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Reflections on Paris: Thoughts Towards a Critical Approach to Climate Law

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Article abstract

This article critically evaluates the 2015 Paris Agreement, highlighting the almost dichotomous responses it received from the mainstream press as compared to the climate justice movement. This article foregrounds that divide in order to ask further questions of the Agreement and the international climate regime, including questions about what voices and perspectives are heard in scholarship on international climate law. The article suggests the need to engage with international climate law in ways that are attentive to the productive effects of international agreements, as well as the need to examine their distributional effects, to interrogate what new social relations they establish and stabilize as well as how power and authority might be reorganized or rearranged by practices authorized by international

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REFLECTIONS ON PARIS: THOUGHTS TOWARDS A CRITICAL APPROACH TO CLIMATE LAW

Julia Dehm*

This article critically evaluates the 2015 *Paris Agreement*, highlighting the almost dichotomous responses it received from the mainstream press as compared to the climate justice movement. This article foregrounds that divide in order to ask further questions of the *Agreement* and the international climate regime, including questions about what voices and perspectives are heard in scholarship on international climate law. The article suggests the need to engage with international climate law in ways that are attentive to the productive effects of international agreements, as well as the need to examine their distributional effects, to interrogate what new social relations they establish and stabilize as well as how power and authority might be reorganized or rearranged by practices authorized by international environmental law.

Cet article analyse de façon critique l'Accord de Paris de 2015, soulignant les réponses presque dichotomiques que l'instrument a suscitées de la presse traditionnelle par rapport à celles du mouvement de justice climatique. Cet article met de l'avant ce clivage afin de remettre en question les dispositions de l'Accord et le régime climatique international, incluant des réflexions concernant quelles voix et quelles perspectives sont entendues au sein de la littérature sur le droit climatique international. Cet article suggère la nécessité d'aborder le droit climatique international par des façons qui sont attentives aux effets productifs d'accords internationaux, en plus de la nécessité d'analyser leurs effets distributifs, d'interroger quelles nouvelles relations sociales ils établissent et stabilisent, ainsi que comment le pouvoir et l'autorité peuvent être réorganisés ou remaniés par des pratiques autorisées par le droit international de l'environnement.

Este artículo evalúa críticamente el *Acuerdo de París 2015*, destacando las respuestas casi dicotómicas que recibió de la prensa dominante en comparación con el movimiento por la justicia climática. Este artículo pone en primer plano esa división para formular más preguntas sobre el Acuerdo y el régimen climático internacional, incluidas preguntas sobre qué voces y perspectivas se escuchan en la investigación sobre el derecho internacional del clima. El artículo sugiere la necesidad de comprometerse con las leyes climáticas internacionales de manera que estén atentos a los efectos productivos de los acuerdos internacionales, así como la necesidad de examinar sus efectos distributivos, para interrogar qué nuevas relaciones sociales establecen y estabilizan, y cómo el poder y la autoridad puede ser reorganizada o reorganizada por prácticas autorizadas por el derecho ambiental internacional.

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Perhaps one of the most striking aspects of the Paris Agreement on Climate Change (Paris Agreement) and the accompanying United Nations Framework Convention on Climate Change (UNFCCC)² Conference of the Parties decision³ is the almost dichotomous responses it received from the mainstream press as compared to the climate justice movement. On front pages of newspapers around the world the Agreement was triumphantly described as "landmark" and "historic", conveying the sense of euphoria present in the room when the Chair announced a universal agreement. Simultaneously, however, grassroots climate justice groups declared the Paris Agreement⁵ an "accord that failed humanity" and a "disaster for the world's most vulnerable and future generations". 6 James Hanson, arguably the world's most prominent climate scientist, called the Agreement⁷ a "fraud," "fake" and "bullshit".⁸ International environmental law scholarship analyzing the Agreement9 has primarily adopted a pragmatic approach to it, describing it as the best that could have been hoped for given the numerous geopolitical barriers to an agreement. These highly divergent responses, while interesting in themselves, I argue, also tell us something about the current state of the field of international climate law as well as international environmental law more generally. They thus compel reflection by those animated by concerns of "global climate justice" as well as critical scholars of the field of international environmental law. These responses raise important questions for critical scholars of international environmental law: most obviously, what are we to make of these diverse assessments, but also more broadly, how should we understand and describe this agreement and the broader field of climate law that produces such polarized responses, and moreover, what is at stake in our choice of methods and modes of analysis to do so? In considering these questions, this article uses the Paris

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Paris Agreement on Climate Change, UNFCCC, 21st sess, annex, UN Doc FCCC/CP/2015/10/add.1 (2016) 23 [Paris Agreement].

United Nations Framework Convention on Climate Change, opened for signature 5 September 1992, 771 UNTS 107 (entered into force 21 March 1994) [UNFCCC].

United Nations Framework Convention on Climate Change, Decision 1/CP.21 'Adoption of the Paris Agreement' Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 December 2015, FCCC/CP/2015/10/Add.1 (29 January 2016).

See for example Justin Worland, "World Approves Historic 'Paris Agreement' to Address Climate Change", Time (12 December 2015), online: <time.com/4146830/cop-21-paris-agreement-climate/>
[Worland]; Coral Davenport, "Nations Approve Landmark Climate Accord in Paris", New York Times (12 December 2015), online: <www.nytimes.com/2015/12/13/world/europe/climate-change-accord-paris.html> [Davenport]. To view a summary of global responses see Simon Evans, "Global reaction: the Paris Agreement on Climate Change", Carbon Brief (14 December 2015), online: <www.carbonbrief.org/the-paris-agreement-on-climate-change-the-world-reacts> [Evans].

⁵ Paris Agreement, supra note 1.

See "Call to Action: The COP21 Paris Accord Failed Humanity", Grassroots Global Justice (13 December 2015), online: ittakesroots.org <ittakesroots.org/call-to-action-the-cop21-paris-failed-humanity/> and Global Justice Now, Media Release, "Final COP21 text a disaster for the world's most vulnerable and future generations" (12 December 2015), online: Global Justice Now <www.globaljustice.org.uk/news/2015/dec/12/final-cop-21-text-disaster-worlds-most-vulnerable-and-future-generations> (last accessed 5 August 2016)>.

⁷ Paris Agreement, supra note 1.

Oliver Milman, "James Hanson, Father of Climate Change Awareness, Calls Paris Talks "a Fraud", The Guardian (12 December 2015), online: <www.theguardian.com/environment/2015/dec/12/james-hansen-climate-change-paris-talks-fraud> (last accessed 5 August 2016).

⁹ Paris Agreement, supra note 1.

Agreement¹⁰ and the responses to it as a launching point for a broader methodological discussion about some questions and modes of enquiry that might be productive in developing a critical approach to the field of climate law. Moreover, I consider some of the responsibilities of scholars and scholarship in this context, which are especially acute in times – like the present – of crisis.

This article unfolds in several parts. Part I provides a background to the Agreement¹¹ and further details about some of the responses to it. It compares the perspectives of political leaders to those of climate justice activists and movements in order to pose questions about which voices and perspectives are being heard in public debates regarding the development of environmental law. Part II builds on the earlier discussion of public responses to the Paris Agreement¹² and provides an overview of responses to the Agreement¹³ by international environmental law scholars. The discussion identifies and interrogates several key assumptions that underpin and structure many of these analyses. To address some of these identified limitations, I propose a different methodological approach for the critical analysis of the Paris Agreement¹⁴ that pays attention to its productive effects. This includes examining the distributional effects the Agreement¹⁵ has, interrogating what new social relations the Agreement¹⁶ establishes and stabilizes, as well as investigating how power and authority are being reorganized or rearranged by the related process, practices and mechanisms. The remainder of this article then adopts this proposed approach to analyze (in Part III) the distributive consequences of the Agreement. ¹⁷ especially the shift from a "top-down" to a "bottom-up" legal architecture it consolidates. Part IV of the article examines some of the consequences resulting from the greater marketization of climate governance that the *Paris Agreement*¹⁸ enables.

I. Background to the Paris Agreement and Mapping Responses

In December of 2015, the international community reached a binding and universal legal agreement on climate change for the post-2010 period. The *Paris Outcome*, consisting of the *Paris Agreement* and its accompanying *Conference of the Parties Decision*, was adopted on 12 December 2015 at COP21. On 22 April 2016, the *Paris Agreement*¹⁹ was opened to signature by Parties, and on 4 November 2016, it entered into force, thirty days after meeting the requirement that at least 55 Parties accounting for at least 55% of total global Greenhouse Gas (GHG) emissions

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ *Ibid*.

¹⁹ Ibid.

proceeded to ratification.²⁰ The Agreement²¹ includes substantive provisions on mitigation (Article 4), sinks and forests (Article 5), carbon trading (Article 6), adaptation (Article 7), loss and damage (Article 8), climate finance (Article 9), technology transfer (Article 10), capacity-building (Article 11), public awareness and participation (Article 12) as well as transparency of action (Article 13), mechanisms of "stock-take" and review (Article 14), non-punitive facilitative compliance (Article 15), and implementation measures. One year on, the media coverage of the first session of the Conference of the Parties (COP) serving as the meeting of the Parties to the *Paris Agreement*²² (CMA 1) in Marrakesh (Morocco), which took place in November 2016, was dominated by the election of Donald Trump as President of the United States of America.²³ Following the election, think-pieces proclaimed that "Donald Trump looks like a disaster for the planet". 24 Scientists subsequently symbolically shifted the hands of the "Doomsday Clock" to two and half minutes to "midnight," in part because the US now has a President who has promised to impede progress on both climate change mitigation and the prevention of nuclear proliferation.²⁵ In light of the election and subsequent announcement by the United States administration to withdraw from the Paris Agreement, 26 a different mode of critical response to and critique of the *Paris Agreement*²⁷ is arguably necessary. Elsewhere I have reflected on how the post-election moment does not necessary call for critiques of the Paris Agreement, 28 and instead highlighted the urgent need for critical voices to present reconstructive projects that suggest different visions and pathways to alternative futures.²⁹ Nonetheless, it remains valuable to share critical reflections on the *Paris Agreement*³⁰ in order to focus on broader trajectories and trends in the development of international climate law that are arguably problematic for the realization of climate justice.

By all accounts, the atmosphere in the conference center when the *Agreement*³¹ was announced was euphoric. This celebratory mood was reflected in the UNFCCC media release that proclaimed it a "historic agreement to combat

²⁰ *Ibid*, s 21(1).

²¹ *Ibid.* s 4-15.

²² *Ibid*

Pilita Clark, "Trump Election Casts Shadow Over COP 22 Climate Talks", Financial Times (9 November 2016), online: www.ft.com/content/09a302c6-9459-11e6-aldc-bdf38d484582? mhq5j=e2>.

Brad Plumer, "There's no Way Around It: Donald Trump Looks Like a Disaster for the Planet", Vox (9 November 2016), online: www.vox.com/2016/11/9/13571318/donald-trump-disaster-climate.

Peter Holley, Abby Ohlheiser and Amy B Wang, "The Doomsday Clock Just Advanced, 'Thanks to Trump': It's not Just 2½ Minutes to 'Midnight'", *The Washington Post* (26 January 2016), online: .

Michael D. Shear, "Trump will Withdraw US from Paris Climate Agreement", New York Times (1 June 2017), online: https://www.nytimes.com/2017/06/01/climate/trump-paris-climate-agreement.html>.

²⁷ Paris Agreement, supra note 1.

²⁸ Ibid.

Julia Dehm, "Post Paris Reflections: Fossil Fuels, Human Rights and the Need to Excavate New Ideas for Climate Justice" (2017) 8:2 Journal of Human Rights and the Environment 280 [Dehm (Post)].

Paris Agreement, supra note 1.

³¹ Ibid.

climate change and unleash action and investment towards a low carbon, resilient and sustainable future".32 Headlines around the world announced the "historic" and "landmark" agreement.³³ The Agreement³⁴ was welcomed by world leaders, with former French President François Hollande describing it as "a major leap for mankind" and then United States President Barack Obama calling it "a turning point for the world". 35 However, for others, the verdict was not so positive. ActionAid International, an international development organization located in Johannesburg (South Africa), argued that what was needed out of Paris was a "deal which put the world's poorest people first" and instead what was delivered was an agreement that "doesn't go far enough to improve the fragile existence of millions around the world".36 Global Justice Now, a democratic social justice organization located in London (UK), described it as a text that "undermines the rights of the world's most vulnerable communities and has almost nothing binding to ensure a safe and livable future for future generations". 37 Danny Chivers and Jess Worth, both writers in the New Internationalist, describe the Agreement³⁸ as an "epic fail on a planetary level" that did not meet the elements of a civil society "Peoples' Test" based on climate science and climate justice demands³⁹. They also argued that the *Paris Agreement*⁴⁰ fails to meet the minimum criteria necessary to ensure fairness and "equity", 41 as it does not "catalyze immediate, urgent and drastic emission reductions" and "provide adequate support for transformation" nor does it "deliver justice for impacted people" and "focus on genuine effective action rather than false solutions". 42 In the streets of Paris, despite restrictions on protest and a heavy police presence, thousands took to the streets to highlight the various "redlines" the Agreement⁴³ crossed. In his pertinent analysis, George Monbiot, best-selling author and editor for The Guardian journal newspaper, provides some explanation for these divergent responses. He writes, "by comparison to what it could have been, it's a miracle. By comparison to what it

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³² UNFCCC, Media Release, "Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degree Celsius" (12 December 2015), online: UNFCCC <newsroom.unfccc.int/unfccc-newsroom/finale-cop21/>.

Worland, *supra* note 4; Davenport, *supra* note 4; Evans, *supra* note 4.

³⁴ Paris Agreement, supra note 1.

²⁵ Cited in Simon Evans, "Global reaction: the Paris Agreement on Climate Change", Carbon Brief (14 December 2015), online: www.carbonbrief.org/the-paris-agreement-on-climate-change-the-world-reacts.

ActionAid International, Media Release, "Climate Agreement falls short of a fair deal – but Paris is only the beginning" (12 December 2015), online: Actionaid <www.actionaid.org/news/climateagreement-falls-short-fair-deal-paris-only-beginning>.

Global Justice Now, Media Release, "Final COP21 text a disaster for the world's most vulnerable and future generations" (12 December 2015), online: Global Justice Now <www.globaljustice.org.uk/news/2015/dec/12/final-cop-21-text-disaster-worlds-most-vulnerable-and-future-generations>.

³⁸ Paris Agreement, supra note 1.

Danny Chivers and Jess Worth, "Paris deal: Epic fail on a planetary scale", New Internationalist (12 December 2015) online: <newint.org/features/web-exclusive/2015/12/12/cop21-paris-deal-epi-fail-on-planetary-scale/> [Chivers and Worth]. For more of a discussion of the "Peoples' Test" see "Peoples' Test on Climate 2015" online: Peoplestestonclimate.org peoplestestonclimate.org/>.

⁴⁰ Paris Agreement, supra note 1.

⁴¹ *Ibid*, ss 4, 14.

⁴² Chivers and Worth, *supra* note 39.

⁴³ Paris Agreement, supra note 1.

should have been, it's a disaster". 44 ActionAid International, while acknowledging the *Agreement*'s 45 very real shortcomings, considered it a "hook on which peoples can hang their demands". 46 Similarly, advocacy group 350.org critically welcomed the *Paris Agreement* 47 as a "new tool to work with" even as they committed to continuing to mobilize to build the necessary peoples' power to hold world leaders accountable to the climate commitments they have publicly made. 48

These divergent responses to the Paris Agreement⁴⁹ raise several important questions for critical scholars of international environmental law, notably on how we analyze the implications and effects of the Paris Agreement⁵⁰ as well as the broader trends and trajectories it represents. Firstly, the opposing nature of these responses poses the following central questions: whose voices and perspectives are heard and whose are silenced in public and legal debates on international environmental governance and climate policy? Secondly, it highlights questions of positionality and the critical importance of interrogating where and the moment of time in which we write from. This is especially the case given that the almost irreconcilable responses to the Paris Agreement⁵¹ are primarily reflective of the differently situated standpoints of those assessing it. What is especially telling is that it seems to be the people who are on the frontlines of climate change and frontlines of climate justice movements who have been the loudest in condemning the Agreement.⁵² In developing critical perspectives on international environmental law, I argue, it is the voices of the people who are most affected by environmental injustice that more urgently need to be foregrounded in our analysis. Scholars have evaluated and considered whose voices are prioritized in climate negotiations, especially in the small, informal closed room discussions.⁵³ However there has been less focus on whose voices are prioritized and foregrounded in legal scholarship and to whose perspectives we orientate ourselves as scholars. Yet in producing scholarship concerned about global and climate justice it is arguably an unavoidable imperative to orientate oneself to the voices of the peoples and communities that are most affected by, and most vulnerable to, the injustices of climate change.

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George Monbiot, "Grand promises of Paris climate deal undermined by squalid retrenchments", *The Guardian* (12 December 2015), online:

⁴⁵ Paris Agreement, supra note 1.

ActionAid International, Media Release, "Climate Agreement falls short of a fair deal – but Paris is only the beginning" (12 December 2015), online: Actionaid https://www.actionaid.org/news/climate-agreement-falls-short-fair-deal-paris-only-beginning>.

⁴⁷ Paris Agreement, supra note 1.

⁴⁸ See Bill McKibbon, "Falling Short on Climate in Paris", *New York Times* (13 December 2015), online: www.nytimes.com/2015/12/14/opinion/falling-short-on-climate-in-paris.html?r=1.

⁴⁹ Paris Agreement, supra note 1.

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Ibid

⁵³ See for example Radoslav S. Dimitrov, "The Paris Agreement on Climate Change: Behind Closed Doors" (2016) 16:3 Global Environ Polit at 1 [Dimitrov].

The polarized assessments of the *Paris Agreement*⁵⁴ are also reflective of and represent two different interpretative paradigms for framing and understanding the "problem" of climate change and the nature of the social, economic, cultural and political transformation addressing it demands. In the first interpretative paradigm, climate change is conceptualized more narrowly as a technical and regulatory challenge that can be addressed by the "greening" of existing capitalist social and economic relations, primarily through an expansion of markets for environmental services and pollution trading. In contrast, the second paradigm sees climate change as embedded within complex social, economic and political relations and as both reflecting and reproducing global structural inequalities. This paradigm argues that addressing climate change thus requires much broader transformative social change. Generally speaking, the voices praising the *Paris Agreement* are representative of the former paradigm, whereas those that have been more critical of the outcome are reflective of the latter. This disjuncture, I argue, extends beyond a "disconnect between those who view the challenge posed by climate change though an ethical lens, and those who see it in pragmatic terms", 55 as pertinent as this tension remains. Rather, I argue that the salient tension is between those who see distributive questions as central to understanding and addressing climate crisis and those who are focused on considerations of aggregate efficiency. This manifests itself in specific ways, notably in the persistently disavowed demand that those who have done the most to cause climate change take up the (legal and ethical) responsibilities this enlivens, as well as the struggle to bring into view the historical and structural drivers of climate change that are so often made invisible.

The climate justice movement has done extensive analytical work in developing strong and well-supported critiques of many aspects of international climate law. However, in developing critical approaches to international climate law and international environmental law, it is methodologically inadequate to simply repeat and reiterate the arguments made by social movements. While social movement critiques of the *Paris Agreement*⁵⁶ have highlighted key failings of the *Agreement*⁵⁷ – whether measured against its stated objectives, climate science or the imperative of climate justice – these critiques offer only a limited explanation of the underlying reasons for and root causes of these shortcomings. An interrogation of these underlying reasons and root causes calls for historically informed scholarship that is able to situate contemporary developments within broader trajectories. Further, it calls for politically informed scholarship that is able to situate developments within the field of international environmental law in the context of broader shifts in the global political economy. For example, such scholarship could demonstrate how the "compromise[s] of liberal environmentalism" have influenced both the content and

⁵⁴ Paris Agreement, supra note 1.

Karin Mickelson, "Beyond a Politics of the Possible? North-South Relations and Climate Justice" (2009) 10:2 Melb J Int Law 411 at 417 [Mickelson].

Paris Agreement, supra note 1.

⁵⁷ Ibid.

See Steven Bernstein, The Compromise of Liberal Environmentalism (New York: Columbia University Press, 2001).

the form of international environmental agreements, most notably through the increased marketization of environmental governance. Finally, there is a need for more critical scholarship that highlights key assumptions that underpin the field of international environmental law (and thus also its treaties), including interrogating how specific understandings and assumptions about nature underpin the regime, in order to reimagine and reconstitute the field.

II. International Environmental Lawyers and the *Paris Agreement*: Blind Spots and Assumptions

The Paris Agreement⁶⁰ has, predictably, attracted significant academic attention both in publically available blog reflections published in the days after the Agreement⁶¹ was concluded and in academic journals. To date the journals Climate Law, 62 the Review of European Community and International Environmental Law 63 and Global Environmental Politics⁶⁴ have all devoted special issues to the Paris Agreement. 65 The articles in these issues have primarily focused on explaining specific aspects and provisions of the *Paris Agreement*, 66 providing an overview of the debates that led to the adoption of specific provisions or evaluating its contents. These analyses, whilst critical of aspects of the Agreement, 67 have generally assumed that the Paris Outcome represents the best that could have been hoped in the given circumstances. While it is frequently acknowledged that the Agreement⁶⁸ has clear limitations, the overwhelming tone this scholarship adopts is that of the pragmatic realist. Daniel Bodansky, Foundation Professor at the Sandra Day O'Connor College of Law at Arizona State University, acknowledged that while the Outcome "seem[s] hardly the stuff of history" he still stressed that it does do "some positive things".⁶⁹ Elsewhere, Jorge Viñuales, Harold Samuel Professor of Law and Environmental Policy at the University of Cambridge, described the Agreement as "not perfect" but more than what many "realistically expected". Annalisa Savaresi, lecturer in environmental law at the University of Stirling (Scotland), concurs that it was

62 See in general, Climate Law (2016) 6.

See Peter Newell, "The Marketization of Global Environmental Governance: Manifestations and Implementations" in Jacob Park, Ken Conca and Matthias Finger, eds, The Crisis of Global Environmental Governance: Towards a New Political Economy of Sustainability (New York: Routledge, 2008) 77.

⁶⁰ Paris Agreement, supra note 1.

⁶¹ Ibid.

⁶³ See in general, Review of European Community and International Environmental Law (2016) 25:2.

See in general, Special Forum Section: reflections on the Paris Agreement on Climate Change (2016) 16:3 [Special Forum].

⁶⁵ Paris Agreement, supra note 1.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

Special Forum, *supra* note 64.

Jorge Vinuales, "The Paris Climate Agreement: An Initial examination (Part I of III)", EJIL: Talk! (7 February 2016), online: https://www.ejiltalk.org/the-paris-climate-agreement-an-initial-examination-parti-of-ii/.

"probably the best that could be achieved at this time and place" especially that "given the premises, its adoption as a treaty last December was almost miraculous". The More positively, Lavanya Rajamani, author and Professor at the Center for Policy Research (India), writes that the *Paris Agreement* was a "triumph" that "strikes a fine balance between ambition, differentiation and finance". Much of this commentary strikes a careful balance between celebrating the *Agreement* while also acknowledging its limitations, primarily by drawing attention to the specific political constraints that presented barriers to consensus. Legal commentators generally adopt the pragmatic tone of the realistic, externally-placed observer who can speak in moderated tones about both economic and ecological necessity, whilst maintaining faith in the promise of progress through and in law.

Moreover, the legal commentary often adopts a minimalist criterion of "success", which applauds the mere development of legal, regulatory and institutional mechanisms more than it questions their adequacy. In general, there is considerable celebration of the fact that an agreement was reached, even though it is widely acknowledged that the Agreement's provisions are inadequate to achieve its stated objectives. This focus is perhaps unsurprising given there was seen to be a "virtual consensus among academics [...] that the UN talks cannot succeed" and thus the very fact that the Paris Parties were able to negotiate a meaningful accord "constitutes a political success". 74 For this reason the Agreement has rightly been celebrated as a "historical achievement in multilateral diplomacy" that demonstrates both political will as well as significant concessions. 75 Yet, it remains important to question whether reaching consensus is a sufficient criterion of "success," and alternatively, whether other criteria might be more appropriate. In one opinion piece, Daniel Bodansky described Paris as a "potentially pivotal" agreement with a "solid outcome" that satisfied a modest criteria of success. 76 He considered that the "problem-solving effectiveness" of the Agreement should not be taken as the criterion of success given that "few public policies fully solve the problem that they address" and moreover, "there is no prospect that the Paris conference will, in itself, put us on a pathway to meeting the below 2 °C limit". 78 Instead he posits with a more "reasonable test" whether "the Paris conference results in a significant improvement over what would

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Annalisa Savaresi, "The Paris Agreement: A Rejoinder", EJIL: Talk! (16 February 2016), online: www.ejiltalk.org/the-paris-agreement-a-rejoinder/>.

⁷² Lavanya Rajamani, "Paris Triumph", *The Indian Express* (16 December 2015), online: <indianexpress.com/article/opinion/columns/united-nations-paris-cliamte-agreement-triumph/>.

⁷³ Paris Agreement, supra note 1.

Dimitrov, *supra* note 53 at 8-9.

Lavanya Rajamani, "Ambition and Differentiation in the 2015 Paris Agreement: Interpretative Possibilities and Underlying Politics" (2016) 65 ICLQ 493 at 493 [Rajamani (Ambition)].

Daniel Bodansky, "Is the Paris Agreement Historic?", Opinio Juris (13 December 2015), online: <opiniojuris.org/2015/12/13/it-the-paris-agreement-historic/> [Bodansky (Historic)]. He articulates his modest criteria for success in Daniel Bodansky, "What Would Constitute Success in Paris?", Opinio Juris (30 November 2015), online: <opiniojuris.org/2015/11/30/what-would-constitute-success-in-paris/> [Bodansky (Success)].

Paris Agreement, supra note 1.

⁷⁸ Bodansky (Success), *supra* note 76.

have happened otherwise". 79 There are, however, potential problems in positing as a criterion for "success" whether international legal rules provide an improvement over "business as usual". 80 This is especially the case in a context where "business as usual" scenarios could lead to a 4 or 5 °C warmer world, something everyone agrees "must be avoided". 81 even though limiting warming to a 2 °C increase already has devastating effects.

In these discussions, the most commonly raised criticism of the Paris Agreement⁸² is the implementation gap between the Agreement's objectives to hold "the increase in global average temperatures to well below 2 °C above industrial levels" as well as to "pursu[e] efforts to limit the temperature increase to 1.5 °C above pre-industrial levels" and the commitments articulated in the Nationally Determined Contributions (NDC) put forward by countries.⁸³ Several studies have shown that country pledges would lead to warming of 2.7 to 3.5 °C.⁸⁴ A pre-Paris synthesis report on the Intended Nationally Determined Contributions (INDCs) put forward by parties, shows how the NDCs – even if properly implemented – would see a steady growth of aggregate global emissions until 2030.85 It found that the overall increases in emissions over the next fifteen years would continue to be significant: an estimated 8-18% increase from 2010 levels by 2025 and an 11-22% increase from 2010 levels by 2030.86 However, even when legal scholars acknowledge that "once aggregated national pledges have little chance to put the world on the right track" they tend to quickly shift the focus of the discussion to other institutional elements of the Agreement⁸⁷ designed to "counterbalance" this flexibility.⁸⁸ In particular, commentators have focused on the role of the "stocktaking" provisions included in the Agreement⁸⁹ designed to "racket up" ambition over time. The Paris Agreement⁹⁰ provisions allow a limited stock-take in 2018 (addressing just mitigation) as well as a more comprehensive stock-take in 2023 and every 5 years thereafter. 91 Yet. as new

⁷⁹

Ibid.

⁸⁰ Ibid.

See The World Bank, Turn Down the Head: Why a 4°C Warmer World Must Be Avoided (Washington, DC: The World Bank, 2012), online: The World Bank <documents.worldbank.org/curated/en/ 865571468149107611/pdf/NonAsciiFileName0.pdf>.

⁸² Paris Agreement, supra note 1.

Ibid, s 2.

See for example "INDCs lower projected warming to 2.7°C: significant progress but still above 2°C", Climate Action Tracker (1 October 2015), online: <cli>climateactiontracker.org/news/224/indcs-lowerprojected-warming-to-2.7c-significant-progress-but-still-above-2c-.html> and Environment Programme, The Emission Gap Report 2015 - Executive Summary (Nairobi: UNEP, <uneplive.unep.org/media/docs/theme/13/EGR_2015 ES English</pre> UNEP online: Embargoed.pdf>.

UNFCCC, Synthesis Report on the Aggregate Effects of Intended Nationally Determined Contributions (INDCs), (Paris: UNFCCC, 2015) online: UNFCCC <unfccc.int/resource/docs/2015/cop21/eng/ 07.pdf> [UNFCCC, INDCs].

⁸⁶ Ibid.

Paris Agreement, supra note 1.

See Sandrine Maljean-Dubois, "The Paris Agreement: A New Step in the Gradual Evolution of Differential Treatment in the Climate Regime?" (2016) 25:2 RECIEL 151 at 159 [Maljean-Dubois].

Paris Agreement, supra note 1.

Ibid. s 14.

scientific studies show that the $1.5\,^{\circ}\text{C}$ target is close to being missed, with global average temperatures already more than $1\,^{\circ}\text{C}$ over pre-industrial levels for every month in 2016 (peaking at $1.38\,^{\circ}\text{C}$ in February and March 2016) this optimism appears dangerously misplaced.

The emphasis on persistent institutional progress and the promise of everincreasing ambition shows that even analysis that is attentive to the inadequacies contained in the Paris commitments often remains structured by underlying temporal assumptions that posit progressive change within and through law as a quasiteleological inevitability. In this way, faith in future progress is able to bridge an otherwise glaring gap between "what is" and "what should be" in the climate regime in the same way that the concept of progress has worked to mediate the "permanent tension between expectation and experience" in modernity. 93 As Thomas Skouteris has shown, accounts of progress are produced and reproduced in and through international legal discourses. His work has shown how international legal discourses have been structured by narratives of international law as progress, narratives of the development of law as a progressive force in the world as well as narratives of continuous progress within international law. 94 As compellingly seductive as these narratives of progressive change over time are, they can also be very dangerous – especially in the climate context – potentially dulling urgency at critical points. Moreover, these underpinning narratives of progress through law and progress in law also do key work to shore up and "maintain faith in the promise of universal justice that lies at the heart of the project of international law", 95 even as the climate crisis might better be seen as a catalyst for interrogating both these assumptions and rethinking the relationship between law, progress and temporality. Such an analysis could start to foreground the way in which law does not only operate as an ameliorative force mitigating and redressing climate harms, but rather pay more attention to the role that law plays in authorizing the emission of greenhouse gases and the production of ecological harms. Alexander Gillespie has powerfully argued that "the underlying mechanisms, ideals and paradigms which make up the background of international environmental law and policy need to be questioned before real success can be achieved in this area". 96 In a similar vein, Usha Natarajan, and Kishan Khoday have argued "[w]hile [international environmental law] (IEL) strives to protect us from serious environmental harm, the general thrust of international law remains towards economic expansion at the expense of ecological

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Robin McKie, "Scientists warn world will miss key climate target", The Guardian (6 August 2016), online: https://www.theguardian.com/science/2016/aug/06/global-warming-target-miss-scientists-warn.

Marc Abélès, *The Politics of Survival* (Durham: Duke University Press, 2010) at 31.

Thomas Skouteris, The Notion of Progress in International Law Discourse (The Hague: T.M.C Asser Press, 2010). See also Julia Dehm, "International Law, Temporalities and Narratives of the Climate Crisis: Review Essay" (2016) 4:1 London Rev Int L 167.

⁹⁵ See Cait Storr, "Islands and the South: Framing the Relationship between International Law and Environmental Crisis" (2016) 27:2 Eur J of Intl L 519 at 521. Storr here is writing primarily of the chapters that make up Shawkat Alam, Sumudu Atapattu, Carmen G. Gonzalez and Jona Razzaque, eds, *International Environmental Law and the Global South* (Cambridge: Cambridge University Press: 2015).

Alexander Gillespie, The Illusion of Progress: Unsustainable Development in International Law and Policy (London: EarthScan Publications Ltd, 2001) [Gillespie].

decline".⁹⁷ They have called for increased attention to the "structures in international environmental law and general international law that are barriers to changing harmful patterns in humanity's relationship with the natural world".⁹⁸ In particular, they identify how the concept of development does ideological work to both "naturalize and obfuscate the process whereby some people systematically under-develop others" but also generates reluctance in international environmental lawyers to discuss potential limits to growth.⁹⁹ The underpinning framework of the climate regime exhibits this hesitancy, in its focus on "climate-friendly" or "green" growth and the "infinite potential of the green economy".¹⁰⁰ The *Paris Agreement*¹⁰¹ objective to "strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty",¹⁰² suggests that facilitating development – understood as economic growth – remains an overarching priority of the regime. As such, critiques of the paradigm of "sustainable development," namely that it is structurally unable to contest the logic of economic growth and persistent accumulation driving the ecological crisis, remain pertinent in this context.¹⁰³

This discussion of some of the dominant legal responses to the Paris Agreement¹⁰⁴ has highlighted the generally pragmatic tone of these accounts and the prevailing dissidence between celebrations of institutional success and the acknowledgement of a persistent gap between "what is" and "what ought to be". A prevailing feature of these accounts, as well as more critical accounts of international environmental law, is an emphasis on the marginality of the discipline and its relative powerlessness in the face of economic power. While it is very true that "the general thrust of international law remains towards economic expansion at the expense of ecological decline 105", I am concerned that this posture of powerlessness enacted when limited legal outcomes such as Paris Agreement are presented as "the most we can hope for" or as the "lessor of two evils", allows international environmental lawyers to avoid taking responsibility for the effects and impacts of international environmental agreements and for the work that international environmental law does in the world. In order to consider some of the potential problems with such "politics of fatalism", Wendy Brown's discussion of human rights is methodologically helpful. 106 Brown's analysis sidesteps the common criticisms that

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⁹⁷ Ibid at 592.

⁹⁸ Usha Natarajan and Kishan Khoday, "Locating nature: making and unmaking international law" (2014) 27 Leiden J Intl L 573 at 574 [Natarajan and Khoday].

⁹⁹ *Ibid* at 589.

¹⁰⁰ Ibid.

¹⁰¹ Paris Agreement, supra note 1.

¹⁰² *Ibid*, s 2(1).

Wolfgang Sachs, "Sustainable Development and the Crisis of Nature: On the Political Anatomy of an Oxymoron" in Maarten Hajer and Frank Fischer, eds, Living with Nature: Environmental Politics as Cultural Discourse (Oxford: Oxford Scholarship Online, 2003); Arturo Escobar, Encountering Development: The Making and Unmaking of the Third World (New Jersey: Princeton University Press, 1995) at 192-211.

¹⁰⁴ Paris Agreement, supra note 1.

Natarajan and Khoday, *supra* note 98 at 592.

Wendy Brown, ""The Most We Can Hope For..." Human Rights and the Politics of Fatalism" (2004) 103:2-3 South Atl Q 451 at 451-463 [Brown].

human rights should do more and instead questions whether the politics of human rights are actually as minimalist as is often presented. She reminds readers that "it is in the nature of every significant political project to ripple beyond the project's avowed target and action" and that "[n]o effective project produces only the consequences it aims to produce". 107 By focusing her analysis not on what the human rights regime does not do, but instead critically examining the potential consequences of human rights discourses, allows her to "depart from the terms of pragmatic minimalism" and instead have a "more complex encounter with the power of political context and political discourse". 108 Adopting an analogous methodological approach to examining the climate regime could similarly help to deepen our understanding of the regime. Moreover, such an approach would pushes scholars to not just analyze the many limitations of legal responses to the climate crisis, but additionally to examine critically the potential productive effects of specific international climate policies. Paying attention to how legal frameworks and agreements might operate to reorganize social relations and to establish new forms of authority or new mechanisms of power can help illuminate the work that international climate law does in the world. Moreover, distributional analysis can help evaluate how such agreements might favor the interests of some over the interests of others. In general, integrating the productive effects of the climate regime requires scholars to take much more seriously the consequences produced by this body of law, and not just its limitations.

In the remainder of this article, I adopt this proposed methodological approach to examine some of the productive effects of the Paris Agreement. 109 Part III points out some of the distributive consequences of the *Paris Agreement*. 110 In particular, it describes how the Agreement¹¹¹ puts in place a "bottom-up," voluntarist architecture for climate governance that allows for many countries to abrogate their "fair share" of the responsibility for global mitigation. In Part IV, I examine some of the potential effects of relying strongly, as the Paris Agreement does, on marketbased mechanisms to promote mitigation. In particular, I expose how these mechanisms can displace responsibilities for mitigation whilst also operating to consolidate new forms of international power and authority over lands in the Global South.

III. Distributive Consequences: "Fair Shares" and Deferred Responsibility

The academic writings on the Paris Agreement¹¹² generally acknowledges that the legal form and architecture of the Agreement¹¹³ represents "complete[s] the

¹⁰⁷ Ibid at 452-453.

¹⁰⁸ *Ibid*.

¹⁰⁹ *Ibid*.

¹¹⁰ *Ibid*.

¹¹¹ *Ibid*.

¹¹² *Ibid*.

¹¹³ *Ibid*.

paradigm shift" from the "top-down" model of the Kvoto Protocol. 114 While the Kyoto Protocol was structured around "top down" aggregate mitigation targets and differentiated obligations for "developed" and "developing" countries, the *Paris* Agreement adopts a more voluntarist "bottom-up," "pledge and review" approach. 115 The provisions on mitigation in the *Paris Agreement*¹¹⁶ require countries to each develop and communicate their own "nationally determined contributions" (NDCs) to a global mitigation effort, based on their own national capabilities and circumstances. 117 However, as previously discussed, the combined NDCs are currently inadequate to achieve the Agreement's objective to limit warming to "well below 2 °C". 118 The beginning of this shift in the legal form and architecture, which has been described as a move away from a regime orientated to "compliance" towards a focus on "incentivizing action", ¹¹⁹ can be traced to the *Bali Action Plan* (2007). ¹²⁰ The Bali COP launched a "comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action". 121 Thereafter, the controversial 2009 Copenhagen Accord, 122 which was "noted" by COP15, adopted a more "bottom-up" framework when it called on countries to submit their own quantified economy-wide emissions targets for 2030. 123 This model was then affirmed in the 2010 Cancun Agreement¹²⁴ and, subsequently, there was arguably "an architectural battle [...] raging between those favoring a Kyoto-style top-down agreement and those favoring a Copenhagen-style bottom-up facilitative agreement". 125 In 2013, the Warsaw COP decision invited countries to prepare and submit "intended nationally determined contributions" and thereby endorsed a

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¹¹⁴ Kyoto Protocol to the United Nations Framework Convention on Climate Change, opened for signature 11 December 1997, 37 ILM 22 (entered into force on 16 February 2005) [Kyoto Protocol].

Bodansky (Historic), supra note 76.

Paris Agreement, supra note 1.

¹¹⁷ *Ibid*, s 4(2).

[&]quot;Climate Pledges Will Bring 2.7°C of Warming, Potential For More Action", Climate Action Tracker (8 December 2015), online: <cli>climateactiontracker.org/news/253/Climate-pledges-will-bring-2.7C-of-warming-potential-for-more-action.html>, see also UN, Framework Convention on Climate Change, Synthesis Report on the Aggregate Effects of the Intended Nationally Determined Contributions: Note by the Secretariat, 21st Sess, 30 October 2015, FCCC/CP/2015/7 UN, at 39, which found that "[t]he estimated aggregate annual global emission levels resulting from the implementation of the INDCs do not fall within least-cost 2°C scenarios by 2025 and 2030".

For a discussion of various functions of the climate regime see Daniel Bodansky and Elliot Diringer, "Alternative Models for the 2015 Climate Change Agreement" (paper delivered at the Fridtjof Nansen Institute, 13 October 2014), online: India Environment Portal <re.indiaenvironmentportal.org.in/files/file/Alternative%20Models%20for%20the%202015%20climate%20change%20agreement.pdf>.

Bali Action Plan, Decision 1/CP.13, UNFCCC, 14 March 2008, FCCC/CP/2007/6/Add.1 [Bali Action Plan].

¹²¹ Ibid

¹²² Copenhagen Accord, Decision 2/CP.15, UNFCCC, 30 March 2010, FCCC/CP/2009/11/Add.1 [Copenhagen Accord].

¹²³ Ibid.

¹²⁴ The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Decision 1/CP.16, UNFCCC, 15 March 2011, FCCC/CP/2010/7/Add.1.

Rajamani, supra note 75 at 495.

"bottom-up" approach. 126 The *Paris Agreement* 127 further confirms and consolidates this approach by requiring each Party to "prepare, communicate and maintain successive nationally determined contributions it intends to achieve". 128 While the *Agreement* 129 requires that Parties prepare such NDCs, it allows for the content of the NDCs to be nationally rather than internationally determined. Indeed, the submitted NDCs contain numerous different objectives – some qualitative, some quantitative, some committing to reductions in overall emissions, some committing to reductions compared to "business as usual" and others committing to greater carbon intensity and energy efficiency. 130 The *Paris Agreement* 131 also has a requirement that each successive NDC "represen[t] a progression" from the countries' previous commitment and "reflec[t] its highest possible ambition" thereby instilling new principles of "progression" and "highest possible ambition" into the *Agreement*. 132

In its architecture and form therefore, the *Paris Agreement* is based on a "fundamentally different approach to Kyoto".¹³³ This reflects, Meinhard Doelle, writes, the idea that self-imposed, voluntary commitments are more likely to be met than those imposed by the global community, and that attention to the science, demonstrated domestic progress, full transparency, and regular review of the collective effort are key to moving parties beyond no-regrets actions.¹³⁴

Other scholars have described that this shift from a "top-down" to a "bottom-up" architecture represents a shift from a "regulatory" model of binding, negotiated targets to a "catalytic and facilitative" model "that seeks to create the conditions under which actors progressively reduce their emissions through coordinated policy shifts". 135 Elsewhere, Daniel Bodansky describes it as a shift from a contractual or prescriptive function for the regime towards a new facilitative function that "starts from what countries are doing on their own, and seeks to find ways to reinforce and encourage these". 136 This shift in the legal form and architecture of climate law arguably parallels a broader shift from "government to governance" that can be seen

¹³⁰ M. J Mace, "Mitigation Commitments Under the Paris Agreement and the Way Forward" (2016) 6 Climate Law 21 at 31.

132 Ibid, s 4(3), see also Christina Voigt and Felipe Ferreira, "Differentiation in the Paris Agreement" (2016) 6 Climate Law 58, 72 [Voigt and Ferreira].

135 Thomas Hale, "All Hands on Deck': The Paris Agreement and Nonstate Climate Action" (2016) 16:3 Global Environ Polit 12 at 12.

Further Advancing the Durban Platform, Decision 1/CP.19, UNFCCC, 31 January 2014, FCCC/CP/2013/10/Add.1.

Paris Agreement, supra note 1.

¹²⁸ *Ibid*, s 4(2).

¹²⁹ *Ibid*.

¹³¹ Paris Agreement, supra note 1.

Meinhard Doelle, "Assessment of strenghts and weaknesses" in Meinhard Doelle, Daniel Klein and al., eds, The Paris Agreement on climate change: analysis and commentary (Oxford: Oxford University Press, 2017) [Doelle].

¹³⁴ Ibid

Daniel Bodansky, "Durban Platform: Issues and Options for a 2015 Agreement" (paper delivered at the Centre for Climate and Energy Solutions, December 2012), online: C2ES <www.c2es.org/docUploads/ durban-platform-issues-and-options.pdf>, 2 [Bodansky (Durban issues)].

in diverse fields of regulation. ¹³⁷ In other contexts, this shift has been described as manifesting in greater deformalization, increased fragmentation, and the growth of a managerial mindset and vocabulary in international affairs. ¹³⁸ As a consequence, Martti Koskenniemi has argued that, within global governance, discussions of law or "binding force" have been displaced by those of "legitimacy" or "inducing compliance". ¹³⁹

In general, legal experts have viewed this transformation in the architecture of the climate regime as a positive development, although Meinhard Doelle provocatively asks whether this is a "historic breakthrough or a high stakes experiment". 140 Doelle's discussion of the *Paris Agreement* provides an overview of debates on the merits of more managerial approaches to building norms of state behavior. In general, the move towards a more "bottom-up" legal form has been welcomed, either because it is assumed that a more decentralized regulatory architecture will allow for greater flexibility and innovation, 142 or because such a shift in legal form is perceived as necessary and unavoidable given the failures of more traditional forms of international decision-making and norm creation. 143 The focus in these discussions has been on how the form of legal regime can best increase effectiveness in driving compliance and further incentivize action. 144

Most mainstream analyses have however been silent on the distributive consequences of the transformation in the legal form. However, distributional questions surrounding equity in burden-sharing have been central to civil society critiques of the move from a "top-down" to a "bottom-up" regime. In a report released before the Paris COP21, Fair Shares: A Civil Society Equity Review of INDCs: Summary, civil society organizations compared the INDCs put forward by countries to an assessment of what would constitute each country's "fair share" – the least each country should contribute toward the global effort to tackle climate change. The report quantified each country's "fair share" based on the consideration that some countries have "much higher capacity to act than others, due to their higher income

Paris Agreement, supra note 1.

Gigi Roggero, The Production of Living Knowledge: The Crisis of the University and the Transformation of Labor in Europe and North America (Philadelphia: Temple University Press, 2011)

Martti Koskenniemi, "Constitutionalism as a Mindset: Reflections on Kantian Themes about International Law and Globalisation" (2007) 8:1 Theor Ing L 9 at 12.

Martti Koskenniemi, "What Use for Sovereignty Today?" (2011) 1 Asian J Intl L 61 at 65 [Koskenniemi].

¹⁴⁰ *Ibid* at 1.

See for example William Boyd, "Climate Change, Fragmentation, and the Challenges of Global Environmental Law: Elements of a Post-Copenhagen Assemblage" (2010-2011) 32 U Pa J Intl L 457.

See for example Eric W Orts, "Climate Contracts" (2011) 29 Va Envtl LJ 197.

Bodansky (Durban issues), supra note 136; Daniel Bodansky, "The Durban Platform Negotiations: Goals and Options" (Harvard Project on Climate Agreements, July 2012)

belfercenter.ksg. harvard.edu/publication/22196/durban platform negotiations.html>.

See Oxfam, Fair Shares: A Civil Society Equity Review of INDCs: Summary (October 2015) online: Oxfam.org www.oxfam.org/sites/www.oxfam.org/files/file_attachments/ib-civil-society-review-climate-indcs-191015-en_2.pdf [Fair Shares].

and wealth, level of development and access to technology". ¹⁴⁶ It also took into account questions of historical responsibilities and the fact that "[s]ome countries have already emitted a great deal for a long time, and thrive from the infrastructure and institutions they have been able to set up because of this". ¹⁴⁷ The report stressed that all countries should aim to do as much as they could toward mitigation and not just to contribute their "fair share," but that this represented an ethical minimum. The report found that "all major developed countries fell well short of their fair shares" given that Russia effectively made no contribution towards its fair share, Japan contributed one-tenth of its fair share, the United States contributed approximately one-fifth of its fair share and the European Union just contributed over one-fifth of its fair share. Further, the analysis also found that the "majority of developing countries have made mitigation pledges that exceed or broadly meet their fair share" although it also noted many such countries have "mitigation potential that exceeds their pledges and fair share". ¹⁴⁸

In a separate analysis, Glen Peters, ¹⁴⁹ Robbie Andrew, ¹⁵⁰ Susan Solomon ¹⁵¹ and Pierre Friedlingtein ¹⁵² also analyzed the equity of EU, USA and Chinese emission reduction pledges against different conceptions of what could constitute a "fair share". ¹⁵³ They compare two different ways of distributing the remaining carbon budget. The first is based on population such that there is an equitable global per capital carbon allowance ("equity"), whereas the second is based on a country's share of current emissions ("inertia"). They found that:

The US and EU emission pledges can be viewed as being broadly in line with a global ambition of avoiding 2 °C of warming only when applying the 'inertia' principle, whereby the remaining global quota is shared based on the current distribution of emissions. Because the USA and EU represent a considerably smaller fraction of current total world population than they do of current global carbon emissions, substantially deeper mitigation rates would be required if the global emissions allowance is shared according to equity based on current national populations.¹⁵⁴

¹⁴⁶ *Ibid* at 1.

¹⁴⁷ *Ibid*.

¹⁴⁸ *Ibid*.

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Robbie Andrew is also a Senior Researcher for the Center for International Climate Research (CICERO) in Oslo (Norway).

Susan Solomon is Professor of Environmental Studies at the Massachusetts Institute of Technology (MIT) in Cambridge, USA.

Pierre Friedlingstein is the well-known coauthor of especially Contributions of past and present human generations to committed warming caused by carbon dioxide. (Washington, DC: PNAS, 2005); Long-term climate implications of twenty-first century options for carbon dioxide emission mitigation. (New York: Nature Climate Change, 2011) and Climate-carbon cycle feedback analysis: Results from the C4 MIP model intercomparison (2006) 19 JCLI 19 3337.

¹⁵³ Glen Peters, Robbie Andrew, Susan Solomon and Pierre Friedlingtein, "Measuring a Fair and Ambitious Climate Agreement Using Cumulative Emissions" (2015) 10 Environ Res Lett 1 [Solomon and al].

¹⁵⁴ *Ibid* at 4-5.

In addition, they critiqued the inadequacy of China's commitment given that "China would still need to peak emissions by around 2017 before starting a rapid decarbonization of the economy to more than 80% emissions reductions by 2050 if 2 °C is to be avoided and considering the 'shares' of others". 155 They found that the EU. USA and Chinese commitments are not consistent with a 2°C temperature goal. and instead more consistent with having a greater than 66% change of exceeding temperature, representing an increase of 3°C. 156 In response, Joshua Mcbee, Associate Editor at The Climate Institute in Sydney (Australia), did a similar analysis, however he adopted the Climate Equity Reference Framework¹⁵⁷ developed by Paul Baer, Tom Athanasiou, 158 Sivan Kartha 159 and Eric Kemp-Benedict 160 that takes into account considerations of responsibility (for current and historical emissions) and capacity (ability to address climate change) as criterion for determining "fair shares". 161 Joshua Mcbee thus finds that based on those criteria, "China's current pledges are actually significantly more onerous than justice requires" while "United States' and the European Union's pledges, on the other hand, are considerably less ambitious than they ought to be". 162 He finds that "since both the US and the EU are obligated to do much more, it follows that they can do what justice requires only by helping other countries to reduce their own emissions". 163

While it is beyond the scope of this article to resolve the debates on how each country's "fair share" should be determined, the analysis presented above shows that many major polluting countries are contributing less than their "fair share". This outcome is particularly problematic when viewed in the context of the glaring inequalities that are already at the heart of the climate crisis. In a brief paper, released just before Paris, Oxfam International, a humanitarian international confederation of 20 organizations, pointed out the existence of "extreme carbon inequality". 164 They found that the poorest half of the global population, approximately 3.5 billion people, are responsible only for 10% of global emissions from individual consumption, while 50% of emissions can be attributed to the richest 10%. A working paper by

¹⁵⁵ *Ibid* at 5.

¹⁵⁶ Ibid at 7.

Paul Baer, Tom Athanasiou, Sivan Kartha, and Eric Kemp-Benedict, "Greenhouse Development Rights: A Framework for Climate Protection That Is 'More Fair' than Equal Per Capita Emissions," in Henry Shue and al., eds. Climate Ethics: Essential Readings (Oxford: Oxford University Press, 2010) 215.

Paul Baer and Tom Athanasiou are the co-founders and climate-equity specialists of EcoEquity, an activist organization.

Sivan Kartha is a Senior Scientist at U.S. Center of the Stockholm Environment Institute (SEI) in Somerville (MA). He is also the co-leader of SEI's Gender and Social Equity Program.

Eric Kemp-Benedict is also a Senior Scientist at the U.S. Center of the Stockholm Environment Institute in Somerville (MA). He is a co-leader of the SEI Initiative on the Water, Energy and Food

Joshua D. McBee, "Distributive Justice in the Paris Agreement: Response to Peters et al" (2017) 9:1 Contemporary Readings in Law and Justice 120 [McBee].

¹⁶² *Ibid* at 127.

¹⁶³ Ibid at 128.

Oxfam International, Media Briefing, "Extreme Carbon Inequality" (2 December 2016), online: <www.oxfam.org/sites/www.oxfam.org/files/file attachments/mb-extreme-carboninequality-021215-en.pdf>.

Lucas Chancel, codirector of the World Inequality Lab and of the World Wealth and Income Database at the Paris School of Economics and Thomas Piketty, Professor at the Paris School of Economics, also highlighted persistence of inequality in the global distribution of CO2 between 1998 and 2013.¹⁶⁵ They found that the richest 1% of Americans, Luxembourgers, Singaporeans and Saudi Arabians were the highest emitters in the world with annual per capita emissions of 200tCO2e, while lower income groups in Honduras, Mozambique, Rwanda and Malawi had per capita emissions two thousand times less than that, at 0.1tCO2e/year. 166 Both these analyses are based on carbon inequalities between global citizens. They are thus more focused on the presence of inequalities within countries than other figures based on national averages are. By highlighting both the inequalities within and between countries, an even more complex picture of the imperative of climate justice emerges than from previous reports that focused more on inequalities between countries of the Global North and Global South based on national averages. For example, it has been widely discussed that around three-quarters of emissions between approximately 1950 and 2009 can be attributed to lifestyles and industrial development in Annex I countries of the UFCCC, ¹⁶⁷ despite these countries housing only approximately 21% of the global population. 168

The justice implication of this situation is starker still when these inequalities in carbon consumption are mapped against the differentiated vulnerabilities to the effects of climate change. Glenn Althor, ¹⁶⁹ James E. M. Watson ¹⁷⁰ and Richard A. Fuller ¹⁷¹ found an "enormous global inequality" when they mapped each country's contribution to climate change alongside its vulnerability to the effects of climate change for the years 2010 and 2030. ¹⁷² Their findings showed that twenty of the thirty-six highest emitting countries are amongst the least vulnerable to climate change, while eleven of the seventeen countries with low or moderate GHG emissions

Lucas Chancel and Thomas Piketty, "Carbon and Inequality: from Kyoto to Paris" (Paper delivered at the Paris School of Economics, 3 November 2015), online: PSE <piketty.pse.ens.fr/files/ ChancelPiketty2015.pdf> [Piketty].

¹⁶⁶ Ibid.

UFCCC, List of Annex I Parties to the Convention, *United Nations Framework Convention on Climate Change*, 5 September 1992, 771 UNTS 107, online: UFCCC <unfccc.int/parties_and_observers/parties/annex i/items/2774.php>.

Barbara Adams and Gretchen Luchsinger, Climate Justice for a Changing Planet: A Primer for Policy Makers and NGOs, (Geneva, UN Non-Governmental Liaison Service, 2009).

¹⁶⁹ Glenn Althor is a Research Assistant at the University of Queensland in Australia.

¹⁷⁰ James E M Watson is Director of Science and Research Initiative at the Wildlife Conservation Society and Associate Professor at the University of Queensland in Australia.

Richard A Fuller is Associate Professor at the University of Queensland in Australia.

Glenn Althor, James E M Watson and Richard A Fuller, "Global Mismatch Between Greenhouse Gas Emissions and the Burden of Climate Change" (2016) 6:1 Scientific Reports 20281 [Althor and al]. Their analysis considers the absolute contribution of each country to climate change, but also examined climate change equity in per capita terms. Their findings were fairly similar, with for example, Australia, Russia and the United States of America remaining free riders under both accounts of responsibility (see Supplementary Fig. S3 online). However, on the latter per capita approach, several populous major emitters (e.g. United Kingdom, China, and Brazil) were no longer categorized as free riders.

are acutely vulnerable to climate change.¹⁷³ Their findings reinforce the broadly accepted argument made by the 2007/8 Human Development Report¹⁷⁴ that climate change "raises profoundly important questions about social justice, equity and human rights across countries and generations"¹⁷⁵ given the stark inequalities between those with the greatest responsibility for contributing to the problem and those with the greatest vulnerabilities to its effects. Even more sobering are Althor *et al*'s findings that "[t]he beneficiaries of this climate inequity have few incentives to meaningfully reduce or halt the GHG emissions".¹⁷⁶ They continue, stating that "[d]espite many of the broad issues around climate equity being well known, well-funded global mechanisms that are being implemented still do not exist" with "serious consequences for our ability to slow the rate of climate change, and reduce the wellbeing implications for forced rider countries" while "free rider" countries continue to lag or have actually backtracked on earlier commitments.¹⁷⁷

The voluntarist, "bottom-up" structure of the Paris Agreement¹⁷⁸ arguably facilitates the continuation of these inequalities and inequities. The move towards nationally determined commitments allows powerful countries to offer inadequate mitigation targets, thereby evading their moral responsibilities for addressing climate change, and, arguably further accentuating existing climate injustice. Moreover, the structure and form of the Agreement¹⁷⁹ has clear implications for how differentiation within the regime operates. The principle of "common but differentiated responsibilities" (CBDR) as articulated in Principle 7 of the *Rio Declaration*. 180 and the principle of "common but differentiated responsibilities and respective capabilities" (CBDR-RC) included in the 1992 UNFCCC181 and the 1997 Kvoto Protocol. 182 has been central to North-South equity claims, even though models of bifurcated obligations were often opposed by the United States and Northern countries. The principle of CBDR-RC was controversially not explicitly included in the Durban Platform on Enhanced Action, 183 however the wording in the decision to "develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties" 184 nodded to it. The subsequent Lima Decision again articulated the principle of CBDR-RC but added "in light of national

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¹⁷³ Ibid at 4.

UNDP, Kevin Watkins, Human Development Report 2007/2008: Flighting Climate Change - Human Solidarity in a Divided World, UNDP, 2007-2008, online: https://doi.org/sites/default/files/reports/268/hdr_20072008_en_complete.pdf [UNDP 2007] at 22.

¹⁷⁵ *Ibid*.

Althor et al, supra note 172 at 4.

¹⁷⁷ *Ibid*.

¹⁷⁸ Paris Agreement, supra note 1.

¹⁷⁹ *Ibid*.

¹⁸⁰ Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26 (vol. I), 31 ILM 874 (1992).

¹⁸¹ UNFCCC, supra note 2.

¹⁸² Kyoto Protocol, supra note 114.

Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action, Decision 1/CP.17, UNFCCC, 15 March 2012, FCCC/CP/2011/9/Add.1 [Durban Enhanced Action].

¹⁸⁴ Ibid at para 2.

circumstances", ¹⁸⁵ drawing on the language of the November 2014 *US-China Agreement*. ¹⁸⁶ It is this formulation that appears in the *Paris Agreement*. ¹⁸⁷ The principle of differentiation is also present in other parts of the *Agreement*, ¹⁸⁸ through reference to equity, ¹⁸⁹ "different capacities" or "respective national capacities and circumstances of Parties". ¹⁹¹ However, even as the principles of CBDR-RC and equity are rearticulated in the *Paris Agreement*, ¹⁹² as Sandrine Maljean-Dubois argues, "they also take on new meaning," especially in the context of a "bottom-up" framework that provides for a greater capacity for self-differentiation. ¹⁹³

The nature of differentiation in the Paris Agreement¹⁹⁴ has been the subject of considerable scholarly analysis. Commentators have argued that the Paris Agreement¹⁹⁵ represents a more "nuanced" and "dynamic" approach to differentiation in comparison to the strict "binary" differentiation in the Kyoto Protocol, ¹⁹⁶ which required only "developed" (Annex I) countries to make binding emission reduction commitments. 197 There were clear problems with the bifurcated system and the greater universalization of obligations is a positive step as all countries – whether "developed" or "developing" – must be taking whatever mitigation action they can. Moreover, a strict bifurcation between "developed" and "developing" countries fails to reflect the diversity of a country's circumstances or the growing power of emerging economies, such as Brazil, Russia, India, China and South Africa (the 'BRICS' countries). 198 Therefore, a change in how differentiation was conceptualized in the regime was necessary. However, the Paris Agreement's approach to differentiation problematically means there is no real process for assessing whether each country is contributing its "fair share" to the global mitigation efforts. This allows those countries with the greatest responsibility for causing climate change as well as the capacity to take mitigation action domestically and provide international support, to abrogate these responsibilities. In addition, the increased focus on "respective capabilities" and "national circumstances" risks facilitating a discursive shift regarding how the proper basis of differentiation is understood and described, with greater focus placed on considerations of capacity rather than considerations of historical and ongoing responsibility. The consolidation of a much more "bottom-up"

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¹⁸⁵ Lima Call for Climate Action, Decision 1/CP.20, UNFCCC, 2 February 2015, FCCC/CP/2014/10/Add.1.

¹⁸⁶ Maljean-Dubois, *supra* note 88 at 153.

Paris Agreement, supra note 1, Preamble, ss. 2, 4(3), 4(19).

¹⁸⁸ *Ibid*.

¹⁸⁹ *Ibid*, ss 4, 14.

¹⁹⁰ *Ibid*, s 13.

¹⁹¹ *Ibid*, s 15. This analysis draws on Maljean-Dubois, *supra* note 88 at 154.

Paris Agreement, supra note 1.

¹⁹³ Maljean-Dubois, *supra* note 88 at 153.

¹⁹⁴ Paris Agreement, supra note 1.

¹⁹⁵ Ihid

¹⁹⁶ Kyoto Protocol, supra note 114.

¹⁹⁷ See particularly Rajamani, supra note 72, Maljean-Bois, supra note 88; Voigt and Ferreira, supra note 132.

¹⁹⁸ For arguments about the need to rethink the North/South distinctions whilst maintaining a politics of climate justice, see Mickelson, supra note 55.

architecture and legal form in the *Paris Agreement*¹⁹⁹ could dangerously allow countries most responsible for GHG emissions to evade their responsibility to address this global crisis. In doing so, the *Agreement* thereby risks masking inequitable burden-shifting that could further accentuate the deadly inequalities of the climate crisis.

IV. Marketization of Climate Governance

When newspapers reported that an agreement had been reached at the Paris COP21, 200 international headlines proclaimed: "200 nations sign in the end of fossil fuel era". 201 Yet the *Paris Agreement* 202 does not specifically mention the words "fossil fuels," "coal" or "oil". Further, it contains no explicit commitments to leave fossil fuels in the ground despite the fact that over 80% of proven fossil fuel reserves must remain underground un-extracted in order to have a reasonable chance of restricting warming to 2 °C. 203 Nor does the *Paris Agreement* 204 contain any explicit commitments to remove fossil fuel subsidies, currently in excess of US\$500 billion annually. 205 In the immediate aftermath of the Paris conference, Australia's Minister for the Environment and Energy approved the controversial Abbott Point Coal Port, 206 which if built would be one of the world's largest coal export terminals 207 and the

¹⁹⁹ Paris Agreement, supra note 1.

²⁰⁰ *Ibid*.

Suzanne Goldenberg, John Vidal, Lenore Taylor, Adam Vaughan and Fiona Harvey, "Paris Climate Deal: Nearly 200 Nations Sign In End of Fossil Fuel Era", *The Guardian* (12 December 2015), online: https://www.theguardian.com/environment/2015/dec/12/paris-climate-deal-200-nations-sign-finish-fossil-fuel-era

²⁰² Paris Agreement, supra note 1.

²⁰³ Christopher McGlade and Paul Ekins, "The geographical distribution of fossil fuels unused when limited warming to 2°C" (2015) 517:7532 Nature 187 [McGlade and Ekins].

²⁰⁴ Paris Agreement, supra note 1.

See "Fossil-fuel Subsidies", *International Institute for Sustainable Development and Global Subsidies Initiative* online: IISD <www.iisd.org/gsi/fossil-fuel-subsidies>. It is revealing to compare this figure of the amount of global fossil fuel subsides with the \$2 billion annually that governments give in to the Green Climate Fund or the \$121 billion provided annually by governments to support renewable energy technologies (see Chris Arsenault, "Paris UN climate conference 2015: Rich nations' fossil fuel subsidies 'exceed climate aid 40:1'" *The Sydney Morning Herald* (4 December 2015), online: <www.smh.com.au/environment/un-climate-conference/paris-un-climate-conference-2015-richnations-fossil-fuel-subsidies-exceed-climate-aid-40-to-1-20151203-glf4zi.html>; Elizabeth Bast *et al*, "Empty Promises: G20 Subsidies to Oil, Gas and Coal Production" *Overseas Development Institute and Oil Change* (2015), online: <www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9957.pdf> and Chris Arsenault, "G20 Nations Must Switch Big Subsidies from Fossil Fuel to Renewables – Report", *Reuters* (11 November 2015), online: <www.reuters.com/article/oil-climatechange-subsidies-idUSL8N1354OM20151112#jQBBLxV22HoPHs3u.97>).

^{206 &}quot;Australia approves Abbot Point coal port expansion", BBC News (22 December 2015), online: www.bbc.com/news/business-35157946.

Allyson Horn and Elaine Ford, "Abbot Point: Federal Government approves huge coal port expansion near Great Barrier Reef", ABC News (22 December 2015), online: www.abc.net.au/news/2015-12-22/massive-abbot-point-coal-port-expansion-gets-federal-approval/7047380.

United States repealed its crude oil exports restrictions.²⁰⁸ These actions suggest potentially concerning gaps between the Paris rhetoric of "ambition" and domestic policy decisions that continue to promote and "lock-in" fossil fuels. Given this, serious questions need to be asked about the extent to which the *Paris Agreement*²⁰⁹ is capable of driving urgently necessary structural transitions away from fossil fuel dependency.²¹⁰

In this context, the role that "offsets" could potentially play as part of the Paris Agreement's mitigation measures in particular needs to be interrogated. The Paris Agreement²¹¹ articulates an aim "to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century". 212 There is undeniably an urgent need for policies that promote sequestration and "carbon draw down" as well as policies that drastically reduce emissions and promote transitions away from fossil fuels.²¹³ However, articulating the objective in terms of a balance between "emission sources" and "removals by sinks", rather than clear reductions in the former and increases in the latter is concerning. This language of "balance" relies on "questionable assumptions of equivalence between fossil fuel sources and 'carbon sinks'"214 or suppositions that increased carbon sequestration can appropriately "offset" increased GHG emissions. In particular, there is a risk that the objectives to decrease "emissions by sources" and increase "removals by sinks" might come in tension with one another if "offset" mechanisms enable sequestration schemes to legitimate more emissions elsewhere. 215 Although the language of "net zero" emissions was controversial at Paris and not acceptable to all countries, the language of "balance" between emissions and sinks in the Agreement in effect is similar. 216 It promotes a framework of "zero net emissions" which has been strongly criticized by many climate justice groups. For example, the ETC Group, a non-government organization monitoring socioeconomic and ecological issues surrounding new technologies, described this as the "dirty secret" of

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Brian Wingfield, "U.S. Reverses Decades of Oil-Export Limits with Obama's Backing", *Bloomberg* (18 December 2015), online: https://www.bloomberg.com/news/articles/2015-12-18/house-votes-to-repeal-u-s-oil-export-limits-senate-vote-next.

²⁰⁹ Paris Agreement, supra note 1.

²¹⁰ See also Rebecca Pearse, "The Coal Question that Emissions Trading has not Answered" (2016) 99 Energy Policy 319 [Pearse]; Dehm (Post), supra note 28.

²¹¹ Paris Agreement, supra note 1.

²¹² *Ibid*, s 4(1).

Intergovernmental Panel on Climate Change (IPCC), Climate Change 2014: Synthesis Report (Geneva: IPCC, 2014) online: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf; see also Fergus Green and Richard Denniss, "Cutting with both arms of the scissors: the economics and political case for restrictive supply-side climate policies" (2018) Climatic Change, online: ">https://link.springer.com/article/10.1007/s10584-018-2162-x>.

²¹⁴ Pearse, *supra* note 210 at 319.

Naomi Klein, This Changes Everything: Capitalism vs the Climate (New York: Simon & Schuster Paperbacks, 2014) at 224 [Klein].

Harold Winkler, "Mitigation (Article 4)" in Daniel Klein, María Pía Carazo, Meinhard Doelle, Jane Bulmer, and Andrew Higham, *The Paris Agreement on Climate Change: Analysis and Commentary* (Oxford: Oxford University Press, 2017) at 144.

the Paris deal²¹⁷ while ActionAid International previously warned that "net zero" approaches "may prove to be a trap that delays real climate action" and "could allow for business-as-usual GHG emissions, offset by massive-scale mitigation through the land sector".²¹⁸ ETC Group writes:

Instead of requiring the necessary real action to cut emissions, "net-zero" approaches can ultimately allow greenhouse gases to continue to rise (business-as-usual) above the targeted level, while turning to unproven Negative Emission Technologies (NET) on a large scale to remove CO2 from the atmosphere. This is known as the "overshoot" strategy.²¹⁹

This risky strategy is likely to lead to the expansion of biofuels, BECCS (bioenergy with carbon capture and storage), biochar, and other similar technologies. These approaches would require vast areas for carbon sequestration and could fuel huge land grabs in Africa, Asia and Latin America. 220

These concerns are enhanced due to the central role given to carbon trading mitigation strategies in the *Paris Agreement*.²²¹ Although the words "carbon trading" or "carbon markets" are not mentioned, Article 6 recognizes "voluntary cooperation in the implementation of their intended nationally determined contributions that allow for higher ambition in their mitigation and adaptation actions" and the use of "internationally transferred mitigation outcomes". 222 The Paris Agreement 223 refers to both more "decentralized" and more "centralized" ways of organizing international carbon markets. Article 6(2) of the Agreement²²⁴ calls on Parties to apply robust accounting when "engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions". 225 This language of "cooperative approaches" suggests a more decentralized model of bilateral and multilateral linking between so-called "carbon clubs" in order to trade units of carbon, referenced in the Agreement²²⁶ as "internationally transferred mitigation outcomes" (ITMO).²²⁷ The Agreement²²⁸ also establishes a more centralized "mechanism to contribute to the mitigation of GHG emissions and support sustainable development" under the authority and

²¹⁷ See "Press Statement: Social Movements United in Defiance of False Solutions Being Negotiated at Paris COP", Focus on the Global South (10 December 2015), online: Focusweb <focusweb.org/content/press-statement-social-movements-united-defiance-false-solutions-being-negotiated-paris-cop> [Focusweb].

Teresa Anderson and Kelly Stone, "Caught in the Net: How "Net-zero Emissions" Will Delay Real Climate Action and Drive Land Grabs" *ActionAid International* (June 2015) online: www.actionaid.org/sites/files/actionaid/caught_in_the_net_actionaid.pdf [ActionAid (Net)].

²¹⁹ *Ibid*.

²²⁰ *Ibid* at 3.

²²¹ Paris Agreement, supra note 1.

²²² *Ibid*, s 6.

²²³ *Ibid*.

²²⁴ *Ibid*, s 6(2).

²²⁵ *Ibid*.

²²⁶ *Ibid*.

²²⁷ *Ibid*, ss 6(2), 6(3).

²²⁸ Ibid.

guidance of the Parties to the *Paris Agreement*.²²⁹ This mechanism is flagged to be classed the "Sustainable Development Mechanism" and to replace the "Clean Development Mechanism".²³⁰ Further, rules, modalities and procedures for this mechanism will be developed subsequently by the Conference of the Parties serving as the meeting of the Parties to the *Paris Agreement*.

The Paris Agreement²³¹ has been welcomed by Carbon Pulse as "ring[ing] in a new era of international carbon trading". 232 The Director of the International Emissions Trading Association (IETA) described this as "set[ting] up the framework for a much deeper world of cooperation"233 on carbon markets. In its response to the Paris Agreement, 234 the World Bank promised to "explor[e] ways to create incentives for large scale cuts in emissions by widening and deepening carbon markets". 235 Already, there is a price on carbon (either a carbon levy or an emission trading scheme (ETS)) in place in forty national jurisdictions, as well as in over twenty sub-national cities, states or provinces, collectively responsible for almost one quarter of global greenhouse gases. 236 These schemes have a combined value of just under US\$50 billion, with almost 70% of that attributed to ETS (US\$34 billion) and the remainder to carbon taxes.²³⁷ These figures are likely to grow, given that when IETA analyzed nationally-determined contributions put forward by countries. they found that over half of these intend to use carbon markets to achieve their mitigation promises.²³⁸ While such an expansion of transnational carbon markets are seen by these commentators as a positive development, there are also reasons to be wary. After an extensive review of the literature on carbon markets, Rebecca Pearse²³⁹ and Steffen Böhm²⁴⁰ present five arguments that demonstrate the flawed practices of

²²⁹ *Ibid*, s 6(4).

²³⁰ See Steve Zwick, "The Road from Paris: Green Lights, Speed Bumps, and the Future of Carbon Markets", Ecosystem Marketplace (1 February 2016), online: www.ecosystemmarketplace.com/articles/green-lights-and-speed-bumps-on-road-to-markets-under-paris-agreement/.

²³¹ Paris Agreement, supra note 1.

²³² "Paris Agreement Rings in a New Era of International Carbon Trading", *Carbon Pulse* (12 December 2016), online: <carbon-pulse.com/13339/>.

²³³ "After Paris, UN's New 'Light Touch' Role on Markets to Help Spawn Carbon Clubs", *CarbonPulse* (15 December 2015), online: <arbon-pulse.com/13415/>.

²³⁴ Paris Agreement, supra note 1.

Jim Yong Kim, "Historic' Paris Agreement Paves Way for World Bank to Help Countries to Deliver on Climate Commitments", The World Bank (12 December 2015), online: www.worldbank.org/en/news/feature/2015/12/12/paris-agreement-paves-way-for-world-bank-group-helping-countries-deliver-on-climate-commitments>.

Alexandre Kossoy et al, "State and Trends of Carbon Pricing 2015" (Washington DC: The World Bank and Ecofry, September 2015) at 10. online: The World Bank <documents.worldbank.org/curated/en/636161467995665933/pdf/99533-REVISED-PUB-P153405-Box393205B.pdf> [Kossoy].

^{23/} *Ibid* at 13

²³⁸ See discussion in Gareth Bryant, "Paris vs. Climate Change, or Paris vs. the Climate?", *Progress in Political Economy* (3 December 2015), online: <ppesydney.net/paris-vs-climate-change-or-paris-vs-the-climate/>.

²³⁹ Rebecca Pearse is a lecturer in the Department of Political Economy at the University of Sydney (Australia).

Stephen Böhm is Director of the Sustainability & Circular Economy Research Cluster at University of Exeter Business School, in Exeter (United Kingdom).

carbon markets and five arguments about how carbon trading cannot be reformed.²⁴¹ They highlight the empirical history of carbon markets' failure, including the way in which carbon markets have promoted unjust development and "green grabbing" as well as how carbon markets have provided loopholes for polluters, operated as fossil fuel subsidies and established modes of regressive taxation. Additionally, they argue that carbon and especially carbon offsets are an inherently "unregulatable commodity" given the impossibility of assessing the "additionality" claimed against counterfactual baselines;²⁴² that markets display a "utopian faith in pricing" when in reality they are "political constructs, constituted by the constellation of social forces that dominate them"; and that there are problems in assuming commensurability or "like for like" for essentially different metabolic interactions. 243 Finally they critique the way carbon markets promote a system of technocratic rule managed by experts, and are an obstacle to alternative policies promoting decarbonization.²⁴⁴ Other critics have alleged that the "endless algebra" of carbon markets represents a neoliberal response to the climate crisis that operates to further commodify and financialize the atmosphere. Others have analyzed these markets as a "spatial fix"²⁴⁶ whereby the emission reduction obligations of the rich world can be displaced through a form of post-modern environmental indulgences.²⁴⁷

The *Paris Agreement*²⁴⁸ also endorses the highly controversial Reducing Emissions from Deforestation and Forest Degradation (REDD+) scheme, ²⁴⁹ although no formal decision was reached on whether it would be a "fund-based" or "market-based" mechanism. Article 5 of the *Paris Agreement*²⁵⁰ encourages Parties to "conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases [...] including forests". ²⁵¹ Article 5(2) provides that:

Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing

²⁴⁵ See Larry Lohmann, "The Endless Algebra of Carbon Markets" (2011) 22:4 CNS Journal 93.

Rebecca Pearse and Steffen Böhm, 'Ten Reasons Why Carbon Markets Will Not Bring About Radical Emissions Reduction' (2014) 5:4 CARBON MANAG 325 [Pearse and Böhm].

²⁴² See also Larry Lohmann, "Regulation as Corruption in the Carbon Offset Markets" in Steffen Böhm and Siddhartha Dabhi, eds, *Upsetting the Offset: the Political Economy of Carbon Markets* (London: MayFlyBooks, 2009).

²⁴³ Pearse and Böhm, *supra* note 241 at 332.

²⁴⁴ *Ibid* at 333.

²⁴⁶ See Adam G. Bumpus and Diana M. Liverman, "Accumulation by Decarbonization and the Governance of Carbon Offsets" (2008) 84:2 Econ Geogr 127.

See for example: Critical Currents (No 7), Tamra Gilbertson and Oscar Reyes, Carbon Trading: How it Works and Why it Fails, (Uppsala: Dag Hammarskjöld Foundation, 2009) online: Dag Hammarskjöld Foundation www.daghammarskjöld.se/wp-content/uploads/2014/08/cc7_web_low.pdf; Simon Bullock, Mike Childs and Tom Picken, A Dangerous Distraction: Why Offsetting is Failing the Climate and People – the Evidence (Wales and North Ireland: Friends of the Earth, 2009) online: Friends of the Earth www.foe.co.uk/sites/default/files/downloads/dangerous distraction.pdf.

²⁴⁸ Paris Agreement, supra note 1.

²⁴⁹ *Ibid*, s 5(2).

²⁵⁰ *Ibid*, s 5.

²⁵¹ *Ibid*, s 5(1).

emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches. ²⁵²

The REDD+ scheme is envisioned by many to operate as a market-based offset in which emissions "savings" from increased sequestration from forest protection in the Global South can be purchased and used to offset emissions in the Global North.²⁵³ However, the provisions in the *Paris Agreement*²⁵⁴ on REDD+ are silent on the controversial question of whether the financing of REDD+ would be through market-based or fund-based approaches. The text of the Agreement²⁵⁵ uses the language of both "result-based payments" but also "non-carbon benefits" and thereby gives a nod to both marketized as well as potential non-marketized REDD+ models. Article 55²⁵⁶ further affirms the "importance of adequate and predictable financial resources" for the implementation of REDD+ and "encourage[es] the coordination of support from, inter alia, public and private, bilateral and multilateral sources, such as the Green Climate Fund and alternative sources". 257 However, there continues to be a strong emphasis on the inclusion of forests in international carbon markets²⁵⁸ suggesting that REDD+ projects are very likely to in the future problematically link forest protection to continued use of fossil fuel resources through transnational carbon markets. Such marketized REDD+ models have been strongly condemned by social movements as a "false solution" that fails to reduce aggregate global emissions. Moreover there are serious concerns that it could promote a new "landgrab" over forest areas and violate the rights of the 1.6 billion people, many of whom identify as Indigenous, that live in and around forested areas. 260 For these reasons, Indigenous activists have argued that REDD+ promotes new forms of "carbon colonialism" or "CO2lonialism". 261

During the negotiations in Paris, Indigenous Peoples' groups and social movements vocally opposed "false solutions" such as carbon trading that are part of

²⁵² *Ibid*, s 5(2).

Pearse, Rebecca and Julia Dehm, In the REDD: Australia's Carbon Offset Project in Central Kalimantan (Amsterdam: Friends of the Earth International, 2011) online: Friends of the Earth International www.foei.org/wp-content/uploads/2011/12/REDD-report-2.pdf [Pearse and Dehm].

Paris Agreement, supra note 1.

²⁵⁵ *Ibid*.

²⁵⁶ *Ibid*, s 55.

²⁵⁷ *Ibid*, s 55.

See for example, Allie Goldstein, View from the Understory: State of Forest Carbon Finance 2016 (Washington, DC: Ecosystem Marketplace, 2016) online: Forest Trends www.forest-trends.org/documents/files/doc 5388.pdf>.

²⁵⁹ See, for example, "Exposing REDD: The False Climate Solution", *Indigenous Environment Network* (2012), online: www.ienearth.org/exposing-redd-the-false-climate-solution/>.

²⁶⁰ See for an overview of these issues Pearse and Dehm, *supra* note 253.

²⁶¹ See Indigenous Peoples' Guide: False Solutions to Climate Change (Bemidji: Indigenous Environment Network), online: Indigenous Environment Network

<www.earthpeoples.org/CLIMATE CHANGE/Indigenous Peoples Guide-E.pdf>.

the *Agreement*²⁶² and "called on movements to continue to build their own, just alternatives to the political and economic systems that have caused the climate crisis". ²⁶³ In response to the *Paris Agreement*, ²⁶⁴ Tom Goodtooth, Director of the Indigenous Environment Network, said:

Instead of cutting CO₂ and greenhouse gas emissions, the UN, the US, the EU, China, Norway and climate criminals like BP, Total, Shell, Chevron, Air France and BHP Billiton are pushing a false solution to climate change called REDD (Reducing Emissions from Deforestation and Degradation). REDD is a carbon offset mechanism which privatizes the air that we breathe and uses forests, agriculture and water ecosystems in the Global South as sponges for industrialized countries pollution, instead of cutting emissions at source. REDD brings trees, soil, and nature into a commodity trading system that may result in the largest land grab in history. It steals your future, lets polluters off the hook and is a new form of colonialism. NO to Privatization of Nature!²⁶⁵

The promotion of such carbon offset schemes was a key reason behind why Indigenous rights activists were so concerned about the removal of any reference to human rights and Indigenous Peoples' rights from the substantive part of the final agreement. Bracketed text pertaining to human rights, Indigenous rights and gender equity was removed from the *Agreement*'s objectives and subsequently included only in the preamble to the *Paris Agreement*²⁶⁶ after pressure from some parties. In response to the sidelining of rights language, Indigenous "kayactivists" paddled down the Seine River (France) in protest, thereby continuing the long struggle activists have fought to ensure United Nations (UN) climate projects respect Indigenous rights.

This brief discussion of REDD+ indicates how offset mechanisms are problematic not only because there are real risks they will fail to achieve their stated objectives, but also because these mechanisms themselves have productive effects. Elsewhere I have argued that the REDD+ mechanism establishes new forms of global authority over land and resources in the Global South with adverse distributive consequences. ²⁶⁹ This analysis is underpinned by a methodological approach that asks not just on whether REDD+ works, or how it can be made to work, but rather what

²⁶² Paris Agreement, supra note 1.

²⁶³ Focusweb, *supra* note 217.

²⁶⁴ Paris Agreement, supra note 1.

^{265 &}quot;UN Promoting Potentially Genocidal Policy at World Climate Summit", *Indigenous Environmental Network* (8 December 2015), online: <www.ienearth.org/un-promoting-potentially-genocidal-policy-at-world-climate-summit/>.

²⁶⁶ Paris Agreement, supra note 1.

John Vidal and Adam Vaughan, "Climate Talks: Anger over Removal of Human Rights Reference from Final Draft", The Guardian (11 December 2015), online: <www.theguardian.com/globaldevelopment/2015/dec/11/paris-climate-talks-anger-removal-reference-human-rights-from-finaldraft>

²⁶⁸ "Indigenous Activists Protest the Removal of Indigenous Rights from the Paris Climate Pact on the Seine River", *Indigenous Environment Network* (2015), online: <www.ienearth.org/indigenous-activists-protest-the-removal-of-indigenous-rights-from-the-paris-climate-pact-on-the-seine-river/>.

²⁶⁹ See Julia Dehm, Reconsidering REDD+: Law, Life, Limits and Growth in Crisis (PhD Thesis, University of Melbourne, 2015) [unpublished].

work such projects do in the world – the modes of power they enable, forms of authority they enliven and the social relations they produce.

Taking seriously such questions about the work that international environmental legal regimes do in the world impels critical scholars to think about international environmental law not simply as a tool to enable progressive change or as a site of struggle, but to understand how international environmental law is itself a mechanism that is steeped in power relations that reflects but can also operate to reinforce and reproduce dynamics of unequal power. Scholarship focused on addressing international environmental law from the perspective of the Global South is often concerned with identifying persistent North-South gaps within international environmental law and highlighting the way such persistent gaps undermine the operations of international environmental law.²⁷⁰ Sumudu Atapattu²⁷¹ and Carmen G. Gonzalez, ²⁷² therefore call for "the need to address historical inequities and inadequacies in the international environmental law regime in order to improve its effectiveness and reduce gaps between the global North and the global South".²⁷³ Such work is indeed urgent, especially in the current moment. However, approaches that primarily view international environmental law as a site of struggle and contestation for the redress of historical inequities risks not seeing the ways in which international environmental law could itself be complicit in reinforcing and reproducing these inequalities. As international environmental law takes on more market-oriented forms, where imperatives for protection are used to justify greater privatization and propertization of the environment, it becomes more and more urgent to pose questions about whether international environmental law is "part of the problem". 274 not only because of its all too clear limitations, but also more broadly because of its productive effects.

These reflections on the *Paris Agreement*²⁷⁵ have sought to highlight the urgent need for more critical scholarship on international climate law and to suggest some strategies, methodologies and questions for such engagement. This article has exposed the disjuncture that exists between the celebratory and critical assessment of

See particularly Sumudu Atapattu and Carmen G. Gonzalez, "The North-South Divide in International Environmental Law: Framing the Issues" [Atapattu and Gonzalez] in Shawkat Alam, Sumudu Atapattu, Carmen G. Gonzalez and Jona Razzaque, (eds), *International Environmental Law and the Global South* (Cambridge: Cambridge University Press: 2015) at 1.

²⁷¹ Sumudu Atapattu is Director of Research Centers and Senior Lecturer at University of Wisconsin Law School, in Madison, Wisconsin, USA.

²⁷⁷² Carmen G. Gonzalez is Professor of Law at the Seattle University School of Law, Seattle, Washington, USA.

²⁷³ Atapattu and Gonzalez, *supra* note 270 at 5.

²⁷⁴ I take this phrase from David Kennedy, "The International Human Rights Regime: Part of the Problem?" (2002) 15 Harv Hum Rights J 101.

²⁷⁵ Paris Agreement, supra note 1.

the *Paris Agreement*, ²⁷⁶ suggesting that this divide already raises important questions about what voices and perspectives are heard in scholarship on international climate law. Throughout the article. I have sought to demonstrate the importance of engaging with international climate law in ways that are attentive to the productive effects of international agreements, and the need to examine their distributional effects, what new social relations they establish and stabilize, and how power and authority are being reorganized or rearranged by practices authorized by international environmental law. These are just some of many possible avenues of necessary scholarly engagement. Additional questions could be posed about the legal framing of the international climate crisis and the conditions under which agreements such as this become presented as the "solution" or a "success". What assumptions of "necessity" and "possible action" underpin this solution and how have these come to structure the discipline? One could also pose a series of questions about what imaginaries of possible futures and of temporality underpin this "solution"? What assumptions about the relationship between law and markets underpin this "solution"? What assumptions of global distributive justice underpin this "solution"? On what "sociotechnical imaginaries"²⁷⁷ does this specific legal intervention depend? What assumptions about the relationship between humans and the natural world underpin this "solution"? What imaginaries of "nature" are at play? Additionally, there is a need to theorize the trajectories and shifts within international environmental law in ways that situate them within broader development in international law and global governance.

In concluding, I want to highlight some of the more optimistic – and perhaps under-examined – outcomes of the Paris conference. Jess Danny Chivers, write in the online journal New Internationalist that there are reasons to feel positive about Paris, not because of the Summit or its outcomes, but because of the activism and vibrant protests of social movements that organized and mobilized despite repressive policing measures.²⁷⁸ This analysis aligns with other reports that have stressed that "far from believing that the UN can save the world's climate, resistance to global climate injustice and inequality is alive and building from the ground up". ²⁷⁹ There is ample evidence that achieving the objectives articulated in the Paris Agreement²⁸⁰ will require an urgently managed transition from fossil fuels. Already, the potential carbon emissions from current operating oil, gas and coal mines and fields could exceed the 2 °C target. 281 Researchers have shown that in order to have a 50% chance of keeping warming below 2 °C the emissions for 2011-2050

²⁷⁶ *Ibid*.

On "sociotechnical imaginaries" see Sheila Jasanoff, "Future Imperfect: Science, Technology, and the Imaginaries of Modernity" in Sheila Jasanoff, ed, *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power* (Chicago: University of Chicago Press, 2015).

Jess Worth and Danny Chivers, "Why we should feel positive about Paris", New Internationalist (13 December 2015), online: <newint.org/features/web-exclusive/2015/12/13/why-we-should-feel-positive-about-paris/>.

²⁷⁹ See for example Leah Temper and Tamra Gilbertson, eds, "Refocusing Resistance for Climate Justice: COPing in, COPing out and Beyond Paris", *Ejolt Report* 23 (September 2015) at 3.

²⁸⁰ Paris Agreement, supra note 1.

Greg Muttitt, *The Sky's the Limit: Why the Paris Climate Goals Require a Managed Decline of Fossil Fuel Production* (Washington, DC: Oil Change International, 2016), online: Oil Change International <pri>priceofoil.org/content/uploads/2016/09/OCI the skys limit 2016 FINAL 2.pdf>.

must not exceed 1,100 gigatonnes of carbon dioxide.²⁸² Remaining within this socalled "carbon budget" means that many global fossil fuel reserves simply cannot be extracted, as present fossil fuel reserve estimates exceed this budget three times over. Analysis by Christopher McGlade, Researcher at the UK Energy Research Center and Paul Ekins. Professor and Director of the Institute for Sustainable Resources at the University College London, suggests that a third of oil reserves, half of all gas reserves and 80% of all coal reserves should remain unused.²⁸³ The goals articulated in the Paris Agreement²⁸⁴ could provide resource for growing international grassroots social movements against fossil fuel extraction. It also provides framework and idiom for building transnational connections between what are often place-based struggles and strengthening international solidarity.²⁸⁵ Such struggles include the blockade by Pacific Islanders of Australia's largest coal port and the actions of the "water protectors" defending the territory of the Standing Rock Sioux Tribe from harmful impacts of the Dakota Access Pipeline. 286 These movements and the connections they are building present possibilities for optimism, not just for addressing the immeasurably large challenge of addressing climate change, but also for critically reimagining international climate law.

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²⁸² See McGlade and Ekins, *supra* note 203.

²⁸³ *Ibid*.

Paris Agreement, supra note 1.

²⁸⁵ On this see Klein, *supra* note 215.

On this see Lisa Song, "Judge Fails to Block Dakota Pipeline Construction After Burial Sites Destroyed", *Inside Climate News* (7 September 2016), online: <insideclimatenews.org/news/06092016/dakota-access-pipeline-construction-standing-rock-sioux-oil-protest-injunction-judge?utm_source=Inside+Climate+News&utm_campaign=604288c87a-

InsideClimate_News12_10_2014&utm_medium=email&utm_term=0_29c928ffb5-604288c87a-327747821>; see also Joint Statement from the Department of Justice, the Department of the Army and the Department of the Interior Regarding *Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers*, (9 September 2016), online: The Unites States Department of Justice <www.justice.gov/opa/pr/joint-statement-department-justice-department-army-and-department-interior-regarding-standing>.