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**DREAMING OF PARIS: THE PROSPECTS OF ENFORCING
THE PARIS AGREEMENT THROUGH INTERNATIONAL
ARBITRATION**

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Abstract

The Paris Agreement is the most comprehensive climate change accord ever reached, with 197 states pledging to both mitigate and adapt in order to ensure a safe climate future. The implementation phase of the Agreement begins in 2020, however, unlike its predecessor, the Kyoto Protocol, it does yet not have an enforcement mechanism.

This paper examines different methods and mechanisms of enforcement in international environmental law and how these may operate as a means of enforcing the Paris Agreement. This research intends to show that international arbitration could be the best method to fill the lacuna in enforcement. As such, it also explores legal tools that could be used to adopt of arbitration under the Paris Agreement and proposes a potential roadmap for this to occur.

Word count

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Subjects and Topics

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I Introduction

Climate change is the most complex transnational issue that the world faces today.¹ To meet this global challenge, a new climate change treaty was agreed by the Conference of Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) in 2015—the Paris Agreement. However, the global community is at risk of Paris syndrome, a disorder caused by finding Paris is not what was expected, come its implementation in 2020.² This is because despite the lofty ambitions of the text, unlike other Multilateral Environmental Agreements (MEAs), there remains a distinct lack of enforcement procedure.³

This paper intends to provide context on the current state of dispute resolution under the Paris Agreement before exploring how its enforcement could be strengthened using examples from other MEA's. As a result of this examination, this paper proposes that international arbitration is likely the best mechanism to resolve climate change disputes and thus bring the necessary enforcement 'teeth' to the Paris Agreement.⁴

Climate change is defined as a change in global or regional climate patterns, in particular the change apparent from the mid-to-late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.⁵ Anthropogenic climate change is caused in large part from the release of greenhouse gases (GHGs) including carbon dioxide, methane, and nitrous oxides. These GHGs trap long wave radiation into the earth system which causes an increase in the total energy resulting in warming and extreme weather conditions.

The primary contributors of GHGs stem from the use of fossil fuels and other industrial processes. A safe level of carbon dioxide is defined as 400 ppm, however, the earth is already at 408 ppm. The result of this excess carbon being climate change; already evidenced by physical effects such as the melting of glaciers, rising sea levels, extreme droughts, desertification and geological redistribution of sediment. The complexity of both the causes

¹ Johanna Hedlund, Stephen Fick, Henrik Carlsen, and Magnus Benzie "Quantifying transnational climate impact exposure: New perspectives on the global distribution of climate risk" (2018) 52 *Global Environmental Change* 75.

² Paris syndrome is a transient mental disorder exhibited by some individuals when visiting or going on vacation to Paris, as a result of extreme shock derived from their discovery that Paris is not what they had expected it to be.

³ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report* (International Bar Association, London, 2014) at 12.

⁴ Ristard de Paor "Climate Change and Arbitration: Annex Time before there won't be A Next Time" (2017) 8 *JIDS* 179.

⁵ Intergovernmental Panel on Climate Change "Glossary of Terms" (2012) IPCC <www.ipcc.ch>.

and planetary response to climate change has resulted in it being described as the “greatest challenge of our time”.⁶

States have faced considerable political and legal challenges taking action on climate change due to its wide-ranging inputs and implications.⁷ The latest iteration of this global effort, the Paris Agreement, will follow on from its predecessor, the Kyoto Protocol in 2005. The Paris Agreement is considered the most ambitious treaty yet because it commits states who represent well over half of global emissions⁸ to hold the increase in the global average temperature to well below 2 °C.⁹ In order to reach its goals, the Agreement commits the COP to progressively phase down their emissions whilst facilitating a technological and adaptation response to climatic change that is already inevitable.¹⁰ During the drafting of the Paris Agreement commentators called for it to have the necessary enforcement ‘teeth’.¹¹ However, it is now recognised that this did not eventuate. Thus despite the world fast approaching the implementation phase of the Paris Agreement in 2020, there are concerns over its efficacy given the lack of an enforcement mechanism. There remains an opportunity to remedy this gap in enforcement as the ‘rulebook’ for the Agreement continues to be developed at COP24 in December 2018 and beyond.

An effective dispute resolution process is an essential determinant of the outcome of the Paris Agreement; as the strength of one informs the strength of the other.¹² At present, the Agreement adopts a purely facilitative approach to compliance¹³ and imports the full suite of dispute resolution tools from the UNFCCC.¹⁴ Thus the main options for dispute resolution include diplomatic forms such as negotiation, enquiry, mediation, and conciliation as well as the legal means of international arbitration and judicial settlement through the International Court of Justice (ICJ).¹⁵ Each method brings with it a unique set of benefits and limitations and choosing the best tool for the job is crucial to the success of the Paris Agreement.¹⁶ Although generally

⁶ Carlo Fanelli “Climate Change: The Greatest Challenge of Our Time” (2014) 25 *Alternate Routes: A Journal of Critical Social Research* 15.

⁷ Pierre-Marie Dupuy and Jorge E. Viñuales *International Environmental Law* (Cambridge University Press, Cambridge, 2018) at 141.

⁸ UNFCCC “Paris Agreement- Status of Ratification” (2018) UNFCCC <www.unfccc.int>.

⁹ Paris Agreement on Climate Change 1771 UNTS 107 (opened for signature 22 April 2016, entered into force 4 November 2016), Art 2.

¹⁰ Art 2.

¹¹ Anders Corrs “Expect Climate Catastrophe: Paris Agreement Lacks Enforcement” (2016) *Forbes* <www.forbes.com>.

¹² Wendy Miles “Introduction” in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 8.

¹³ Paris Agreement, above n 9, Art 15.

¹⁴ Art 24.

¹⁵ United Nations Framework Convention on Climate Change 1771 UNTS 107 (opened for signature 9 May 1992, entered into force 21 March 1994), Art 14.

¹⁶ Roger Martella “Update on the IBA Task Force on Climate Change and Human Rights” in

overlooked for its potential in international environmental law, it is proposed that international arbitration is superior to its alternatives both in terms of inter-state enforcement under the Paris Agreement, as well the collateral contexts in which it could apply. As such, it could offer the best potential antidote to combat the globe's present risk of falling victim to Paris syndrome.

II The Paris Agreement

Before outlining the potential methods of enforcing the Paris Agreement, it is necessary to explore the context and provisions of the Agreement itself. This chapter will introduce developments that lead up to the Paris Agreement including the UNFCCC and Kyoto Protocol, before moving to its substantive and procedural obligations and what potential disputes may arise as a result of them.

A The Road to Paris

Although the global warming effect of GHGs and potential effects on earth's climate system were first proposed 1896, it took until 1986 to gain recognition by states as a global issue.¹⁷ Since then there has been concerted global attempts to manage anthropogenic climate change. In order to understand the substance of the Paris Agreement, it is first necessary to consider the developmental pathway of climate change as a multilateral environmental issue.

The UNFCCC was the first MEA to recognise climate change when it was adopted in 1992. The 197 states involved, which form the COP, agreed to stabilise global concentrations of GHGs and set out to establish a framework of principles in which future agreements would be agreed.¹⁸ Such principles include common but differentiated responsibilities¹⁹ and the no-harm,²⁰ precautionary,²¹ and polluter pays²² principles. The Kyoto Protocol, agreed to in 1997, was the first agreement concluded under the UNFCCC.²³ Although it did not enter into force until 2005, the Kyoto Protocol did create the first binding greenhouse gas reduction targets.

Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 33.

¹⁷ Jill Jäger and Tim O'Riordan "The history of climate change science and politics" in Jill Jäger and Tim O'Riordan (eds) *Politics of climate change: A European perspective* (Routledge, London, 1996).

¹⁸ UNFCCC, above n 15, preamble.

¹⁹ Art 4(1).

²⁰ Preamble.

²¹ Art 3.3.

²² Art 3.1.

²³ Kyoto Protocol to the United Nations Framework Convention on Climate Change 1771 UNTS 107 (opened for signature 11 December 1997, entered into force 16 February 2005).

However, following the “common but differentiated responsibilities” principle, these fixed targets applied only to developed countries.²⁴

While successful in starting emissions reductions trajectories for industrialised countries, to stay below the 2°C threshold, it was clear that a more encompassing approach was needed. Hence the goal for the next agreement under the UNFCCC was to have one that included both developed and developing states alike, whilst retaining flexibility for different development pathways. From this genesis, the Paris Agreement was born.

B Substance of the Paris Agreement

The COP came together in Paris in the December of 2015 with the goal of ensuring a common future by taking action on climate change. By pursuing a range of mitigation, adaptation and technology and financial transfer policies, the COP pledged to alter their development trajectories so that they would set the world on a course towards sustainable development. The first being the mitigation goal to limit warming to between 1.5°C and 2°C above pre-industrial levels. The second being the adaptation goal which aims to increase the ability to adapt to the adverse impacts of climate change, foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production. The third goal relates to technology climate finance with an aim to ensure that financial flows remain consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. Instead of opting for a broad principle of “common but differentiated responsibilities” between developed and developing countries as its precursors did, the Paris Agreement aims for all parties to have the same standards of accountability to the obligations of the Agreement as their capacities strengthen over time.²⁵ However, the Agreement still recognises the inherently uneven starting points of countries in meeting these commitments, and so seeks to retain the flexibility to accommodate varying national capacities.²⁶ Thus due to both the breadth of climate response covered in its tripartite approach and shift to responsibilities for all states, it is considered the most comprehensive and progressive climate change agreement to date. As a treaty, the Paris Agreement sits along customary law as a primary source of international law.²⁷ As such, its commitments are binding amongst states that ratify it. What this means substantively and procedurally for the COP will be explored in turn:

²⁴ Kyoto Protocol, above n 23, Art 10.

²⁵ Patricia W. Birnie and Alan E. Boyle *International Law and the Environment*. (3rd ed, Oxford University Press, Oxford, 1999), at 132.

²⁶ Paris Agreement, above n 9, preamble.

²⁷ Statute of the International Court of Justice 33 UNTS 993 (opened for signature 26 June 1945, entered into force 24 October 1945).

1 Substantive Commitments

The Paris Agreement is the first MEA to detail the need to both adapt and mitigate to climate change at the same time. As such, its substantive provisions cover greenhouse gas mitigation, adaptation to the effects of climate change and technology and financial flows to them.

(a) Mitigation

The climate change mitigation goal in the Paris Agreement is to:²⁸

Halt the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change

In order to stabilise the temperature increase to 2°C by the end of the 21st century, atmospheric carbon dioxide levels need to remain below 450 ppm. As of July 2018, the world is currently at 408 ppm.²⁹ To meet the mitigation goal of the Paris Agreement Intended Nationally Determined Contributions (INDCs) are used, which represent a country's self-defined mitigation goal for the period beginning 2020. Such INDCs become ratcheted up over time so as to stay below the Paris Agreement's 2°C cap on warming. To make clear what the INDCs substantively mean for states, the IPCC released a Synthesis Report on the aggregate effect of them.³⁰ This report highlights the variety of mitigation targets employed by parties in their INDCs from reduction relative to business as usual emission levels, to an absolute emission target, policies and actions, or peak target option. In the Agreement parties agree to pursue domestic mitigation measures in order to achieve their NDCs.³¹ As part of the ratcheting up necessary to meet the 2°C goal, the Paris text provides that successive NDCs will represent a progression compared to a state's previous NDC as well as reflect its highest possible ambition.³² NDCs pursued by domestic means thus form the core mitigation provisions of the Paris Agreement.

²⁸ Paris Agreement, above n 9, Art 2(a).

²⁹ CO2 Earth "Atmospheric CO2" (2018) CO2 Earth <<https://www.co2.earth/>>.

³⁰ *Synthesis report on the aggregate effect of the intended nationally determined contributions* FCCC/CP/2015/73 (2015).

³¹ Paris Agreement, above n 9, Art 4(2).

³² Art 4(3).

(b) Adaptation

Adaptation forms another cornerstone of the Paris Agreement.³³ The adaptation goal of the Paris Agreement is to increase:³⁴

...the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production.

Yet what this means in terms of a legal commitment under the Paris Agreement remains uncertain. This could be because, as the International Bar Association's (IBA) Task Force on Climate Change Justice and Human Rights highlights, the development of adaptation law has lagged behind that of mitigation.³⁵ Similarly, in the discussion accompanying the adoption of Article 8, which relates to loss and damage in relation to adaptation, states noted that this provision is not intended to import any binding obligations.³⁶ This indicates an overall reluctance of developed countries at COP to be held to any enforceable adaptation commitments under the Paris Agreement as of yet.

(c) Financial and Technology Flows

The third cornerstone of the Paris Agreement is to make financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. This obligation is summarised in Article 9 of the Paris Agreement where it states that:³⁷

Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.

To facilitate this, the Green Climate Fund (GCF) was established. As part of this advanced economies have formally agreed to jointly mobilise USD 100 billion per year by 2020.³⁸ However, as of May 2018, only USD 10.21 billion has been pledged by states.³⁹ Therefore, it

³³ Paris Agreement, above n 9, Art 7.

³⁴ Art 2(a).

³⁵ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 84.

³⁶ *Adoption of the Paris Agreement* FCCC/CP/2015/L.9 (2015), at 8.

³⁷ Paris Agreement, above n 9, Art 9.

³⁸ Gerd Drosse "Green Climate Fund and Its Role in Promoting and Funding Sustainable Investment" in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 52.

³⁹ Green Climate Fund "Status of Pledges and Contributions made to the Green Climate Fund" (2018) Green Climate Fund <www.greenclimate.fund>.

is clear that the pledging of sufficient funds from developed states for the GCF is and will continue to be a core substantive provision of the Paris Agreement.

2 *Procedural Commitments*

There are few procedurally mandatory requirements in the Paris Agreement, however, the ones that remain are of key importance. Firstly, parties to the Paris Agreement are required to prepare, communicate and maintain successive nationally determined contributions (NDCs) every five years. Secondly, all countries are required to submit emissions inventories and the “information necessary” to track progress made in implementing and achieving them beginning in 2020.⁴⁰ This information is then used in 2023, and every five years subsequently at a Global Stocktake (GST), where progress against a state’s NDC is measured. The results of this GST are then used to inform the preparation of the next NDC. Thirdly, an explicitly facilitative approach to promoting compliance with the Agreement is established.⁴¹ This compliance mechanism is distinguished from an enforcement one which is provided for by operation of Article 24 and is the subject of this research.⁴²

C *Potential disputes arising from the Agreement*

An enforcement system has to cater to the types of disputes it is likely to encounter. Therefore, it is essential to categorise the nature of climate change disputes as well as the potential substance and source of such claims under the Paris Agreement.

1 *Nature of Climate Change Disputes*

It is first necessary to explore the nature of climate change disputes more broadly. Climate change disputes are increasingly recognised as a legal challenge because both the cause and effect of them tend not to conform to classical international law boundaries.⁴³ It is anticipated that due to the expected increase in both the effects of climate change as well as the regulation involved with mitigating and adapting to them, climate disputes will increase in both volume and complexity.⁴⁴ Disputes likely under the Paris Agreement can be broadly distinguished to be either environmental or commercial. Environmental disputes are based on effects on the

⁴⁰ Paris Agreement, above n 9, Art 4(8).

⁴¹ Art 15.

⁴² Thomas McIrney “The Role of Arbitration involving Non-State Actors in making the UNFCCC work” in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 77.

⁴³ de Paor “Climate Change and Arbitration: Annex Time before there won’t be A Next Time”, above n 4, at 180.

⁴⁴ United Nations Convention on Trade and Development “2015 World Investment Report” (2015) UNCTAD <www.unctad.org>, at 30.

physical environment. Examples include the sea level⁴⁵ and forests.⁴⁶ Commercial disputes, on the other hand, typically centre on contractual disputes. An example of these relate to the Clean Development Mechanism (CDM) and Joint Implementation projects (JI) of the Kyoto Protocol.⁴⁷ Thus climate change disputes can be typified by the cross-boundary effects of them as well as whether they are environmentally or commercially based.

2 *Ability for the Paris Agreement to be used as both a Sword and Shield*

Disputes under the Paris Agreement are equally likely to relate to measures to combat climate change, as they are to a lack thereof—a fact which reinforces the likelihood that such disputes will proliferate in future.⁴⁸ Given this, the Agreement itself has the potential to be used as both a sword and shield in disputes.

The potential use of the Paris Agreement as a weapon to thwart inaction on climate change can be seen in multiple ways. Firstly, disputes may arise against states from a failure to report on their NDC.⁴⁹ Secondly, disputes may also arise if a state does not progressively ratchet up its commitment to phase down emissions.⁵⁰ The failure of a state to adequately adapt as per the Paris Agreement may also lead to a claim.⁵¹ In the investor-state context, investors could use the Paris Agreement as a weapon in instances where they face regressive climate change measures.⁵² However, companies themselves could also be a target of using Paris Agreement as a weapon if reverse umbrella clauses are employed which place an obligation on investors to comply with domestic environmental legislation.⁵³ Therefore it is clear the Paris Agreement has the potential to be employed as a ‘sword’ in numerous ways to support progressive action on climate change.

If implemented in a binding fashion the Paris Agreement could also be used as a shield which protects progressive action on climate change. Firstly, climate change friendly state regulation

⁴⁵ *Bay of Bengal Maritime Boundary Arbitration between Bangladesh and India (Bangladesh v India) (Final Award)* (2014) PCA 7 July 2014.

⁴⁶ *Santa Elena v Costa Rica (Award)* ICSID ARB/96/1, 16 February 2000.

⁴⁷ Akhlaq Choudhury and Khaled Moyeed “Spotlight on International Arbitration as a Means of Settling Disputes Arising from Climate Change” (2016) Kluwer Arbitration Blog<www.arbitrationblog.kluwerarbitration.com>.

⁴⁸ de Paor "Climate Change and Arbitration: Annex Time before there won't be A Next Time", above n 4, at 181.

⁴⁹ Paris Agreement, above n 9, Art 3.

⁵⁰ *Urgenda Foundation v. The State of the Netherlands* [2015] C/09/456689/HA ZA 13-1396 (Hague District Court).

⁵¹ *Asghar Leghari v. Federation of Pakistan* [2015] W.P. No. 25501/2015 (Lahore High Court Green Bench).

⁵² See *Charanne BV and Construction Investments SARL v Spain (Final award)* (2016) SCC V062/2012, 21 January 2016.

⁵³ de Paor "Climate Change and Arbitration: Annex Time before there won't be A Next Time", above n 4, at 189.

could be defended against other states and commercial parties.⁵⁴ A good example of the importance of this is found in *Vattenfall AB and others v. Federal Republic of Germany* where an investor sued the German Government for its planning laws which restricted a proposed nuclear power facility.⁵⁵ The private sector itself could also seek to gain security and certainty in their investment risk by incorporating the Paris Agreement, as a way of protecting shareholders against unforeseen climate risk.⁵⁶ Because the Paris Agreement informs the legitimate expectations of relevant stakeholders in both instances, it can be used as a shield to protect and defend climate friendly regulation and investments.

3 Potential Sources of Disputes under the Paris Agreement

As a treaty, the primary source of disputes under the Paris Agreement will likely be of an interstate nature. However, there are potential secondary sources of disputes such as those from the IGO (Intergovernmental Organisations), NGO (Nongovernmental Organisation), international investment and contractual contexts. Interstate disputes may arise under the Paris Agreement both prospectively and retrospectively; the distinguishing factor between the two being the nature of the obligation and when its alleged breach becomes apparent.

Prospective claims likely to be brought under the Paris Agreement relate to its NDCs. Firstly, a claim could be brought if one of the 174 parties that have since ratified the Paris Agreement fail to set one, either now or at the future prescribed intervals.⁵⁷ Similarly, given the overwhelmingly progressive nature of the pact, another prospective claim could be that an INDC offered by the country is not progressive and thus fails the commitment in Article 3.⁵⁸ More interestingly, would be a potential claim of prospective breach of an INDC. This could be brought in the same manner as a legitimate expectation claim in that it could be a state policy reversal such as in *Eiser*⁵⁹ or a failure to act such as in *Allard*.⁶⁰ A claim could be varied depending on the type of INDC that is in place for a given state and how easy it is to prove forward causation between the policy action or inaction and the level shortfall of meeting a given state's INDC. Thus although prospective claims under the Paris Agreement could be

⁵⁴ de Paor "Climate Change and Arbitration: Annex Time before there won't be A Next Time", above n 4, at 184.

⁵⁵ *Vattenfall AB and others v. Federal Republic of Germany (Judgement)* ICSID ARB/12/12, 6 December 2016.

⁵⁶ Wendy Miles, QC "Climate Change and Arbitration" (International Arbitration Roundtable, Wellington, 23 April 2018).

⁵⁷ UNFCCC "Paris Agreement- Status of Ratification", above n 2.

⁵⁸ Paris Agreement, above n 9, Art 3; Kate Cook "The Progressive Approach and the Paris Agreement" in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 87.

⁵⁹ *Eiser Infrastructure Limited and Energia Solar Luxembourg SARL v Spain (Award)* (2017) ICSID ARB/13/36, 4 May 2017.

⁶⁰ *Peter A. Allard v. The Government of Barbados*, PCA 27 June 2016.

entirely possible, they may only be successfully evidenced in the most egregious breaches of the spirit of Agreement.

Retrospective claims are more likely to span all three elements of the Paris package: mitigation, adaptation and flow of finance and technology. The first instance of a claim would be that a state party has failed to live up to their NDC. The ease of establishing a breach of this obligation would depend on which target states chose to set themselves as a range are available including ones that are easier to evidence such as a reduction relative to business as usual levels, an absolute emission level and ones that are harder to monitor which involve broader policies and actions.⁶¹ Other sources of claims could include a failure to ensure adequate technology or financial flows—particularly as between developed and less developed states. Additionally, there could be claims for a breach of the mechanisms that operate under the Paris Agreement such as the REDD+ Mechanism or the GCF. Because it is easier to establish a breach retrospectively than prospectively, parties could more readily bring such claims under the Paris Agreement. However, the evidence for such retrospective claims would not be emergent until the first GST which occurs in 2023. As such, although easier to evidence retrospective claims will be likely less effectual in meeting the goals of the Paris Agreement than prospective ones.

Recent developments in Australia provide a good example of what prospective and retrospective claims could emerge under the Paris Agreement. Australia's INDC contains an economy-wide target to reduce greenhouse gas emissions by 26 to 28 per cent below 2005 levels by 2030.⁶² In this INDC, Australia states that its contribution to the Paris Agreement is an unconditional target and moreover that it “represents a fair and ambitious contribution to deliver the Convention's objective”.⁶³ The Clean Energy Plan was an essential element of Australia being able to reach its INDC. Thus in August 2018 when the Australian Government announced the disestablishment of the Clean Energy Plan in favour of cheaper energy prices an immediate question was raised about Australia's ongoing ability to achieve its current INDC given this policy trade-off.⁶⁴

Assuming that an enforcement mechanism will be developed under the Paris Agreement, a dispute of this nature could thus be a source of either a prospective or retrospective claim by the COP. A potential prospective claim could be that Australia's policy decision to disestablish the Clean Energy Plan, without the development of other measures to mitigate their emissions, represent a material breach of an *erga omnes* duty to reduce emissions owed under the Paris

⁶¹ *Synthesis report on the aggregate effect of the intended nationally determined contributions*, above n 30.

⁶² UNFCCC “Australia's Intended Nationally Determined Contribution to a new Climate Change Agreement” (2015) UNFCCC <www.unfccc.int>, at 1.

⁶³ At 1.

⁶⁴ Harry Cockburn “Australia pulls out of climate change targets agreed at Paris Conference” (2018) *The Independent* <www.independent.co.uk>.

Agreement to the COP. Such a claim would, however, face legal difficulties in enforcement such as being able to pre-emptively prove the causal link between Australia's policy wind back and their likely failure to meet their INDC. If a prospective claim failed due to this, parties would have to wait until 2030 in order to establish retrospectively that Australia had indeed failed to meet its NDC. The distinction between these two types of claims is essential in determining what remedies may be appropriate; a prospective claim could require policy redevelopment whereas a retrospective one would likely attempt to make redress by way of adaptation compensation. As 2020 approaches, Australia thus offers a clear example of the types of situations that may emerge in states, and how they might crystallise into disputes under the Paris Agreement.

As part of the Paris Agreement, considerable contributions were offered by companies, states, cities and civil society organisations.⁶⁵ Hence it is important to also assess the collateral applications of the Paris Agreement in order to determine what method of enforcement is preferable. Civil society plays an important role in global environmental governance and the issue of climate change is no exception.⁶⁶ During the negotiations of the Paris Agreement a range of non-state actors had a considerable impact including; IGOs, NGOs, and companies. Many believe the essential role played in the negotiations of the Paris Agreement text itself should translate to a role in ensuring ongoing accountability of states with the Agreement.⁶⁷ Yet non-state actors also bear the brunt of implementing the necessary global changes. Consequently, they may have as much, if not more, influence on the achievement than states of the Paris Agreement's regulatory aims.

IGOs such as the Secretariat of the UNFCCC will play a key role in the advancement of the Paris Agreement through being a facility in which states will continue to negotiate the implementation of it. Similarly, bodies tasked with undertaking mitigation and adaptation activities, such as the United Nations Environment Programme could also request with approval from the General Assembly or Security Council an advisory opinion from the ICJ. In comparison to IGOs, mandated roles for NGOs within the Paris Framework are lacking. However, opportunities still likely exist around the modalities and procedures for implementing the Agreement, which is still being developed. However, they are likely to retain a key ally for states in the practical implementation of the Agreement.⁶⁸ Therefore, IGOs and

⁶⁵ COP21 "Paris Pledge for Action" (2015) Paris Pledge for Action <www.parispledgeforaction.org>.

⁶⁶ Barbara Gemmill and Abimbola Bamidele-Izu "The role of NGOs and civil society in global environmental governance" in Daniel Etsy and Maria Ivanova (eds) *Global Environmental Governance: Options and Opportunities* (Yale Center for Environmental Law and Policy, New Haven, 2002) at 79.

⁶⁷ Ivo Lammertink and S. Karlsson-Vinkhuyzen "Role of NGOs in Ex-post Accountability: The Paris Agreement" (Masters of Science Thesis, Wageningen University, 2017).

⁶⁸ Vesselin Popovski (ed) *The Implementation of the Paris Agreement on Climate Change* (Routledge, London, 2018).

NGOs alike could assist with implementation by holding Governments publicly accountable to their Paris commitments as well as providing expertise and assistance with party efforts to mitigate and adapt to climate change.

The Paris Agreement also has applicability to investor-state disputes in both the investments needed to meet the Agreement, as well as informing legitimate expectations of both parties. Firstly, as the legal personality of the GCF remains unclear it is likely to be considered a South Korean investor under international law when it facilitates financial transfers under the Agreement.⁶⁹ Secondly, the Paris Agreement informs the legitimate expectations of both parties. Investor-state disputes arise *inter alia* where there is an alleged breach of the legitimate expectation of the investor or the fair and equitable treatment standard. In resolving an investor-state dispute, a balance must be struck between an investor's legitimate expectations and a state's right to regulate, which include environmental imperatives such as measures related to climate change.⁷⁰

In the context of this balancing of rights between an investor and a state, the Paris Agreement, as previously highlighted, could form either a legal offence or defence. Firstly, the Paris Agreement could be utilised as part of a state's legal defence if a claim similar to the one in *Vattenfall* was brought.⁷¹ The Paris Agreement could also be used by investors to enforce their legitimate expectations, particularly in support of green technology. This can be demonstrated by the many investor claims of both expropriation and breach of fair and equitable treatment when the Spanish Government unexpectedly reversed the renewable energy policy of Spain in 2013. Whilst the investors in *Charanne*⁷² and *Isolux*⁷³ were unsuccessful on both counts, it was found that the regulatory changes of the Spanish government did have a "fundamental" impact, stripping investments of virtually entire value in *Eiser*.⁷⁴ This can also be seen in the Australian context mentioned with the rollback of the Clean Energy Plan and its associated subsidies for renewable energy. An investor could also potentially sue due to the non-performance of a state's mitigation or adaptation obligations under the Agreement. *Allard* evidences this, where it was alleged that a failure to implement pollution standards resulted in a ruined investment.⁷⁵ States could also seek to adopt reverse umbrella clauses in investment contracts meaning that

⁶⁹ Cecilia Olivet "Rethinking International Investment Governance: Principles for the 21st Century" (13th Annual Columbia International Investment Conference, New York, 28 September 2018).

⁷⁰ Anna Joubin-Bret "Balancing the State's Duty to Regulate with its Obligations towards Foreign Investors" in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 64.

⁷¹ *Vattenfall*, above n 55.

⁷² *Charanne*, above n 52.

⁷³ *Isolux Corsán Concesiones SA v Peru (Award)* (2014) ICSID ARB/12/5, 25 March 2014.

⁷⁴ *Eiser*, above n 59.

⁷⁵ *Allard*, above n 60.

States could also more easily hold corporations liable to their environmental breaches.⁷⁶ Associated with this, could be an increase in the instance of state counterclaims for environmental harm as per *Perenco v Ecuador*.⁷⁷ The ability of a state to enforce and advance the Paris Agreement in these ways could also improve the public's perception of investor-state arbitration.⁷⁸

At the very least there remains scope for tribunals to advance the Paris Agreement's objectives by ensuring both parties behave consistently with the international policy contained within it.⁷⁹ An example of this being the *Philip Morris v Uruguay* arbitration where the tribunal referred to the World Health Organisation Framework Convention on Tobacco Control.⁸⁰ As a high source of both investment and pollution, the energy sector is likely to be one of the main contexts in which investor-state disputes will arise under the Paris Agreement. Consequently, claims that relate to the objectives of the Paris Agreement may also arise in conjunction with investment treaties such as NAFTA and the Energy Charter.⁸¹ Therefore, it is clear there is much potential for investor-state disputes relevant to the Paris Agreement to be taken.

Disputes based on the provision of technology and infrastructure could also be another source of complementary dispute resolution under the Paris Agreement.⁸² Akin to the contractual disputes taken to the Permanent Court of Arbitration (PCA) under the Kyoto Protocol, there is also likely to be disputes from the different mechanisms used to support mitigation and adaptation; an example being the REDD+ mechanism for carbon sequestration via forestry. Another source of disputes relates more closely to the financial provisions of the Paris Agreement. This may include financial fraud investigations such as the one ongoing in relation to whether Exxon Mobil lied to its investors about the risks of climate change and their investments.⁸³ Similarly, companies are also increasingly being directly targeted for climate

⁷⁶ Cook "The Progressive Approach and the Paris Agreement", above n 58, at 60.

⁷⁷ *Perenco Ecuador Ltd. v. The Republic of Ecuador and Empresa Estatal Petróleos del Ecuador (Petroecuador) (Counterclaim on Merits)* ICSID ARB/08/6, 11 August 2015.

⁷⁸ Laurence Boisson de Chazournes "Experiences from International Courts and Tribunals" in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 71.

⁷⁹ Miles, above n 12, at 10.

⁸⁰ *Philip Morris Brands Sàrl, Philip Morris Products S.A. and Abal Hermanos S.A. v. Oriental Republic of Uruguay (Award)* ICSID ARB/10/7, 8 July 2016.

⁸¹ Judith Levine "Adopting and Adapting Arbitration for Climate Change- Related Disputes" in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017), at 26.

⁸² Antonio La Vina "Specific Concerns for Less Developed Nation States and Small Island Nations" in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 40.

⁸³ Levine "Adopting and Adapting Arbitration for Climate Change- Related Disputes", above n 81, at 26.

disputes.⁸⁴ ⁸⁵ As a means of ensuring certainty in this context, companies may also seek to incorporate clauses that requires performance in accordance with the principles of the Paris Agreement—dubbed a Queenstown clause by Miles.⁸⁶ All of these areas add to the likelihood that state commitments to the Paris Agreement will be met with matched developments on the part of the private sector.

While the Paris Agreement has mitigation, adaptation and financial transfer obligations for states yet there are also numerous opportunities and implications non-state actors alike.

III Enforcement of State Obligations in International Environmental Law

There remains legal challenges involved with the substantive enforcement of international obligations which need to be overcome in order for disputes related to the Paris Agreement to be resolved effectively.

A Legal Issues with Enforcement

In order for effective enforcement to occur for environmental harm, there needs to be an obligation for which there is state responsibility, a proven breach and an ability to get reparation.⁸⁷

1 Establishing State Responsibility

The starting point in resolving an international environmental dispute is establishing that a state or group of states is responsible for a given environmental harm. Broadly, states have an obligation of due diligence to ensure that their territory is not used so as to cause significant damage to the environment of other states or beyond national jurisdiction.⁸⁸ The most recent iteration of this in the context of climate change is found in *Urgenda*, where the Court found that the Netherland’s Government has a duty of care to mitigate as quickly and as much as possible.⁸⁹

⁸⁴ La Vina “Specific Concerns for Less Developed Nation States and Small Island Nations”, above n 82, at 40.

⁸⁵ Martella “Update on the IBA Task Force on Climate Change and Human Rights”, above n 16, at 35.

⁸⁶ Miles “Climate Change and Arbitration”, above n 53.

⁸⁷ Dupuy and Viñuales *International Environmental Law*, above n 7, at 254.

⁸⁸ At 254.

⁸⁹ *Urgenda*, above n 50, at [4.73].

Invocation of a state's responsibility for such an environmental law obligation is a more complex task because it involves establishing that there was an injured state or injury of a more general nature. The traditional conception of this comes from the *Corfu Channel* decision where the ICJ stated that it is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States".⁹⁰ In an environmental context this is described as a "responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction".⁹¹ It is well recognised that the stratosphere, where the primary effects of climate change occur, is an area "beyond the limits of national jurisdiction"; however, establishing who the duty is owed to in that case becomes less clear-cut when it is not directly injuring another state.⁹²

The International Law Commission's (ILC) Articles on State Responsibility (State Responsibility Articles) help elucidate the different sources of state responsibility.⁹³ There are two key provisions which relate to the ability of a state to invoke responsibility—Article 42 which relates to claims brought by the injured state themselves⁹⁴ and Article 48 which relates to claims brought on behalf of an injured state.⁹⁵ A claim under Article 42 is stronger than the more general Article 48 category because it allows a state to resort to all means of redress contemplated, including counter-measures.⁹⁶ Because the effects of climate change are not directly transboundary, it is unlikely a tribunal would find a case in which it could establish direct responsibility as per Article 42(a). The option does exist under Articles 46 and 47 to attribute the damage from a plurality of either responsible states or affected states but the causal link still has to be individually proved in each claim. Turning to Article 42(b), a state needs to prove that a breach was such that it either especially affects that state or is of such a character as to "radically change" the position of all other states. Because of the need for direct attribution, the former would be harder to evidence than the latter in the case of climate change. In the context of the Paris Agreement, it is also hard to determine what might "radically change" the position of the COP.⁹⁷ However, given the undoubtedly progressive nature of the commitment under the Agreement, regression may be enough to radically alter the position of all other states, given that it would mean the 2° target would be even less likely able to be

⁹⁰ *Corfu Channel (United Kingdom v Albania) (Merits)* [1949] ICJ Rep 4, at 22.

⁹¹ *Declaration of the United Nations Conference on the Human Environment* A/CONF.48/14/REV.1 (1972), Art 21.

⁹² La Vina "Specific Concerns for Less Developed Nation States and Small Island Nations", above n 80, at 39.

⁹³ *Draft Articles on Responsibility of States for Internationally Wrongful Acts* [2001] vol 2, pt 2 YILC 26.

⁹⁴ Art 42.

⁹⁵ Art 48.

⁹⁶ Art 42(3).

⁹⁷ Art 42.

reached. That being said, it is possible that weak action on climate change may not reach the high threshold envisaged by the international community.⁹⁸

If a state cannot prove it was an injured state either by itself⁹⁹ or as part of a group,¹⁰⁰ it may still pursue a claim under Article 48. Entitlement to bring a claim under Article 48 centres on an obligation being owed to the international community as a whole, however entitlement for claim is only in exceptional circumstances.¹⁰¹ The notion of climate change as a common concern can be traced back to the Rio Summit in 1992.¹⁰² Before this too, the Ozone Layer is given as an example of such an *erga omnes* right in the Montreal Protocol.¹⁰³ As such, like the ozone layer, the climate system, should be treated as a global unit.¹⁰⁴ The Draft Legal Principles on Climate Change (Climate Change Legal Principles) frame climate change as a “common concern of humankind” as such one state’s non-compliance in questions of climate change inevitably affects everybody.¹⁰⁵ Breaches of Article 48 generally occur as a breach of customary international law or a treaty.¹⁰⁶ In relation to the Paris Agreement, *erga omnes* obligations are enshrined in Article 7(2)(e) and Article 10 of the UNFCCC.¹⁰⁷ Similarly, the precautionary approach is also taken in matters of global concern¹⁰⁸ and is found in the preamble of the UNFCCC.¹⁰⁹ All of these factors suggest climate change issues would be an appropriate candidate for a claim under Article 48 of the State Responsibility Articles.

2 Proving a Breach of an Obligation

In order for a claim of state responsibility, there has to be harm caused as a result of a breach of a duty. According to Dupuy establishing a breach of a primary obligation is made out if four conditions are met:¹¹⁰

⁹⁸ *Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226 at [253] and [457].

⁹⁹ *Draft Articles on Responsibility of States for Internationally Wrongful Acts*, above n 93, Art 42.

¹⁰⁰ Art 46.

¹⁰¹ Birnie and Boyle *International Law and the Environment*, above n 25, at 253.

¹⁰² *Rio Declaration on Environment and Development* A/CONF.151/26 (1994), Principle 11.

¹⁰³ Birnie and Boyle *International Law and the Environment*, above n 25, at 132.

¹⁰⁴ *Protection of the global climate for present and future generations of mankind* A/RES/43/53 (1988).

¹⁰⁵ International Law Commission *Report of the International Law Association's Committee on Legal Principles Relating to Climate Change* (International Law Commission, Washington, 2014), Art 2.

¹⁰⁶ Hanquin Xue *Transboundary Damage in Environmental Law* (Cambridge University Press, Cambridge, 2003).

¹⁰⁷ Birnie and Boyle *International Law and the Environment*, above n 25, at 247.

¹⁰⁸ At 130.

¹⁰⁹ At 157.

¹¹⁰ Dupuy and Viñuales *International Environmental Law*, above n 7, at 255.

(a) Occurrence of Harm

There must first be an occurrence of harm for a claim under international environmental law. Whilst the Climate Change Legal Principles do not seek to define harm or damage, they do expose elements of what this harm may be including that states do not need to wait for conclusive proof of the harm before acting.¹¹¹

(b) Magnitude and Spatial Scope of Damage

The characteristics of the environmental harm must be known, including the extent, size and spatial reach. Knowing these characteristics in the context climate change is harder than other forms of environmental harm such as pollution. For this reason, the ILC propose that scientific conclusiveness should not always be needed before acting.¹¹² Similarly, they recognise a breach can consist of a composite act or omissions as per Article 15 of the State Responsibility Articles.

(c) Duty of Due Diligence

There is evidence to suggest that a state is not strictly liable for a breach unless a lack of due diligence can be proved.¹¹³ Article 3 of the Prevention Articles states “the State of origin shall take all appropriate measures to prevent significant transboundary harm or at any event to minimise the risk thereof”.¹¹⁴ According to Dupuy, there are 5 elements that define this duty:¹¹⁵

- 1) Duty of due diligence is an obligation of conduct.
- 2) Due diligence standards are defined by the residual discretion left to States.
- 3) Due diligence may vary according to various criteria, especially as regards the Time, the type of activity, capacity of state in question.
- 4) Due diligence concerns both the adoption of measures as well as reasonable Efforts to implement them.
- 5) Exercise of such diligence involves not only the minimisation of transboundary impacts or risks but also ones that may exist beyond state jurisdiction.

The legal contours of this duty of due diligence are evidently situational. In the context of the Paris Agreement it is likely that this duty will stem from the Nationally Determined

¹¹¹ Climate Change Legal Principles, above n 105, Art 7A.

¹¹² Art 7A.

¹¹³ Dupuy and Viñuales *International Environmental Law*, above n 7, at 255.

¹¹⁴ *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities* [2001] vol 2, pt 2 YILC 146.

¹¹⁵ *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion)* ITLOS 1 February 2011.

Contributions (NDCs) and taking reasonable steps to meet the targets rather than move away from them.¹¹⁶

(d) Causal link between Damage and Duty of Diligence Breached

Subjects to international law are only responsible for international law violations that can be attributed to them.¹¹⁷ Attribution in climate change cases is noticeably more difficult than simple transboundary pollution cases. However, there has been considerable advancements in attribution, including for specific climatic events.¹¹⁸ In the case that this attribution proves difficult, a tribunal may also be persuaded by the Rio Declaration which states “a lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”.¹¹⁹ If a tribunal was to take this expansive approach in the establishment of a causal link, it would likely be met with hesitancy by states because it would have potential to open up a floodgate of claims. One way to limit these concerns comes from the State Responsibility Articles which maintain the need to individually establish causality in cases where there is a plurality of states involved.¹²⁰ Despite traditional difficulty in establishing a causal link there is reason to suggest that advancements in climate attribution and how we approach scientific certainty mean that this will not be a barrier as much as it once for claims under the Paris Agreement.

3 *Ability to Provide Reparation*

If there is a failure to negotiate an agreeable outcome between the parties, the ability for reparation to be awarded becomes dependent on a judicial or arbitral tribunal having jurisdiction and being able to provide an adequate remedy. The State Responsibility Articles provide that “the responsible state is under an obligation to make full reparation for the injury caused by the internationally wrongful act”.¹²¹ As a result, a breach of an international obligation gives rise to an independent and automatic duty to cease the wrong and make reparation. A duty that remains subject to a state being able to establish a defence such as necessity.¹²²

¹¹⁶ See *Part II.C.3: Potential Sources of Disputes under the Paris Agreement* at 14.

¹¹⁷ *Factory at Chorzów (Germany v Poland) (Merits)* (1928) PCIJ (series A) No 13, at [29].

¹¹⁸ Sophie Marjanac and Lindene Patton "Extreme weather event attribution science and climate change litigation: an essential step in the causal chain?" (2018) 36(3) *JENRL* 1 at 3.

¹¹⁹ Rio Declaration, above n 102, Principle 15.

¹²⁰ State Responsibility Articles, above n 98, Arts 36 and 37.

¹²¹ Art 31.

¹²² State Responsibility Articles, above n 98, at Art 25.

The first step in getting reparation for a breach of an inter-state environmental obligation is a tribunal gaining jurisdiction over the dispute. Several barriers to this can present themselves, stemming from the need for parties to follow due procedure before resorting to dispute resolution fora.¹²³ Failing to comply with agreed prior procedural steps has resulted in the Tribunal not finding jurisdiction such as in *Bluefin Tuna*.¹²⁴ Similarly, in both the *MOX Plant*¹²⁵ and *Whaling in the Antarctic* cases there was also jurisdictional challenges on this issue.¹²⁶ On this basis it is clear that following correct prior procedural steps is a necessary precursor to a successful claim for enforcement. Under the Paris Agreement, this could mean recourse first to the facilitative non-compliance discussion in Article 15 before turning to legal measures by operation of Article 24.

As per *Chorzow Factory* any breach of an obligation results in a duty to make reparation.¹²⁷ However, the method and quantum of reparation differ depending on the nature of the breach and damage caused. When responsibility is invoked either by one or a group of injured states, a full range of reparation is available—including the option to take countermeasures.¹²⁸ In contrast, when it is an *erga omnes* claim there remain fewer available tools, but key ones such as the option of cessation do still remain.¹²⁹ General principles of damages law apply to this such as the need for a “clear and unbroken causal link”.¹³⁰ Many states also require *status quo ante* reparation.¹³¹ Thus it may be that states opt for the Model Statute of the International Court of the Environment option whereby any damages awarded are used to pay the costs of restoring the environmental damage directly.¹³² Although this proposal was ultimately rejected previously, the COP may find it more persuasive now given their attempts to clarify what appropriate climate change damages are.¹³³

Provisional measures can also be requested where a serious risk is demonstrated.¹³⁴ Provisional measures are binding and as shown by *Pulp Mills* can be useful in providing interim environmental analysis and protection.¹³⁵ However, this leaves considerable questions about

¹²³ Art 44.

¹²⁴ *Southern Bluefin Tuna (New Zealand v Japan) (Provisional Measures)* (1999) 38 ILM 1624.

¹²⁵ *MOX Plant Case (Ireland v United Kingdom) (Provisional Measures)* ITLOS 3 December 2001.

¹²⁶ *Whaling in the Antarctic (Australia v Japan: New Zealand Intervening) (Merits)* [2014] ICJ Rep 226.

¹²⁷ *Chorzów Factory*, above n 117, at [29].

¹²⁸ State Responsibility Articles, above n 98, at Art 34.

¹²⁹ Art 48.

¹³⁰ *Report of the Commission to the General Assembly on the work of its forty-fifth session* [1993] vol 2, pt 2 YILC 68.

¹³¹ Alexandre Charles Kiss and Dinah Shelton (ed) *International Environmental Law* (Transnational Publishers, New York, 1991), at 323.

¹³² International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 330.

¹³³ At 330; See below discussion on Warsaw International Mechanism for Loss and Damage.

¹³⁴ State Responsibility Articles, above n 91, at Art 36.

¹³⁵ *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay) (Provisional*

non-monetary damage, such as may occur to ecosystems due to climate change.¹³⁶ In regards to this question, the United Nations Claims Commission (UNCC) found there was no legal basis for excluding environmental damage that has no commercial value.¹³⁷ As such, reparation should *inter alia* cover reimbursement of costs, compensation for reasonable measures to assess and monitor damage to the environment and public health and to clean up and restore the environment.¹³⁸ The *Trail Smelter* and *Pulp Mills* cases also demonstrate that private parties can be bound under the duty to make reparation too.¹³⁹

The supervisory role that the Paris Agreement is to play in regards to damages is not yet clear.¹⁴⁰ To help address this question the COP established the Warsaw International Mechanism for Loss and Damage at COP19.¹⁴¹ However, its scope limited to impacts on developing countries and its Executive Committee has not yet reported back. In the interim, it is likely that a Tribunal would find the principles outlined in the ILC's Articles on Transboundary Harm useful.¹⁴² The Articles apply to "activities not prohibited by international law which involve a risk of causing significant transboundary harm through their physical consequences"¹⁴³ and articulate principles for time-sensitive environmental harm cases, such as agreement of reparation within a reasonable time frame.¹⁴⁴ The articles also stress an equitable balance of interests in the case of transboundary harm with factors including: degree of risk; importance of activity; risk of significant harm; costs of prevention and how prevention practice is comparable to both the claimant state and international practice.¹⁴⁵ This is consistent with the *Trail Smelter* award which demonstrates a balancing approach being taken between state and private party interests in an award.¹⁴⁶ Despite an award being issued, parties may still reach a separate settlement by separate negotiation.¹⁴⁷

Measures) [2006] ICJ Rep 113.

¹³⁶ Birnie and Boyle *International Law and the Environment*, above n 25, at 230.

¹³⁷ United Nations Claims Commission *Business Losses of Individuals Eligible for Consideration under the Expedited Procedures S/AC.26/1991/4* (1991).

¹³⁸ United Nations Claims Commission *Decision concerning the fourth instalment of "E3" claims taken by the Governing Council of the United Nations Compensation Commission at its 90th meeting, held on 30 September 1999 at Geneva S/AC.26/Dec.74* (1999).

¹³⁹ Birnie and Boyle *International Law and the Environment*, above n 25, at 214.

¹⁴⁰ Kiss and Shelton *International Environmental Law*, above at n 131, at 326.

¹⁴¹ UNFCCC "Warsaw International Mechanism for Loss and Damage" (2018) UNFCCC <www.unfccc.int>.

¹⁴² *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities* [2001] vol 2, pt 2 YILC 146.

¹⁴³ Art 1.

¹⁴⁴ Art 9(1).

¹⁴⁵ *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities*, above n 142, Art 10.

¹⁴⁶ *Trail Smelter Arbitration (United States v. Canada) (Award)* Ad Hoc Arbitral Tribunal 3 RIAA 1905 (1941).

¹⁴⁷ *Case concerning Land Reclamation by Singapore in and around the Straits of Johor (Malaysia v Singapore) (Award)* (2005) PCA 1 September 2005

Enforcing a state's responsibility for their obligation Paris Agreement thus raises a number of important legal issues, such as finding causation and what should be done as a result of finding a breach. Although there remains uncertainty in many of these areas when applied to climate change specifically, there appears no reason why the law cannot resolve them.

B Examples of enforcement in Multilateral Agreements

Most MEAs do not have any formal mechanisms for dispute settlement, meaning that ad hoc compliance procedures are generally employed.¹⁴⁸ However, effective outcomes can result from either. This section will examine how the dispute resolution procedure operates under four key agreements: the Montreal Protocol, UNFCCC, Kyoto Protocol and the Aarhus Convention.

1 Montreal Protocol

The Montreal Protocol entered into force in 1989 with a mandate to phase out gases harmful to the ozone layer. It is widely accepted as being the most successful MEA to date.¹⁴⁹ A fact which is largely attributed to its successful dispute resolution mechanism.¹⁵⁰ The procedures for dispute settlement under the Montreal Protocol are set out in Article 11.¹⁵¹ The Protocol has a functional compliance and dispute settlement mechanism whereby complaints may be brought before an Implementation Committee by the Secretariat. This Committee can then make recommendations to the COP, including ordering trade and technology sanctions to ensure party compliance. To date 70 decisions regarding non-compliance have been made.¹⁵² As such, the Montreal Protocol demonstrates the power of a formal yet responsive compliance procedure.¹⁵³

2 UNFCCC

The UNFCCC, entered into in force in 1994, with the mandate to provide the global architecture in order to facilitate the multilateral response to climate change. While legal action

¹⁴⁸ Philippe Sands *Principles of International Environmental Law* (Cambridge University Press, Cambridge, 2003), at 200.

¹⁴⁹ Todd Sandler "Environmental cooperation: Contrasting International Environmental Agreements" (2017) 69(2) *QJE* at 345.

¹⁵⁰ de Paor "Climate Change and Arbitration: Annex Time before there won't be A Next Time", above n 4, at 138.

¹⁵¹ Vienna Convention for the Protection of the Ozone Layer 1513 UNTS 323 (opened for signature 22 March 1985, entered into force 22 September 1988), at Art 11.

¹⁵² Bodansky, Jutta Brunnée, and Ellen Hey (ed) *The Oxford Handbook of International Environmental Law* (Oxford University Press, Oxford, 2008), at 115.

¹⁵³ Ulrich Beyerlin and Thilo Marauhn *International Environmental Law* (Bloomsbury Publishing, London, 2011), at 325.

on the text as it stands is not explicitly excluded, the generality of language used means that it is difficult to distil binding obligations from it.¹⁵⁴ The framework adopts a multilateral consultative process to resolve questions in dispute.¹⁵⁵ This leaves questions as to how obligations entered by states can be enforced.¹⁵⁶ One potential answer comes from Article 14 which details the dispute resolution options which include: negotiation, conciliation, submission of the dispute to the ICJ and arbitration “in accordance with procedures to be adopted by the Conference of the Parties as soon as practicable, in an annex on arbitration”.¹⁵⁷ However, this annex on arbitration has not been drafted. In absence of clear legal obligations or enforcement mechanisms, the strength of the Framework comes from the detail within the agreements reached under it, of which Kyoto was the first and Paris the second.

The Kyoto Protocol is a key example for the Paris Agreement as it also cites the UNFCCC dispute settlement clause.¹⁵⁸ The core goal of the Kyoto Protocol is mitigation of GHGs.¹⁵⁹ It seeks to achieve this through its flexible mechanisms including the aforementioned CDM and JI projects. The Kyoto Protocol differs from normal MEA compliance structure by separating compliance and enforcement into separate committees.¹⁶⁰ As such the Protocol includes a degree of coercive compliance and introduces arbitration, compulsory *ipso facto*.¹⁶¹ The compliance committee under the Kyoto Protocol, may be seized either by states or by an expert review team established under Article 8.¹⁶² If a breach is found this is then referred to the enforcement branch which can take measures, such as suspend carbon trading yet also hear appeals.¹⁶³ The dispute settlement system under the Kyoto Protocol has been largely successful with nine disputes related to both the CDM and JI being heard before the PCA since 2009.¹⁶⁴ Although it is recognised there is “room for improvement” in the enforcement mechanism of the Kyoto Protocol, it is recognised to have fulfilled its purpose well.¹⁶⁵ However, given that emissions reductions targets now apply to all parties to the Agreement and not just developing

¹⁵⁴ Keely Boom “The rising tide of international climate litigation: an illustrative hypothetical of Tuvalu v Australia” in R.S. Abate, E. Ann Kronk (eds) *Climate Change and Indigenous Peoples, The Search for Legal Remedies* (Edward Elgar, Cheltenham 2013) at 409, 427.

¹⁵⁵ UNFCCC, above n 15, Art 13.

¹⁵⁶ Philippe Sands QC, ‘Climate Change and the Rule of Law: Adjudicating the Future in International Law’ (public lecture at the UK Supreme Court, 17 September 2015) at 13.
¹⁵⁷ At 13.

¹⁵⁸ Kyoto Protocol, above n 21, Art 19.

¹⁵⁹ Levine “Adopting and Adapting Arbitration for Climate Change- Related Disputes”, above n 81, at 27.

¹⁶⁰ Bodansky, Brunnée, and Hey *The Oxford Handbook of International Environmental Law*, above n 152, at 113.

¹⁶¹ At 113.

¹⁶² At 138.

¹⁶³ At 114.

¹⁶⁴ Levine “Adopting and Adapting Arbitration for Climate Change- Related Disputes”, above n 162, at 26.

¹⁶⁵ Michael Finus “The enforcement mechanisms of the Kyoto protocol: flawed or promising concepts?” (2008) 1(1) *Letters in Spatial and Resource Sciences* 13 at 14.

ones, a bespoke enforcement process may have proved too difficult to agree on for the Paris Agreement.

3 Aarhus Convention

The Aarhus Convention focuses on access to information, public participation in decision-making and access to justice in environmental matters.¹⁶⁶ As such, it allows for a broad range of actors to enforce its provisions—with both individuals and groups being able to trigger proceedings.¹⁶⁷ A relevant example of this was a claims by NGOs against the Government of Denmark about the alleged ‘lockout’ of NGO participants at COP15. This dispute resulted in the Chair recommending that the UNFCCC make enhanced provisions for them in future, given all parties to the Aarhus Convention are also parties to the UNFCCC.¹⁶⁸ Although such proceedings are not binding and thus, not all Governments have responded to claims under the Convention. This is in contrast to inter-state arbitration proceedings which can also be initiated under it and are binding.¹⁶⁹ The Aarhus Convention therefore demonstrates the power wider standing rules can have, however the limitations that it can be ignored if not followed up by binding mechanisms.

It is clear that while there are numerous challenges with the establishing state responsibility for harms related to the Paris Agreement, there is both the legal and scientific opportunity present to do so. Similarly, as evidenced by examples of dispute resolution in other MEAs, there are ways to achieve effective enforcement of these obligations under the Paris Agreement.

IV Dispute Resolution under the Paris Agreement

The IBA states “the law as it stands was not created with the challenge of climate change in mind and is not always well suited to address it”.¹⁷⁰ In an attempt to solve this dilemma, it is necessary to consider what procedural and substantive elements are required for an enforcement mechanism and how this might occur.

¹⁶⁶ Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Signed 25 June 1998, entered into force 30 October 2001) [Aarhus Convention].

¹⁶⁷ Bodansky, Brunnée, and Hey *The Oxford Handbook of International Environmental Law*, above n 152, at 115-6.

¹⁶⁸ UNFCCC “Promoting The Principles Of The Aarhus Convention In The Lead Up To, During And After The United Nations Climate Change Conference 2009, Copenhagen-Excerpt from the Chair’s Summary of the Workshop on Experiences of promoting the application of the principles of the Aarhus Convention in international forums” (2010) UNFCCC <www.unfccc.int>.

¹⁶⁹ Aarhus Convention, above n 165, Art 16.

¹⁷⁰ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above at n 3, at 5.

A *Designing a Successful Enforcement Mechanism*

Based on examining the dispute resolution provisions in other MEAs, a successful enforcement mechanism for the Paris Agreement is likely to be one that caters for the unique nature of climate change disputes while meeting the needs of the COP for an effective and accessible dispute resolution facility.

1 *Procedural Elements*

It is clear that an accessible mechanism with the ability to provide binding result are procedural elements that would contribute to the Paris Agreement being able to be enforced successfully.

The Institut De Droit International (IDI) states that:¹⁷¹

Environmental regimes should make flexible arrangements to facilitate the standing of claimants, with particular reference to claims concerning the environment per se and damages to areas beyond the limits of national jurisdiction.

This sentiment is also echoed in the inclusionary standing rules developed under the Aarhus Convention.¹⁷² Both sources highlight the value of a system which allows relevant parties to have standing and input into dispute resolution processes. The importance of enhancing standing under the Paris Agreement is thus twofold: first, it increases the quality of dispute resolution as relevant information and actors can be at the table; second, it better reflects the collaborative spirit of the Paris Agreement with state and non-state pledges alike.

The ability to get a binding result is also key given the often adversarial nature of dispute resolution, particularly if previous attempts at negotiation or conciliation have failed. As demonstrated by the Aarhus Convention, if there is no compulsion to respond to claims, some states simply will not. Therefore, the ability to implement a binding decision becomes an indicator of intended and actual party compliance. As such, the success of the Montreal Protocol and to a degree the Kyoto Protocol, is attributed to the fact that after a finding of non-compliance they are able to employ sanctions. This comes as a result of a definitive decision in which an award is made, and retaliatory measures allowed should a state continue to not be compliant with their obligation under the MEA. Therefore, in looking to implement the Paris Agreement, it appears that a binding dispute resolution method is preferable to have as a means of last resort should diplomatic methods fail.

¹⁷¹ Francisco Orrego Vicuña "Institut De Droit International: Responsibility and Liability Under International Law for Environmental Damage" (1998) 37(6) *ILM* 1473.

¹⁷² Aarhus Convention, above n 165, Art 2.2.

2 *Substantive Elements*

The ability to remedy disputes of a science and technical nature is a substantive need for effective dispute resolution under the Paris Agreement. This is because disputes that evolve under it are likely to be novel in character and subject to an evolving body of scientific knowledge. Similarly, such disputes will likely span a variety of collateral contexts beyond the pure inter-state claims. Questions of causation and damage can be highly technical¹⁷³ and as a result, require the necessary acumen of a tribunal to both comprehend the case and make awards. In addition to the ability for experts directly within the process, an effective dispute resolution system under the Paris Agreement should also allow for ease of access to technical information such as allowing site visits and expert opinion. The use of expertise overall being a measure of the quality of the outcome, as well as party satisfaction with it.

Given that the consequences of climate change continuing unabated remain disastrous, the ability for disputes to be resolved quickly is also essential to effective implementation of the Paris Agreement.¹⁷⁴ Should the facilitative means mentioned in Article 15 fail after being pursued for a reasonable time, such as 6 months, parties should have recourse to an effective legal means of dispute resolution. Avoiding protracted litigation of an environmental issue is key and often means a better-quality decision. An example of this in relation to emissions reductions in the United States is the far more effective outcome from a party determined mechanism in reducing auto-car industry than through Clean Power Plan litigation.¹⁷⁵ Given the time-sensitive nature of climate change and parties attempts to implement their Paris Agreement obligations having recourse to an efficient enforcement mechanism is essential.

B Methods Provided for Under the UNFCCC

The enforcement provisions are limited to those in Article 24 which references back to the UNFCCC. Because this examination is of measures that can be applied under the present text of the Agreement, it excludes analysing the potential development of a self-contained dispute resolution system such as under the Montreal Protocol, in preference for an ad-hoc alternative.

¹⁷³ See *Part II.A.2: Proving a Breach of an Obligation* at 22.

¹⁷⁴ Will Steffen, Johan Rockström, Katherine Richardson, Timothy M. Lenton, Carl Folke, Diana Liverman, Colin P. Summerhayes et al. "Trajectories of the Earth System in the Anthropocene" (2018) Proceedings of the National Academy of Sciences <www.pnas.org>.

¹⁷⁵ Martella "Update on the IBA Task Force on Climate Change and Human Rights", above n 16, at 36.

1 *Diplomatic vs Legal options for Enforcement*

Four key methods are offered under the UNFCCC: negotiation, conciliation, arbitration and judicial settlement.¹⁷⁶ The diplomatic means of negotiation and conciliation preserve the party relationship but fail to provide enforceable outcomes. Conversely, the legal means of dispute resolution by judicial settlement and arbitration are legally binding but the confrontational nature of them means there are some drawbacks too.¹⁷⁷ A binding outcome has been largely tied to the success of an MEA,¹⁷⁸ therefore this research will exclude analysis of the diplomatic forms of dispute settlement and focus on legal methods of litigation and arbitration.

2 *International Arbitration*

The 1899 Hague Peace Conference recognised arbitration as the “most effective” and “equitable” means of settling disputes where diplomacy has failed.¹⁷⁹ As a binding means of dispute settlement, it should be considered a good candidate for dispute resolution under the Paris Agreement. Arbitration is the settling of disputes between two parties by an impartial third party, whose decision the contending parties agree to be bound by. Arbitration is highly flexible as it allows parties to agree on a procedure that suits them.¹⁸⁰ Arbitration has already been employed in a number of climate change related disputes of both environmental and a contractual nature.¹⁸¹

Arbitration could be employed by the COP to be the dispute resolution mechanism of preference to resolve disputes under the Paris Agreement. The development and acceptance of an arbitration annex under the UNFCCC would give parties access to ad hoc arbitration. In doing so, the COP could either develop their own bespoke arbitral tribunal, such as MARPOL provides¹⁸² or they could opt for an institutional approach such as adopting the PCA as their preferred institution, as the CITIES did.¹⁸³ The PCA has already administered a range of inter-state disputes. It is also the preference of the IBA due to the ease of which it can be utilised as

¹⁷⁶ UNFCCC, above n 15, Art 14.

¹⁷⁷ Bodansky, Brunnée, and Hey *The Oxford Handbook of International Environmental Law*, above n 152, at 108.

¹⁷⁸ See *Part II.B.1: Montreal Protocol*.

¹⁷⁹ Hague Convention for the Pacific Settlement of International Disputes (opened for signature 29 July 189, entered into force in 4 September 1900). [“1899 Hague Convention”].

¹⁸⁰ Tim Stephens *International Courts and Environmental Protection* (Cambridge University Press, Cambridge, 2009).

¹⁸¹ Judith Levine “Adopting and Adapting Arbitration for Climate Change-Related Disputes-The Experience of the Permanent Court of Arbitration” (2018) 15(1) *TDM* at 545.

¹⁸² International Convention for the Prevention of Pollution from Ships (Signed 2 November 1973, entered into force 2 October 1983) [MARPOL], Art 10.

¹⁸³ Convention on International Trade in Endangered Species of Wild Fauna and Flora (Signed 3 March 1973, entered into force 1 July 1975) [CITIES], Art 28.

a forum.¹⁸⁴ If this proves successful there is an additional possibility of developing an arbitral institution to house environmental claims more broadly.¹⁸⁵ Arbitration can also be used in an alternative dispute resolution context such as confidential conciliation, and in the instance of review panels.¹⁸⁶ Therefore international arbitration able to employed in a variety of flexible ways to assist with dispute resolution under the Paris Agreement.

There are many advantages in the use of arbitration as a dispute resolution process under the Paris Agreement. As a majority of disputes submitted to the PCA relate to environmental disputes, it is probable that there is already a natural alignment between the use of arbitration and resolution of climate change disputes.¹⁸⁷ Firstly, arbitration offers greater flexibility to parties.¹⁸⁸ As such the COP could agree on rules of procedure, evidence, and cater bespoke processes that fit with a State's needs under the Paris Agreement. Secondly, the ability for parties to choose their arbitrators allows them to cater to the particular needs of a given dispute. This is shown by the use of an independent engineer as an arbitrator in the *Kishenganga* arbitration¹⁸⁹ and expert opinion on sea level delimitation being requested in the *Bay of Bengal* arbitration.¹⁹⁰ Party choice of location of the arbitration also allows for better prospects of the tribunal conducting site visits where appropriate.¹⁹¹ Thirdly, the time frame is able to align with party needs, such as in *Abyei* where a time limit of one year was placed for the entirety of the decision making process.¹⁹² Fourthly, arbitration also offers enhanced flexibility over standing rules such as by allowing informal actors standing.¹⁹³ As such, there is a greater prospect for amicus submissions from non-governmental and intergovernmental organisations alike.¹⁹⁴ Although in arbitration, the costs of the tribunal are borne entirely by the parties there have been moves to increase accessibility of such tribunals—such as the establishment of a financial assistance fund at the PCA. Similarly, arbitration offers enhanced predictability and certainty in the law to be applied as it pertains only to the dispute at hand.¹⁹⁵

¹⁸⁴ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3.

¹⁸⁵ See *Part V.A.3: International Tribunal for the Environment* at 41.

¹⁸⁶ Levine “Adopting and Adapting Arbitration for Climate Change- Related Disputes”, above n 81, at 30.

¹⁸⁷ Kiss and Shelton *International Environmental Law*, above at n 131, at 334.

¹⁸⁸ Levine “Adopting and Adapting Arbitration for Climate Change- Related Disputes”, above n 81, at 30.

¹⁸⁹ *Indus Waters Kishenganga Arbitration (Pakistan v India) (Final Award)* (2013) PCA 20 December 2013.

¹⁹⁰ *Bay of Bengal Arbitration*, above n 45.

¹⁹¹ Permanent Court of Arbitration *Permanent Court Of Arbitration Rules (22 December 2012)* (The Hague, PCA Secretariat, 2012) [PCA Rules].

¹⁹² *Abyei Arbitration (Sudan v The Sudan People's Liberation Movement Army) (Award)* (2009) 48 ILM 1258, at 75.

¹⁹³ At 1.

¹⁹⁴ *Arctic Sunrise Arbitration (Netherlands v Russia) (Award on the Merits)* PCA 14 August 2015.

¹⁹⁵ David Rivkin “IBA Task Force on Climate Change Justice and Human Rights” in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce,

Although there are many benefits in employing arbitration under the Paris Agreement, it is also necessary to also consider the risks of its use. When compared to judicial settlement, the voluntary nature of arbitral procedure, transparency and costs concerns remain paramount. Firstly, similar to litigation under the ICJ, there has to be party consent in order for a tribunal to have jurisdiction. The challenges in relation to the Paris Agreement mainly relate to the fact that at present only Kiribati, Tuvalu and the Netherlands have agreed to arbitration under the UNFCCC. Similarly, the annex on arbitration mentioned in the UNFCCC remains at present undrafted. Secondly, as concerns over the Trans-Pacific Partnership have shown, there is increasing hesitancy in regards to the transparency of and subsequent outcomes of international arbitration in matters of public importance.¹⁹⁶ Concerns in this area arise due to the substantial nature in which arbitral awards can affect states, both in terms of regulatory chill and substantial awards being awarded against them.¹⁹⁷ That being said, there have been significant improvements to the transparency of arbitral proceedings in recent years.¹⁹⁸ Thirdly, unlike access to courts which are generally subsidised by governments, arbitral costs are covered entirely by the parties which could also potentially have a prohibitive effect. However, given the potential length of any delay in judicial proceedings it is possible that arbitration could if used appropriately, result in lower costs instead. Fourthly, there is a chance some parties may not want results from arbitration hence reducing the chance they will participate in it.¹⁹⁹ Fifthly, arbitration may be less appropriate when the law is not yet established as the tribunal is composed of arbitrators not necessarily jurists.²⁰⁰ Therefore there are several drawbacks to the employment of international arbitration in enforcing the Paris Agreement which should be carefully considered when assessing its utility as a method of enforcement.

International arbitration is useful in that it can be tailored for the full range of potential climate change disputes without difficulty. Benefits of its procedure include that it is both party focused and binding. Furthermore, unlike the judicial route, experts can more readily be employed and incorporated into the decision-making function through party choice of arbitrator and use expert evidence. That being said, as a binding means of international dispute resolution, party consent is required for a tribunal to have jurisdiction. Moreover, when dealing with matters of public importance, such as climate change undoubtedly is, transparency can be of public concern.²⁰¹

Paris, 2017) at 18.

¹⁹⁶ Oliver Hailes, R.Jones, D. Menkes, J. Freeman and E. Monasterio “Climate change, human health and the CPTPP” (2018) 31(1471) *NZMJ* 7 at 10.

¹⁹⁷ Rivkin “IBA Task Force on Climate Change Justice and Human Rights”, above n 194, at 21.

¹⁹⁸ Catherine A. Rogers, *Ethics in International Arbitration* (Oxford University Press, Oxford, 2014).

¹⁹⁹ Martella “Update on the IBA Task Force on Climate Change and Human Rights”, above at n 16, at 37.

²⁰⁰ At 37.

²⁰¹ Hailes et al. “Climate change, human health and the CPTPP”, above n 195, at 11.

3 *International Litigation*

The courtroom is increasingly being engaged as a forum for climate change disputes worldwide.²⁰² Litigation can be an effective way of affected groups or citizens holding parties to account for climate change related issues with the *Urgenda* case being a prime example of this within a national context.²⁰³ The ICJ is the pre-eminent forum for inter-state disputes. As such, it inevitably has faced environmental disputes and has a developing jurisprudence on it.²⁰⁴ There are three ways in which the ICJ can be seized of a dispute: through litigation in their main chamber, a specialised one or by request for an advisory opinion.

The ICJ is able to hear cases brought by States which they have to decide “in accordance with international law” including conventions, customs and general principles of the law.²⁰⁵ Although only states may be parties to a case, the ICJ retains a broad adjudicatory nature.²⁰⁶ The ICJ and its precursor the PCIJ has heard many cases which involve the environment. Recent examples of the substance of these disputes include aerial spraying by Colombia of toxic herbicides in Ecuador²⁰⁷ and Japan’s scientific whaling programme.²⁰⁸ However Judge Weeramantry, in his dissenting opinion in *Gabčíkovo-Nagymaros*, recognised the ICJ’s limitations in applying international law and stressed that it needs to evolve beyond inter-state dispute resolution to hear matters of “global concern of humanity as a whole”.²⁰⁹

The ICJ can also create specialised chambers under Article 26(1) of its Statute. Therefore, the ICJ could create one for climate change disputes or indeed the Paris Agreement itself. However, any attempt towards this will be met with institutional hesitancy because an International Court for the Environment (ICE) was already established in 1993. However, it was subsequently and abolished in 2006 because there were never any cases brought before it. The IBA offers a number of potential reasons why the ICE ostensibly failed the first time.²¹⁰ First, that the Judges not being experts in international environmental law or the science and technical issues that arise as part of it.²¹¹ Second, that it was hard for the chamber to carve out its mandate given

²⁰² Michal Nachmany and Joana Setzer *Policy Brief Global Trends in Climate Change Legislation and Litigation: 2018 Snapshot* (Grantham Research Institute on Climate Change and the Environment, London, 2018).

²⁰³ *Urgenda*, above n 50.

²⁰⁴ John Knox *Mapping Report on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment* A/HRC/28/61 (2013), at [26].

²⁰⁵ Statute of the International Court of Justice, above n 27, Art 38.

²⁰⁶ Art 34(1).

²⁰⁷ *Aerial Herbicide Spraying (Ecuador v Colombia) (Order)* [2013] ICJ Rep 278.

²⁰⁸ *Whaling in the Antarctic*, above n 126.

²⁰⁹ *Gabčíkovo-Nagymaros Project (Hungary v Slovakia) (Judgment on the Merits)* (1997) 37 ILM 162, at [140].

²¹⁰ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 84.

²¹¹ At 84.

they are inextricably linked to trade, investment or human rights.²¹² Third, unlike UNCLOS or other successful tribunals it had no specific body of law to apply given the overwhelmingly customary nature of international environmental law and how it is bound to apply the sources in its statute.²¹³ It appears that most of the failings of the former ICE relate closely to the elements of ICJ decision making which make it less amenable to environmental disputes.

The ICJ can also be employed to provide advisory opinions, which are useful to remedy legal questions, such issues with treaty interpretation. The General Assembly, Security Council or an IGO within its mandate could seek an advisory opinion on the interpretation of the Paris Agreement. This can be a useful tool as the Court has previously affirmed in an advisory opinion that the general obligation of states to respect the environment of other states is now part of the corpus of international law.²¹⁴ Another indicator of the desire to seek ICJ advice on environmental issues was the attempt by a group of states, organised as the ‘Ambassadors for Responsibility on Climate Change’, to have the UN General Assembly request an advisory opinion from the ICJ clarifying the obligations and responsibilities under international law of a state for climate change harms.²¹⁵ Although useful in clarifying states’ roles and responsibilities under an MEA, such advisory opinions are not of a binding nature. However, clarification of whether, and if so what binding obligations the Paris Agreement has could be a useful precursor to resolving legal disputes on the matter, whatever the dispute resolution method of choice.

There are many advantages in employing the ICJ to resolve disputes under the Paris Agreement. The first main advantage is that state consent can be given in a number of ways; both specifically under an MEA such as the Paris Agreement, but also able in giving their optional consent to ICJ proceedings.²¹⁶ Although some remain subject to caveats, 73 States have given these declarations which recognise the jurisdiction of the Court as compulsory.²¹⁷ Secondly, drawing on a wide body of law which the ICJ does could help promote consistency amongst other related areas of law, such as trade law and foreign investment law.²¹⁸ This ability to provide broad-brush consistency and harmonisation of international law is one of the reasons the ICJ is recommended as a dispute resolution forum as part of the Agenda 21 MEA.²¹⁹

²¹² *Gabčíkovo-Nagymaros Project*, above n 208.

²¹³ Statute of the International Court of Justice, above n 27, Art 38.

²¹⁴ *Legality of the Threat or Use of Nuclear Weapons*, above n 101, at [25].

²¹⁵ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 324.

²¹⁶ Statute of the International Court of Justice, above n 27, Art 36.

²¹⁷ International Court of Justice “Declarations recognizing the jurisdiction of the Court as compulsory” (2018) ICJ <www.icj-cij.org>.

²¹⁸ Dupuy and Viñuales *International Environmental Law*, above n 7, at 248.

²¹⁹ Kiss and Shelton, *International Environmental Law*, above n 132, at 85.

Therefore, there are many advantages to the potential employment of the ICJ in enforcing the Paris Agreement.

That being said, there are numerous disadvantages with attempting to use the ICJ as the preferential method of enforcing the Paris Agreement. The ICJ has general jurisdictional reach, and as such judges are appointed for their judicial ability, not necessarily their specialist expertise in a particular field, such as climate change. This risk of a lack of specialised expertise in the judiciary is compounded by the fact that parties cannot choose their judges. The Court does maintain the ability to get an expert opinion.²²⁰ However, in seminal environmental law cases, such as *Pulp Mills*, the ICJ failed to appoint technical advisers.²²¹ In their dissenting judgement, Judge Al-Khasawneh and Judge Simma described the manner in which the ICJ evaluated the scientific evidence in *Pulp Mills* as “flawed”.²²² In doing so, they noted that the Court had missed a “golden opportunity” to “demonstrate its ability to approach scientifically complex disputes in a state-of-the-art manner”.²²³ They went on to say that in choosing not engage technical experts meant that doubts will increase about whether the ICJ is the appropriate forum to tackle complex environmental questions.

The ICJ also has to adopt a conservative approach given that its lawmaking function is as important as its dispute settlement function.²²⁴ Because of this it is argued that the ICJ has not contributed, as much as it might have been expected, to the development of international environmental law.²²⁵ The IBA concurs when it states that the ICJ is “unlikely to break new ground on climate change litigation”.²²⁶ The reason for this is that it has generally elected to take a narrow view to legal questions that arise. An example of this narrow approach is in the *Nuclear Weapons* advisory opinion where the bench stated that the ICJ only applies existing law and does not legislate itself.²²⁷ As such, there is a risk that because the Paris Agreement lacks clear binding obligations, that the ICJ would hesitate to infer them. All of which contribute to the many disadvantages of relying on the ICJ as a means of enforcing the Paris Agreement.

As the pre-eminent forum for inter-state disputes, utilisation of the ICJ in enforcing the Paris Agreement should be carefully considered. The benefits of enforcement through the ICJ include that the proceeding is conducted in a public and in a relatively accessible forum.

²²⁰ Statute of the International Court of Justice, above n 27, Art 50.

²²¹ *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay) (Merits)* [2010] ICJ Rep 14.

²²² Joint Dissenting Opinion of Judges Al-Khasawneh and Simma at [2].

²²³ At [2].

²²⁴ Dupuy and Viñuales *International Environmental Law*, above n 7, at 249.

²²⁵ Beyerlin and Marauhn, *International Environmental Law* above n 153, at 380.

²²⁶ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 84.

²²⁷ *Nuclear Weapons Advisory Opinion*, above n 101, at [25].

However, there are disadvantages of resolution through the ICJ such as the average length of proceedings as well as what parties have standing in relation to a given matter. Only states have standing, and only on then on the basis that they give their consent.²²⁸ In terms of resolving climate disputes, there are additional concerns *inter alia* of a lack of technical expertise on behalf of the judiciary given that ICJ judges are allocated by rotation, not expertise.²²⁹ As a result of its broad mandate does not allow for bespoke expertise or standing likely important for resolving disputes under the Paris Agreement.

C International Arbitration as the Preferable Means of Enforcement

It is proposed that arbitration is the preferable means for enforcing the Paris Agreement as it is both procedurally and substantively superior to judicial settlement in the context of resolving climate change disputes.²³⁰

1 Procedural Superiority to Litigation in Resolving Climate Disputes

The party-led nature of international arbitral procedure offers many advantages to parties wishing to resolve a dispute. First and foremost the ability to create wide standing rules means that there is enhanced access to justice analogous to the Aarhus Convention.²³¹ Secondly, arbitration allows parties to resolve their dispute quickly and with bespoke procedure appropriate to the relevant dispute.²³² This faster pace is particularly key under the Paris Agreement given that many climate change disputes are such that there is a need for expediency in order to avoid irreversible harm.²³³ Arbitration is generally also more cost-efficient as compared to judicial settlement because, despite having to pay for the arbitrators and forum used, it is likely cheaper both directly and in terms of opportunity cost of dispute settlement. Arbitration is also seen as a more diplomatic way of resolving inter-state disputes, evidenced by the fact its origin was the Hague Convention on Peace.²³⁴ As such, it provides a neutral and as far as possible, apolitical forum to resolve disputes.

²²⁸ Statute of the International Court of Justice, above n 27, Art 34(1).

²²⁹ Joint Dissenting Opinion Of Judges Al-Khasawneh And Simma in *Pulp Mills*, above n 221.

²³⁰ Martella “Update on the IBA Task Force on Climate Change and Human Rights”, above n 16, at 37.

²³¹ Aarhus Convention, above n 165, Art 2.2.

²³² *Abyei*, above n 191.

²³³ Climate Change Legal Principles, above n 111.

²³⁴ Hague Convention on Peace, above n 178.

2 *Substantive Superiority to Litigation in Resolving Climate Disputes*

Substantively, international arbitration is superior to judicial settlement in terms of enforcing the Paris Agreement because it better reflects the international character of climate change disputes.²³⁵ This can be foremostly demonstrated by an enhanced ability to utilise expert evidence. Such expertise can be engaged at three stages, when choosing the arbitrator, by being provided by the parties as well as by request from an arbitral tribunal. Although the ICJ also has such powers, in *Pulp Mills* where technical advice was not used effectively, the Court arguably passed up an opportunity to prove that it is an appropriate forum to resolve the substance of climate change disputes.²³⁶ Similarly, international arbitration is a system that is flexible enough to reflect the scale and speed of the challenge posed by climate change.²³⁷ Because of its substantive flexibility, parties could more easily adopt the Paris Agreement as the sole law to be applied, in contrast with ICJ and its tribunals which have a mandate to consider all sources of international law.²³⁸ An example of the difficulty in having to consider a broad body of law when addressing a specific issue is shown in *Pulp Mills* where there was disagreement as to whether the precautionary principle applies, and if so whether that should reverse the burden of proof.²³⁹ Therefore both in terms of gathering useful evidence and applying the most relevant law—it appears international arbitration is substantively more suitable.

3 *Collateral Applications of Adopting International Arbitration*

In addition to the benefits international arbitration offers in resolving inter-state disputes, there is a myriad of collateral implications that could help support the implementation of the Paris Agreement. This is particularly important as an important part of the ‘Paris package’ was the many pledges that non-state actors undertook.

Akin to the Aarhus Convention, the appeal of employing arbitration is that non-state actors can more readily have access to a tribunal. It is common ground that given the large amount of involvement by non-state actors at the Paris Agreement negotiations themselves, they will continue to play a key role in its enforcement. Allowing NGOs standing in an arbitral proceeding allows them to continue this enforcement role in a more appropriate way. By way of contrast, if the judicial route was employed, only IGOs would have recourse to the ICJ and even then it would only be limited to advisory opinions. NGOs would have no formal means

²³⁵ Edna Sussman “10 Years Back-Post COP 12” in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017) at 111.

²³⁶ *Pulp Mills*, above n 220.

²³⁷ Birnie and Boyle *International Law and the Environment*, above n 25, at 252.

²³⁸ Statute of the International Court of Justice, above n 27, Art 31(3)(c).

²³⁹ *Pulp Mills*, above n 220, at [164].

of redress and be limited to non-legal forums, such as mounting public pressure, to play their role in enforcement. While it is the opinion of academics that such claims should not be allowed by individuals or groups of individuals, the ability for NGOs and IGOs to have standing in dispute resolution under the Paris Agreement, remains an area of future possibility as per the precedent in the Aarhus Convention.²⁴⁰

Through international arbitration, the Paris Agreement can be used as both a shield and sword for climate action.²⁴¹ As per *Perenco*, it is entirely likely that a tribunal would find that the Paris Agreement forms part of the commitments of a given state’s legal landscape.²⁴² Similarly, the tribunal in *Urbaser*, shows state counterclaims are similarly available.²⁴³ In absence of party consent to arbitration specifically under the UNFCCC, claims under investment treaties may well form the basis of climate change related dispute resolution.²⁴⁴ Claims related to the GCF also likely fall into this category.²⁴⁵ Thus the natural alignment between investor-state arbitration and the Paris Agreement, in terms of holding both parties to account, should not be underestimated.

International arbitration can and will continue to be used in climate-relevant contractual disputes post implementation of the Paris Agreement.²⁴⁶ With USD \$6.3 trillion needed annually until 2030 to meet global climate goals and a pledge from governments of USD \$100 billion per year—the private sector is essential to bridge the climate finance gap.²⁴⁷ This investment could be linked with Miles’ proposal for ‘Queenstown clauses’ which bind the parties to fulfil their contract in accordance with the Paris Agreement.²⁴⁸ The Paris Agreement itself also forms part of the wider financial investment landscape, including knowledge of risks and as such open companies up to an increasing liability from non-disclosure of climate risk.²⁴⁹

Both legal means of dispute resolution—litigation and arbitration—have their merits enforcing the Paris Agreement. However, only international arbitration is uniquely positioned to cater for

²⁴⁰ McInney “The Role of Arbitration involving Non-State Actors in making the UNFCCC work”, above n 42, at 82.

²⁴¹ See *Part II.C.2: Ability for the Paris Agreement to be used as both a Sword and Shield*.

²⁴² *Perenco*, above n 77.

²⁴³ *Urbaser SA and Consorcio de Aguas Bilbao Bizkaia, Bilbao Biskaia ur Partzuergoa v Argentina (Award)* ICSID ARB/07/26, 8 December 2016.

²⁴⁴ La Vina “Specific Concerns for Less Developed Nation States and Small Island Nations”, above n 80, at 40.

²⁴⁵ See *Part II.B.3: Potential Sources of Disputes under the Paris Agreement* at 16.

²⁴⁶ La Vina “Specific Concerns for Less Developed Nation States and Small Island Nations”, above n 80, at 41.

²⁴⁷ OECD “Technical note on estimates of infrastructure investment needs” OECD (2017) <www.oecd.org>.

²⁴⁸ Miles “Climate Change and Arbitration”, above n 56.

²⁴⁹ Levine “Adopting and Adapting Arbitration for Climate Change- Related Disputes”, above n 81, at 15.

both inter-state dispute resolution under Agreement, as well as the myriad of collateral contexts. Thus it is a natural fit for the COP to develop international arbitration as their preferential means of enforcing the Paris Agreement.

V Adoption of Arbitration as means of enforcing the Paris Agreement

There are a variety of tools available to use international arbitration to enforce the Paris Agreement. These tools, the prospects for their use and a potential roadmap will each be explored in turn:

A Potential Tools for Implementation

Although international arbitration is at present a possibility under the Paris Agreement, it is an inherently party-led process. Thus there needs to be active steps by the COP to both shape the rules and consent to the process in order for it to become a viable means of enforcement. There is a suite of available tools that could assist in this implementation, which again reinforces the utility of international arbitration as a means of enforcing the Paris Agreement.

1 Annex on Arbitration

The first tool which could be utilised to promote arbitration as a means of settling disputes under the Paris Agreement is an annex on arbitration. The UNFCCC already provides the option of parties employing arbitration as their dispute resolution mechanism of choice. However the referenced annex on arbitration was never drafted, which could in part explain why so few countries have consented to arbitration explicitly. An annex on arbitration could specify the PCA as a preferred forum for disputes as well as specific procedures that apply to arbitral proceedings. In terms of drafting the annex, the PCA's Environmental Rules also provide a useful starting point.²⁵⁰ Only minor changes are required to adapt them to climate change specific context.²⁵¹ For example, changing references to natural resource conservation and specialised arbitrators to climate change specific ones. Moreover these rules have already been employed in the various arbitrations related to Kyoto Protocol mechanisms.²⁵² Of particular utility in the post-Paris implementation phase is the ability to request non-technical summaries of scientific matters,²⁵³ the power to grant interim measures to protect the

²⁵⁰ Permanent Court of Arbitration *Optional Rules For Arbitration Of Disputes Relating To Natural Resources And/or The Environment (19 June 2001)* (The Hague, PCA Secretariat, 2001) [PCA Environmental Rules].

²⁵¹ Levine "Adopting and Adapting Arbitration for Climate Change- Related Disputes", above n 81.

²⁵² At 26.

²⁵³ PCA Environmental Rules, above n 249, at Art 24(4).

environment,²⁵⁴ appoint experts to assist the tribunal,²⁵⁵ as well as a list of expert environmental arbitrators themselves.²⁵⁶ Therefore, it seems like the development of an annex on arbitration is the first and most effective tool that could be adopted to encourage the use of international arbitration as a means of enforcing the Paris Agreement.

2 *Model Statute on Climate Change Remedies*

A second tool that could be employed in the development of international arbitration as a means of enforcing the Paris Agreement is the development of the Model Statute on Climate Change Remedies (Model Statute). Based on the success of the United Nations Commission on International Trade Law (UNCITRAL) Model Law on International Commercial Arbitration—the IBA proposes that a Model Statute would provide similar clarification for states.²⁵⁷ A Model Statute would thus assist states to develop both their procedural and substantive domestic law in a consistent way.²⁵⁸ A Model Statute would also provide an opportunity to remedy areas of present legal ambiguity in climate change disputes²⁵⁹ including:²⁶⁰

- (1) the actionable rights affected by climate change;
- (2) clarification of the role and definition of legal standing;
- (3) issues regarding causation, including appropriate standards for proving a legally cognisable causal link between greenhouse gas emissions and relief sought;
- (4) whether knowledge, including foreseeability of harm, is relevant to liability or judicial relief;
- (5) development of methods for awarding remedies and relief as warranted by the circumstances, including uniform standards by which to apportion damages, and the provision of declaratory, interim and/or injunctive relief;
- (6) issues regarding standards of liability;
- (7) the interrelationship of competing claims from states, communities and individuals;
- (8) limitation periods for claims;
- (9) The availability of pre-hearing and interim applications for disclosure and discovery; guidelines on costs awards in climate change cases; and guidelines for the jurisdictional reach of domestic and international courts to adjudicate climate change related claims.

²⁵⁴ Art 26(1).

²⁵⁵ Art 27(1).

²⁵⁶ Art 8(3); Art 27(5).

²⁵⁷ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 7-8.

²⁵⁸ At 11.

²⁵⁹ See *Part III.A: Legal Issues with Enforcement*.

²⁶⁰ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 12.

Analogous to the effect of UNCITRAL Model Law for international trade, a Model Statute could thus provide confidence to states that international arbitration is an accessible and appropriate method of resolving climate change disputes.

3 *International Tribunal for the Environment*

The third tool that could be employed to assist in implementing the Paris Agreement is the creation of an International Tribunal for the Environment (ITE). This would be a specialised international legal forum which is dedicated to adjudicating environmental disputes. Its development could be modelled on the best practice of other ad hoc arbitral institutions such as the International Chamber of Commerce (ICC).²⁶¹

An ITE could help provide consistent guidance on the environmental and legal obligations of government and businesses alike—something of particular value given the large-scale changes required to meet the Paris Agreement. As such, an ITE could prove a harmonising force for environmental law from existing legislative and judicial systems.²⁶² Having an ITE would also likely enhance the confidence of both state and non-state actors alike that arbitration is an effective means of environmental dispute settlement in a number of ways. Firstly, such a Tribunal could provide focused scientific knowledge and technical expertise in relation to matters of the environment. Secondly, it could provide access to justice through open standing rules. Thirdly, it could help provide international environmental disputes, such as those under the Paris Agreement, with a jurisdictional ‘home’ so they do not have to try fit under less appropriate forums such as ICSID.

There have been long-standing proponents for the creation of a similar body known as the International Court for the Environment (ICE)²⁶³ as it has the potential resolve the present issues caused from conflicting laws and anomalous gaps in standing.²⁶⁴ However, the non-use of the former ICE could mean that parties remain hesitant to engage in its re-creation. Concerns over its use are the reason why the IBA support a tiered approach whereby if the ITE is used it could then crystallise in future into a permanent ICE.²⁶⁵ A new ICE could, however, have several key advantages that the former one did not. Primarily, using arbitration as opposed to litigation, means that parties would have a choice over their arbitrators and other procedural

²⁶¹ At 15.

²⁶² International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 15.

²⁶³ Stephen Hoffman QC, ‘The Case for an International Court for the Environment’ (2011) 14 *Effectus Newsletter*.

²⁶⁴ At 2.

²⁶⁵ International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 15.

elements. This means that some of the concerns raised about lack of expertise under the previous ICE would be lessened.²⁶⁶ Similarly, the ineffectiveness of the ICE was put down to having a lack of law to apply. As the most comprehensive agreement the world has seen, it is possible that an ICE could adopt the Paris Agreement as its authoritative guidance on climate change law and resolve this issue.

There are risks with the using an ITE or ICE as a tool to aid enforcement under the Paris Agreement. Commentators argue that the former ICE's broad jurisdiction was a reason for its downfall.²⁶⁷ One way to resolve this could be to limit the tribunal to the climate change issues. Doing so would also mean that a tribunal could become even more expert in mitigation and adaptation law, meaning parties would have increased confidence in their ability to manage a dispute. However, a risk does stem from the broader trend towards judicialisation of international environmental law and the fact that having competing fora and laws for the same dispute can lead to inconsistency. It is arguable that increasing the fragmentation could take away certainty rather than add it. Particularly so if the creation of a new facility leads to forum shopping by the parties. However, the general principles of *lis pendens* and *res judicata* would still likely apply and as such would be an incentive for the harmonisation of climate law rather than the fragmentation of it.²⁶⁸

B Prospects of Arbitration as an Enforcement Mechanism of the Paris Agreement

The prospects of adopting international arbitration as a means of enforcing the Paris Agreement depend on the availability of the aforementioned tools being balanced closely with the opportunities and barriers for adoption. As with any major reform in international law, the development of arbitration as a means of dispute settlement requires effort and use by the parties themselves. This section canvasses what the opportunities and barriers to adoption are, before analysing a potential roadmap for its development.

1 Opportunities for States in Adopting International Arbitration

Because state consent is a necessary requirement of any binding legal system, it begs the question— why would states consent to a binding dispute resolution process under the Paris Agreement in the first place? This is affirmed by the fact that to date only Tuvalu, the Netherlands and Kiribati have consented to arbitration under the UNFCCC. However, there are

²⁶⁶ Joint Dissenting Opinion Of Judges Al-Khasawneh And Simma in *Pulp Mills*, above n 221.

²⁶⁷ SM Hinde “The International Environmental Court: Its Broad Jurisdiction as a Possible Fatal Flaw” (2003) 32 *Hofstra Law Review* 727.

²⁶⁸ Beyerlin and Marauhn, *International Environmental Law* above n 153, at 387.

in fact procedural and substantive benefits to states willing to develop and adopt a clear dispute resolution process.

There are many procedural elements that should attract states to adopt an arbitral style of dispute resolution under the Paris Agreement. Firstly, the implications of giving consent do not open states to be bound to anything beyond the disputes they are involved in. This is because regardless of whether the judicial or arbitral route is followed the award or decision is only binding on the parties themselves.²⁶⁹ Secondly, an effective legal dispute resolution mechanism provides for a neutral and apolitical forum to resolve disputes. Similarly, the ability for states to subject themselves to expert opinion in arbitration allows for the issues of climate change itself to be less contentiously dealt with than if it became a political decision. In saying that, some argue that climate change is an inherently public issue and so have transparency concerns in employing arbitration more readily.²⁷⁰ However, if the process allows for open standing rules, as proposed, the procedural concerns of critics would likely not remain as well-founded.

There are also the benefits of certainty and security for states in consenting to arbitration under the Paris Agreement. As Francois Hollande in his opening address at the negotiation of the Agreement said “what is at stake with this climate conference, is peace”.²⁷¹ The IBA also highlights, climate change uniquely threatens both global security and territorial sovereignty.²⁷² Because of this climate change is now recognised as “a far greater threat to the world’s stability than international terrorism”.²⁷³ As such, it should be noted that there is potential that should the risk of or actual serious damage resulting from climate change remain unresolved, the Security Council may intervene to provide as a last means of redress. It is thus in states’ collective interests to agree on robust dispute resolution processes so that much like the original Hague conference, effective dispute resolution can be substituted for war.²⁷⁴ Overall, establishing certainty in the dispute resolution process under the Paris Agreement allows states predictability in the world’s response to climate change.²⁷⁵

²⁶⁹ Statute of the International Court of Justice, above n 24.

²⁷⁰ Asia Pacific Report “TPPA prevents action on climate change, claim critics” (2016) <www.asiapacificreport.nz>.

²⁷¹ H.E. Mr Francois Hollande, President of France, Speech at opening of the Leaders Event, COP21, Paris, 30 November 2015.

²⁷² International Bar Association *Achieving Justice and Human Rights in an Era of Climate Disruption, Climate Change Justice and Human Rights Task Force Report*, above n 3, at 88.

²⁷³ David King “Climate Change Science: Adapt, Mitigate, or Ignore?” (2004) 303 *Science* 129, 176.

²⁷⁴ Levine “Adopting and Adapting Arbitration for Climate Change- Related Disputes”, above n 81, at 24.

²⁷⁵ Judge Sir David Baragwanath “Exploration of Other International Fora for Legitimacy and Enforceability” in Wendy Miles (ed) *Dispute Resolution and Climate Change* (International Chamber of Commerce, Paris, 2017), at 108.

2 *Barriers to States Adopting International Arbitration*

Despite the opportunities for the COP adopting arbitration as a means of enforcing the Paris Agreement, there still remains the significant key barriers of party will and party use. To date only three out of the 197 parties have given their explicit consent to ICJ or arbitral proceedings under the Paris Agreement. Because of this, a fair criticism of the use of legal means of settlement is what happens if the political will of states to give consent to dispute settlement continues to be lacking. States have to possess the will to develop tools, such as the annex on arbitration. Similarly, in order for a binding outcome state consent is needed. As demonstrated by the Trump Administration's announcements of withdrawing from Paris²⁷⁶ and indeed any binding international law commitments²⁷⁷ this could be of key concern. However, pre-emption of the need to resolve climate disputes in future, could help states overcome the present barrier of a collective lack of will to develop enforcement procedure.

Another barrier is that arbitration has not yet found favour amongst the international community for resolution of environmental disputes.²⁷⁸ For this reason, there is a concern about whether the COP would employ an arbitral dispute resolution procedure should one be developed. There has been long-standing underutilisation of treaty compliance and enforcement mechanisms.²⁷⁹ This is in conjunction with an increasing judicialisation of international environmental law.²⁸⁰ Therefore parties must be confident in both the utility and appropriateness of a given dispute resolution fora — given the proliferation of other ones available. It may also be hard to overcome the institutional memory of the non-use of the former ICE. However, the volume of climate disputes are likely to be much higher now than over a decade ago, perhaps meaning the barrier of party underutilisation will be overcome.

C **Potential Roadmap for the Use of Arbitration to Enforce the Paris Agreement**

1 *Immediate (Pre-2020)*

It is first necessary for the COP to be cognisant of the fact that unlike its forerunner the Kyoto Protocol, the Paris Agreement does not yet have an enforcement mechanism. At present matters relating to the GST of INDCs, including the identification of the sources of input for the GST and the development of the modalities of the GST are being negotiated by the Ad Hoc Working

²⁷⁶ Michael Shear “Trump Will Withdraw U.S. From Paris Climate Agreement” (2017) New York Times <www.nytimes.com>.

²⁷⁷ Reuters “US withdraws from two international accords, says UN world court ‘politicised’” (2018) Euractiv <www.euractiv.com>.

²⁷⁸ Beyerlin and Marauhn, *International Environmental Law* above n 153, at 382.

²⁷⁹ McInerney “The Role of Arbitration involving Non-State Actors in making the UNFCCC work”, above n 42, at 14.

²⁸⁰ Stephens *International Courts and Environmental Protection*, above n 179.

Group on the Paris Agreement. While other procedural elements are being agreed upon, a unique opportunity to pre-emptively adopt dispute resolution procedures including an annex on arbitration exists at COP 24 and beyond. Such a discussion would also allow the COP to test the political will of states for what obligations are to be treated as binding under the Paris Agreement, and its corollary, what should be the consequence should one of them be found to have not been met in 2023 or later.

2 Short Term (2020-2028)

2020 will see the Paris Agreement begin its implementation phase and as such it offers the first glimpse of seeing its tangible outcomes of it. In the short term it is unlikely that diplomacy will give way to greater levels of inter-state regulation.²⁸¹ Further, until the aforementioned annex on arbitration is drafted the employment of inter-state arbitration is unlikely.²⁸² However, the development of a dispute resolution procedure could well be a priority for the COP after seeing the results from the first GST in 2023. Arbitration procedure could be a prime candidate for development as part of this due to the IBA's proposal for the COP to adopt the PCA as a forum of choice and adapt the PCA Environmental Rules into an annex on arbitration being easily achievable. Come 2023 the extent and nature of disputes under the Paris Agreement will also likely be clear, as well as jurisprudence on how to interpret its clauses likely having been produced. The setting of the next phase of INDCs and subsequent stocktake will allow a full cycle of implementation to be able to test the effectiveness of the Agreement's compliance and enforcement procedures through to 2028.

3 Long Term (2028-onwards)

The conclusion of the 2028 GST will also allow the COP to consider whether the dispute resolution mechanisms employed have worked thus far. Depending on the results of this reflection, the aforementioned tools could be used as a foundation of an ITE. Through the proposed bespoke blend of an arbitral procedure with a transparent judicial nature, it appears the best way in which to resolve disputes of a cross-cutting environmental nature going forward. This may then crystallise into a permanent ICE, once the international community is reassured of its utility. The alternative to this is continued fragmentation of environmental decision making, and a risk that it never gets aptly catered for. 2030 will be another key assessment point in effectiveness of the Paris Agreement after its first decade, as well as the

²⁸¹ McIrney "The Role of Arbitration involving Non-State Actors in making the UNFCCC work", above n 42, at 13.

²⁸² Levine "Adopting and Adapting Arbitration for Climate Change- Related Disputes", above n 81, at 27.

expiration of many first NDC such as Australia's, giving parties the opportunity to revisit its enforcement mechanisms.

VI Conclusion

The world is at risk of developing Paris syndrome should the Paris Agreement fail in its aspirations to help the world mitigate and adapt to climate change. While there are a number of barriers to the COP achieving the objective of the Paris Agreement, the present lacuna in enforcement provisions is a key one. As such, although not a panacea, the development of an appropriate enforcement process will likely prove to be an essential step in successfully implementing the Paris Agreement post-2020.

Although the law is not yet aptly suited to meet the complexities of climate change, as is demonstrated by a range of MEAs including the Montreal Protocol, it can be used to enforce it. Of the mechanisms available presently under the Paris Agreement international arbitration is likely the best placed to play this role. The benefits of arbitration which include its flexible, party focused and efficient nature can ensure that the procedural requirements of disputes are met. Similarly, the ability to draw on technical expertise in complex questions like causation and damages, allow for better substantive decision-making. Given the myriad of applications of the Paris Agreement beyond the inter-state context, the use of international arbitration also offers the opportunity to align enforcement procedure from inter-state to commercial disputes.

Despite these opportunities, there remains significant barriers to the adoption of international arbitration including the need for states to have the necessary political will to consent to arbitration as well as develop the tools necessary to overcome concerns related to transparency and accessibility. In order for these challenges to be overcome, the COP has to be cognisant of the advantages of pre-emptively establishing an effective enforcement procedure as well as potential risks of not doing so if climate related harms continue to escalate. As highlighted by the proposed developmental pathway, a lot is dependent on the results of the GSTs and states' response to them.

In the short term it is recommended that the COP adopt an annex on arbitration with a view to utilising an ITE or ICE to resolve disputes in future, should they be developed. Regardless of which method is adopted, it is essential for state and non-state actors alike to be cognisant of the obligations and implications of the Paris Agreement for them. The results of the Agreement will unfold from 2020, and be highlighted at each subsequent GST. However with 82 years to go until the Paris Agreement's completion and a lot of progress to be made between now and then, there is no better time to adopt an enforcement process that will help turn the dream of Paris into reality.

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