Sustainable? Some Critical Aspects.” *Sustainable Development Law & Policy*, Winter 2008, 15-21 & 82-84, 18 (“The reality of CDM projects has so far been quite different from [the] initial conception . . . almost all proposed and approved projects to date have primarily focused on maximizing the generation of CERs instead of focusing on sustainable development.”)

62. E.g. Bruce Rich, *An International Regime in Crisis*, *Environmental Forum* May/June 2011 (Environmental Law Institute) (criticizing HFC substitution projects in China, and concluding that “[t]he Kyoto Protocol’s Clean Development Mechanism is fundamentally flawed.”)

63. In a development that some might regard as troubling in light of unfinished business in redirecting the CDM, the ICAO Council in March 2020 identified the CDM as one of six approved offset schemes qualifying under its Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

64. *Ibid*, 18.

65. Rajamani and Brunnée (n42), 545.

66. Abhilasha Fullonton, ‘India’s position on Article 6 at COP 25 Explained’ (Jan 16, 2020), 2 <http://sustainabilityoutlook.in/content/india%E2%80%99s-position-article-6-cop25-explained-766329>.

Underpinning these negotiation controversies is a strong debate about what an NDC actually is. The traditional interpretation, which is endorsed by the overwhelming majority of parties, is that an NDC is what has been pledged by the parties.⁶⁷ Other parties interpret an NDC as the sum of actions a party must take in order to meet the pledge in the NDC (i.e., the NDC is not the actual pledge, but the actions to meet the pledge).⁶⁸ This latter approach is favoured by countries seeking much more flexibility in the rules around article 6, and the ability to allow activities which fall outside of their NDC to be eligible under the article 6(2) mechanism.⁶⁹ The sheer variety of NDCs in terms of their scope, coverage of gasses and sectors, metrics, and timeframes makes any corresponding adjustments almost impossible between single-year and multi-year NDCs.⁷⁰

The oft-lauded flexibility of the Paris Agreement, therefore, has provided obstacles or rather too much flexibility for the agreement of ambitious article 6 rules around carbon trading. As with the Marrakesh negotiations, the sheer complexity of these mechanisms, and the options available to and advocated for by parties, makes consensus extremely difficult, if arguably impossible. But the article 6 world is arguably more complex than the KP world. Many large developing countries and some economies in transition are pushing for as much flexibility as possible under article 6 in order to reduce their actual contributions pledged in their NDCs. Flexibility has led to complexity. Lax article 6 rules may be an indirect way of subverting the ‘name and shame’ approach of the Paris Agreement. This may stem from some leftover reluctance by developing countries at the move away from the strict, binary differentiation which characterised the Kyoto Protocol.⁷¹

B. Paris Rulebook vs. Marrakesh Accords

The negotiations over the implementation of article 6 of the Paris Agreement, as discussed in the previous section, bear a superficial resemblance to those at COP 6bis and COP 7 leading to the Marrakesh Accords.⁷² For example, and quite predictably, as discussed in the previous section there is concern about over-reliance on trading to achieve goals articulated in NDCs, reminiscent of the earlier “hot air” debate.

But while one might have expected a “maturation” of the UN climate regime from the Convention, through the Kyoto Protocol, the Marrakesh Accords, the Paris Agreement, and the

67. Asian Development Bank (n 52), 13.

68. Ibid. See also Wirth, supra note __, at __ (analysing legal consequences of NDCs’ non-legally binding character).

69. Wemaere (n 51), para 6.21.

70. Ibid, para 6.22.

71. Bodansky (n 39), 5.

72. Cf. Jean-Charles Hourcade and Frédéric Gherzi, *The Economics of a Lost Deal: Kyoto - The Hague – Marrakesh*, 23 *Energy J.* no. 3, 1-26, 3 (2002) (“the Marrakesh accord, the new benchmark of climate policy discussions, leaves unresolved the key structural questions of the climate policy regime”).

Paris Rulebook,⁷³ a comparison of the two endpoints suggests a somewhat startling conclusion: If anything, the debate over what is colloquially known as the “markets” text of the Rulebook implementing Paris articles 6(2), (4), and (8) demonstrates considerable evidence of backtracking by reference to the Marrakesh Accords.

As evidence of this trend, there is still considerable debate over the purpose of Paris article 6, and the extent to which trades should facilitate “overall mitigation of global emissions” (OGME), discussed in the previous section. Avoiding double-counting is a persistent issue in the implementation of article 6, a question that hardly arose under the Marrakesh Accords because the very concept would have been inconsistent with their purpose.

More fundamentally, what meaning does a right to emit have against the background of a non-legally binding NDC, as a practical matter unenforceable under either public international or domestic law? And how could such things be traded with confidence, given the imprecision with which they are defined? The Rulebook negotiations on markets are further hobbled by the need to address transitional issues, such as “banked” credits carried over from the Kyoto CDM.

In the two decades since Marrakesh, the climate regime has entirely appropriately come to encompass many related issues that were not front and center in Kyoto’s implementation, such as public participation in planning projects on the part of intended beneficiaries, and social issues such as gender equity, the rights of indigenous peoples, and disparate impacts on communities of color, marginalized groups, and the poor. The potential social and ecological consequences of adaptation measures and mitigation in the form of afforestation and reforestation are also much better appreciated than two decades ago. It is now widely accepted that addressing challenges to climate integrity necessarily engages these concerns, but superimposing them onto the markets undoubtedly adds an additional layer of complexity.

While facilitating emissions reductions through the flexible mechanisms certainly was a concern in drafting the Marrakesh Rules, the negotiators of that instrument had the benefit of working with the Kyoto Protocol’s underlying structure whose very architecture not only presumed but affirmatively facilitated achieving emissions reductions through trades in emissions rights. The mechanisms were conceptualized as ancillary to the Annex I parties’ emissions reduction obligations, which were understood to be the principal workhorse in Kyoto’s regulatory design.

By contrast, the outcome of the article 6 implementation talks is being characterized as “make or break” for the Paris Agreement as a whole – from the Kyoto point of view, clearly a situation of the tail wagging the dog. The Paris Agreement is not a trade agreement in the sense of the GATT/WTO suite of rules, or even an agreement regulating trade in environmentally-relevant products, such as the Basel and Rotterdam Conventions or CITES. Rather, it is an organic entity devoted first and foremost to commons management, more closely analogous to the Montreal Protocol, which – tellingly – allows for strictly limited trading and offsets in a manner designed to further its remedial purpose.

The Kyoto Protocol’s tradeable emissions rights -- AAUs, ERUs, CERs, and ERUs -- are

73. See generally Julia Kreienkamp, *The Long Road to Paris: The History of the Global Climate Change Regime 6* (UCL Global Governance Institute Policy Brief, Nov. 2019), available at <<https://www.ucl.ac.uk/global-governance/news/2019/nov/long-road-paris-history-global-climate-change-regime>> (last visited Aug. 6, 2021).

all fundamentally commensurable, in the sense of articulating the same metrics. The base year for each of the legally binding Kyoto emissions reductions obligations for Annex I countries is identical, 1990. The targets – e.g., 2008-2012 for the first commitment period – are similarly uniform. Although the percentage reductions vary among states parties to the Protocol, those emissions reduction goals are fundamentally built into the tradeable emissions rights, entirely transparent and knowable in the rate at which they decay toward the target of the baseline. Perhaps most importantly, Kyoto was designed from its inception to accommodate the flexible mechanisms as a component of the overall scheme.

The Marrakesh Rules were fundamentally targeted at ensuring the integrity of trades. Hence, the particular attention to sinks – given the difficulties in identifying reliable measurement methodologies – and the CDM, as inherently involving leakage from the closed system of Annex I parties with quantifiable emissions reduction obligations. Particular substantive choices, such as the special treatment for nuclear power installations, were hard-fought, but peripheral to the basic task of assuring the integrity of counting, and accounting for, emissions.

Retooling the regime toward Paris’s largely voluntary, bottom-up architecture fundamentally undercut many of Kyoto’s attributes that in principle facilitated trading. Base years are no longer uniform, nor are endpoints. Many non-Annex I NDCs are not even framed in terms that are fundamentally measurable or count-able. By comparison with emissions rights under Kyoto, the rights being traded under Paris are likely incommensurable, in the sense of being established against a background of a multiplicity of metrics.

The history of the Paris Rulebook’s negotiations also highlights the wide divergence in goals and purposes from the Marrakesh Accords. At COP24 in Katowice in 2018, virtually all the other components of the Paris Rulebook were agreed. Those include crucial texts on transparency, NDC accounting, national inventories, reporting, and implementation and compliance. The “markets” rules, anchored to article 6 of Paris, was consequently left hanging, as something of a self-contained, more or less freestanding mini-negotiation.

The fact that it the ITMO portion of Paris is severable is thrown into sharp relief by the simple fact that it has in fact been severed, with article 6 hanging in a kind of multilateral purgatory for three years. Meanwhile, a multiplicity of interests have been circling around the detached limb, attempting to influence the outcome while the stakes have risen ever higher.

Decoupling such questions as reporting, accounting, and compliance from the rules for implementing the mechanisms in Kyoto articles 6, 12, and 17 would have been well-nigh inconceivable; alterations to any one portion of the highly interconnected structure of the Marrakesh Accords would have been expected to invite reconsideration of interdependent, related passages elsewhere in the instrument. The oft-repeated refrain in multilateral agreements, “Nothing is agreed until everything is agreed” seems particularly apt here.

By contrast with the Marrakesh Accords, in which there is a highly granular emphasis on substantive precision, the analogous Paris Rulebook texts paint with a broader brush and – particularly with respect to the article 6(4) mechanism – evince a greater reliance on the institutional processes accompanying the creation of credits. For example, neither sinks nor nuclear power installations – major issues in the Marrakesh Accords -- are identified by name in the current article 6 texts. Somewhat surprisingly given the divergence – or perhaps precisely because of the very broad scatter -- of views, the negotiators seem in some fundamental sense to have “agreed to disagree,” in effect kicking the can down the road to the subsequent phase of institutional implementation.

The “markets” text of the Paris Rulebook has suffered from this very malleability, with wildly diverse constituencies –states with potentially competing national interests, NGOs, private industry, and all manner of interest groups – projecting their needs onto the text. Private, for-profit business interests are literally and figuratively all over the map, including the oil and gas firms, renewable energy companies, chemical manufacturers, producers of cars, trucks, and buses and many sub-permutations of them as only the most obvious players. Completing the Marrakesh Accords seemed close to an overwhelming challenge, at the time as the most complicated environmental negotiation to that date. But by comparison with the current situation going into Glasgow, the earlier drafters had the relative luxury of a reasonably crisp mandate and an underlying international agreement that had already completed much of the job.

IV. CONCLUSION

The Marrakesh Accords cast a long and gloomy shadow over the ongoing article 6 negotiations. The same issues and obstacles are present, such as the desire to fold ‘hot air’ into calculations, but with an added layer of immense – and perhaps insurmountable -- analytical complexity as a matter of principle: the flexibility of the Paris Agreement which allows, and encourages, a huge diversity of NDCs. This flexibility was originally designed to ensure that all parties, developed and developing, shared responsibility and commitments for emissions reductions. But the flexibility of the agreement largely papered over significant divisions, which are alive and well, and actively resurfacing in the article 6 negotiations.

Large developing countries are seeking to ‘claw back’ shared responsibilities by inserting flexibility into the rules around article 6. Many developed countries are doing the same. Waiting the wings, and advocating for such flexibility, are large private entities who themselves want to publicly promise climate ambition, while benefiting from cheap and flexible offsets traded through unaccountable markets. The startling similarities between the Marrakesh Accords and the article 6 negotiations is highly disappointing for observers of the climate negotiations: We should have come much further than we have, considering the dire climate circumstances we now find ourselves in.

The article 6 negotiations illustrate the fundamental conundrum of the climate regime: The Paris Agreement would not have been successfully concluded without providing parties with flexibility, but this flexibility could undermine the promise and ambition of the global temperature goals within it, through lax rules agreed in article 6. Even more fundamentally, it is easy to lose sight of the remedial goal of the Paris Agreement, and the fundamental challenge of commons management: All states – and all peoples – must accept concrete near-term burdens in return for long-range benefits that can appear to be illusory.

The IPCC continues to remind us that time is short, and the markets text should be airtight and waterproof to prevent skimming from trades that fail to promote sustainability or, worse, undermine that goal. The article 6 text, cloaked in abstruse language and a diplomatic setting that seems incomprehensible to the uninitiated, may indeed end up being “make or break” in the sense of inviting unintended leakage that could end up undermining the Paris Agreement. So all eyes should be on Glasgow. The oft-maligned world of the Kyoto Protocol and the Marrakesh Accords does not seem so bad in hindsight.

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