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The Paris Agreement on Climate Change: Analysis of Its Innovations and Potential

Introduction

This article will examine the Paris Agreement on Climate Change.¹ Specifically, it will look at the innovations contained in the Agreement and explore how these might contribute to the development of international law relating to sustainable development. It will also assess the Agreement's potential for actually addressing climate change. The reports about rising atmospheric temperatures and the global impact of increasing levels of Carbon Dioxide and other greenhouse gases are grim.² The world's political dynamics, current and historic inequities between nations and peoples further compound the challenges ahead.

This paper will first briefly review the Paris Agreement, its goals, design and implementation- highlighting its innovative characteristics. Then, it will examine the features that might further sustainable development goals. Finally, it will look at the Agreement's potential to curb climate change despite the current fraught political environment. It is early days for the Paris Agreement and while there is a pressing need to address climate change quickly, "an emergency" as Greta Thunberg quite correctly labels it,³ the agreement only entered into force in 2016 and many of the details are still being hammered out. In an attempt to both anticipate future effectiveness and narrow this huge topic, this paper will particularly lean on lessons learned from efforts under the United Nations Framework Convention on Climate Change ('UNFCCC')⁴ in the forestry sector and examine the position of the United States.

In the UNFCCC, the forestry sector already sees similar innovations to those introduced in the Paris Agreement. Particularly, the REDD+ system (Reducing Emissions from Deforestation and forest Degradation in developing countries) contains a "pledge and review", bottom up approach to carbon mitigation and banking.⁵ Thus, this sector can provide insight into possible benefits and drawbacks of some of the innovative features of the Paris Agreement. This example can serve to warn and inform development of the guidelines for implementation. It can also help to predict future effectiveness.

The United States is the world's second largest emitter of carbon dioxide.⁶ It has also enjoyed the benefit of being a huge historic contributor to climate change. It has a GDP of almost 20 \$Trillion,⁷ an average per capita income of \$59,000, and continues to have the highest per capita emission levels.⁸ Its economy has greatly relied

¹ Paris Agreement Report of the Conference of Parties 21st Session (2016)

² Intergovernmental Panel on Climate Change, Special Report On Global Warming of 1.5 degrees Celsius, 8 Oct 2018; World Resources Institute <https://www.wri.org/blog/2018/10/according-new-ipcc-report-world-track-exceed-its-carbon-budget-12-years>

³ Greta Thunberg's Speech at UN Climate Change 24th COP December 15, 2018 at

<https://www.youtube.com/watch?v=VFkQSGyeCWg>

⁴ United Nations Framework Convention on Climate Change (1992)

⁵ UNFCCC Decision 1/CP 16 (2011)

⁶ Union of Concerned Scientist, Each Country's Share of Carbon Dioxide Emissions October 11, 2018 (2015 data)

<https://www.ucsusa.org/global-warming/science-and-impacts/science/each-countrys-share-of-co2.html>

⁷ World Bank <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=US>

⁸ Chelsea Harvey, Scientific American, Jan 9, 2019 <https://www.scientificamerican.com/article/u-s-emissions-in-2018-saw-the-second-largest-spike-since-1996/>

upon and profited from burning fossil fuels and producing greenhouse gases ('GHGs'). It has a schizophrenic and politically partisan approach to climate change.⁹ President Obama was instrumental in negotiating the Paris Agreement and promoting domestic climate mitigation legislation. President Trump is, in contrast, actively denying the problem, trying to withdraw from the Paris Agreement and overturning domestic, federal and state level initiatives aimed at curbing emissions. While reluctance to fully accept the climate crisis is not unique to the U.S., one of the touted triumphs of the Agreement is the participation of the U.S., China, and India.¹⁰ Because the three countries are and/or will be such heavy GHG emitters, their engagement was seen as pivotal to success of the Agreement. Many commentators worry that the U.S. withdrawal will practically and politically undermine the Agreement.¹¹ An analysis of the Agreement's potential effectiveness without looking at this case would be incomplete.

Paris Agreement

The Paris Agreement is a furtherance of efforts begun with the UN Framework Convention on Climate Change. It was adopted 12 December 2015. It entered into force 4 November 2016. It has been ratified and/or acceded to by 197 states. It is a binding international treaty despite its name.¹² The term 'agreement' was chosen to accommodate the vagaries of the U.S. constitutional system and allowed the instrument to be adopted by President Obama's executive powers rather than by full ratification of the U.S. Senate.¹³ It has historically been difficult and time consuming for treaties to be ratified by a polarized U.S. legislature and climate change has unfortunately been seen as a partisan issue.

The Paris Agreement is the first multilateral climate change instrument that brings together such a significant number of parties and emitters. Its 197 parties account for 97% of worldwide emissions.¹⁴ The Kyoto Protocol has 192 party signatories, but combined they only account for 14% of global emissions.¹⁵ The absence of the largest carbon dioxide emitting nations, including U.S. and China, leads commentators to conclude that the Kyoto Protocol was a failure.¹⁶ The Paris Agreement, in contrast, demonstrates an unprecedented level of world engagement in the issue. Some scholars believe that this level of engagement was only possible because of the bottom-up approach introduced in the Agreement.¹⁷

One of the main proponents of the bottom-up approach, Daniel Bodansky, explains that this shift was necessary to address the unique nature of climate change as a global problem that can only be tackled by common effort

⁹ See e.g. Emily Holden, Guardian, May 2, 2019 <https://www.theguardian.com/us-news/2019/may/02/house-democrats-paris-climate-change-agreement-bill>

¹⁰ Daniel Bodansky, The Paris Climate Change Agreement: A New Hope, 110 Am. J. Int'l L. 288 (2016)

¹¹ J. Timmons Roberts, Undermining a Weak Agreement: Fossil Capitalism, Neoliberal Climate Governance, Paris and a Just Transition after Trump, 33 Conn. J. Int'l L. 425 (2018)

¹² Vienna Convention Law of Treaties, Article 2(1) (1969)

¹³ U.S. Constitution Article 2; Daniel Bodansky, The Paris Climate Change Agreement: A New Hope, 110 Am. J. Int'l L. 288 (2016)

¹⁴ Sharmila L. Murthy, States and Cities as Norm Sustainers: A Role for Subnational Actors in the Paris Agreement on Climate Change, 37 Va. Env'tl. L.J. 1(2019)

¹⁵ Ibid

¹⁶ Ibid; Donald A. Brown; Hugh Breakey; Peter Burdon; Brendan Mackey; Prue Taylor, A Four-Step Process for Formulating and Evaluating Legal Commitments under the Paris Agreement, 2018 CCLR 98 (2018)

¹⁷ See Daniel Bodansky, The Paris Climate Change Agreement: A New Hope; Michael Bennett, The Role of National Framework Legislation in Implementing Australia's Emission Reduction Commitments under the Paris Agreement, 43 U.W. Austl. L. Rev. 240 (2018)

and reciprocated trust that other nations will similarly cut their emissions.¹⁸ Others have argued that the hole in the ozone layer presented a similar common problem and point out that it was effectively addressed through a traditional convention binding parties to clear dictates banning ozone-depleting chemicals.¹⁹ Timmons Roberts, for instance, believes that the political climate in 1987 was the determining factor that allowed adoption of the Montreal Protocol on Ozone Depleting Chemicals and that in a “post-neoliberal” world it could not now be adopted.²⁰ However, the scale of the effort involved in addressing climate change, the variety of industries that must evolve and the economy-wide impacts that will be felt are considerably larger than a comparatively simple ban on CFCs. The hole in the ozone layer was also a more immediate, comprehensible and viscerally understood phenomenon. While the scientific reports concerning climate change seem clear, it is hard to acknowledge or truly comprehend the scope of such a problem.

Structure

The Paris Agreement creates a “pledge and review” or hybrid system with both binding obligations of conduct and aspirational but nonbinding plans created by individual states to achieve national reduction targets and thus an aggregate worldwide reduction in greenhouse gas emissions.²¹ The Nationally Determined Contributions (‘NDCs’) are put forward by individual states and pledge the most ambitious reductions that states believe possible at the domestic level.²² Together, these reductions aim to reach a total global warming of “well below” 2° Celsius over pre-industrial levels by 2050.²³ Scientific research shows that a 2° rise in the world’s temperature will still result in significant worsening of climate extremes, catastrophic natural disasters and sea level rise, but that it may stave off the worst anticipated effects of atmospheric change.²⁴ However, the initial set of plans submitted will only curb emissions enough to cause a 2.7° increase if the projected reductions are actually achieved.²⁵

An important novelty of the Paris Agreement is its dynamic nature. It provides for ratcheting down of national emission targets.²⁶ The Paris Agreement foresees states proposing NDCs with increasingly ambitious targets every five years.²⁷ There is a compelling scientific or environmental need to eventually eliminate net emissions. Carbon dioxide remains in the atmosphere. Therefore, past emissions must be considered in future aggregates and the calculation of projected harm.²⁸

Because of the persistence of carbon dioxide in the atmosphere, there is an important timing element to be recognized. Temperature level or determination of an acceptable margin of safety is only one factor in the equation. At some point, the overall concentration level of greenhouse gases in the atmosphere will force rising global temperatures to levels that are perhaps still below safe margins, but which will result in direct impacts to human beings in some parts of the world. The first impacts will be felt by the global south, the least developed

¹⁸ Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani, *Climate Change Law*, Oxford University Press, (2017)

¹⁹ J. Timmons Roberts, *Undermining a Weak Agreement: Fossil Capitalism, Neoliberal Climate Governance, Paris and a Just Transition after Trump*, 33 *Conn. J. Int'l L.* 425 (2018)

²⁰ *Ibid*

²¹ Paris Agreement Article 4, Article 2

²² *Ibid*

²³ Paris Agreement Article 2

²⁴ Intergovernmental Panel on Climate Change, *Special Report On Global Warming of 1.5 degrees Celsius*

²⁵ *Ibid*

²⁶ Paris Agreement Article 13

²⁷ *Ibid*

²⁸ [IPCC, *Climate Change 2013: The Physical Science Basis*](#) (n 8) SPM, 27

and vulnerable island nations. Already at 1.5° they will see significant impacts from sea level rise with loss of landmass, food and water scarcity, and catastrophic events.²⁹

The need to plan for this immediacy exposes the classic difference between developed and developing nations. The Paris Agreement sets the initial temperature goal at “well below 2°”.³⁰ Parties further agree to pursue efforts to limit global warming to 1.5° to limit impacts to island and climate vulnerable nations.³¹ The Agreement confronts the sheer difficulty in achieving this goal, the accumulated historic emissions and past practices of the developed states that precipitated the crisis, and pending impacts to the developing nations through provisions that foresee support for adaptation, sustainable and technical development. It is thus a uniquely holistic and thoughtful approach to confront the realities of global warming and its impact.

Lawmaking

In contrast to a more traditional top-down approach, the Paris Agreement contains rather general parameters.³² Standards are set, not through a formal negotiated or regulatory process, but through states’ own Nationally Determined Contributions (‘NDCs’).³³

There are rules that must also be developed, including to ensure common accounting³⁴, outline the “enhanced transparency framework for action and support,”³⁵ and establish the carbon trading program³⁶. These are agreed at the Conferences of Parties (‘COPs’). The most recent Conference of Parties was held in December 2018. At this conference, a rulebook was agreed by consensus. It contains more specificity regarding mitigation measures, including NCP templates and standards, reporting requirements, finance and accounting procedures and criteria.³⁷ The full rules for the “voluntary market mechanism” could not be agreed at this meeting. The rules for the trading program will be delayed until the next meeting to be held in September. This is important because more than half of the initial NDCs submitted anticipate using the carbon market.³⁸

Early analyses of the process and rulebook are tentatively positive.³⁹ It seems particularly useful to be able later to highlight that the rulebook was the result of a transparent process and consensus. Non-state actors and technical experts are invited to observe COPs⁴⁰. It may also be helpful to look at the lessons learned from the REDD+ experience to see what challenges lie ahead. As Annalisa Savaresi writes, “REDD+ may be regarded as the first ripe fruit in the pledge and review architecture for international climate change governance.”⁴¹ Many of the

²⁹ Intergovernmental Panel on Climate Change, Special Report On Global Warming of 1.5 degrees Celsius

³⁰ Paris Agreement Article 2

³¹ Ibid

³² See Kyoto Protocol, Paris Agreement

³³ Paris Agreement Article 4, Article 2

³⁴ Paris Agreement Article 4.13

³⁵ Paris Agreement Article 13

³⁶ Paris Agreement Article 6

³⁷ Report of the Conference of Parties 24st Session (2018)

³⁸ International Carbon Action Partnership, Emissions Trading Worldwide: Status Report (2016)

³⁹ World Resources Institute, <https://www.wri.org/blog/2018/12/insider-finance-deal-cop-24-includes-important-breakthroughs-delivery-will-be-crucial>

⁴⁰ Report of the Conference of Parties 24st Session (2018) paras 133-34

⁴¹ Annalisa Savaresi, A Glimpse into the Future of the Climate Regime: Lessons from the REDD+ Architecture Review of European Community and International Environmental Law 25 (2) (2016)

concerns that arose with the REDD+ system lie in the lawmaking process and the specific development of the rules regulating its carbon market mechanism.

REDD+ required states, in this case developing nations seeking certain types of financing, pledge to undertake voluntary, self-imposed REDD+ activities (e.g. reforestation) and comply with a set of obligations of conduct regarding reporting. Reporting is then subject to review.⁴² The REDD+ system developed in an ad hoc and fragmented way. It involved technical experts, financial institutions, and other non-state actors in the lawmaking process. For instance, while the World Bank's Forest Carbon Partnership Facility produced only internal rules and standards, their incorporation into borrowing agreements gave them legal force.⁴³ In this way, soft law mechanisms led to a patchwork of legal obligations without a clear hierarchy of rules.

In the development of the Paris Agreement rulebook, two criticisms that arose with the REDD+ system- the ad hoc approach and the lack of common policies and templates- have already been successfully navigated. Developing comprehensive rules for the Paris Agreement's market mechanism is going to be the next challenge, but problems seen with the REDD+ system seem to have already been taken to heart and are being anticipated.

"Experience with extant carbon markets has revealed concerns over double counting and leakage. The secondary rules adopted under the Paris agreement should tackle these risks head on, establishing common parameters to ensure the integrity of the emission trading."⁴⁴ At the recent Conference of Parties, Brazil pushed for a system that financial experts evaluated and worried could generate double counting of reductions. Since the integrity of carbon targets is critical, the parties agreed to more thoroughly map out the market mechanism and revisit it at the next meeting. "The devil will be in the details" as this part of the Agreement unfolds.⁴⁵ The development of a trading scheme for REDD+ was an "odyssey", time-consuming and bumpy.⁴⁶ States seem already to be planning to rely on the market mechanism to achieve targets under the Paris Agreement so these discussions may become pressurized and politicized.

ⁱ This is the first five pages of the document. For more information, please contact Lisa@lisatilney.com.

⁴² UNFCCC Decision 1/CP 16 (2011)

⁴³ World Bank, Charter Establishing the Forest carbon Partnership Facility (2013)

⁴⁴ Annalisa Savaresi, A Glimpse into the Future of the Climate Regime: Lessons from the REDD+ Architecture at 187

⁴⁵ See Ralph Bodle; Lena Donat; Matthias Duwe, The Paris Agreement: Analysis, Assessment and Outlook, 2016 CCLR 5 (2016)

⁴⁶ See Annalisa Savaresi, A Glimpse into the Future of the Climate Regime: Lessons from the REDD+ Architecture