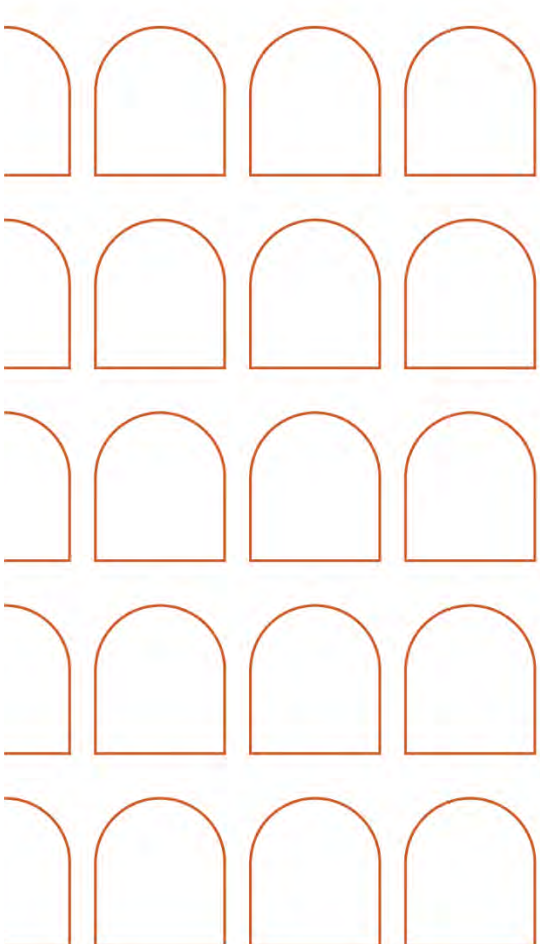


12. Does Investor-State Arbitration Actually Impede Action to Combat Climate Change?

‘Working Paper: The Role of Investor-State Arbitration in Promoting Climate Change Mitigation: From ‘Shield’ to ‘Sword’ through Renewable Energy Disputes?’ by Hui Helen Pang, European Society of International Law Paper (2022)

‘Rethinking the ‘Full Reparation’ standard in energy investment arbitration: how to take climate change into account,’ by Yawen Zhang, Journal of International Economic Law Vol 27(3) (2024) (academic article)



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WORKING PAPER

**The Role of Investor-State Arbitration in Promoting
Climate Change Mitigation: From “Shield” to “Sword
Through Renewable Energy Disputes?”**

Hui Helen Pang

European University Institute

Academy of European Law

European Society of International Law

Research Forum, Catania, April 2021

The Role of Investor-State Arbitration in Promoting Climate Change Mitigation: From “Shield” to “Sword” Through Renewable Energy Disputes?

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Abstract

In international investment law, the principle of solidarity has contributed to the growing concern for the protection of the public interests in the host state, particularly in environmental protection. It is demonstrated in three aspects: first, the definition of development has evolved from merely referring to economic development to include social development; second, the increasing inclusion of stand-alone provisions on environmental protection and labor standards in bilateral and multilateral investment treaties; and lastly, the rising number of cases that touch upon environmental concerns relating to the host state's right to regulate, particularly the newest development of allowing the host state to invoke counterclaims against the investor for environmental damages, as demonstrated in *Burlington v. Ecuador*, as well as claims referring to the host state's obligation under international environmental agreements. Apart from the opportunities above, there are also challenges in environmental protection under international investment law. For instance, it is questionable whether investor-state dispute settlement (ISDS) can provide adequate protection to renewable energy investments, since the question remains unanswered whether the retraction of the subsidies from the host state constitutes a breach of legitimate expectations under international investment agreements, as is the case with several EU member states and Canada. These renewable energy investment cases present a paradox. On one hand, the host state should enjoy regulatory autonomy over the energy sector and should not be required to compensate investors for the change of energy regulation in good faith; on the other hand, the protection and promotion of renewable energy and reducing greenhouse gas emission represents a global common interest reflected in international environmental agreements, UN declarations, the Energy Charter Treaty and several investment treaties. This paper explores the opportunities and challenges of the contribution that international investment law can make towards mitigating climate change. Through analyzing investor-state arbitration cases concerning renewable energy investment, as well as cases that touch upon the applicability of international environmental agreements, this paper advocates for a re-conceptualization of important investment law concepts such as legitimate expectations to utilize the ISDS mechanism as a tool to compel states to mitigate climate change.

Keywords

Investor-State Arbitration; Climate Change Mitigation; Environmental Obligations; International Investment Law

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Table of Contents

I. Introduction: Convergence and Conflicts in International Investment Law and Climate Change Mitigation	1
II. Applying International Environmental Obligations in Investor-State Arbitration: From Co-option to Human Rights Upfront?	5
A. Starting with “Co-Option”: S.D. Myers v. Canada and Allard v. Barbados	5
B. Using International Environmental Obligations as Counterclaims: Constraining Investors to International Environmental Obligations.....	9
C. Preliminary Conclusion.....	12
III. Addressing Climate Change Mitigation in Investor-State Arbitration: The Case of Renewable Energy Feed-in Tariffs	13
A. Possible Links between Renewable Energy Investments and International Environmental Agreements.....	13
B. The Elusive Concept of “Legitimate Expectations”	17
a) General Regulations as “Specific Commitments” or with “Stability Expectations” ...	18
b) Legitimate Expectations Beyond “Specific Commitments”	22
C. The Tribunal’s Avoidance on Addressing International Environmental Agreements.....	23
D. Advocating for A Holistic Interpretation of Legitimate Expectations	24
a) Redefine Legitimate Expectations and Avoid Negative Spill-Overs	25
b) Bring Competing Interests and Broader Policy Implications to the Table	25

I. Introduction: Convergence and Conflicts in International Investment Law and Climate Change Mitigation

Generating sustainable energy to reduce greenhouse gas emission is a target that connects domestic law with international investment agreements and international environmental agreements. Private party participation, especially investments in renewable energy is an important contributor in assisting the transition to sustainable energy consumption, as recognized in both the Energy Charter Treaty¹ and the Paris Agreement.² The rise of renewable energy investments demonstrates a welcoming synergy between international economic law and international environmental law, as clashes often emerge between the two.

In 2007, the EU issued the *2020 Climate & Energy Package* (*‘Package’*), which is a set of directives and regulations to ensure that climate and energy target are met before 2020, and is now amended by the 2030 Climate and Energy Framework.³ In the Framework, cutting

¹ The Energy Charter Treaty, art. 19 (1) (d), Dec. 17, 1994, 2080 UNTS 95. (Article 19 Environmental Aspects (1) (d): have particular regard to Improving Energy Efficiency, to developing and using renewable energy sources, to promoting the use of cleaner fuels and to employing technologies and technological means that reduce pollution;)

² Paris Agreement to the United Nations Framework Convention on Climate Change, art.6(4), art.6(8), Dec. 12, 2015, T.I.A.S. No. 16-1104. (hereinafter “Paris Agreement”).

³ See 2020 Climate & Energy Package, available at: https://ec.europa.eu/clima/policies/strategies/2020_en, this package was subsequently amended by the 2030 Climate & Energy Framework, available at:

greenhouse gas emissions by 40% from 1990 levels and boosting the share of renewable energy to at least 32% are the key targets for 2030. In order to facilitate the implementation of such targets, the EU issued a range of supportive legal documents, including the Renewable Energy Directive, which sets mandatory national targets for the overall share of energy from renewable sources in gross final consumption and requires member states to set national targets⁴. Responding to the Framework and the requirement of the Renewable Energy Directive, many member states of the EU, including Spain, Italy and Germany issued laws and policies to provide incentive schemes to renewable energy investors, such as feed-in tariff and tax exemptions.⁵ These changes generated the renewable energy investment bloom in Europe in the first decade of 21st century.

However, the rapid growth of renewable energy has also resulted in the frequent adjustment of national energy regulations. Renewable energy investors that were once granted preferential treatment such as feed-in-tariffs and reduced taxes are facing substantial retraction of support from several states through changes in domestic energy regulations.⁶ These retraction and frequent change of incentives for renewable energy in regulatory frameworks induced many transnational disputes in renewable energy investments, occurring first and foremost in Europe. From 2010, Spain issued a number of royal decrees to adjust the previous incentive framework for renewable energy and then completely repealed the previous regime.⁷ Due to the dramatic policy change, investors have filed 48 cases against Spain,⁸ and most of these cases arise under the Energy Charter Treaty. At the time of writing, 20 of these cases have been concluded, with 16 decided in favour of the investor and only 3 in favour of the state.⁹ The factual basis of these cases all revolve around regulation change, however, the

https://ec.europa.eu/clima/policies/strategies/2030_en; see also *Energy and Climate Change – Elements of the Final Compromise*, Council of The European Union 17215/08, Brussels, 12 December 2008, available at: https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/104672.pdf.

⁴ Directive 2009/28/EC, of The European Parliament and of The Council of 23 April 2009 On The Promotion Of The Use Of Energy From Renewable Sources, [2009] OJ L 140/16, amended by Directive 2018/2001, of The European Parliament and of The Council of 11 December 2018 On The Promotion Of The Use Of Energy From Renewable Sources, [2018] OJ L 328/82 [hereinafter “Renewable Energy Directive 2018”]; 2030 Climate and Energy Framework, European Council on October 2014, EUCO 169/14, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52014DC0015>.

⁵ See the National Energy and Climate Plans of member states, including the relevant regulations and policies at the European Commission website: https://ec.europa.eu/info/energy-climate-change-environment/overall-targets/national-energy-and-climate-plans-necps_en (last access April 11, 2021)

⁶ López-Rodríguez, ‘The Sun Behind the Clouds? Enforcement of Renewable Energy Awards in the EU’, *Transnational Environmental Law* (2019) 24, at 283–285.

⁷ Dromgool and Enguix, ‘The Fair and Equitable Treatment Standard and the Revocation of Feed in Tariffs—Foreign Renewable Energy Investments in Crisis-Struck Spain’, in V. Mauerhofer (ed.), *Legal Aspects of Sustainable Development: Horizontal and Sectorial Policy Issues* (2016) 389, at 396–397.

⁸ Figures gathered from the UNCTAD Investment Policy Hub, <http://investmentpolicyhub.unctad.org/IIA>; and the Energy Charter Treaty Website with Spain as the respondent in advanced search, available at <https://www.energychartertreaty.org/cases/list-of-cases/>. Please note that these are the known cases filed with the International Center for Settlement of Investment Disputes under the World Bank Group. There are 48 cases filed against Spain concerning the retraction of the subsidies, however, *Solarpark v. Spain* was discontinued, thus, until the time of writing there are 27 cases still pending against Spain regarding the retraction of subsidies for renewable energy investments.

⁹ The 16 cases decided in favour of the investors are:

- 1) *Eiser Infrastructure Limited and Energia Solar Luxembourg S.À R. l. v. Kingdom of Spain (Award)* (ICSID Tribunal, Case No. ARB/13/36, 4 May 2017) (‘*Eiser v. Spain*’);
- 2) *Novenergia II - Energy & Environment (SCA) (Grand Duchy of Luxembourg), SICAR v. The Kingdom of Spain (Final Award)* (Arbitration Institute of the Stockholm Chamber of Commerce, Case No 2015/063, 15 February 2018) (‘*Novenergia v. Spain*’);
- 3) *Antin Infrastructure Services Luxembourg S.a.r.l and Antin Energia Termosolar B.V v. Spain (Award)* (ICSID Tribunal, Case No. ARB/13/31, 15 June 2018) (‘*Antin v. Spain*’);

tribunals have reached different conclusions based on varying interpretation of what constitutes legitimate expectations. Out of the cases decided in favour of the investors, Spain has initiated several annulment proceedings pending further review.

Similarly, other EU members, such as Italy, the Czech Republic, Romania and Bulgaria have also retracted or substantially diminished their supportive framework for renewable energy investments. At the time of writing, 7 cases were filed against the Czech Republic for the amendments of the pre-existing incentive regime on photovoltaic electricity generators. Out of the 7 cases, 6 of them were decided in favour of the state.¹⁰ *Natland v. Czech*, the only case

4) *Masdar Solar & Wind Cooperatief U.A v. Spain (Award)* (ICSID Tribunal, Case No. ARB/14/1, 16 May 2018) ('*Masdar v. Spain*');

5) *Foresight Luxembourg Solar I S.a.r.l and others v. Spain (Award)* (Arbitration Institute of the Stockholm Chamber of Commerce, Case No. 2015/150, 14 November 2018) ('*Foresight v. Spain*');

6) *RREEF Infrastructure (G.P.) Limited and RREEF Pan-European Infrastructure Two Lux S.à r.l. v. Kingdom of Spain (Decision on Responsibility and on the Principles of Quantum)* (ICSID Tribunal, Case No. ARB/13/30, 30 November 2018) ('*RREEF v. Spain*');

7) *Nextera Energy Global Holdings B.V. & Nextera Energy Spain Holdings B.V. v. The Kingdom of Spain (Award)* (ICSID Tribunal, Case No. ARB/14/11, 31 May 2019) ('*Nextera v. Spain*');

8) *9REN Holding v. The Kingdom of Spain (Award)* (ICSID Tribunal, Case No. ARB/15/15, 31 May 2019) ('*9REN v. Spain*');

9) *Cube Infrastructure Fund Sicav and Others v. The Kingdom of Spain (Award)* (ICSID Tribunal, Case No. ARB/15/20, 15 July 2019) ('*Cube v. Spain*');

10) *SolEs Badajoz GmbH v. Kingdom of Spain (Award)* (ICSID Tribunal, Case No. ARB/15/38, 31 July 2019) ('*SolEs v. Spain*');

11) *InfraRed Environmental Infrastructure GP Limited and others v. The Kingdom of Spain (Award)* (ICSID Tribunal, Case No. ARB/14/12, 2 August 2019) ('*InfraRed and Others v. Spain*');

12) *OperaFund Eco-Invest SICAV PLC and Schwab Holding AG v. Kingdom of Spain (Award)* (ICSID Tribunal, Case No. ARB/15/36, 9 September 2019) ('*OperaFund v. Spain*').

13) *Hydro Energy I and Hydroxana v. Spain (Award)* (ICSID Tribunal, Case No. ARB/15/42, 20 August 2020) ('*Hydro Energy v. Spain*')

14) *Watkins Holdings v. Spain (Award)* (ICSID Tribunal, Case No. ARB/15/44, 21 January 2020) ('*Watkins v. Spain*')

15) *RWE Innogy v. Spain (Award)* (ICSID Tribunal, Case No. ARB/14/34, 18 December 2020) ('*RWE v. Spain*')

16) *The PV Investors v. Spain (Award)* (PCA Case No. 2012-14, 28 February 2020) ('*PV Investors v. Spain*')

The two cases decided in favour of the state are:

1) *Charanne B.V. and Construction Investments S.a.r.l. v. Spain (Award)* (Arbitration Institute of the Stockholm Chamber of Commerce, Case No. 062/2012, 21 January 2016) Unofficial English Translation by Mena Chambers ('*Charanne v. Spain*'); and

2) *Isolux Netherlands, BV v. Kingdom of Spain (Final Award)* (Arbitration Institute of the Stockholm Chamber of Commerce, Case No V2013/153, 17 July 2016) ('hereinafter *Isolux v. Spain*').

3) *Stadtwerke München and others v. Spain (Award)* (ICSID Tribunal, Case No. ARB/15/1, 2 December 2019) ('*Stadtwerke München and others v. Spain*').

One case discontinued: *Solarpark v. Spain*

¹⁰ The 7 cases are:

1) *JSW Solar GmbH & Co.KG, Gisela Wirtgen, Jürgen Wirtgen, and Stefan Wirtgen v. Czech Republic (Award)* (Permanent Court of Arbitration, Case No 2014-03, 11 October 2017) ('*JSW Solar v. Czech*');

2) *Antaris Solar GmbH and Dr. Michael Göde v. The Czech Republic (Award)* (Permanent Court of Arbitration, Case No. 2014-012 May 2018) ('*Antaris v. Czech*');

3) *WA Investments-Europa Nova v. The Czech Republic (Award)* (Permanent Court of Arbitration, Case No. 2014-19, 15 May 2019) ('*WA Investment v. Czech*');

4) *Voltaic Network v. The Czech Republic (Award)* (Permanent Court of Arbitration, Case No. 2014-20, 15 May 2019) ('*Voltaic v. Czech*');

5) *Photovoltaik Knopf Betriebs v. The Czech Republic (Award)* (Permanent Court of Arbitration, Case No. 2014-21, 15 May 2019) ('*Photovoltaik v. Czech*');

6) *I.C.W. Europe Investment Limited v. The Czech Republic (Award)* (Permanent Court of Arbitration, Case No. 2014-22, 15 May 2019) ('*I.C.W. Europe v. Czech*');

that was decided in favour of the investor through a partial award in 2017 is still not made public, although summary of the findings has been provided.¹¹ Italy has 13 cases under its belt for a series of governmental decrees to cut tariff incentives for solar power projects, causing the bankruptcy of several solar power energy companies. 7 cases have been decided out of the 13, with 4 ruled for states and 3 against.¹² There are 4 cases filed against Romania and 3 against Bulgaria for their regulatory change on incentives for renewable energy. Currently only 1 case for each of these two countries have been resolved and despite the tribunals having ruled in favour of the state in both, the awards are still not made public and only summaries of the findings are available.¹³

This is not an issue specific to Europe, for instance, recent changes of regulations for renewable energy by the Mexican Government to favor state-owned oil and gas company in the energy sector has resulted in threats of litigation against the government in both domestic and international venues.¹⁴ Many Asian countries are also accelerating their transitioning process to clean energy. The outcome of current renewable energy investor-state arbitration might induce developing countries to reflect on their energy policies and reconsider whether feed-in-tariff is still a desirable measure for renewable energy investments. On one hand, this could disincentive developing states from supporting the renewable energy sector; on the other hand, such pressure might push the industry to innovate technology and learn to survive in this competitive market.

In these renewable energy cases, it seems that the state who are retracting subsidies have chosen to protect one public good (tariff stability) over another global common (climate change), which has also caused negative effects to renewable energy investors. It is important to note that domestic regulations are driven by many influential factors, including domestic political and economic changes. Such changes could result in the protection of a domestic public good over the protection of a global common good, which could amount to the breach

7) *Natland and Others v. The Czech Republic (Partial Award)* (Permanent Court of Arbitration, Case No. 2013-34, 20 December 2017) ('*Natland v. Czech*') (partial award not made public, see summary of the partial award at <https://www.iareporter.com/articles/natland-v-czech-republic-part-2-of-2-on-the-merits-tribunal-finds-stabilisation-commitment-in-czech-legislation-and-breach-of-that-commitment-with-introduction-of-solar-levy/>).

¹¹ Ibid., *Natland v. Czech*.

¹² The four cases that ruled in favour of the state are:

- 1) *Blusun S.A., Jean-Pierre Lecorcier and Michael Stein v. Italian Republic (Award)* (ICSID Tribunal, Case No. ARB/14/3, 27 December 2016) ('*Blusun v. Italy*');
- 2) *Belenergia v. Italy (Award)* (ICSID Tribunal, Case No. ARB/15/40, 28 August 2019) ('*Belenergia v. Italy*').
- 3) *Eskosol S.p.A. in liquidazione v. Italian Republic (Award)* (ICSID Tribunal, Case No. ARB/15/50, 4 September 2020) ('*Eskosol v. Italy*').
- 4) *Sun Reserve Luxco Holdings SRL v. Italy (SCC Case No. 132/2016, 25 March 2020)* ('*Sun Reserve v. Italy*').

The three cases decided in favour of the investors are:

- 1) *Greentech Energy Systems A/S, NovEnergia II Energy & Environment (SCA) SICAR, and NovEnergia II Italian Portfolio SA v. Italian Republic (Final Award)* (Arbitration Institute of the Stockholm Chamber of Commerce, Case No. 2015/095, 23 December 2018) ('*Greentech and Others v. Italy*');
- 2) *CEF Energia v. Italy (Award)* (Arbitration Institute of the Stockholm Chamber of Commerce, Case No. 158/2015, 16 January 2019) ('*CEF Energia v. Italy*').
- 3) *ESPF Beteiligungs GmbH, ESPF Nr. 2 Austria Beteiligungs GmbH, and InfraClass Energie 5 GmbH & Co. KG v. Italian Republic (Award)* (ICSID Tribunal, Case No. ARB/16/5, 14 September 2020) ('*ESPF and others v. Italy*').

The two cases decided in favour of the investors are: *Greentech and Others v. Italy*, and *CEF Energia v. Italy*.

¹³ The two cases that have been decided are: *Alpiq AG v. Romania (Award)*, awards not public for summary of the findings see <https://www.iareporter.com/articles/icsid-tribunal-dismisses-claim-against-romania-over-electricity-supply-contracts-2/>; and *EVN AG v. Republic of Bulgaria (Award)*, award not made public for summary of the findings see <https://www.iareporter.com/articles/tribunal-members-diverge-in-final-ruling-in-intra-eu-ect-arbitration-against-bulgaria/>.

¹⁴ *Protecting RES Investments in Mexico - Update on Legislative Measures: Clyde & Co*, available at <https://www.clydeco.com/insights/2021/03/protecting-res-investments-in-mexico-update-on-leg> (last visited 10 October 2021).

of international obligations. Therefore, there exists an odd situation that has seldom been explored under international investment law—the investor's rights are in alignment with the protection of a global public good whereas the state's regulation impedes such protection. It currently remains unclear whether foreign investors may invoke international environmental agreements in investor-state arbitrations to support their claim that, due to the state's non-compliance to these environmental agreements, the investment has suffered losses that amount to a breach of obligations under the investment treaties. In other words, this paper is trying to address whether it is possible to integrate international environmental law with international investment law so that the environmental obligations are not only used by the state as a “shield” to relieve states from investment-protection requirements, but also as a “sword” to compel the state to fulfil the international environmental obligations it has been ratified by member states.

Section II will review several investor-state arbitration cases that have addressed the applicability of international environmental agreements. The tribunals' attitude toward applying these agreements have been vague and inconsistent. However, with the emergence of states filing counterclaims and using international environmental agreements to hold the investors accountable, arbitral tribunals have been more inclined to explore the roles and responsibilities of both the state and the investor under international environmental agreements and public international law in general. Section III will review the relevant renewable energy investment cases to first illustrate the current problem of interpreting what constitute as legitimate expectations and its incompatibility with climate change law. Then the paper will proceed to advocate for a holistic interpretation of legitimate expectations and outline the reasons for such advocacy.

II. Applying International Environmental Obligations in Investor-State Arbitration: From Co-option to Human Rights Upfront?

A. Starting with “Co-Option”: S.D. Myers v. Canada and Allard v. Barbados

International investment law is not completely foreign to international environmental obligations. A limited number of cases have previously touched upon the use of international environmental agreements both as a defense for the state, as well as the source of a claim from the investors. The following paragraphs will focus on the tribunals' approach toward applying international environmental obligations in investor-state arbitration. However, it is important to note that direct reference to international environmental agreements by investor-state tribunals remain scarce.

The first case that directly addressed the applicability of international environmental agreements in investor-state arbitration is the *S.D. Myers v. Canada* case,¹⁵ where Canada invoked the Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal¹⁶ to justify its ban on the transit of Polychlorinated Biphenyl (“PCB”) to the United States.¹⁷ While Canada had ratified the Basel Convention, the United State only became a signatory state without receiving ratification from Congress at the time of the dispute. Nevertheless, the tribunal addressed the applicability of the Basel Convention, which required signatories to ensure that the transboundary movement of hazardous waste is reduced to the minimum in environmentally sound manner that would protect human health and the

¹⁵ *S.D. Myers v. The Government of Canada*, 40 I.L.M 1408, Partial Award (NAFTA Arb. 2002). (hereinafter *S.D. Myers v. Canada*)

¹⁶ Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal, opened for signature 22 March 1989, 1673 UNTS 126 (hereinafter *Basel Convention*).

¹⁷ The PCB is a hazardous waste listed under the Basel Convention that can cause serious harm to human health and the environment.

environment from the adverse effect of such movement.¹⁸ The Basel Convention also prohibited exports and imports of hazardous waste from and to states that are not parties to the convention, unless there exists a bilateral or multilateral agreement that would not detract from the environmentally sound management of waste.¹⁹

The reason for the tribunal's analysis of international environmental law is that *S.D Myers v. Canada* arose under the North American Free Trade Agreement ("NAFTA"), which recognizes the preemptive nature of previously concluded multilateral and bilateral environmental agreements in Article 104 of NAFTA²⁰ and also in the North American Agreement on Environmental Cooperation (the "NAAEC"),²¹ more commonly known as the NAFTA's side agreement on environmental cooperation. To include a direct deference to international environmental obligations was a rare phenomenon in investment treaties at that time, instead, the more common approach was to address international environmental agreements in the preamble, thus making environmental obligations more hortatory and difficult to be applied directly.²² Another reason for the tribunal's application of the Basel Convention is that the provisions at issue are not in conflict with, but rather complement, the investment treaty itself. The Basel Convention defers to non-parties to establish bilateral agreements on hazardous waste and does not outlaw transboundary movement between parties. This deference renders

¹⁸ Basel Convention, Article 4(2)(d) (ensure that the transboundary movement of hazardous wastes and other waste is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement)

¹⁹ Basel Convention, Article 11.1 (Notwithstanding the provisions of Article 4 paragraph 5, Parties may enter into bilateral, multilateral, or regional agreements or arrangements regarding transboundary movement of hazardous wastes or other wastes with Parties or non-Parties provided that such agreements or arrangements do not derogate from the environmentally sound management of hazardous wastes and other wastes as required by this Convention. These agreements or arrangements shall stipulate provisions which are not less environmentally sound than those provided for by this Convention in particular taking into account the interests of developing countries.)

²⁰ North America Free Trade Agreement, Can. Mex. U.S., Dec.17 1992, 32 ILM 289, 605 (1993) (hereinafter NAFTA).

(Article 104: Relation to Environmental and Conservation Agreements)

1. In the event of any inconsistency between this Agreement and the specific trade obligations set out in:

a) the Convention on International Trade in Endangered Species of Wild Fauna and Flora, done at Washington, March 3, 1973, as amended June 22, 1979,

b) the Montreal Protocol on Substances that Deplete the Ozone Layer, done at Montreal, September 16, 1987, as amended June 29, 1990,

c) the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, done at Basel, March 22, 1989, on its entry into force for Canada, Mexico and the United States, or

d) the agreements set out in Annex 104.1,

such obligations shall prevail to the extent of the inconsistency, provided that where a Party has a choice among equally effective and reasonably available means of complying with such obligations, the Party chooses the alternative that is the least inconsistent with the other provisions of this Agreement.

2. The Parties may agree in writing to modify Annex 104.1 to include any amendment to an agreement referred to in paragraph 1, and any other environmental or conservation agreement.

Annex 104.1: Bilateral and Other Environmental and Conservation Agreements

1. The Agreement Between the Government of Canada and the Government of the United States of America Concerning the Transboundary Movement of Hazardous Waste, signed at Ottawa, October 28, 1986.

2. The Agreement Between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area, signed at La Paz, Baja California Sur, August 14, 1983.)

²¹ North American Agreement on Environmental Cooperation, art.40, Can. Mex. U.S., Sep.14 1993, 32 I.L.M. 1480 (1993) (hereinafter NAAEC)

²² K. Gordon & J. Pohl, *Environmental Concerns in International Investment Agreements: A Survey* (OECD Working Papers on International Investment, 2011/01).

legitimacy and support to the transboundary movement of PCB and allowed the tribunal to interpret the legality of the movement through a bundle of international agreements holistically. Through interpreting the bundle of rules under NAFTA and relevant bilateral treaties between Canada and the US, the tribunal came to the conclusion that even if the Basel Convention was ratified by the US, it would not have shielded Canada from prohibiting PCB exports to the US.²³ In reaching this conclusion, the tribunal looked to the objectives of the NAAEC, which included “support for the environmental goals and objectives of NAFTA”²⁴ and “avoidance of new barriers of distortions in cross-border trade”²⁵, as well as the preamble, which emphasized the goal of trade liberalization in a manner consistent with environmental protection and conservation.²⁶ Through a textual interpretation of NAFTA, NAAEC and the Canada-US Transboundary Agreement, the tribunal decided that the following principle should apply: parties enjoy the regulatory autonomy to impose stricter environmental standards, as long as, these standards should be mutually supportive of economic development and avoid creating trade distortions. In other words, whether a preemptive international environmental agreement could be successfully invoked as a defense to relieve the host state of its investor protection obligations depended upon whether “a state can achieve its chosen level of environmental protection through a variety of equally effective and reasonable means”, in which case, “it is obliged to adopt the alternative that is most consistent with open trade.”²⁷ It is not surprising that this line of interpretation was criticized by environmental groups and the international law community in general to have co-opted environmental obligations into investment liberalization²⁸ and has since prompted a new generation of investment treaties that renders more space for regulatory autonomy.²⁹

Unlike *S.D. Myers v. Canada*, in *Allard v. Barbados*, the international environmental agreement in question was invoked by the Canadian investor as a sword to demonstrate the state’s breach of investor protection obligations.³⁰ The investor acquired and developed a wetland area in Barbados for an eco-tourism attraction and had complied with a series of planning and environmental impact assessment approved by the government. The acquired land underwent construction for several years and finally opened up to the public in Spring 2004 as a sanctuary eco-tourist spot. In 2005, due to a failed operation by the South Coast Sewage Treatment Plant operated by the Barbados Water Authority resulted in discharge of raw sewage into the sanctuary. The investor claimed that the sewage spill, together with the mismanagement of the Sluice Gate by Barbados (intended for tidal exchange between the sanctuary swamps and

²³ *S.D. Myers v. Canada*, *supra* note 15, at §215.

²⁴ NAAEC, *supra* note 21, art.1(d).

²⁵ *Id.*, art.1(e).

²⁶ *S.D. Myers v. Canada*, *supra* note 15, at §220 (the Preamble to the NAFTA, the NAAEC and the international agreements affirmed in the NAAEC suggest that specific provisions of the NAFTA should be interpreted in light of the following general principles:

Parties have the right to establish high levels of environmental protection; They are not obliged to compromise their standards merely to satisfy the political or economic interests of other states;

Parties should avoid creating distortions to trade; environmental protection and economic development can and should be mutually supportive.

²⁷ *Id.*, at §221.

²⁸ D. Behn & M. Langford, ‘*Trumping the Environment? An Empirical Perspective on the Legitimacy of Investment Treaty Arbitration*’, 18 *J. of World Inv. & Trade* (2017) 14, 15.

²⁹ K. Nowrot, ‘How to Include Environmental Protection, Human Rights and Sustainability in International Investment Law?’, 15 *J. of World Inv. & Trade* (2014) 612, 623.

³⁰ P. A. Allard v. The Government of Barbados, PCA Case No. 2012-06, Award (Perm. Ct. Arb. 2016), <https://pcacases.com/web/sendAttach/1955>. (hereinafter *Allard v. Barbados*), at §198 (The Claimant adds that Barbados’ environmental treaty obligations confirmed and reinforced the specific representations made by Barbados to Mr. Allard.)

sea water), as well as reclassification of adjacent polluted land to the sanctuary, deteriorated the sanctuary's ecological environment and diminished the value of the investment.³¹

To support the claim that the state had a responsibility to protect the ecological value of the sanctuary, the investor invoked the United Nations Convention on Biological Diversity ("CBD")³² and the Convention on Wetlands of International Importance especially as Waterfowl Habitat ("Ramsar Convention")³³ alleging that Barbados's accession to these international treaties confirmed and enhanced the state's specific commitment to adequately protect the investment in question due to its sanctuary status. The investor made two claims under the Barbados-Canada BIT that referred to the Ramsar Convention. First, the investor claimed that Barbados's failure to protect its own environmental habitat violated the investor's legitimate expectation that the investment value would not decrease substantially, which amounted to a breach of fair and equitable treatment under the investment treaty.³⁴ Second, the investor alleged that Barbados failure to adequately manage the Sluice Gate and enforce its environmental laws, such as the Marine Pollution Control Act breached Article II (2) "full protection and security" clause of the Barbados-Canada BIT, where the host state has the obligation to act with due diligence to protect the investment against injury.³⁵ In particular, the investor referred to the *Trail Smelter* case, which established that pollution to private property is actionable for damages under customary international law.³⁶

The tribunal rejected both of investor's claims, mainly on the grounds that the sanctuary did not suffer environmental derogation, and hence there was no loss of investment value.³⁷ The tribunal's analysis of the applicability of international environmental agreements in these claims is worth noting for two reasons, first is the tribunal's confirmation the state's obligation under an international environmental treaty, and second is tribunal's analysis for dismissing the relevance of the environmental treaty in connection with legitimate expectations. For the first part, the tribunal indirectly recognized that the state's obligation under an international environmental treaty might be used to confirm or reinforce the legitimate expectation of the investor on a case-by-case basis subject to the existence of a prior "direct and specific commitment" made by the state.³⁸ However, after finding there were no such direct or specific commitment by Barbados to take specific actions in protecting the environment of the sanctuary, the tribunal dismissed the relevance of the CBD and the Ramsar Convention in forming legitimate expectations.³⁹ Here, the tribunal did not regard the letter sent by a competent Barbados authority assuring the investor of the sanctuary status of the investment as a direct or specific commitment, which is debatable considering past tribunal decisions and prominent scholarly works.⁴⁰ Besides, the investor claimed that it had reasonable expectations

³¹ *Id.*, at §174-179.

³² Convention on Biological Diversity, 5 June 1992, 1760 UNTS 79, 31 ILM 818 (1993) (hereinafter *UN Convention on Biodiversity*)

³³ Convention on Wetlands of International Importance especially as Waterfowl Habitat, Feb. 2, 1971, 996 UNTS 245 (hereinafter *Ramsar Convention*).

³⁴ *Allard v. Barbados*, *supra* note 30, at §170-179.

³⁵ *Id.*, at §230-234.

³⁶ *Trail Smelter Case* (U.S.A. v. Canada), UNRIIAA, vol. III (Sales No. 1949. V.2), p. 1965 (1938, 1941).

³⁷ *Allard v. Barbados*, *supra* note 30, at §139.

³⁸ *Id.*, at §208.

³⁹ *Id.*, at §199.

⁴⁰ W. M. Reisman, M. H. Arsanjani, 'The Question of Unilateral Governmental Statements as Applicable Law in Investment Disputes', 19(2) *ICSID Rev. - Foreign Inv. L. J.* (2004) 328, 341 (Where a host State which seeks foreign investment acts intentionally, so as to create expectations in potential investors with respect to particular treatment or comportment, the host State should [...] be bound by the commitments and the investor is entitled to rely upon them in instances of decision); M. Potestà, '*Legitimate Expectations in Investment Treaty Law: Understanding The Roots And The Limits Of A Controversial Concept*', 28 *ICSID Rev. - Foreign Inv. L. J.* (2013) 88, 114 (Thus, one finds support also in the public international law rules on unilateral acts for the contention that representations made by a state, from which it later relies, engender expectations that are worthy of protection).

that Barbados would “uphold its environmental policies, particularly those that reflected a commitment to conservation and protection of the biodiversity of the Sanctuary”⁴¹. In other words, Allard expects Barbados to enforce its own environmental laws and policies to preserve and protect the sanctuary as expressed under the CBD.

I find it difficult to understand the reasoning of the tribunal here, which seems to suggest that an additional specific assurance needs to be granted to a foreign investor before the investor could “legitimate expect” the state to abide its laws in the first place. If every domestic law needs a specific assurance before it can be applied to a foreign investor, the national treatment standard (granting foreigners the same treatment as nationals) included in most investment and trade treaties would be obsolete, and the aim and purpose of an investment treaty to protect and promote foreign investment would be meaningless. A possible explanation is that the tribunal considered environmental law as a secondary set of legal norms that needs to be subordinated to international investment protection standards. This “co-opting” reasoning might have been more compelling if the constitutional of the host state stipulates that domestic law contravenes with international law, international law shall prevail. However, if that is the legal reasoning that the tribunal based itself upon, it is puzzling why international environmental agreements were not granted the same legal status.

B. Using International Environmental Obligations as Counterclaims: Constraining Investors to International Environmental Obligations

This section will address the host state’s application of international environmental agreements as legal basis for counterclaims against foreign investors for environmental damages. The reason for including this part is two-fold, first to illustrate how tribunals have accepted the connecting between international environmental obligations and domestic law; and second is to demonstrate that since the tribunal has accepted the states to invoke international environmental agreements against investors, according to systemic interpretation under Art.31(3)(c) of Vienna Convention of the Law of Treaties⁴², the investor’s reference to international environmental agreements should also be considered.

Recent developments in investor-state arbitration suggest that the tribunal is showing a certain level of willingness to integrate international environmental obligations with domestic law of the host state in investor-state arbitration through counter-arguments. Counter-arguments are not common in investor-state arbitration.⁴³ In fact, one of the major critiques for investor-state arbitration is the unsymmetrical litigation possibilities for investors and the state: the investor can initiate arbitration against the state for breach of investment protection at an international forum, whereas the state cannot initiate such arbitration but can only respond through counterclaims.⁴⁴ While counterclaims have always been available in theory, it has only been tested in practice in a few cases. The most influential and relevant counterclaim cases relating

These public international rules could be applied by analogy within the investor-state context.); R. Dolzer & C. Schreuer, *Principles of International Investment Law* (OUP 2008) 135 (there is authority to the effect that ‘the investor’s legitimate expectations are protected even without a treaty guarantee of FET’).

⁴¹ *Id.*, at §199 & n330.

⁴² Vienna Convention on the Law of Treaties art. 31(3)(c), opened for signature May 23, 1969, 1155 U.N.T.S. 331 (Article 31: General rule of interpretation...3. There shall be taken into account, together with the context: ... (c) any relevant rules of international law applicable in the relations between the parties.)

⁴³ I. C. Popova and F. Poon, ‘From Perpetual Respondent to Aspiring Counterclaimant? State Counterclaims in the New Wave of Investment Treaties’, 2 *BCDR Int’l Arb. Rev.* (2015) 223, 228.

⁴⁴ See generally Z. Douglas, ‘Enforcement of Environmental Norms’, in P.-M. Dupuy & J. E. Viñuales, (eds.), *Harnessing Foreign Investment to Promote Environmental Protection: Incentives and Safeguards* (CUP, 2013) 419.

to international environmental obligations are the two cases brought by Ecuador against oil companies for environmental damages in *Perenco v. Ecuador*⁴⁵ and *Burlington v. Ecuador*.⁴⁶ *Perenco* and *Burlington* share the basic facts and applicable laws. Burlington (US based) and Perenco (French based) formed an oil and gas consortium that are licensed by the Ecuador government to explore hydrocarbons in a sector of Ecuadorian Amazon since the early 2000s.⁴⁷ Following the general norm under bilateral investment treaties (“BITs”), the licenses contracts were governed by Ecuador domestic law and the applicable laws were incorporated as reference.⁴⁸ Starting in 2005, Ecuador increased its tax rate on profits derived from exploring hydrocarbons and by 2007 the tax rate rose to 99%.⁴⁹ Soon after the tax increase, both Perenco and Burlington initiated investor-state arbitrations against Ecuador, claiming that the tax constituted as expropriate of their investment value under the French-Ecuador BIT and US-Ecuador BIT respectively.

Ecuador filed counterclaims against the companies, alleging that the consortium caused soil and underground water contamination. While the 2008 amended environmental regulations of Ecuador holds companies strictly liable for any environmental damages caused by exploring hydrocarbon in the Amazon, the investors argue that these amended regulations cannot apply retroactively against them and the standard of liability for environmental damages should be based on fault.⁵⁰

The tribunal in *Perenco* supported the investor’s claim on the non-retroaction of the 2008 Constitution and deemed that for any environmental damages occurred before 2008 should be based the fault standard to evaluate compensation.⁵¹ Although the tribunal in *Perenco* accepted the experts’ report on the influence of “sustainable development” in the Rio Declaration on Ecuadorian laws and regulations since the 1970s⁵² and emphasized the private contractor’s positive obligation to clean up and reforest the area according to “public and private law obligations” when the contractual relationship terminates,⁵³ the end result is slightly disappointing. The tribunal ruled that when there exists specific environmental laws to govern hydrocarbons, the “background values” incorporated in the 2008 Constitution does not apply.⁵⁴ Thus, it precluded the direct application of principles and standards derived from international environmental law, such as the right to full restoration and the population’s right to healthy environment, which would impose a more stringent restriction on the level of pollution tolerated by the oil and gas companies, as well as the restoration damages that could be claimed by the state. Regardless of the fact that these principles have been incorporated into the 2008 Constitution,⁵⁵ and the 2008 Constitution Article 11 (3) explicitly states that “the rights and guarantees set forth in the Constitution and in human rights international instruments shall be of direct and immediate application”.⁵⁶

⁴⁵ *Perenco Ecuador, Ltd. v. Republic of Ecuador*, ICSID Case No. ARB/08/6, Interim Decision On the Environmental Counterclaim (2015) (hereinafter *Perenco v. Ecuador*)

⁴⁶ *Burlington Resources Inc. v. Republic of Ecuador*, ICSID Case No. ARB/08/5, Decision on Counterclaims (2017) (hereinafter *Burlington v. Ecuador*)

⁴⁷ *Id.*, §14; *Perenco v. Ecuador*, *supra* note 45, §62.

⁴⁸ *Burlington v. Ecuador*, *supra* note 46, §20; *Perenco v. Ecuador*, *supra* note 45, §321-322.

⁴⁹ *Burlington v. Ecuador*, *supra* note 46, §35; *Perenco v. Ecuador*, *supra* note 45, §109.

⁵⁰ *Burlington v. Ecuador*, *supra* note 46, §122; *Perenco v. Ecuador*, *supra* note 45, §134.

⁵¹ *Perenco v. Ecuador*, *supra* note 45, §§355-358.

⁵² *Id.*, §331.

⁵³ *Id.*, §369 & n903.

⁵⁴ *Id.*, §321.

⁵⁵ *Id.*, §81 (One of Ecuador’s legal experts, Professor Ricardo Crespo Plaza, explained that the Environmental Management Law was inspired by the content of international instruments relating to environmental protection, such as the Rio Declaration, which, according to Article 3 of the Law, is a “guiding instrument for Ecuador’s environmental policy.”)

⁵⁶ *Id.*, §120.

Nevertheless, there are positive aspects of *Perenco* that deserves noting. The tribunal in *Perenco* reinforced the state's right to regulate environmental concerns, and recognized the state's autonomy under international law to adjust its environmental laws on extractive industries that pose significant risks to the environment.⁵⁷ The tribunal also recognized that favorable constitutional interpretation towards environmental protection should be applied when in doubt.⁵⁸ These acknowledgements indicate that there is a general consensus in investor-state arbitration that the non-derogation of environmental protection is a crucial aspect of the state's regulatory autonomy that shall not be subject to review.

In *Burlington*, the tribunal ruled against the investor's arguments that the strict liability standard shall not apply and found that according to Ecuadorian precedents, only *force majeure*, an act of a third party or of the victim can exonerate the investor for environmental damages resulting from a breach of the duty of care.⁵⁹ Having found that the investor did not comply with environmental requirements such as environmental audit, environmental planning and environmental licensing, and have resulted in soil contamination and irregular waste management in highly sensitive ecological areas,⁶⁰ the tribunal ruled in favor of Ecuador's counterclaim for environmental damages for strict liability for environmental damages regardless of when the damages occurred.

Another important aspect of the *Burlington* case is the tribunal's in-depth analysis of the incorporation of environmental protection in the 2008 Ecuador Constitution, where the tribunal recognized that the Constitution to have "bestowed rights to nature and codifies the fundamental principle of environmental stewardship".⁶¹ The tribunal in *Burlington* did not need to analyze the applicability of international environmental agreements in investor-state arbitration, as the 2008 Ecuador Constitution incorporated many fundamental principles of environmental law, such as the polluter's pay principle from the Rio Declaration.⁶² For instance, Article 71 of the Constitution recognized nature as the bearer of rights, entitled to protection and reparation in the event of environmental harm.⁶³ Article 395(4) of the Constitution embodies the principle *in dubio pro natura*, and requires that "in the event of doubt about the scope of legal provisions for environmental issues, it is the most favorable interpretation of their effective force for the protection of nature that shall prevail".⁶⁴ And the Constitution imposed on all economic actors the duty to prevent environmental harm, to mitigate and repair the damages, as well as the "right of the population to live in a healthy and ecologically balanced environment that guarantees sustainability and the good way of living".⁶⁵ In this context, the state is called upon to mitigate climate change, limit greenhouse gas emissions and promote clean technology.⁶⁶

The tribunal recognized all the articles above and concluded that environmental protection is one of the fundamental pillars of the 2008 Ecuador Constitution and that "environmental stewardship has taken on a new dimension in Ecuadorian society".⁶⁷ The strong constitutional basis for environmental protection and the precedents from the Ecuador Supreme Court in applying strict liability to environmental damages persuaded the tribunal to grant environmental

⁵⁷ *Id.*, §347.

⁵⁸ *Id.*, §322.

⁵⁹ *Burlington v. Ecuador*, *supra* note 46, §240.

⁶⁰ *Id.*, §§242-243.

⁶¹ *Id.*, §195.

⁶² *Id.*, §112.

⁶³ *Id.*, §112 and 163.

⁶⁴ *Id.*, §207.

⁶⁵ *Id.*, §§201 and 351.

⁶⁶ *Id.*, §§215 and 385.

⁶⁷ *Id.*, §216.

damages to Ecuador, making *Burlington* the first successful case brought by the state against the investor for environmental damages under an investor-state arbitration tribunal.

C. Preliminary Conclusion

Through reviewing the limited cases that touch upon invoking international environmental agreements in investor-state arbitration, I found that the tribunals are generally unwilling to touch upon whether these instruments are applicable laws, regardless of the references in investment treaties either to general international law or to international environmental agreements specifically. Instead, the tribunals required a nexus to domestic law in order to apply international environmental obligations, either through specific commitments (such as a letter or the stabilization clause in the investment treaty), or through the incorporation of certain international principles into domestic law. And even when the international environmental principles are incorporated in the Constitution of a state, the tribunal could still dismiss its relevance due to the *lex specialis* principle, and decide that only relevant environmental law or administrative law are relevant, as is the case in *Perenco v Ecuador*.

However, there might be a new possibility to approach international environmental obligations through a human right perspective. For example, in *Urbaser v. Argentina*, through analyzing relevant international instruments,⁶⁸ the tribunal concluded that the right to water obligation extends to non-state actors not to “destroy such rights”.⁶⁹ This conclusion is an important contribution. The tribunal did not follow the conventional perspective of invalidating the responsibility of non-state actors to conform to international human rights obligations,⁷⁰ instead, it was willing to say that the conventional approach “has lost its impact and relevance” and took a progressive view of the duties of transnational corporations.⁷¹ Here, I argue that there is a possibility to link climate change related international obligations with certain claims of human rights to offer a “human right upfront” narrative to convince the tribunal that “recognized common values” need to be considered in investor-state arbitration, even if the tribunal is *ad hoc* in form and was initially created to address foreign investment business. The international community has a general consensus that recognized “common value” should be respected as the objective of international law.⁷² Public participation could play a role in forming that story.

⁶⁸ *Urbaser s.a. and Consorcio de Aguas Bilbao Biskaia, Bilbao Biskaia Ur Partzuergoa v. Argentine Republic*, ICSID Case No. ARB/07/26, Award, (Dec.8, 2016) §1198 (hereinafter *Urbaser*). The tribunal reviewed the following international human rights documents on the right to water: Article 5(1) of the International Covenant on Economic, Social and Cultural Rights (this provision precludes rights contained in the ICESCR from being interpreted in a manner that permits States and non-State actors to destroy or limit other rights set out in the ICESCR); General Comment No. 15 of CESCR (to support the position that the ICESCR encompasses the right to water); United Nations’ General Assembly Resolution 64/292; and the requirement that corporations respect the UDHR and the ICESCR, which it sourced from Article 8 of the International Labor Office’s Tripartite Declaration of Principles concerning Multilateral Enterprises and Social Policy (of 1977, as amended in 2006). The tribunal also indirectly referred to un Human Rights Council, Protect, Respect and Remedy: a Framework for Business and Human Rights: Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie, A/HRC/8/5, 7 April 2008.

⁶⁹ *Urbaser*, *supra* note 68, §1199.

⁷⁰ C. Ryngaert, ‘Imposing International Duties on Non-State Actors and the Legitimacy of International Law’ in M. Noortmann, C. Ryngaert (eds.), *Non-State Actor Dynamics in International Law: From Law-Takers to Law-Makers* 60, 78 (Routledge, 2010).

⁷¹ *Urbaser*, *supra* note 68, §1194.

⁷² See generally on the role and status of “common values” in international law: B. Kingsbury and M. Donaldson, ‘From Bilateralism to Publicness in International Law’, in U. Fastenrath et al. (eds.), *From Bilateralism to Community Interests: Essays in Honour of Bruno Simma* (OUP, 2011) 79; N. Tsagourias (ed.), *Transnational Constitutionalism: International and European Models* (CUP, 2007) 377; V. P. Tzevelekos and L. Lixinski, ‘Towards a Humanized International “Constitution”’, 29 *LJIL* (2016) 343, 357; J. D. and J. Trachtman, ‘A Functional

In *Biwater v Tanzania*, where more than 300 civil representatives submitted amicus briefs to the tribunal and 38 countries sent written letters in support of the state's position of the right to water,⁷³ in the end, the tribunal acknowledged the regulatory autonomy of the host state to terminate concession contracts due to its human right duty to provide affordable water to its citizens.⁷⁴ Although it is not reasonable to make the claim that the public participation in *Biwater* decided the outcome of the case, several scholars have commented that it did have a significant impact on forming the tribunal's conclusion.⁷⁵

III. Addressing Climate Change Mitigation in Investor-State Arbitration: The Case of Renewable Energy Feed-in Tariffs

A. Possible Links between Renewable Energy Investments and International Environmental Agreements

Although the tribunals in the mentioned cases have not directly applied international environmental treaties to investor-state arbitration, it would be hasty to conclude international environmental treaties are inapplicable at all. To begin with, neither of these tribunals denied their jurisdiction to hear the claims invoking international environmental obligations, and secondly, neither of the tribunals directly rejected the applicability of international environmental agreements in investor-state arbitrations. In fact, the tribunal in *Allard* had positively confirmed the possibility to invoking environmental obligations to compel the host state to conform to certain obligations if there exist specific commitments.

The conflict and potential convergence between environmental conservation and investment promotion has been frequently introduced, hypothesized and studied based on specific environmental treaty or investment protection provisions. While these provisions create a general background and linkage between investment law and environmental law, most of the scholarship is focused on the conflict between the environmental law regime and the investment treaty regime.⁷⁶ The conflict can be divided into two themes: a) the conflict between the state's right to regulatory public domain and the state's obligation to protect investment (the conflict between domestic rules and international obligation); and b) the conflict between the requirement to differentiate low carbon emission investments from carbon intensive investments according to international environmental agreements, and the non-discriminatory requirement under international investment agreements that requires the state to treat investors of "like circumstances" equally (the conflict between international regimes).

Approach to International Constitutionalization' in J. Dunoff and J. Trachtman (eds.), *Ruling the World? Constitutionalism, International Law, and Global Governance* (CUP, 2009).

⁷³ L. Choukroune, 'Human Rights in International Investment Disputes — Global Litigation as International Law Re-Unifier' in L. Choukroune (ed.), *Judging the State in International Trade and Investment Law, International Law and the Global South* (Springer, 2016) 179, 191.

⁷⁴ *Biwater Gauff (Tanzania) Ltd v United Republic of Tanzania*, ICSID Case No ARB/05/22, Award, §387 (Jul. 24, 2008).

⁷⁵ L. Choukroune, *supra* note 73; J. E. Viñuales and F. Grisel, 'Amicus Intervention in Investor-State Arbitration: A Contemporary Reappraisal', in *Handbook on International Arbitration and ADR* (American Arbitration Association, 2nd ed., 2010) 34; E. Levine, 'Amicus Curiae in International Investment Arbitration: The Implications of an Increase in Third-Party Participation', 29 *Berkeley J Int'l L* (2011)1, 200–224; J. Harrison, 'Human Rights Arguments in Amicus Curiae Submissions: Promoting Social Justice?', in P. Dupuy et al. (eds.), *Human Rights in International Investment Law and Arbitration* (OUP, 2010) 396, 396–420.

⁷⁶ M. Cordonier Segger, M. W. Gehring, and A. Newcombe, *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) is one the earliest and most comprehensive books that deal with sustainable investment law, containing 30 chapters addressing the relationship between investment and a wide range of environmental protection topics, including water governance and climate change.

First, the conflict between the state's right to regulate public domain and the state's obligation to protect investment under the international investment agreement has been explored intensively in recent literature due to a number of highly publicized cases that challenged the state's regulatory right to safeguard public policy (e.g. public health). As environmental awareness improved dramatically over the past few decades, paired with the growing environmental activism, states are under political pressure to reform previous environmental standards and thereby ensure higher levels of protection to the environment.⁷⁷ To impose higher environmental standards concerning inbound foreign investments could clash with the protection rendered to investors under international investment agreements.⁷⁸ For instance, under the fair and equitable treatment provision, investors are entitled to "legitimate expectations," which includes legitimate expectations of the stability of regulations and laws relating to the investment. This provision was introduced to prevent the state from manipulating the legal system to infringe on the investor's property rights.⁷⁹ It also serves to counter some of the political risks that investors incur in a foreign country.⁸⁰ This is simply one example of how an investor-protection clause can conflict with domestic regulatory changes meant to enhance environmental protection. The scholarship in this area has analyzed how substantial provisions such as the stabilization clause,⁸¹ the national treatment clause,⁸² the fair and equitable treatment clause⁸³ and the expropriation clause⁸⁴ under international investment agreements could negatively impact the state's regulatory autonomy, resulting in certain public interest being comprised. Some of the scholarship also aim to draw the line between what is acceptable regulatory change and regulatory change that is a breach of investment treaty. The general opinion is that if the regulatory change is a general application enacted proportionality to safeguard a public interest, then the regulatory change is not considered as a violation of investment treaty.⁸⁵ The scholarship also acknowledged the solutions to ensure the safeguard

⁷⁷ J. E. Viñuales, *Foreign Investment and the Environment in International Law* (CUP, 2012) 51.

⁷⁸ Ibid, 346-347.

⁷⁹ R. Kläger, 'Fair and Equitable Treatment' in *International Investment Law* (CUP, 2011) 74; see also J. W. Salacuse, 'BIT by BIT: The Growth of Bilateral Investment Treaties and Their Impact on Foreign Investment in Developing Countries' (1990) 24 *International Lawyer* 655, 659.

⁸⁰ R. Ginsburg, 'Legitimizing Expectations in Arbitration through Political Risk Analysis' in A. K. Bjorklund (ed) *Yearbook on International Investment Law and Policy 2014-2015* (OUP, 2016) 215, 217.

⁸¹ A. Sheppard and A. Crockett, 'Are Stabilization Clauses a Threat to Sustainable Development' in M. Cordonier Segger, M. W. Gehring, and A. Newcombe (eds), *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) 333, 333-348; Antony Crockett, 'Stabilisation clauses and sustainable development: drafting for the future' in C. Brown and K. Miles (eds), *Evolution in Investment Treaty Law and Arbitration* (CUP, 2011) ch 22.

⁸² Kate Miles, 'Sustainable Development, National Treatment and Like Circumstances in Investment Law' in Marie-Claire Cordonier Segger, Markus W. Gehring, and Andrew Newcombe (eds), *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) 265, 268-273.

⁸³ R. Kläger, 'Fair and Equitable Treatment' and Sustainable Development' in M. Cordonier Segger, M. W. Gehring, and Andrew Newcombe (eds), *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) 241, 241-259; E. de Brabandere, 'States' Reassertion of Control over International Investment Law: (Re)Defining 'Fair and Equitable Treatment' and 'Indirect Expropriation' in A. Kulick (ed), *Reassertion of Control over the Investment Treaty Regime* (CUP, 2016) 285, 285-308.

⁸⁴ M. Paparinski, 'Regulatory Expropriation and Sustainable Development' in M. Cordonier Segger, M. W. Gehring, and A. Newcombe (eds), *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) 299, 299-326; P. Vargiu, 'Environmental Expropriation in International Investment Law' in T. Treves, F. Seatzu and S. Trevisanut (eds), *Foreign Investment, International Law and Common Concerns* (Routledge, 2013) 458, 458-486; A. Asteriti, 'Regulatory Expropriation Claims in International Investment Arbitrations: A Bridge Too Far?' in Andrea K. Bjorklund (ed) *Yearbook on International Investment Law and Policy 2012-2013* (OUP, 2014) 451, 451-473.

⁸⁵ A. D. Mitchell, D. Heaton, and C. Henckels, *Non-Discrimination and the Role of Regulatory Purpose in International Trade and Investment Law* (Edward Elgar Publishing, 2016) ch 4; L. Wandahl Mouyal, *International Investment Law and the Right to Regulate: A Human Rights Perspective* (Routledge, 2016) 175-176; C. Titi, *The Right to Regulate in International Investment Law* (Hart Publishing, 2014) 99-103; A. Necombe, 'The Boundaries

of public interests within the international investment regime, including incorporating carve out provisions,⁸⁶ asserting exception clauses⁸⁷ and interpreting the public purpose exception provision to assert the police power of the state in foreign investments.⁸⁸

The conflict between international regimes has also been examined. The scholarship in this field explores the conflict between the international environmental obligations of the state and its investor-protection obligations under the investment agreements.⁸⁹ The Kyoto Protocol and the United Nations Framework Convention on Climate Change are often the subjects of review in this area. The scholarship in this area analyzed the conflict between the objectives of the climate change treaty with the standards of investment protection,⁹⁰ and the compatibility and possible conflict between carbon trading and supportive schemes encouraged under climate change treaties and the non-discrimination rule among investors of “like circumstances” under investment treaties.⁹¹ The scholarship also examines the procedural flaws of investment treaty arbitration that could prevent the adequate protection of public interests.⁹² Some scholarship also proposed to reform ISDS through legislative and adjudicative means, such as by including the recognition of international environmental treaties, and recognizing that carbon-intensive investment is not “alike” low-carbon emission investments.⁹³

Apart from the focus on the conflicts, the scholarship also recognizes the convergence between environmental protection and investment promotion. However, it seems that when considering the convergence between climate change and international investment law, there is an underlying assumption that investment treaty itself is the convergence,⁹⁴ suggesting that having an international instrument to protect green investments seems to be adequate to tackle climate change, regardless of its sufficiency and effectiveness. With the renewable energy cases, another layer of complication is added. Indeed, the withdrawal of subsidies from green investments could be viewed as another clash between the investor-protection obligations and a state’s domestic regulation, as is illustrated in the first theme of conflict summarized above.

of Regulatory Expropriations in International Law’ (2005) 20(1) *ICSID Review-Foreign Investment Law Journal*, 1,1-57.

⁸⁶ J. E. Viñuales, *supra* note 77, 393.

⁸⁷ A. Newcombe, ‘The use of general exceptions in IIAs: increasing legitimacy or uncertainty?’ in A. De Mestral and C. Lévesque (eds) *Improving International Investment Agreements* (Routledge, 2013) ch 15; B. Legum and I. Petculescu, ‘GATT Article XX and international investment law’ in R. Echandi and P. Sauvé (eds), *Prospects in International Investment Law and Policy: World Trade Forum* (CUP 2013) ch 22.

⁸⁸ C. Titi, *supra* note 85, 99-103.

⁸⁹ M. Potestà, ‘Mapping Environmental Concerns in International Investment Agreements: How Far Have We Gone’ in T. Treves, F. Seatzu, and S. Trevisanut (eds.), *Foreign Investment, International Law and Common Concerns* (Routledge, 2013) 421, 421-457.

⁹⁰ F. Baetens, ‘The Kyoto Protocol in Investor State Arbitration: Reconciling Climate Change and Investment Protection Objectives’ in M. Cordonier Segger, M. W. Gehring, and A. Newcombe (eds), *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) 681, 683-714.

⁹¹ K. Miles, ‘Arbitrating Climate Change: Regulatory regimes and investor-state dispute’ 1 *Climate Law* (2010) 63, 63-92.

⁹² E. De Brabandere, *Investment Treaty Arbitration as Public International Law: Procedural Aspects and Implications* (CUP, 2014) ch 5.

⁹³ K. Miles, *supra* note 91, 87-92; M. Cordonier Segger and A. Kent, ‘Promoting Sustainable Investment through International Law’ in M. Cordonier Segger, M. W. Gehring, and A. Newcombe (eds), *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) 771, 771-790; L. Cotula and K. Tienhaara, ‘Reconfiguring Investment Contracts to Promote Sustainable Development’ in K. Sauvant (ed) *Yearbook on International Investment Law & Policy 2011-2012* (OUP 2013), 281-310.

⁹⁴ E. Sussman, ‘The Energy Charter Treaty’s Investor Protection Provisions: Potential to Foster Solutions to Global Warming and Promote Sustainable Development’ in M. Cordonier Segger, M. W. Gehring, and A. Newcombe (eds), *Sustainable Development in World Investment Law* (Wolters Kluwer, 2011) 771, 771-790; A. Boute, ‘Combating Climate Change through Investment Arbitration’ (2012) 35 *Fordham International Law Journal*, 625-663; S. Bruce, ‘International Law and Renewable Energy: Facilitating Sustainable Energy for All’, (2013) 14 *Melbourne Journal of International Law* 18, 27-39.

However, this paper believes that there is another side that is being ignored, namely the convergence of international environmental obligations with investor protection, that is in conflict with domestic regulation change. This hybrid version does not fit into the traditional conflict and convergence themes of environmental and investment law.

To date, the scholarship that addresses the retraction of subsidies to green investments has mainly focused its attention within the investment law framework, analysing whether the state's decision to retract subsidies is compatible with the relevant international investment agreement,⁹⁵ in other words, the traditional conflict of the regulatory right of the state and investor protection. In contrast, the state's obligation under international environmental treaty to protect and promote these green investments are overlooked.

Furthermore, renewable energy investment cases differ from those cases in several aspects. Most of the host states in the renewable energy investment cases are members of the European Union, which means that besides the Paris Agreement, they are also bound by EU rules regarding climate change and renewable energy, which mandate the measures that each country must take to reach their goals of cutting down carbon emission. For example, the 2018 EU Renewable Energy Directive stipulated the specific renewable energy targets for each member states for 2030.⁹⁶ In contrast with the voluntary nature of the Paris Agreement, the EU rules have a binding effect on member states. Besides, even though the Paris Agreement does not mention renewable energy specifically, it does stress on the importance of private participate in climate change mitigation in Art.6.4(b) and Art.6.8(b) and emphasized the development of sustainable technology to reduce GHG emissions in Art.10.⁹⁷

Also, the Energy Charter Treaty, the investment treaty that most of the renewable energy investment cases rely on as the applicable investment agreement is more advanced in its treatment of environmental concerns than most BITs. In a report by the Organisation for Economic Co-operation and Development ("OECD"), the researchers concluded that most BITs have not yet strayed from the traditional approach of using vague concepts such as "environmental protection" generally, whereas the Energy Charter Treaty is an exception, addressing current environmental concerns.⁹⁸ For instance, the preamble "recalls the United Nations Framework Convention on Climate Change, the Convention on Long-Range Transboundary Air Pollution and its protocols, and other international environmental agreements with energy-related aspects". Furthermore, the Energy Charter Treaty also has a side protocol on energy efficiently and environmental aspects, including the promotion of energy efficient technology both domestically and internationally.⁹⁹ In addition, Article 19(3)(b) is relatively comprehensive in terms of environmental impact, which includes "any effect caused by a given activity on the environment, including human health and safety, flora, fauna, soil, air, water, climate, landscape...".¹⁰⁰

⁹⁵ F. Dias Simoes, 'When Green Incentives Go Pale: Investment Arbitration and Renewable Energy Policymaking' 45 *Denver Journal of International Law and Policy* (2017) 251, 263-275; Y. S. Selivanova, 'Changes in Renewables Support Policy and Investment Protection under the Energy Charter Treaty: Analysis of Jurisprudence and Outlook for the Current Arbitration Cases', 33 *ICSID Review - Foreign Investment Law Journal* (2018), 433, 433-455; T. Dromgool and D. Ybarra Enguix, 'The Fair and Equitable Treatment Standard and the Revocation of Feed in Tariffs-Foreign Renewable Energy Investments in Crisis-Struck Spain' in V. Mauerhofer (ed), *Legal Aspects of Sustainable Development: Horizontal and Sectorial Policy Issues* (Springer, 2016) 389, 389-422; V. Vadi 'Beyond Known Worlds: Climate Change Governance by Arbitral Tribunals?' *Vanderbilt Journal of Transnational Law* (2015) 1285, 1285-1319

⁹⁶ Directive 2018/2001, of The European Parliament and of The Council of 11 December 2018 On The Promotion of The Use Of Energy From Renewable Sources, [2018] OJ L 328/82

⁹⁷ Paris Agreement, *supra* note 2, art.6.4(b), art.6.8(b), art.10.2, art.10.5.

⁹⁸ Gordon & Pohl, *supra* note 22, 24-25.

⁹⁹ Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects, art.7, art.8 and art.9, Dec. 17, 1994, 2080 UNTS 95.

¹⁰⁰ Energy Charter Treaty, *supra* note 1, art.19(3)(b) ("Environmental Impact" means any effect caused by a given activity on the environment, including human health and safety, flora, fauna, soil, air, water, climate, landscape

However, bridging the gap between climate change mitigation goals in the international environmental agreements with investment promotion in the Energy Charter Treaty faces both opportunities and challenges. The most substantial challenge is the obscure and often inconsistent interpretation of the legitimate expectations in investment treaties. What constitutes as legitimate expectations of the investors and the relevant state responsibility are longstanding issues in international investment law. The tribunals of renewable energy investment cases have taken divergent paths in solving these issues. One path is deeming the regulatory change as a breach of legitimate expectation and requiring the state to compensate the investors. The second path is accepting the regulatory change as a legitimate act of sovereignty. In the following paragraphs, this paper will use legitimate expectations as the nexus to discuss: a) the problems with the tribunals' current approach in interpreting legitimate expectations; b) the tribunals' neglect of international environmental obligations raised by the parties; and c) the reasons for advocating for the inclusion of international environmental obligations as a holistic interpretation approach.

B. The Elusive Concept of "Legitimate Expectations"

The boundaries of the "legitimate expectation" of the renewable energy investment under the Energy Charter Treaty has been the point of ferocious debate, mainly because the concept of fair and equitable treatment (where legitimate expectation derives from) is unspecified of the scope and breadth of the concept in many treaties, thus resulting in the debate in literature on whether it extends beyond international minimum standards.¹⁰¹ Of the awards rendered, the tribunals have not once decided that the investors' legitimate expectation could freeze the regulatory regime, however, many still ruled the change of regulation constitute a breach of the legitimate expectation clause under the Energy Charter Treaty. There is a disagreement over whether general regulations can contain specific commitments or a stability expectation that the state must abide without alteration. Alternatively, even when no specific commitment or stability clause were found, the tribunals disagree over whether the regulation changes nevertheless violated the "stability expectations" of the investors under the fair and equitable treatment of the Energy Charter. The following paragraphs will review the inconsistent arbitral jurisprudence in renewable energy cases in detail and point out the underlying problems of these reasoning.

and historical monuments or other physical structures or the interactions among these factors; it also includes effects on cultural heritage or socio-economic conditions resulting from alterations to those factors).

¹⁰¹ See NAFTA, *supra* note 20, art. 1105. (Minimum Standard of Treatment 1. Each Party shall accord to investments of investors of another Party treatment in accordance with international law, including fair and equitable treatment and full protection and security.)

See Energy Charter Treaty, *supra* note 1, art 10. (Each Contracting Party shall, in accordance with the provisions of this Treaty, encourage and create stable, equitable, favourable and transparent conditions for Investors of other Contracting Parties to make Investments in its Area. Such conditions shall include a commitment to accord at all times to Investments of Investors of other Contracting Parties fair and equitable treatment. Such Investments shall also enjoy the most constant protection and security and no Contracting Party shall in any way impair by unreasonable or discriminatory measures their management, maintenance, use, enjoyment or disposal. In no case shall such Investments be accorded treatment less favourable than that required by international law, including treaty obligations.) See Chapter 10 "Investment Treatment" of the Regional Comprehensive Economic Partnership (2020), Article 10.5: " Each Party shall accord to covered investments fair and equitable treatment and full protection and security, in accordance with the customary international law minimum standard of treatment of aliens" (there was no mentioning of legitimate expectations throughout the text. See Ortino, 'The Obligation of Regulatory Stability in the Fair and Equitable Treatment Standard: How Far Have We Come?', 21 *Journal of International Economic Law* (2018) 845 , at 76. See R. Kläßer, 'Fair and Equitable Treatment' in *International Investment Law* (CUP: 2011) 154.; See generally Paparinskis, 'Introduction', in *The International Minimum Standard and Fair and Equitable Treatment* (2013).

a) General Regulations as “Specific Commitments” or with “Stability Expectations”

Whether regulations can be considered as specific commitments is debatable under international investment law. This is mainly because the concept itself and its function remain contested among scholars. While some consider specific commitment as one of the ways of formulating legitimate expectations,¹⁰² and regards it as an exception to the rule of the state’s regulatory autonomy;¹⁰³ others view specific commitment, together with the concept of legitimate expectation, as notions conjured by neoliberal arbitrators seeking to promote investors’ interests.¹⁰⁴

The arbitral jurisprudence over this issue is equally divided. The decisions range from concluding any breach of the domestic laws as treaty violation,¹⁰⁵ to deciding that only contractual guarantees could give rise to specific commitment.¹⁰⁶ The latter interpretation is more commonly applied in treaty-based investment cases arising out of NAFTA, as the agreement provides no additional protection to fair and equitable treatment than customary international law.¹⁰⁷ For instance, this narrow interpretation was applied in cases against Canada’s regulatory change to renewable energy investment, where the tribunal did not analyse specific commitment nor legitimate expectations, but focused more on the reasonableness and transparency aspect of the fair and equitable treatment.¹⁰⁸

Here it is important to address the cases concerning Argentina’s regulatory change in utilities during the 2001 economic crisis, since these cases also deal with regulatory change of the host state and bear impact on energy policies. Both the renewable energy cases under consideration here and the Argentina cases touch upon the issue of regulation change for a public purpose during economic struggles of the state. The regulation change in Argentina occurred during its economic crisis from the end of 1990s to early 2000s; whereas the regulatory change in renewable energy investments occurred after the 2008 global financial crisis. Both regulatory changes are enacted for public purposes and have an impact over the price of utility service rendered to the general public. Furthermore, these cases have broader implications on the host state’s right to regulate for public purposes in times of economic recession.¹⁰⁹ Besides these similarities, the Argentina cases created important jurisprudence

¹⁰² United Nations Conference on Trade and Development, *Fair and Equitable Treatment, UNCTAD Serious on Issues in International Investment Agreements II*, UNCTAD/DIAE/IA/2011/5, xvi (hereinafter “UNCTAD Fair and Equitable Treatment Report”).

¹⁰³ L. Johnson and O. Volkov, ‘Investor-State Contracts, Host-State ‘Commitments’ and the Myth of Stability in International Law’, 4 *American Review of International Arbitration* (2013) 361, 370.

¹⁰⁴ M. Sornarajah, *Resistance and Change in the International Law on Foreign Investment* (CUP, 2015) 284-293.

¹⁰⁵ Ioannis Kardassopoulos v. Georgia (ICSID Tribunal Case No. ARB/05/18, Decision on Jurisdiction, (Jul. 6, 2007) §191-§192, §194.

¹⁰⁶ Philip Morris Brand Sàrl (Switzerland), Philip Morris Products S.A. (Switzerland) and Abal Hermanos S.A. (Uruguay) v. Oriental Republic of Uruguay, ICSID Tribunal, Case No. ARB/10/7, Award, (Jul.8, 2016) §426; TECO Guatemala Holdings, LLC v. Republic of Guatemala, ICSID Tribunal, Case No. ARB/10/23, Award (Dec. 19, 2013) §617-§619.

¹⁰⁷ NAFTA, *supra* note 20, article 1105; For arbitral jurisprudence under NAFTA that requires specific representation to deter regulatory changes, see Glamis Gold Ltd. v. The United States of America, UNCITRAL, Award (Jun.8, 2009) §766- §767; William Ralph Clayton and others v. Government of Canada, PCA Case No. 2009-04, Award on Jurisdiction and Liability (Mar.17, 2015) §589.

¹⁰⁸ Windstream Energy LLC v. Government of Canada, PCA Case No. 2013-22, Award (Sep. 27, 2016) §376 -§382; Mesa Power Group, LLC v. Government of Canada, UNCITRAL, PCA Case No. 2012-17, Award (Mar.24, 2016) §515 -§541.

¹⁰⁹ There is abundant literature discussing the host state’s right to regulate, just to name a few: Y. Levashova, *The Right of States to Regulate in International Investment Law : The Search for Balance Between Public Interest and Fair and Equitable Treatment* (Kluwer Arbitration: 2019); C. Titi, , *supra* note 85; L. Wandahl Mouyal, *International Investment Law and the Right to Regulate: A Human Rights Perspective* (Routledge, 2016) 1; A. D. Mitchell, E. Sheargold, and T. Voon, *Regulatory Autonomy in International Economic Law: The Evolution of Australian Policy on Trade and Investment* (Edward Elgar Publishing, 2017) 36-40; E. De Brabandere, *Investment Treaty Arbitration*

that was often referred by other tribunals when adjudicating whether regulatory changes of the host state breached the fair and equitable treatment standard.

In *Total S.A. v. Argentina*, the tribunal decided that the dollar denominated gas tariff and its subsequent adjustment cannot be construed as a “promise” to the investor, as it was incorporated in the *Gas Decree*, a general regulation not specifically directed at the investor.¹¹⁰ Based on the same facts, the tribunal in *LG&E v. Argentina*, ruled that the *Gas Decree* and its implementing regulations created ‘specific expectation’ among investors that the government would not derogate from these guarantees.¹¹¹ Also, concerning the changes made to the *Gas Decree*, the tribunal in *CMS v. Argentina* assumed that favourable terms granted to the gas utility investors constituted as specific commitment without providing further justification.¹¹² This statement was frequently referred by other tribunals that chose to acknowledge the host state’s right to regulate but believes that it should not fundamentally change the regime previously offered to investors.¹¹³

The tribunal in *Continental v. Argentina* and *El Paso v. Argentina* was more explicit in their explanation of what constituted specific commitment and attempted to search for a middle ground. They concluded that general legislative statement “engender reduced expectations” and is naturally subject to modifications or withdrawal but should be done within the limit of fundamental human rights and *jus cogens*.¹¹⁴ As can be seen from the cases above, despite sharing similar factual backgrounds, the tribunals in the Argentina cases had different opinions over whether general regulations could constitute as specific commitment that required a freeze over existing regulations.

This problem of imprecise definition as well as inconsistent interpretation is also reflected in the renewable energy investment cases. In *Charanne v. Spain*, the first of many green energy investment cases, the tribunal ruled that Spain’s Royal Decrees that offered subsidies and feed-in tariffs to renewable energy investors could not be deemed as specific commitments, despite being “directed to a limited group of investors”,¹¹⁵ which is controversial as specific commitments are often induced when the receiving subjects are specific and limited. The tribunal believed that allowing any regulatory standard to be construed as a specific

as *Public International Law: Procedural Aspects and Implications* (CUP, 2014) 148-174; J. Delaney and D. Barstow Magraw, ‘Procedural Transparency’ in P. Muchlinski, F. Ortino, and C. Schreuer (eds), *The Oxford Handbook of International Investment Law* (OUP, 2008) 721; A. Kulick, *Global Public Interest in International Investment Law* (CUP, 2012) 70; P. Drahoš, ‘The Regulation of Public Goods’, 7 *Journal of International Economic Law* (2004) 321, 322; R. Dolzer and C. Schreuer, *Principles of International Investment Law* (OUP, 2012) 69.

¹¹⁰ *Total S.A. v. Argentina Republic*, ICSID Arbitral Tribunal Case No. ARB/04/1, Decision on Liability (Dec.27, 2010) §145 - §150 (hereinafter “*Total v. Argentina*”).

¹¹¹ *LG&E Energy Corp, LG&E Capital Corp, and LG&E International Inc. v. Argentine Republic*, ICSID Tribunal, Case No. ARB/02/1, Decision on Liability (Oct. 3, 2006) §132] - §139. (“*LG&E v. Argentina*”).

¹¹² *CMS Gas Transmission Company v. Argentine Republic*, ICSID Tribunal, Case No. ARB/01/8, Award, (May 12, 2005) §277 (“*CMS v. Argentina*”).

¹¹³ *Murphy Exploration and Production Company International v. Republic of Ecuador II*, Permanent Court of Arbitration, Case No. 2012-16 (formerly AA 434), Partial Final Award, (May 6, 2016) §206; *Jan Oostergetel and Theodora Laurentius v. Slovak Republic* UNCITRAL, Final Award (Apr.23, 2012), §223-§224; *Alpha Projektholding GmbH v. Ukraine* ICSID Tribunal, Case No. ARB/07/16, Award, (Nov. 8, 2010) §420; *Mohammad Ammar Al-Bahloul v. Republic of Tajikistan*, Arb. Inst. of SCC Case No. V064/2008, Partial Award on Jurisdiction and Liability, (Sept.2, 2009) §185; *National Grid P.L.C. v. Argentina Republic*, UNCITRAL, Award, (3 Nov. 3, 2008) §173; *Plama Consortium Limited v. Republic of Bulgaria*, ICSID Tribunal, Case No. ARB/03/24, Award, (Aug.27, 2008) §176-177; *Enron Creditors Recovery Corporation (formerly Enron Corporation) and Ponderosa Assets, L.P. v. Argentine Republic*, ICSID Tribunal, Case No. ARB/01/3, Award (May 22, 2007) §260-§268.

¹¹⁴ *Continental Casualty Company v. Argentine Republic*, ICSID Tribunal, Case No. ARB/03/9, Award (Sept.5, 2008) §264 –§266. (“*Continental v. Argentina*”); *El Paso Energy International Company v. Argentina*, ICSID Tribunal, Case No. ARB/03/15, Award, (Oct. 27, 2011) §371-§379 (“*El Paso v. Argentina*”).

¹¹⁵ *Charanne B.V. and Construction Investments S.a.r.l. v. Spain*, SCC Case No. 062/2012, Award, (Jan.21, 2016) (Unofficial English Translation by Mena Chambers) §493. (hereinafter “*Charanne v. Spain*”)

commitment “would constitute an excessive limitation on the power of states to regulate the economy in accordance with the public interest”.¹¹⁶

However, there are also tribunals that recognize the possibility of specific commitment derived from general legislations. For instance, in *Blusun v. Italy*, the tribunal recognized that ‘a representation as to future conduct of the state could be made in the form of a law’.¹¹⁷ Despite recognizing such a possibility, the tribunal did not find specific commitment within general legislation, and concluded that “these incentives were subject to modification in light, *inter alia*, of changing cost and improved technology”.¹¹⁸

Due to fear of criticism and attack, when the case was rendered in favour of the investors, the tribunal explicitly acknowledged that the host state is inherently entitled to adjust its regulations according to the change of circumstances in public interests, before deeming the regulatory changes as a breach of treaty obligation.¹¹⁹ To avoid controversy, some tribunal would side-step this issue through finding specific commitment beyond the regulatory framework. For instance, in *Masdar v. Spain*, the tribunal found that the letters sent out by Spain confirming the solar plants’ qualification for a fixed level of feed-in-tariffs during their operational lifetime as specific commitments made by Spain not to alter the incentive regime. Together with the correspondence exchanged between Masdar and the Spanish government confirming the right of the investors, the tribunal found no need to decide whether the regulation (Royal Decree 661/2007) constitute as specific commitment.¹²⁰

There are also decisions that explicitly decided that the regulation itself contained a stabilization clause which shall be viewed as specific commitment made to the investors. For instance, the tribunals of *Cube v. Spain*, *Novenergia v. Spain*, *9Ren v. Spain* and *OperaFund v. Spain* found Article 44 (3) of the *Royal Decree 661/2007*¹²¹ to be a “stability assurance” that would constitute as a specific commitment for Spain to relinquish its right to change the regulatory framework.¹²²

¹¹⁶ *Id.*

¹¹⁷ *Blusun S.A., Jean-Pierre Lecorcier and Michael Stein v. Italian Republic*, ICSID Case No ARB/14/3, Award (Dec.27, 2016) §371. (hereinafter “*Blusun v. Italy*”).

¹¹⁸ *Id.*

¹¹⁹ 1) *Eiser Infrastructure Limited and Energia Solar Luxembourg S.À R. I. v. Kingdom of Spain*, ICSID Case No. ARB/13/36, Award, (May 4, 2017) (hereinafter “*Eiser v. Spain*”) §362-363;

2) *Antin Infrastructure Services Luxembourg S.a.r.l and Antin Energia Termosolar B.V v. Spain*, ICSID Tribunal, Case No. ARB/13/31, Award (Jun.15, 2018)§530-§533 (hereinafter “*Antin v. Spain*”);

3) *Nextera Energy Global Holdings B.V. & Nextera Energy Spain Holdings B.V. v. The Kingdom of Spain*, ICSID Tribunal Case No. ARB/14/11, Award (May 31, 2019) §591 (‘*Nextera v. Spain*’);

4) *Cube Infrastructure Fund Sicav and Others v. The Kingdom of Spain*, ICSID Tribunal Case No. ARB/15/20, Award (Jul.26, 2019) §397 (hereinafter “*Cube v. Spain*”);

5) *Masdar Solar & Wind Cooperatief U.A v. Spain*, ICSID Tribunal, Case No. ARB/14/1, Award, (May 16, 2018) §485- §488 (hereinafter “*Masdar v. Spain*”);

6) *9REN Holding v. The Kingdom of Spain*, ICSID Tribunal, Case No. ARB/15/15, Award (31 May 2019) §253 (“*9REN v. Spain*”)

7) *Foresight Luxembourg Solar I S.a.r.l and others v. Spain*, SCC Case No. 2015/150, Award (Nov.14, 2018) §356] (“*Foresight v. Spain*”);

¹²⁰ *Masdar v. Spain*, supra note 119, at §520 - §521.

¹²¹ Article 44(3) of RD 661/2007 (“The revisions of the regulated tariff and the upper and lower limits indicated in this section shall not affect facilities for which the commissioning certificate had been granted prior to January 1 of the second year following the year in which the revision had been performed.”) See *OperaFund Eco-Invest SICAV PLC and Schwab Holding AG v. Kingdom of Spain*, ICSID Tribunal Case No. ARB/15/36, Award, (Sept.9, 2019) §482.

¹²² *Cube v. Spain*, supra note 119, §401; *9REN v. Spain*, supra note 119, §257. §294; *OperaFund v. Spain*, supra note 121, at §483- §485. *Novenergia II - Energy & Environment (SCA) (Grand Duchy of Luxembourg), SICAR v. The Kingdom of Spain*, SCC Case No 2015/063, Final Award, (Feb.15, 2018) §666 -§667 (hereinafter “*Novenergia v. Spain*”).

Similarly, the inconsistent ruling regarding the same regulatory change can also be found in the renewable energy cases filed against Italy. In *Greentech v. Italy* and *CEF v. Italy*, the tribunals determined that the *Conto Energia* Decree, together with the contract agreement between GSE (the state-owned energy regulatory agency that renders the subsidies) and the investor, constitute as specific guarantee to the investor of a stable legal regime.¹²³ Whereas in *Belenergia v. Italy*, with almost identical facts, the tribunal ruled that the neither the *Conto Energia* Decree nor the subsequent contract between GSE and the investor gave rise to specific commitment.¹²⁴

There are less discrepancies in the disputes brought against the Czech Republic, with only one out of seven cases ruled for the investor. In *JSW and Others v. Czech*, the first decided case regarding the regulatory change, the tribunal reached an conclusion that the state did not guarantee an absolute feed-in-tariff price level in its regulatory framework; instead the regulatory framework only promised a 15-year payback of capital expense and an annual return of investment of at least 7% over 15 years.¹²⁵ As these two key guarantees were not abolished in the regulation change, there is no breach of legitimate expectation. In *Antaris v. Czech*, the tribunal deemed that specific commitment could be inferred from domestic legislations and official statements (even the ones that do not have legal force), however, it did not dive into analysing whether the regulation contained stabilization clause. Instead, it side-stepped the issue and concluded that because the measures were for a public purpose, rational and proportionate, the regulatory change cannot be deemed as a breach of legitimate expectations.¹²⁶ In *WA Investments v. Czech* and other three cases that were adjudicated by the same arbitrators with awards rendered on the same day, the tribunals found that the state did not explicitly undertake any agreed stabilization commitment.¹²⁷ The only case that ruled in favour of the investor was not made public, however, from reliable sources, it is known that the tribunal took the view that “a legislation provision could guarantee stabilization intrinsically” and found the change of such guarantee in the legislation as a breach of fair and equitable treatment.¹²⁸

Compared with the Spanish regime change, the regulatory change in Czech was relatively milder. Czech promised an annual return of at least 7% and the change was not retroactively applied; whereas the Spanish regime capped the rate of return to 7% before tax and applies to power plants installed before the regime change. There’s also a major difference in facts between the disputes against Italy and the ones against Spain. The Italian state-owned company entered into a contractual agreement with most of its renewable energy investors stipulating the length and rate of tariff subsidies granted. Whereas for the disputes against Spain, apart from Masdar who received a letter stating the terms and rate of tariff from a

¹²³ *Greentech Energy Systems A/S, NovEnergia II Energy & Environment (SCA) SICAR, and NovEnergia II Italian Portfolio SA v. Italian Republic*, SCC Case No. 2015/095, Final Award, (Dec.23, 2018) §446-§455 (hereinafter “*Greentech v. Italy*”);

CEF Energia v. Italy, SCC Case No. 158/2015, Award, §242-§244 (“*CEF Energia v. Italy*”).

¹²⁴ *Belenergia v. Italy*, ICSID Tribunal Case No. ARB/15/40, Award (Aug.28, 2019) §579-§583 (“*Belenergia v. Italy*”).

¹²⁵ *JSW Solar GmbH & Co.KG, Gisela Wirtgen, Jürgen Wirtgen, and Stefan Wirtgen v. Czech Republic*, PCA Case No 2014-03, Award §371-§372 (Oct. 11, 2017) (hereinafter “*JSW Solar v. Czech*”).

¹²⁶ *Antaris Solar GmbH and Dr. Michael G de v. The Czech Republic*, PCC Case No. 2014-01, Award (May 12, 2018) §443- §445. (“*Antaris v. Czech*”);

¹²⁷ *WA Investments-Europa Nova v. The Czech Republic*, PCC Case No. 2014-19, Award §568 - §570 (May 15, 2019) (“*WA Investment v. Czech*”); *I.C.W. Europe Investment Limited v. The Czech Republic*, PCC Case No. 2014-22, Award (15 May 2019) §443-§444 (“*I.C.W. Europe v. Czech*”); *Voltaic Network v. The Czech Republic*, PCC Case No. 2014-20, Award (May 15, 2019) §486 (hereinafter “*Voltaic v. Czech*”); *Photovoltaik Knopf Betriebs v. The Czech Republic (Award)* (PCC Case No. 2014-21, May 15, 2019) (“*Photovoltaik v. Czech*”) §482.

¹²⁸ See Natland V. Czech Republic (Part 2 Of 2): On The Merits, Tribunal Finds Stabilisation Commitment In Czech Legislation And Breach Of That Commitment With Introduction Of Solar Levy’ from Investment Arbitration Reporter at <https://www.iareporter.com/articles/natland-v-czech-republic-part-2-of-2-on-the-merits-tribunal-finds-stabilisation-commitment-in-czech-legislation-and-breach-of-that-commitment-with-introduction-of-solar-levy/>.

government agency, there were very little correspondence between the state and the investors. No contractual agreement was concluded, and the subsidies are rendered through administrative licensing.

b) Legitimate Expectations Beyond “Specific Commitments”

Specific commitment is not the only element that would give rise to the investors having legitimate expectations for regulatory stability. The variety of meanings attached to fair and equitable treatment has made determining the extent of the legitimate expectation difficult. In fact, legitimate expectation is rarely defined in investment treaties, and the concept very much depends on the scope of the fair and equitable treatment itself. Due to the vagueness of the concept and the potential role of arbitrators to expand the scope of the concept beyond the intent of the treaty, several countries have adjusted their BITs or investment agreements to impose constraints over the fair and equitable treatment standard.

For instance, in the previous NAFTA and the subsequent Agreement between the United States of America, the United Mexican States and Canada (‘USMCA’), fair and equitable treatment do not provide protection beyond the customary international law minimum standard of treatment of aliens.¹²⁹ Whereas in the Comprehensive and Economic Trade Agreement between the EU and Canada (‘CETA’), the parties attempted to constrain fair and equitable treatment within an exhaustive list of standards.¹³⁰ The recent BITs concluded by China noted that the standard does not provide more protection to the foreign investors than the nationals of the host country,¹³¹ which precludes non-discriminatory regulatory changes from its scope. India excluded the fair and equitable treatment provision in its newest 2015 India Model BIT.¹³² UNCTAD has attempted to provide more clarification to this issue and stated in its report that:

¹²⁹ See NAFTA, *supra* note 20, art. 1105 and Agreement between the United States of America, the United Mexican States and Canada (signed on November 30, 2018) (‘USMCA’) art.14.6. The most recent 2012 US Model BITs follows this interpretation of fair and equitable treatment, meaning that for all the states that entered into a BIT with the US after 2012, their investors do not enjoy more than customary international law protection for aliens under the fair and equitable treatment clause, available at: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/2870/download>. The same applies to 2004 Canada Model BIT (the latest published), available at: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/2820/download>.

¹³⁰ Comprehensive Economic and Trade Agreement (CETA) between Canada, of the one part, and the European Union and its Member States, of the other part [2017] OJ L 11/23, art.8.10 (hereinafter ‘CETA’).

¹³¹ Since 2010, China has concluded BITs with Turkey, Canada, Congo, Uzbekistan, Libya, and Chad. In the BITs available, fair and equitable treatment was found with respect to restriction, see article 5 of the China-Tanzania BIT:

“2. ‘Fair and equitable treatment’ means that investors of one Contracting Party shall not be denied fair judicial proceedings by the other Contracting Party or be treated with obvious discriminatory or arbitrary measures.

3. ‘Full protection and security’ requires that Contracting Parties take reasonable and necessary police measures when performing the duty of ensuring investment protection and security. However, it does not mean, under any circumstances, that investors shall be accorded treatment more favourable than nationals of the Contracting Party in whose territory the investment has been made.”

These BITs could be found in English at: <https://investmentpolicy.unctad.org/international-investment-agreements/countries/42/china>.

¹³² See 2015 India Model BIT, available at: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/3560/download>. In 2015, India terminated a bunch of BITs due to abrupt rise of investment cases filed against it, however, in the BITs that were not terminated, the fair and equitable treatment standard can still be found though not elaborated. For example, in the India-United Arab Emirates BIT (signed in 2013, entered into force in 2014), the treaty still had the fair and equitable treatment clause, available at: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/5724/download>. India’s most recent BIT, which is with Belarus, signed in 2018 and not yet in force, there’s no fair and equitable treatment standard, available at: <https://investmentpolicy.unctad.org/international-investment-agreements/treaty-files/5724/download>.

‘An investor may derive legitimate expectations either from (a) specific commitments addressed to it personally, for example, in the form of a stabilization clause, or (b) rules that are not specifically addressed to a particular investor but which are put in place with a specific aim to induce foreign investments and on which the foreign investor relied in making his investment.’¹³³

This definition suggests that even without a specific commitment, rules that are aimed to induce investment which the investor relied upon can still create legitimate expectation.¹³⁴ Several tribunals of renewable energy investments have adopted this line of interpretation when deciding whether regulatory changes constitute as a breach of legitimate expectations without specific commitments. Out of the 15 cases that ruled in favor of the investors, 5 cases concluded that the state had breached the stability requirement regardless of specific commitment.¹³⁵ The reasoning of these 8 cases, however, indicate the blurry (sometimes even interchangeable) standards for determining what constitutes as indirect expropriation and what constitutes breach of fair and equitable treatment. The unclear boundaries between indirect expropriation and fair and equitable treatment is problematic due to difference in compensation requirements. Furthermore, several tribunals seemingly transplanted the “substantial deprivation” standard, which is frequently applied to determine whether there was an expropriation, as a standard to determine whether there has been a breach of legitimate expectation.¹³⁶

Besides, even when the tribunal has found substantial deprivation that amount to expropriation, it would then proceed to analyse whether the regulatory act could be considered as non-discriminatory regulation change taken for a public purpose, which precludes wrongfulness and is non-compensable. However, in these renewable energy cases where the tribunals seemingly transplanted the substantial deprivation standard used in determining expropriation to evaluate breaches of fair and equitable treatment, none of the tribunals provided analysis to whether these actions constitute as non-discriminatory regulation change.

C. The Tribunal’s Avoidance on Addressing International Environmental Agreements

The applicability of International Environmental Agreements (hereinafter “IEAs”) in RE investment cases are not purely theoretically. Both the investor and the state have brought up the relevance of IEAs in their submissions to the tribunal, which were reflected in the tribunals summary of facts and procedures in the awards rendered. Take the *Nextera v. Spain* case for example, the relationship between the fair and equitable treatment standard and the environment aspects provision in the Energy Charter Treaty was raised by the investor. The investor claimed that the fair and equitable treatment under Energy Charter Treaty should be applied “in light of the European Charter’s commitment to legal stability and the environmental

¹³³ UNCTAD Fair and Equitable Treatment Report, *supra* note 102, at 69.

¹³⁴ *Antaris v. Czech*, *supra* note 126, at §366. (the tribunal stated that even official statements without binding force could induce legitimate expectations for the investor).

¹³⁵ *Eiser v. Spain*, *supra* note 119, at §383, §416- §418; *Antin v. Spain*, *supra* note 119, §554, §562- 573; *Nextera v. Spain*, *supra* note 119, at §592-601; *Foresight v. Spain*, *supra* note 119, at §359, §377-§381; *SolEs v. Spain*, *supra* note 119, at §443-§444.

¹³⁶ For instance, in *Cube v. Spain* *supra* note 119, at §412-413, the tribunal stated that:

“the duty to accord fair and equitable treatment entailed an obligation not to defeat the basic expectations that had been created by the Respondent...the obligation requires that where the Respondent represented that certain provisions would be maintained for a certain time, those provision either are maintained for that time or are adjusted in a manner that does not significantly alter the fundamental economic basis of investment made in reliance on that representation.”¹³⁶

These words sound surprisingly similar to the ‘substantial deprivation’ standard used to determine whether there is an expropriation.

protection goals explicitly identified in the Energy Charter Treaty's Preamble, Article 2 and Article 19".¹³⁷ Spain disagreed with this claim and responded in its defense that the purpose of the Energy Charter Treaty as stated in Article 2, and Article 19 (Environmental Aspects) is of minor importance. Spain further rebutted that Article 19 (d) which provides that the Energy Charter Treaty contracting parties shall "have particular regard to improving Energy Efficiency, to developing and using renewable energy sources", does not mandate the granting of "petrified" public subsidies and the Energy Charter Treaty respects the State's regulatory power in the area of state aid.¹³⁸ The tribunal, however, did not address this claim at all when interpreting legitimate expectations.

Similarly, in *Operafund v. Spain*, the specific purpose of feed-in-tariff measures for renewable energy investments were raised by the parties as well as its the relationship with international environmental obligations. Spain stated in its defence of proportionality that "the Kyoto protocol and EU Directives forced EU Member States to adopt the necessary measures to ensure that the electricity is supplied through renewable energy sources, and that the development of such technologies are expensive and must be enabled to compete with conventional technologies in the market, states are permitted to subsidize within the limits of the State Aid Regulation."¹³⁹ Spain also raised the issue that "the regulator must intervene by subsidizing renewable energy producers to ensure that they reach the level playing field with conventional energy, without distorting the competition and without overcompensating".¹⁴⁰ Again, the tribunal chose not to evaluate legitimate expectations against the backdrop of the *Kyoto Protocol* or the EU Directives.

The tribunal's avoidance to address these underlying international/supranational environmental could be driven by the fact that the tribunal regarded itself unfit to privilege one set of norms over the other, particularly when there's no visible hierarchy amongst different branches of international law.¹⁴¹ However, I argue that despite no formal hierarchy, there are recognized common values within the international community that needs to be acknowledged by all courts and tribunals in different sectors of international law. The notion of common values might not pre-empt investment or trade law generally, but should at least be considered when international disputes give rise to conflict of norms and interests. When international investment treaties fail to specify the term "legitimate expectations", public international law could be referred to as a gap-filling tool.¹⁴²

D. Advocating for A Holistic Interpretation of Legitimate Expectations

As illustrative in the "Elusive Legitimate Expectations" section, even without taking into account relevant international environmental agreements or supranational energy and climate regulations, states could still be held liable if the tribunal deemed specific commitments exist. Then, why is it important to advocate for the inclusion of relevant international environmental agreements? My reasons are two-fold: a) to redefine legitimate expectations and avoid negative spillovers; and b) to bring competing interests and broader policy concerns to the table. I will address these reasons in turn in the following paragraphs.

¹³⁷ *Nextera v. Spain*, *supra* note 119, at §393.

¹³⁸ *Id.*, at §408.

¹³⁹ *Operafund v. Spain*, *supra* note 119, at §538.

¹⁴⁰ *Id.*

¹⁴¹ J. L. Dunoff, 'A New Approach to Regime Interaction', in M. A. Young (ed.), *Regime Interaction in International Law: Facing Fragmentation* (CUP 2012) 136, 155–156.

¹⁴² See generally, S. W. Schill, 'International Investment Law and Comparative Public Law—an Introduction', in *International Investment Law and Comparative Public Law* (OUP, 2010) 3, at 3–38.

a) Redefine Legitimate Expectations and Avoid Negative Spill-Overs

As can be seen from the renewable energy case and other jurisprudence in investor-state arbitration, the concept of legitimate expectations is not defined, nor is the fair and equitable treatment concept. Bring IEAs in to consideration, as well as other aspects of general public international law, such as the proportionality principle and the margin of appreciation, the concept of legitimate expectations could be complemented to reflect the common values of the international community, instead of simply being confined to technocratic terms. Since the word “legitimate” suggests a normative value, it makes more sense to take into account all relevant norms and standards of international law.

Furthermore, to avoid fossil fuel investors from taking advantage of the non-defined legitimate expectations and threaten to litigate against state for stricter environmental regulations on GHG emission, there is an urgent need to include IEAs into the consideration of the investor-state arbitration. Many investment treaties already include recognition to IEAs in the preamble and some have substantial environmental provisions. If legitimate expectations could be in a holistic way, fossil fuel investors would find it hard to justify its litigation against a government regulation that is meant to protect a public interest and a global common. Understanding legitimate expectations in a holistic manner render more support to common concerns globally, enhance the consistency of the decisions in investor-state arbitration, and provide better jurisprudence for environmentally conscious arbitrators.

b) Bring Competing Interests and Broader Policy Implications to the Table

In the context of the renewable energy cases, by evaluating “legitimacy expectations” against the background of relevant IEAs, competing interests and relevant stakes could be better acknowledged, if not resolved. For instance, in some of the cases against Spain, the tribunal deemed that the level of reasonable rate of return should not be dictated by the state, and a return rate of 3.5%-5% is “neither fair nor reasonable” compared to the previously promised 8%-11%.¹⁴³ This line of reasoning seemingly suggest that when the state miscalculated the amount of subsidies adequate for the renewable energy investors to survive in the market and overcompensated them,¹⁴⁴ it is a breach of investment treaty obligation to change the previous

¹⁴³ *Eiser v. Spain*, *supra* note 119, at §396 (3.7% pre-tax return was calculated by claimant and 5% pre-tax calculated by the state); *Operafund v. Spain*, *supra* note 119, at §488 (claimant calculated the rate of return to be 1.5%-2% compared to the previously planned 6.7%-8.2%, the tribunal found this change to be unreasonable; the state calculated that a rate of return of 6%-7% was provided in the new regime). The tribunals in the rest of the Spanish cases that ruled for the investor also decided that the investor should not be bound by the rate of return determined by Spain subject to alteration (ranging from 3%-5% pre-tax in different cases), but to the specific rate of return previously promised (ranging from 7%-13%). According to the report of the Council of European Energy Regulators, the estimated rate of return in the electricity sector of Spain around 4.5%, available at: <https://www.ceer.eu/documents/104400/-/-/9665e39a-3d8b-25dd-7545-09a247f9c2ff>. In the European Energy Industry Investment Report issued by the European Parliament in 2017, it was acknowledge that “in most EU markets the overall returns on conventional thermal plants are not high enough to justify capital expenditures to replace them” and the overall estimated returns on invested capital in EU from 2006 to 2013 was around 5%-6%, available at https://www.eesc.europa.eu/sites/default/files/files/energy_investment.pdf.

¹⁴⁴ Which seems to be the case in most of the renewable energy investment cases, in *Eiser v. Spain*, *supra* note 119, §404, it was documented that the during the hearing process, Mr. Carlos Montoya, the head of the solar department at Institute for Energy Diversification and Saving (“IDAE”) of the Ministry of Industry, Tourism and Commerce of Spain acknowledged that the estimated cost of solar power plants which was the basis for calculating the level of subsidies required in the reform was not based on rigorous mathematical analysis of data, stating, “if you are looking for [...] a mean mathematical formula, you will not find it.” Instead, “there is an analysis of the information on the bibliography and there is prior knowledge that we based ourselves on since we had already developed real plans”. In *Antin v. Spain*, *supra* note 119, at §564, it was noted that the New Regime base the calculation of the rate of return on the average yield in the secondary market of 10-year Spanish government bonds, plus a differential of 3%, and the 3% difference was based on Mr. Montoya’s experience with previous

rules and government resources shall commit to its previous level of support even at the expense of consumers and tax-payers.

Even taking into account the environmental benefit of renewable energy investments to protect global commons, it is still highly controversial whether private property in alignment with public interest deserves priority over other public interests. This is particularly true for developing states that have less expertise in drafting investment treaties or defending themselves in international tribunals. While it is within the Energy Charter Treaty's aim to protect renewable energy investments from unreasonable state interference and demand compensation for losses incurred, is it reasonable to construe that the investors have legitimate expectations to a fix level of profit offered by feed-in-tariff for the entire lifetime of the power plant? If one takes a particularly cynical view towards how renewable energy foreign investment could be supported by higher utility price at the consumer end, one could argue that the investor-state arbitration could opened a can of worms where public funds are reallocated to private means, without due process or transparency, in the name of environmental protection.

However, if we take a step back and compare fossil fuel subsidies with renewables, one might argue that stipulating the state to a fix level of subsidies to renewables is necessary. It is estimated that fossil fuel receives 400 billion USD dollars globally, more than double the amount of subsidies rendered renewables, and until 2017 at least 115 countries provided fossil fuel subsidies, with at 73 countries providing more than 100 million US dollars each.¹⁴⁵ The investor-state arbitration system provides an international forum that allows private parties to hold the state accountable for its ambitious commitments to transit into clean energy consumption to tackle climate change. While this international dispute settlement regime is different from the traditional climate change litigations, it nevertheless could be considered as a peripheral method to hold the state accountable to its commitment and encourage private participate in climate change mitigation. Therefore, the system has its value, however, in order to truly accommodate sustainable development, the tribunal need to take a holistic approach in addressing vague concepts such as legitimate expectations, otherwise, significant policy considerations could be neglected in the process. One question that troubles me: it is environmentally just to hold developing countries liable to a certain level of subsidies to renewables, when they might be dealing with significant development issues, such as poverty or the right to electricity? In a conference held by the International Energy Agency in June 2020, a number of south-east Asian governments committed to providing feed-in-tariffs for

installation cost and revenues. Previously the Spanish government also acknowledged the difficulty in predicting the flow of investment in the solar sector and the level of subsidies require under the previous regime induced overcompensation for the investors, see *Eiser v. Spain*, *supra* note 119, at §350.

¹⁴⁵ According to the reports of the International Energy Agency, global subsidies for fossil fuels amounted to 400 billion US dollars, more than double the subsidies estimated for renewables: <https://www.iea.org/newsroom/news/2019/june/fossil-fuel-consumption-subsidies-bounced-back-strongly-in-2018.html>; the international renewable energy agency summarized global subsidies in recent years and concluded that "in recent years, fossil fuel subsidies have outweighed renewable subsidies by a factor of around four", see 'Global Energy Transformation: A Roadmap to 2050', International Renewable Energy Agency (IRENA) 2019 Edition, p. 32, available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Apr/IRENA_Global_Energy_Transformation_2019.pdf; REN21 (a global community network of renewable energy actors from science, academia, governments, NGOs and industry) estimated that global subsidies for fossil fuel consumption reached 300 billion US dollars, about double the amount of estimate for renewables, and as of 2017 at least 115 countries provide fossil fuel subsidies, with at 73 countries providing subsidies of more than 100 million US dollars each, see 'Global Status Report 2019: Chapter 1 Global Overview' REN21 2019, Figure 5, available at: https://www.ren21.net/gsr-2019/chapters/chapter_01/chapter_01/#target_75. Although estimation of the global fossil fuel subsidies differs, but from the data available, it is fair to conclude that fossil fuel still receives more subsidies than renewables. For general statistics on subsidies on fossil fuels, see D. Coady et al., 'Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates' IMF Working Paper WP/19/89, May 2019.

renewable energy investments,¹⁴⁶ however, whether the commitments would prove beneficial for these developing countries in the long run remain overall unclear.

¹⁴⁶ See 5th Annual Global Conference on Energy Efficiency, International Energy Agency, June 2020, <https://www.iea.org/events/5th-annual-global-conference-on-energy-efficiency>

Rethinking the ‘Full Reparation’ standard in energy investment arbitration: how to take climate change into account

Yawen Zheng^{ib*}

ABSTRACT

One crucial measure to curb global warming is the phasing out of fossil fuel production, but doing so can deprive the value of foreign investments in fossil fuels and amount to breaches of investment treaties. Normally, investment treaties are silent about the standards of compensation when treaty violations are established. Tribunals mostly refer to the ‘full reparation’ standard in general international law, potentially resulting in high amounts of compensation that place a significant burden on States implementing climate actions. This paper argues that the amount of compensation under the ‘full reparation’ standard can be reduced on four grounds: (i) depressed energy price in the peak demand era, (ii) unviability of fossil fuel projects, (iii) international environmental obligations, and (iv) international environmental principles. An interpretation document entered into by States can clarify the application of the ‘full reparation’ standard and ensure that these factors are taken into account in quantifying compensation.

INTRODUCTION

An immediate and steep decline of fossil fuel production and usage is necessary to limit global warming to meet the goals of the Paris Agreement.¹ To mitigate climate change and reduce anthropogenic greenhouse gases, countries have begun implementing fossil fuel phase-out measures,² including direct restrictions or bans on the industry, and removals of incentives, such as subsidies and tax preferences.³ These measures can deprive fossil fuel investments of their value

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¹ 4 November 2016, UN Doc FCCC/CP/2015/10/Add.1 Decision 1/CP.21, art 2(1.)

² Ivetta Gerasimchuk and others, ‘Fossil Fuel Phase-Out and a Just Transition: Learning from Stories of Coal Phase-Outs’ (2018) <https://unfccc.int/sites/default/files/resource/69_IISD%20Fossil%20fuel%20phase%20out%20and%20just%20transition%2C%20stories%20for%20success.pdf> accessed 14 July 2024.

³ Eg Denmark cancelled all new permits for oil and gas exploration and production, and decided to end existing production by 2050. Greenpeace International, ‘Denmark Cancels New Oil and Gas Permits and Sets Date to End Existing Production’

and thus trigger investment claims, potentially resulting in significant amounts of compensation payable to investors. For instance, Italy's ban on oil and gas exploration and production within 12 miles of the coastline was found in violation of the Energy Charter Treaty (ECT) in the *Rockhopper* case, which held that Italy must pay over 250 million euros in compensation far in excess of the initial investment made by Rockhopper which only amounted to 29.2 million euros.⁴ Moreover, the USA's cancellation of Keystone pipeline project has triggered two claims totalling over USD 16 billion.⁵ One claim was dismissed on jurisdictional grounds, while the other is still pending.⁶

Against this backdrop, some States have acted to reform investment treaties to ensure sufficient regulatory space for the implementation of public policy measures and to reduce their exposure to investment claims or risks of violating investment protection obligations. A typical example is the ECT modernization process.⁷ However, the process of reforming each treaty tends to be lengthy, and there are thousands of existing, unreformed investment treaties. Given the urgent need for States to mitigate climate change, this approach is unlikely to meet climate change mitigation goals on time. Further, it is practically impossible to eliminate all legal risks faced by States from existing investment treaties. Even where States have chosen to take the most drastic mitigation action by leaving such treaties entirely, the widely adopted 'survival clause' that allows investors to bring claims after the termination of the treaties can undermine the effectiveness of this approach to climate change mitigation.⁸ Accordingly, it is essential to also take steps to address the standards of compensation in cases where States adopting fossil fuel phase-out measures are found in breach of investment treaties.

This paper focuses solely on the issue of compensation in cases where fossil fuel phase-out measures are found to be in violation of investment treaties, without discussing whether such measures themselves constitute violations of these treaties. The next part Standard of compensation in energy investment arbitration and its implications reviews the current standard of compensation and its implications in energy investment arbitration cases. Then the section Grounds to reduce amount of compensation awarded in investment arbitration triggered by fossil fuel phase-out measures proposes grounds to reduce the amount of compensation awarded to investors: depressed energy prices in the peak demand era, the unviability of fossil fuel projects, and compliance with international environmental obligations and principles. The following section on Possible interpretation document regarding the meaning of 'full reparation' standard in investment arbitration triggered by fossil fuel phase-out policies suggests an interpretation note that can standardize tribunals' interpretation and application of the compensation standard. Finally, the paper draws conclusions.

(Copenhagen, 4 December 2020) <<https://www.greenpeace.org/international/press-release/45831/denmark-cancels-new-oil-and-gas-permits-and-sets-date-to-end-existing-production/>> accessed 4 August 2024; moreover, Canada cancelled eight tax preferences for the fossil fuel sector and pledged to eliminate insufficient fossil fuel subsidies by 2025 to 2023. Alexandra Mae Jones, "We're still on the bunny slopes": As 2023 kicks off, is Canada's Climate Change Plan Aggressive Enough? (CTV News, 15 January 2023) <<https://www.ctvnews.ca/climate-and-environment/we-re-still-on-the-bunny-slopes-as-2023-kicks-off-is-canada-s-climate-change-plan-aggressive-enough-1.6229253>> accessed 10 August 2024.

⁴ Climate Action Network Europe, 'Outrage as Italy Ordered to Pay Out Millions to Oil Investor Over Energy Charter Treaty Claim' (24 August 2022) <<https://caneurope.org/outrage-as-italy-ordered-to-pay-out-millions-to-oil-investor-over-energy-charter-treaty-claim/>> accessed 10 August 2023.

⁵ *TC Energy Corporation and TransCanada Pipelines Limited v USA (II)*, ICSID Case No ARB/21/63, Request for Arbitration (22 November 2021) para 99; *Alberta Petroleum Marketing Commission v USA*, ICase No UNCT/23/4, Notice of Dispute (9 February 2022) para 40.

⁶ Damien Charlotin, 'Breaking: Keystone XL Arbitration Concludes Amid Tribunal's Review of USA's Bifurcated Jurisdictional Objection' (IA Reporter, 13 July 2024) <<https://www.iareporter.com/articles/breaking-keystone-xl-arbitration-concludes-amid-tribunals-review-of-usas-bifurcated-jurisdictional-objection/>> accessed 15 July 2024.

⁷ European Commission, 'Agreement in principle reached on Modernised Energy Charter Treaty' (Brussels, 24 June 2022) <https://policy.trade.ec.europa.eu/news/agreement-principle-reached-modernised-energy-charter-treaty-2022-06-24_en> accessed 15 July 2024.

⁸ Eg Rockhopper's claim against Italy was initiated under the ECT after Italy withdrew from the treaty. Climate Action (n 4).

STANDARD OF COMPENSATION IN ENERGY INVESTMENT ARBITRATION AND ITS IMPLICATIONS

Depending on specific investment disputes and treaty formulations, investors can claim that fossil fuel phase-out policies violate substantive investment protection standards generally included in investment treaties.⁹ In particular, due to their potential impact on the economic interests of the investments, such policies can violate the fair and equitable treatment (FET) standard or constitute an indirect expropriation which requires compensation.¹⁰ However, typical investment treaties only specify the substantive principles of compensation for lawful expropriation, but leave out rules on the standard of compensation for the abovementioned treaty violations.¹¹ Accordingly, the latter are governed by customary international law (CIL), which is widely understood by tribunals to mandate a 'full reparation standard'.¹²

The meaning of the full reparation standard as adopted today originates from the seminal case *Factory at Chorzów* dating back to the 1920s.¹³ The Permanent Court of International Justice (PCIJ) considered that the standard of reparation should be able to 'wipe out all the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed'.¹⁴ This is known as the but-for scenario.¹⁵ The formulation is codified in Article 31 of the Draft Articles on the Responsibility of States for Internationally Wrongful Acts (ARSIWA), which requires States to 'make full reparation for the injury caused by the internationally wrongful acts'. According to Article 34, one form of reparation is compensation. Article 36 specifies that 'compensation shall cover any financially assessable damage including loss of profits'. The *Chorzów* case was referred to in the commentary to Articles 31 and 36.¹⁶

In contemporary investment arbitration practice, tribunals tend to consider the assessment of compensation under the full reparation standard as a fact-finding operation, primarily focused on quantifying the losses suffered by investors.¹⁷ Accordingly, compensation awarded in the investment arbitration takes on an 'all or nothing' character: if no treaty violation is found, no compensation is awarded to investors; otherwise, all losses are compensated according to the 'full reparation' principle.¹⁸ Meanwhile, tribunals tend to overlook the legal judgements that enter into determining the amount of compensable harm, such as causation and certainty of the harm, as well as the level of wrongfulness of the harmful action.¹⁹ Moreover, turning the quantum assessment into a purely factual inquiry also hinders any discretionary appreciation of contextual factors, such as public interests and the respondent State's financial situation, which may reduce awarded amounts.²⁰

⁹ Kyla Tienhaara and Lorenzo Cotula, *Raising the Cost of Climate Action? Investor-State Dispute Settlement and Compensation for Stranded Fossil Fuel Assets* (International Institute for Environment and Development 2020) 17–8.

¹⁰ Stephan W Schill, 'Do Investment Treaties Chill Unilateral State Regulation to Mitigate Climate Change?' (2007) 24 *Journal of International Arbitration* 469, at 471–6.

¹¹ Sergey Ripinsky and Kevin Williams, *Damages in International Investment Law* (British Institute of International and Comparative Law 2015) 278.

¹² Jonathan Bonnitcha and Sarah Brewin, 'Compensation Under Investment Treaties' (November 2020) <<https://www.iisd.org/system/files/publications/compensation-treaties-best-practices-en.pdf>> accessed 16 January 2023. Eg *Rockhopper Italia SpA, Rockhopper Mediterranean Ltd, and Rockhopper Exploration Plc v Italian Republic*, ICSID Case No ARB/17/14, Final Award (23 August 2022) paras 204–08.

¹³ Herfried Wöss and Adriana San Román Rivera, 'Damages in Investment Treaty Arbitration' in José R. Mata Dona and Nikos Lavranos (eds), *International Arbitration and EU Law* (Edward Elgar, Cheltenham, UK 2021) 394, 391–425.

¹⁴ *Case Concerning the Factory at Chorzów (Germany v Poland)* (Merits) PCIJ Rep Series A No 17, 47.

¹⁵ Toni Marzal, 'Quantum (In)Justice: Rethinking the Calculation of Compensation and Damages in ISDS' (2021) 22 *Journal of World Investment & Trade* 249, 291.

¹⁶ International Law Commission (ILC), 'Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries (2001) *Yearbook of the International Law Commission*, vol II, Part II, art 34.

¹⁷ Marzal (n 15) 267.

¹⁸ Bonnitcha and Brewin (n 12).

¹⁹ Marzal (n 15) 282–5.

²⁰ *ibid* 265–7.

To calculate the capital value of damages, the generally adopted basis is the 'fair market value' (FMV),²¹ which is considered as the price that a willing and able buyer would pay a willing and able seller in an arm's-length transaction for the property.²² According to the full reparation principle, States are under an obligation to restore the full FMV of investments. In other words, States need to compensate for the reduction in FMV resulting from their treaty violations.²³

The adoption of FMV overlooks duress, threat, or special economic circumstances, which real-life investors do consider in transactions.²⁴ The reason is that tribunals commonly understand the notion of FMV as the value of investments in an open and unrestricted market—a fictional market with certain idealized characteristics, where investments are given unimpeded marketability. Consequently, the resulting value can be higher than what investors would be able to realize in the actual market.²⁵

To estimate the price a hypothetical investor is willing to pay, current arbitration practice follows the practice of real-life investors, among whom the most widely used method to value assets or enterprises is discounted cash flow (DCF).²⁶ In this method, predicted cash flows (expected revenue minus expected costs) for a certain period of time into the future are discounted by a 'discount rate' (decided based on relevant risks of the business and the allowances for the time value of money) back to the present value.²⁷ The method is premised on the financial theory that the value of an asset is decided by the cash flows that is expected to generate in the future.²⁸

The DCF method is also widely used in energy investment arbitration cases.²⁹ Expected revenue of investment projects is normally decided from contractual terms, output price forecasts, and production capabilities or the size and nature of resources, which is converted into the present value with a discount rate.³⁰ *ConocoPhillips v Venezuela* illustrates a typical approach of applying the DCF method under the 'full reparation' standard by tribunals. For instance, on the evaluation of Petrozuata, the tribunal determined that the projected average production is 36,200,000 million barrels per year between 2009 and 2023, and decline dramatically after that to 19,000,000 million barrels per year in 2026.³¹ Turning to the future oil price, the tribunal's forecast assumes a general increase to USD 77.22 per barrel in 2036.³² The future revenues of the project resulted from multiplying the oil price forecast with the annual production, amounting to USD 44,212,022,105.³³ After deducting royalties, tax and cost, etc., then applying 17.35% discount rate, a total compensation of USD 3,386,079,057 was awarded for the project.³⁴

Like the *ConocoPhillips* case, due to the normally long-term nature of the contracts at issue and the prediction of an overall increase trend in future oil prices, the inflation of compensation awarded in cases brought by fossil fuel investors can be substantially exacerbated. The average amount awarded in known fossil fuel cases exceeds USD 600 million, which is more than five

²¹ ILC (n 16) art 35 (22). Eg *Rockhopper* (n 12) para 210.

²² National Association of Certified Valuers and Analysts, 'International Glossary of Business Valuation Terms' (8 June 2001) <<https://www.nacva.com/glossary>> accessed 24 November 2021.

²³ Herfried Wöss and Adriana San Román, 'Full Compensation, Full Reparation and the But-For Premise' in John A Trenor (ed), *Damages in International Arbitration Guide* (5th edn, Law Business Research, London, UK 2022).

²⁴ *ibid.*

²⁵ Wöss and Román, *ibid.*; Marzal (n 15) 294.

²⁶ Marzal, *ibid.* 271.

²⁷ World Bank, 'Legal Framework for the Treatment of Foreign Investment' (1992) Volume II: Guidelines, Report No 11415 <<https://documents1.worldbank.org/curated/en/955221468766167766/pdf/multi-page.pdf>> accessed 19 January 2023.

²⁸ Ripinsky and Williams (n 11) 195.

²⁹ Eg *Rockhopper* (n 12) para 283–4.

³⁰ Carla Chavich, 'Valuation of Energy Assets in International Investment Arbitration' (2018) 7 *Transnational Dispute Management*, at 3–4, 11. Eg, *Murphy Exploration & Production Company International v Republic of Ecuador*, PCA Case No 2012–16, Partial Final Award (6 March 2016) para 494.

³¹ *ConocoPhillips Petrozuata BV, ConocoPhillips Hamaca BV and ConocoPhillips Gulf of Paria BV v Bolivarian Republic of Venezuela*, ICSID Case No ARB/07/30, Award of the Tribunal (8 March 2019) paras 516–18.

³² *ibid.* paras 706–08.

³³ *ibid.* para 710.

³⁴ *ibid.* paras 953 and 1010.

times the amount in non-fossil fuel cases.³⁵ Indeed, according to data provided by the United Nations Conference on Trade and Development (UNCTAD), eight out of the ten largest awards in investment treaty arbitration are related to the oil and gas sector.³⁶

The massive amount of compensation awarded in energy investment arbitration has raised the concern about its chilling effect on States. Despite that not many of these cases are triggered by States' environmental measures, their approach to calculating compensation is likely to be followed in cases triggered by climate actions. Fossil fuel investors also have strong motivation and capabilities to reinforce the chilling effect,³⁷ which is also exacerbated by existing investment arbitration cases. About 20% of the total known investment arbitration cases are related to the fossil fuel industry, making it the most litigious industry across all sectors, while 76% of these cases are decided in favour of investors.³⁸ Some States like Germany may be able to mitigate such substantial legal risks by paying billions of dollars of compensation to fossil fuel investors who are required to close down their investment projects pursuant to their domestic law.³⁹ Conversely, more States may refrain from enacting or enforcing *bona fide* regulatory measures due to the concern of significant costs incurred by investment arbitration.⁴⁰ Indeed, Denmark and New Zealand have admitted that the prospect of investor-State lawsuits has impeded the implementation of more ambitious climate policies.⁴¹ Moreover, it is believed that France's retreating from its new law aimed at discontinuing fossil fuel extraction was influenced by the threat posed by a Canadian oil and gas giant to initiate an investment claim.⁴² These cases demonstrate that the concern about regulatory chill is not unfounded.

Besides, substantial amounts of compensation can divert millions of dollars from government budgets, and thus exacerbate the budgetary constraints faced by many States seeking to achieve net zero,⁴³ including the budget for providing incentives to facilitate Paris-aligned investments.⁴⁴ Indeed, paying fossil fuel investors large amounts of compensation arguably violates the Paris Agreement, which requires States to make financial flows 'consistent with a pathway towards low green house gas emissions and climate-resilient development'.⁴⁵

Furthermore, such damages can impose crippling burdens on countries' economies and populations. For instance, in *ConocoPhillips v Venezuela*, the tribunal rendered an award requiring Venezuela to pay the claimants around USD 8.7 billion in 2019,⁴⁶ which was more than

³⁵ Lea Di Salvatore, 'Investor-State Disputes in the Fossil Fuel Industry' (November 2021) <<https://www.iisd.org/system/files/2022-01/investor%E2%80%93state-disputes-fossil-fuel-industry.pdf>> accessed 20 January 2023.

³⁶ UNCTAD Investment Policy Hub, 'Investment Dispute Settlement Navigator' <<https://investmentpolicy.unctad.org/investment-dispute-settlement>> accessed 20 July 2024.

³⁷ Kyla Tienhaara, 'Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement' (2018) 7 Transnational Environmental Law 229, 239–41.

³⁸ Salvatore (n 35).

³⁹ Geir Moulson and Frank Jordans, 'Germany Agrees Timeline, Compensation for Coal Phase-Out' (*Associated Press News*, Berlin, 16 January 2020) <<https://apnews.com/article/4c57e9577f5aee6db189f91a17ee1272>> accessed 20 July 2024; Benjamin Wehrmann, 'German govt Adopts Coal Exit, Fixes Hard Coal Compensation' (*Clean Energy Wire*, 29 January 2020) <<https://www.cleaneconomywire.org/news/german-govt-adopts-coal-exit-fixes-hard-coal-compensation>> accessed 1 July 2024.

⁴⁰ Kyla Tienhaara, 'Regulatory Chill and the Threat of Arbitration: A View from Political Science' in Chester Brown and Kate Miles (eds), *Evolution in Investment Treaty Law and Arbitration* (CUP, New York, USA 2011) 610, 606–28.

⁴¹ Elizabeth Meager, 'Cop26 Targets Pushed Back under Threat of being Sued' *Capital Monitor* (14 January 2022) <<https://capitalmonitor.ai/institution/government/cop26-ambitions-at-risk-from-energy-charter-treaty-lawsuits/>> accessed 25 July 2024.

⁴² Red Carpet Courts, 'Blocking Climate Change Laws with ISDS Threats: Vermilion vs France' <https://10isdstories.org/cases/case5/#_edn2> accessed 25 July 2024.

⁴³ The World Bank estimates that developing countries have to spend about 4.5 per cent of gross domestic product to achieve the global climate goal. Şebnem Erol Madan, 'How can Developing Countries get to Net Zero in a Financeable and Affordable Way?' (*World Bank Blogs*, 9 February 2022) <<https://blogs.worldbank.org/ppps/how-can-developing-countries-get-net-zero-financeable-and-affordable-way>> accessed 15 July 2024.

⁴⁴ A typical example is the feed-in tariff implemented to accelerate investments in renewable energy. Despite its efficiency, the very costly regime has imposed heavy burdens on government budget, which eventually led to its collapse in Europe. See Andri Pyrgou, Angeliki Kytili, and Paris A Fokaides, 'The Future of the Feed-In Tariff (FiT) Scheme in Europe: The Case of Photovoltaics' (2016) 95 Energy Policy 94, 94–5.

⁴⁵ Paris Agreement (n 1).

⁴⁶ *ConocoPhillips* (n 31) para 1010.

Venezuela's government revenue that year.⁴⁷ The issue would be more salient for States of the Global South, which tend to have more limited sources to defend investment claims and younger fossil fuel investments that will suffer more substantial financial losses from phase-out measures.⁴⁸ Therefore, these countries may delay their climate actions to avoid such severe risks.

It is therefore essential to limit the amount of possible compensation awarded in investment arbitration triggered by climate change mitigation measures, so as to reduce the chilling effect on States and make it less costly to achieve net zero. The next section will discuss possible grounds to reduce the amount of compensation awarded in these arbitration cases.

GROUND TO REDUCE AMOUNT OF COMPENSATION AWARDED IN INVESTMENT ARBITRATION TRIGGERED BY FOSSIL FUEL PHASE-OUT MEASURES

The analysis in the previous section reveals that compensation in investment arbitration triggered by fossil fuel phase-out policies can be substantially heightened using the most widely adopted approach, due to its insufficient consideration of legal judgements and contextual factors. To prevent massive compensation from hindering States' climate actions, and to more accurately reflect what investors in real markets can recover, more elements must be considered when using the DCF method to determine compensation under the 'full reparation' standard. Specifically, depressed energy prices during the peak demand era should be considered to exclude speculative losses. Moreover, unviability of fossil fuel projects can serve as the ground to exclude losses that are not caused by States' unlawful actions or beyond the legitimate expectations of investors. Additionally, to incorporate the consideration of contextual factors, the amount of compensation should be deducted based on States' international environmental obligations, while environmental law principles can also be adopted to account for fossil fuel investors' responsibility for causing harm to the environment. This section will analyse the applicability of these factors in fossil fuel investment arbitration.

Depressed energy prices in the peak demand era

As mentioned above, forecast of future energy prices is an essential parameter in any DCF analysis applied to energy investment arbitration. However, future energy prices are difficult to predict due to their high volatility.⁴⁹ Like other commodities, the price instability of oil is produced mainly by temporary supply–demand imbalances, and thus are normally of a short- or medium-term nature.⁵⁰ An anticipation of increased future demand for oil and supply shortage triggers more oil inventories, thus leading to a hike in oil prices.⁵¹ High prices, among other factors like global financial crises,⁵² can cause market shrinkage and substantial reduction in demand,⁵³ which will then draw down prices due to more intense competition among suppliers.⁵⁴ Conversely, in the long run, an overall increase in the trend of oil prices is expected due to

⁴⁷ In 2019, Venezuela's gross domestic product was USD 73 billion. Statista, 'Venezuela: Gross Domestic Product (GDP) in Current Prices from 1986 to 2024 (in billion U.S. dollars)' <<https://www.statista.com/statistics/370937/gross-domestic-product-gdp-in-venezuela/>> accessed 30 June 2024; While the ratio of government revenue to GDP was 8.72 in that year. Statista, 'Ratio of Government Revenue to Gross Domestic Product (GDP) in Venezuela from 2000 to 2022' <<https://www.statista.com/statistics/1392621/ratio-of-government-revenue-to-gross-domestic-product-gdp-venezuela/>> accessed 30 June 2024.

⁴⁸ Salvatore (n 35).

⁴⁹ David W Rivkin and Floriane Lavaud, 'Determining Compensation for Expropriation in Treaty-based Oil and Gas Arbitrations' in James M Gaitis (ed), *Leading Practitioners' Guide to International Oil & Gas Arbitration* (Jurisnet, LLC, New York, USA 2015) 242, 217–62.

⁵⁰ Roberto F Aguilera and Marian Radetzki, *The Price of Oil* (CUP 2015) 11–22.

⁵¹ Lutz Kilian and Daniel P Murphy, 'The Role of Inventories and Speculative Trading in the Global Market for Crude Oil' (2014) 29 *Journal of Applied Econometrics* 454, 455.

⁵² Myung Suk Kim, 'Impacts of Supply and Demand Factors on Declining Oil Prices' (2018) 155 *Energy* 1059, 1064.

⁵³ Aguilera and Radetzki (n 50).

⁵⁴ Mark Jaccard, James Hoffle and Torsten Jaccard, 'Global Carbon Budgets and the Viability of New Fossil Fuel Projects' (2018) 150 *Climate Change* 15, 18.

the following reasons. First, the rapid growth of oil demand due to the development of emerging market economies.⁵⁵ Second, the surplus profit produced by the 'scarcity rent', which reflects the expectation of rising values with the increasing scarcity of oil, a non-renewable resource, and a downshift in oil supply trends.⁵⁶

Based on such anticipation, arbitral tribunals generally assume an increase in the oil price over the lifetime of investments when calculating expected revenue. For instance, in *ConocoPhillips v Venezuela*, a 1.2% increase per year was used to determine future oil prices until the end of the projects, which resulted in a total compensation with an amount of over USD 8 billion.⁵⁷ Other tribunals adopted much more complicated approaches based on the price forecast of main global oil benchmarks like the West Texas Intermediate (WTI).⁵⁸ Nevertheless, a similar increase can still be found in the price forecast that leads to similar substantial amounts of compensation awarded to investors.⁵⁹

However, such an approach can be problematic. The depletion of fossil fuel resources produces a theory known as 'peak oil', which refers to a hypothetical point when the production of oil reaches a maximum (peak), and then declines gradually to zero. Various predictions regarding the timing of peak production and demand have been made based on such a traditional understanding.⁶⁰ However, amid efforts to mitigate climate change, more factors need to be taken into account, including the effectiveness of climate policies and the advancement of low carbon technologies, which can stop the increase of oil demand, and eventually result in the inextricable decline in oil prices.⁶¹ According to the International Energy Agency (IEA), if net-zero emissions will be achieved by 2050, oil demand will never reach its historic peak in 2019 again.⁶² Under such a scenario, the loss of profits based on the forecast of increasing oil prices become speculative, and the reparation awarded for such losses is likely to result in significant windfalls for investors in most energy investment arbitration cases.

The principle of non-compensability of speculative losses is considered as one of the most settled rules in the law of international responsibility of States.⁶³ Various investment arbitration tribunals have upheld this principle in their awards. For instance, in *Burlington v Ecuador*, the tribunal dismissed the damages claim for the lost opportunity because it was too speculative.⁶⁴ Similarly, in *Wena Hotels v Egypt*, the tribunal considered Wena's claims for lost profits, lost opportunities and reinstatement costs inappropriate because they were speculative.⁶⁵

⁵⁵ International Monetary Fund, *Tensions from the Two-Speed Recovery: Unemployment, Commodities, and Capital Flows* (World Economic Outlook April 2011) 89–90.

⁵⁶ Jaccard, Hoffele and Jaccard (n 54).

⁵⁷ *ConocoPhillips* (n 31) paras 715 and 1010.

⁵⁸ James Chen, 'West Texas Intermediate (WTI): Definition and Use as a Benchmark' (Investopedia, 13 June 2022) <[https://www.investopedia.com/terms/w/wti.asp#:~:text=West%20Texas%20Intermediate%20\(WTI\)%20is,the%20NYMEX's%20oil%20futures%20contract](https://www.investopedia.com/terms/w/wti.asp#:~:text=West%20Texas%20Intermediate%20(WTI)%20is,the%20NYMEX's%20oil%20futures%20contract)> accessed 4 July 2024.

⁵⁹ Eg in *Venezuela Holdings v Venezuela*, the tribunal adopted the price forecast submitted by the claimants' expert, who used the WTI price forecast to determine expected price of the oil produced by the investors' projects, which also increased year by year and resulted in a compensation amounted to more than USD 14 billion. *Venezuela Holdings, BV, et al v Bolivarian Republic of Venezuela*, ICSID Case No ARB/07/27, Award of the Tribunal (9 October 2014) paras 327–9, 404, Annex 1.

⁶⁰ Ugo Bardi, 'Peak Oil: The Four Stages of a New Idea' (2009) 34 *Energy* 323, 323.

⁶¹ Spencer Dale and Bassam Fattouh, 'Peak Oil Demand and Long-Run Oil Prices' (2018) <<https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/bp-peak-oil-demand-and-long-run-oil-prices.pdf>> accessed 5 July 2024. IEA predicts that producers can be forced by the rapid fall of demand to increase production, aiming at capture larger share of the market. Consequently, oil price will be pushed even lower. IEA, 'Net Zero by 2050: A Roadmap for the Global Energy Sector' (October 2021) <https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf> accessed 4 August 2024.

⁶² IEA *ibid*.

⁶³ *Amoco International Finance Corporation v Iran*, IUSCT Case No 56, Partial Award (Award No 310–56-3) (14 July 1987) para 238.

⁶⁴ *Burlington Resources v Ecuador*, ICSID Case No ARB/08/5, Decision on Reconsideration and Award (7 February 2017) paras 281–3.

⁶⁵ ICSID Case No ARB/98/4, Award (8 December 2000) para 123.

To avoid compensating for speculative losses, reasonable certainty has been adopted as one requirement for the assessment of damages.⁶⁶ Various tribunals have upheld this standard of certainty when the claimed compensation includes lost future gains. For instance, in *Autopista v Venezuela*, the tribunal noted that only lost profits established with sufficient certainty can be compensated.⁶⁷ In *Vivendi v Argentina*, the tribunal declined to evaluate the concession based on lost profits because the claimants had failed to prove with a sufficient degree of certainty that the investment was profitable.⁶⁸ The requirement corresponds to the full reparation principle elucidated in the *Chorzów* case as mentioned in [previous section](#), which requires reparation to re-establish the situation which would have existed in *all probability*.

States such as Kazakhstan did raise concerns in investment arbitration about oil price drops. However, these concerns stem from oil price volatility rather than the new climate change mitigation developments.⁶⁹ Rarely, if ever, do States raise the latter argument in arbitration. Although it remains uncertain whether the abovementioned decarbonization roadmap proposed by the IEA will be realized and, if so, how it will impact the price of oil, anticipated depressed energy prices have been widely discussed and modelled by financial regulators, central banks, and academics.⁷⁰ These should not be disregarded by tribunals. Therefore, to avoid overcompensating investors where fossil fuel phase-out policies are found to be in violation of investment treaties, tribunals can either include the concern of depressed oil prices in the determination of the oil price forecast or adopt a higher discount rate to factor in the risk. Consequently, a lower amount of compensation can be determined based on the grounds of oil price plunges.

Unviability of fossil fuel projects

To achieve the global climate goal of achieving net-zero emissions, fossil fuel production in most regions must peak soon, which would cause many operational and planned fossil fuel projects to become economically unviable. This sunset process is driven by various new developments in the context of climate change mitigation, including the advancement of low-carbon technologies, such as zero-emission vehicles and renewable energy, reduced demand for fossil fuel production and fossil fuel-based products, imposition of carbon pricing and carbon taxes, and the removal of fossil fuel subsidies.⁷¹ These developments may depreciate the market price of fossil fuels to an extent that it falls even below the production cost,⁷² and therefore make fossil fuel projects unprofitable. Under such circumstances, the amount of compensation awarded by tribunals can be limited based on the principles of causation, contributory fault, and legitimate expectations.

Causation

Causation is a general principle of law included in Article 31 of ARSIWA and has been widely adopted by international courts and tribunals to determine whether damage is compensable.⁷³

⁶⁶ See Clyde Eagleton, 'Measure of Damages in International Law' (1929) 39 The Yale Law Journal 52, 74.

⁶⁷ *Autopista Concesionada de Venezuela v Venezuela*, ICSID Case No ARB/00/5, Award of the Tribunal (23 September 2023) para 351.

⁶⁸ *Compañía de Aguas del Aconquija SA and Vivendi Universal SA v Argentina*, ICSID Case No ARB/97/3, Award (20 August 2007) paras 8.3.4–8.3.11.

⁶⁹ *Anatolie Stati, Gabriel Stati, Ascom Group SA and Terra Raf Trans Trading Ltd v Kazakhstan*, SCC Case No V116/2010, Award (19 December 2013) paras 1482 and 1491.

⁷⁰ Eg Aguilera and Radetzki (n 50) 2–3; Fitri Wulandari and Jekaterina Drozdovica, 'Oil Price Forecast: Will WTI and Brent Regain Momentum in 2023' (*Capital.com*, 18 January 2023) <<https://capital.com/oil-price-forecast>> accessed 5 July 2024.

⁷¹ Dan Welsby and others, 'Unextractable Fossil Fuels in a 1.5 °C World' (2021) 597 Nature 230, 231.

⁷² Jaccard, Hoffele and Jaccard (n 54) 25.

⁷³ See Bin Cheng, *General Principles of Law as Applied by International Courts and Tribunals* (Grotius Publications, Cambridge 1987) 241–53.

As explained in the commentaries on ARSIWA, the causal link between injury and internationally wrongful acts is a necessary condition for reparation.⁷⁴ In general, the determination of causation involves both 'factual' and 'legal' aspects.⁷⁵ The former is known as the 'but for' test: would the loss have occurred but for the unlawful conduct? With a negative answer, the conduct counts as a factual cause of the damage.⁷⁶ Conversely, the legal aspects of the causation question seek to filter out damage that was not directly, proximately, or foreseeably caused by the wrongful conduct.⁷⁷ Failure to pass either the factual or legal causation test can result in a finding of violation of law without the awarding of compensation. For instance, in the *Elettronica Sicula (ELSI)* case, the International Court of Justice (ICJ) found that Italy's requisition of ELSI's plant and assets was unlawful and could be one of the causes that led to the disaster to ELSI. However, since the underlying cause of the failure of ELSI (an under-capitalized and consistently loss-making company) was its headlong course towards insolvency, the claim for reparation was rejected.⁷⁸

Investment arbitration tribunals have also adopted the abovementioned tests to limit the amount of recoverable damages. For instance, in *Biwater v Tanzania*, the tribunal first held that the establishment of causation comprises, both, a factual link and legal requirements of directness and proximity for the link.⁷⁹ After reviewing the facts and evidence, the tribunal found that the actual, proximate, or direct causes of the damage were not Tanzania's treaty violations, as the investment had no economic value before being expropriated by Tanzania.⁸⁰ Accordingly, no compensation was awarded despite the finding of violations.⁸¹

As mentioned above, existing market conditions for fossil fuel projects have significantly changed in the era of climate change mitigation. Consequently, these projects can become unprofitable even without the implementation of direct restrictions or bans on fossil fuels.⁸² Therefore, it can be argued that the factual link between the deprivation of the value of fossil fuel investments and States' phase-out measures is weak. Hence, no compensation should be awarded even when the measures are found to be unlawful.

Yet, the issue of causation can be more complicated when the phase-out measures involve the removal of fossil fuel subsidies that artificially keep otherwise unprofitable projects viable.⁸³ These subsidies are directed at either energy consumption (to charge consumers at a price below the cost of supply) or production (to keep the price on the supply side lower than the market price).⁸⁴ The phase-out of fossil fuels will likely involve the cancellation of such subsidies,⁸⁵ which can force relevant investments which survive solely on such subsidies to exit the market. In renewable energy arbitration cases, tribunals have considered the issue of causation between the unlawful cancellation of subsidies and damage. For instance, in *Eskosol v Italy*, Professor Tawil, in his Separate Opinion, reasoned that no further examination of Italy's measures was required because the claimant failed to prove that the reduction of tariff incentives for solar power projects

⁷⁴ ILC (n 16) Commentaries 9–10.

⁷⁵ ILC *ibid* Commentaries 10; James Crawford, 'Third report on State Responsibility' (2000) UN Doc A/CN.4/507, para 27.

⁷⁶ Martin Jarrett, *Contributory Fault and Investor Misconduct in Investment Arbitration* (CUP 2009) 44.

⁷⁷ ILC (n 74).

⁷⁸ *Elettronica Sicula SpA (ELSI) (United States of America v Italy)*, Judgement (20 July 1989) ICJ Reports 1989, paras 75, 100–101.

⁷⁹ *Biwater Gauff (Tanzania) Ltd v Tanzania*, ICSID Case No ARB/05/22, Award (24 July 2008) paras 785–7.

⁸⁰ *ibid* paras 788–99.

⁸¹ *ibid* para 807.

⁸² Jaccard, Hoffele and Jaccard (n 72).

⁸³ İpek Gençsü and others, 'G20 Coal Subsidies: Tracking Government Support to a Fading Industry' (The Natural Resources Defense Council, The International Institute for Sustainable Development and Oil Change International, June 2019) <<https://cdn.odi.org/media/documents/12744.pdf>> accessed 25 July 2024.

⁸⁴ Irene Monasterolo and Marco Raberto, 'The Impact of Phasing out Fossil Fuel Subsidies on the Low-Carbon Transition' (2019) 124 Energy Policy 355, 356.

⁸⁵ Gençsü and others (n 83).

was the 'operative cause' to the company's bankruptcy.⁸⁶ However, other tribunals have considered the loss of cash flows and the reduction of FMV caused by the unlawful withdrawal of host States' financial incentives as compensable harm.⁸⁷ It is worth noting that the claimants in these cases are in renewable energy sectors where their investments can still be profitable after the removal of financial support if they are managed properly.⁸⁸ Conversely, the phase-out of fossil fuel subsidies will probably render relevant projects unviable, and thus, the causal link between treaty violations and the unviability of investments can be easier to establish.

Nevertheless, these fossil fuel projects still face climate-related risks, particularly transition risks from shifts in market preferences and technology, reputational harm, etc.⁸⁹ These risks should be considered in determining compensation under the full reparation standard. One approach could be factoring these risks into a higher discount rate. Additionally, despite the controversy over whether States' own value-destroying measures should be included as part of the country risk in the discount rate,⁹⁰ the risks of legal change for climate change mitigation should be considered due to their high foreseeability given States' urgent imperatives. These risks are rarely, if ever, considered in existing fossil fuel investment arbitration cases.

Contributory fault

Contributory fault is recognized under international law as a principle that could reduce the amount of compensation due. According to Article 39 of the ARSIWA, the determination of reparation should take into account any 'wilful or negligent action or omission' of the injured party that contributed to the injury.⁹¹ This principle is saturated with causation.⁹² Since the full reparation standard only requires States to compensate for the injury caused by their wrongful acts—and nothing more, injuries caused by the injured party should be excluded.⁹³ Except for causation, the contributory fault principle also requires wilfulness and negligence (which is often described as 'manifest a lack of due care') of the injured parties' actions or omissions.⁹⁴

The principle has been recognized and applied in investment arbitration, typically when investors have made poor business judgements or acted in a reckless manner.⁹⁵ The key concept within recklessness is foresight—whether an investor can foresee the occurrence of relevant consequences when it performs acts that contribute to its loss.⁹⁶ Therefore, investment decisions made in the presence of known political risks pertaining to that investment, which then materialize as relevant treaty violations, can be deemed fault-worthy, and thus the investment should not be accorded full protection.⁹⁷ For instance, in *MTD v Chile*, the tribunal agreed with Chile that the investors should have been aware of the prohibition on urban development concerning the land that they purchased for a real estate project at the time of their investment decision.⁹⁸

⁸⁶ *Eskosol SPA in Liquidazione v Italy*, ICSID Case No ARB/15/50, Award of the Tribunal (4 September 2020) footnote 577.

⁸⁷ *Eg Antin Infrastructure Service Luxembourg and Antin Energia Termosolar v Spain*, ICSDI Case No ARB/13/31, Award (15 June 2018) para 675; *CEF Energia v Italy*, SCC Arbitration (2015/158), Award (16 January 2019) para 266.

⁸⁸ *ibid* CEF Energia.

⁸⁹ Kyla Tienhaara, Lise Johnson and Michael Burger, 'Valuating Fossil Fuel Assets in an Era of Climate Disruption' (*Investment Treaty News*, 20 June 2020) <<https://www.iisd.org/itm/en/2020/06/20/valuing-fossil-fuel-assets-in-an-era-of-climate-disruption/>> accessed 20 July 2024.

⁹⁰ *Eg the ConocoPhillips tribunal excluded States' unlawful act from the determination of the discount rate as States could not benefit from their wrongdoings. ConocoPhillips (n 31) para 906; conversely, the Venezuela Holdings tribunal incorporated country risk as a willing buyer would also do the same. Venezuela Holdings (n 59) para 365–8.*

⁹¹ ILC (n 16).

⁹² Gaetano Arangio-Ruiz, 'Second report on State responsibility' (1989) DOCUMENT A/CN.4/425 and Add.1.

⁹³ ILC (n 16) Commentaries 2–5.

⁹⁴ *ibid* Commentaries 5.

⁹⁵ Borzu Sabahi, Kabir Duggal and Nicholas Birch, 'Principles Limiting the Amount of Compensation' in Christina L. Beharry (ed), *Contemporary and Emerging Issues on the Law of Damages and Valuation in International Investment Arbitration* (Brill, Leiden, the Netherlands 2018) 323–46, 326–7.

⁹⁶ Jarrett (n 76) 86.

⁹⁷ *ibid* 92.

⁹⁸ *MTD Equity Sdn. Bhd. and MTD Chile SA v Chile*, ICSID Case No ARB/01/7, Award (25 May 2004), paras 169 and 173.

Therefore, despite finding that Chile's refusal to grant necessary permits and approvals for the project amounted to treaty violations,⁹⁹ the compensation awarded to the investor was reduced by 50% to exclude damages caused by its business judgements.¹⁰⁰

Likewise, in investment arbitration cases triggered by the implementation of fossil fuel phase-out policies, it would appear plausible to argue that fossil fuel investors bear some level of contributory fault for the harm inflicted on their investments. This is because, given the readily available knowledge about the adverse effects of carbon dioxide emissions on climate change, the imperative to mitigate and adapt to it, and the substantial emissions generated by the fossil fuel industry,¹⁰¹ relevant investors should have foreseen the increasing climate and decarbonization regulations that affect their investments when making the investment decisions, particularly when the host State is under the obligation arising from international environmental law to reduce carbon emissions.¹⁰² Therefore, according to the principle of contributory fault, the amount of compensation should be reduced to exclude the damages caused by investors' business judgements in such a context.

However, it is uncertain whether the application of this principle can lead to compensation in amounts that are acceptable for States due to the following two issues. The first issue concerns the apportionment of liability between the disputing parties. As noted by the *MTD v Chile* annulment committee, the contribution of the parties to the loss can vary significantly and be difficult to measure in a comparable manner. Therefore, tribunals have a wide margin of discretion in apportioning fault.¹⁰³ Some tribunals still award large amounts of compensation even after the deduction according to contributory fault.¹⁰⁴ This issue can be addressed to some extent by the approach proposed by Jarrett—restitutionary apportionment. Instead of fault, this approach is guided by the undeserved gain obtained by the host State from investors' poor business judgements. According to restitutionary apportionment, host States should be fully liable for the direct contributions that investors have made to their economy, such as capital transferred directly to the State. For indirect contributions, such as payments for goods and services supplied by local entities within the host State's economy, as well as the loss of profits (which are more of a contribution to the investors than to the State), the degree of the host State's liability should be determined by the level of political risk. This risk assessment can be based on two criteria: the transparency of the information that makes the host State's treaty violations foreseeable, and the probability of the host State engaging in that specific conduct. The greater the transparency of the information or the higher the likelihood of the State's engagement in that conduct, the greater the political risks, and the larger the percentage of liability the investor must bear.¹⁰⁵ As mentioned earlier, the necessity for States to phase out fossil fuels has been clearly signalled, and thus the political risks faced by fossil fuel investors are high. According to restitutionary apportionment, except for the minimal direct contributions investors have made to the host States (such as licensing fees and tax payments), investors should bear a large percentage of the compensation due to their contributory fault.

⁹⁹ *ibid* paras 188–9.

¹⁰⁰ *ibid* paras 242–3.

¹⁰¹ According to the report produced by the Intergovernmental Panel on Climate Change (IPCC) in 1990, climate change mitigation necessitates phasing out fossil fuels. IPCC, *Climate Change: The 1990 and 1992 IPCC Assessments* (IPCC 1992) 61–2.

¹⁰² The United Nations Framework Convention on Climate Change (UNFCCC) entered into force in 1994, where States committed to formulate and implement climate change mitigation programmes by addressing anthropogenic emission. UNFCCC (entered into force 21 March 1994) 1771 UNTS 107 art 4(b); the majority of operating fossil fuel investments were made after that. See eg Global Energy Monitor, 'Global Oil and Gas Extraction Tracker' <<https://globalenergymonitor.org/projects/global-oil-gas-extraction-tracker/tracker-map/>> accessed 20 July 2024.

¹⁰³ *MTD* (n 98) Decision on Annulment (21 March 2007) para 101; *Occidental Petroleum Corporation and Occidental Exploration and Production Company v Ecuador*, ICSID Case No ARB/06/11, Award (5 October 2012) para 670.

¹⁰⁴ For example, the damage awarded in *Hulley v Russia* still amounted to USD 40 billion after a 25% reduction for the investor's contributory negligence. *Hulley Enterprises Limited (Cyprus) v Russia*, UNCITRAL, PCA Case No 2005–03/AA226, Final Award (18 July 2014) para 7.32.

¹⁰⁵ Jarrett (n 76) 95–8.

The other issue relates to the influence of contributory fault on tribunal decisions at the merit phase. Some commentators have expressed concerns that the application of the principle to the calculation of quantum may encourage tribunals to consider the investor's conduct as an issue relevant to the determination of compensation rather than to the claim's merits, thus making tribunals more likely to find treaty violations in the first place.¹⁰⁶ Admittedly, it is true that investors' conducts can be relevant to the determination of violations of certain investment treaty provisions such as FET.¹⁰⁷ Nonetheless, they are not mutually exclusive—there is no rule barring the consideration of investors' conduct at the merit stage when it is to be examined at the quantum stage. Further, the investors' conduct is considered under different rules at these two stages: the former being substantive treaty provisions, while the latter being the contributory fault principle. Therefore, this issue can be addressed by a more careful framing of States' pleadings and arbitration strategies that emphasize the difference between the applicable rules and the necessity to address the issue at both stages.

Legitimate expectations

As demonstrated in Section II, the coverage of loss of future profits has substantially inflated the amount of compensation awarded in investment arbitrations related to fossil fuel investments. Therefore, limiting the recoverability of such losses can significantly reduce the overall compensation awarded. In addition to excluding speculative losses as mentioned in the previous section, Marzal suggests that the notion of legitimate expectations can also be relevant in this regard.

Legitimate expectation has been widely invoked at the merits stage in investment arbitration to assess the legality of States' conducts. Pursuant to this doctrine, investors' expectations that are legitimate or reasonable in light of the circumstances should be protected, while violation of such expectations will incur States' liability and duty to compensate for any harm caused.¹⁰⁸ Following the traditional maxim that remedies precede rights, when tribunals decide on the method of calculating the amount of compensation, they configure the precise degree of investors' entitlements. Accordingly, Marzal argues that determining the extent of compensable harm and the corresponding monetary compensation to which investors are entitled should be based on the doctrine of legitimate expectation. In other words, tribunals need to determine whether investors' expectation of future profits is legitimate and therefore under the protection of investment treaties. Compensation should only be awarded for the loss of profits that are legitimately expected by investors.¹⁰⁹ Here, legitimacy refers to the same criteria as that of substantive provisions of investment treaties: it requires the expectation to be based on guarantees of some quality, such as specific representations by the State.¹¹⁰ Therefore, unless States have made specific commitments either through domestic law or other legal documents regarding future profitability, any expectation that the projected income generated by investments would be free from the interference of the State is illegitimate and unreasonable.¹¹¹

According to the handbook published by the International Energy Charter,¹¹² contracts widely used in the fossil fuel sector between host States and investors can arguably serve as the basis for investors' legitimate expectation of future profits due to various guarantees such

¹⁰⁶ Bonnitca and Brewin (n 12).

¹⁰⁷ See Peter Muchlinski, "Caveat Investor"? The Relevance of the Conduct of the Investor Under the Fair and Equitable Treatment Standard' (2008) 55 International & Comparative Law Quarterly 527.

¹⁰⁸ See generally, Teerawat Wongkaew, *Protection of Legitimate Expectations in Investment Treaty Arbitration: A Theory of Detrimental Reliance* (CUP 2019).

¹⁰⁹ Marzal (n 15) 298–9.

¹¹⁰ *ibid* 299; see also Wongkaew (n 108) 64–103.

¹¹¹ Marzal *ibid* 301–02.

¹¹² International Energy Charter, 'Handbook on General Provisions Applicable to Investment Agreements in the Energy Sector' (2017) <https://www.energycharter.org/fileadmin/DocumentsMedia/Other_Publications/20171116-newHandbook.pdf> accessed 1 October 2021.

as maintaining legal *status quo* to a certain extent. Fossil fuel phase-out measures are likely to breach such expectations and establish treaty violations.¹¹³ Following these violations, the 'full reparation' standard requires restoring the but-for situation, commonly understood in current arbitral practice as 'no legal changes at all'. However, given the imperative for States to mitigate climate change, it is unreasonable for fossil fuel investors to expect that future profits from their investments will remain unaffected by increasing climate change-related legislations. Rather, tribunals should assume that some intervention for the public's benefit would have occurred to the maximum extent allowable under international investment law.¹¹⁴ In the words of the PCIJ, the 're-establish[ment]' of the 'but-for' situation should assume the existence of climate change-related legal restrictions by the State, rather than no restrictions at all, as it is the most probable but-for scenario. Accordingly, the realization of future profits ultimately remains subject to host States' discretionary powers.¹¹⁵

Likewise, with the lack of a specific guarantee, investors cannot legitimately expect that their investments are in a completely fictional market with diminished risks. Rather, reasonable fossil fuel investors should have expected that future profits from their investments will be depreciated or even rendered unviable by various developments towards climate change mitigation. Therefore, these developments should be accounted for in the determination of the loss of future profits.

Overall, these investors should not be entitled to compensation for the full stream of profits expected from their investments at any given time in the future. Compensation should instead be limited to the loss of future incomes that can still be generated with the implementation of permitted restrictive measures under international investment law and other changes in market conditions due to climate change mitigation. In this way, tribunals can avoid awarding reparation that exceeds the harm effectively suffered,¹¹⁶ which also echoes the ruling by various tribunals that investors are only entitled to 'a reasonable rate of return' on their investments.¹¹⁷ Taking into account the various developments that can limit the profitability of fossil fuel projects as mentioned above, the future profits that can be legitimately expected from fossil fuel investments may indeed be minimal.

International environmental obligations

The rapid development of international environmental law in terms of quantity and quality inevitably triggers the increase of investment disputes involving environmental aspects, which requires proper consideration of the interface between international investment law and environmental law.¹¹⁸ Article 31 of the Vienna Convention on the Law of Treaties¹¹⁹ mandates that treaty interpretation takes into account relevant international rules applicable to the State parties. Recent investment treaties increasingly reference international environmental instruments, including Paris Agreement, to incorporate these instruments into the interpretation of

¹¹³ Moshe Hirsch, 'Between Fair and Equitable Treatment and Stabilization Clause: Stable Legal Environment and Regulatory Change in International Investment Law' (2011) 12 *The Journal of World Investment & Trade* 783, 791–2.

¹¹⁴ Sergey Ripinsky, 'Damages Assessment in the Spanish Renewable Energy Arbitrations: First Awards and Alternative Compensation Approach Proposal' (2020) 2 *Transnational Dispute Management* 2.

¹¹⁵ Marzal (n 15) 307.

¹¹⁶ Tribunals have upheld the principle that reparation cannot exceed the harm effectively suffered. Eg *The PV Investors v Spain*, PCA Case No 2012–14, Final Award (28 February 2020) para 792.

¹¹⁷ Tribunals have held that the only legitimate expectation investors could have had is that of a reasonable rate of return on their investments. See *ibid*, footnote 778.

¹¹⁸ Sandrine Maljean-Dubois and Vanessa Richard, 'The Applicability of International Environmental Law to Private Enterprises' in Pierre-Marie Dupuy and Jorge E Viñuales (eds), *Harnessing Foreign Investment to Promote Environmental Protection: Incentives and Safeguards* (CUP, New York, USA 2013) 80, 69–96.

¹¹⁹ Entered into force 27 January 1980, 1155 United Nations, Treaty Series (UNTS) 331.

investment treaties.¹²⁰ Moreover, some investment treaties refer to applicable rules of international law as one of the sources of applicable law in investment arbitration.¹²¹ In the absence of such clauses in investment treaties, the arbitration rules of International Centre for Settlement of Investment Disputes (ICSID) provide tribunals with similar instructions,¹²² while the rules of both the United Nations Commission on International Trade Law (UNCITRAL) and the International Chamber of Commerce (ICC) direct tribunals to apply the law that it deems appropriate.¹²³ Accordingly, it is reasonable for investment tribunals to consider States' international environmental obligations.

Nevertheless, arbitral jurisprudence is inconsistent regarding whether international law obligations can be the ground to adjust the amount of compensation downwards. In *Santa Elena v Costa Rica*, the tribunal considered the obligation arising from environmental treaties irrelevant to the calculation of compensation due to the investor.¹²⁴ Conversely, in *SPP v Egypt*, the tribunal deducted the predicted profits resulting from the investor's activities that were in conflict with Egypt's international obligation from the amount of compensation because they were illegal and not compensable.¹²⁵

Comparatively, in the human rights context, it is well established that the environmental justification of a measure can be a ground for reducing the amount of compensation. For instance, in the *Turgut v Turkey* case, the European Court of Human Rights reasoned that economic imperatives and fundamental rights like the right to property should not prevail over the consideration of environmental protection. Therefore, regarding the measure that deprived the applicants of the property for the purpose of protecting nature and forest, despite the establishment of the violation, the principle of *restitutio in integrum* is not applicable in the calculation of compensation.¹²⁶ A similar reduction in compensation was adopted in *Theodoraki v Greece*, where EUR 3.7 million was considered as adequate just satisfaction for the damage instead of the requested EUR 47 million, as the property was deprived for the protection of endangered loggerhead turtles in accordance with the Bern Convention.¹²⁷ Despite the differences between human rights and investment disputes in the context of the underlying treaties, focus of the complaints, and political constraints, it is not unprecedented for investment arbitral tribunals to refer to human rights cases as an interpretive guide of investment treaty rules.¹²⁸ Accordingly, it is also possible for investment arbitration to follow the approach of adopting environmental justification in the calculation of compensation, so as to avoid overemphasizing the rights of investors under investment treaties and giving insufficient weight to the rights and obligations of States to act in the public interest.

One main obstacle to reducing the amount of compensation based on States' international environmental obligations in investment arbitration triggered by fossil fuel phase-out policies lies in the establishment of a sufficient link between the measures and relevant instruments, like the UNFCCC and the Paris Agreement. Despite the requirements for States to reduce their

¹²⁰ See Electronic Database of Investment Treaties <<https://edit.wti.org/document/investment-treaty/search>> accessed 14 July 2024.

¹²¹ Eg Argentina–Italy Bilateral Investment Treaty (BIT) (entered into force 14 October 1993) art 8(7); see also Christoph Schreuer, 'Jurisdiction and Applicable Law in Investment Treaty Arbitration' (2014) 1 McGill Journal of Dispute Resolution 1, 11–3.

¹²² ICSID, 'Convention on the Settlement of Investment Disputes Between States and Nationals of Other States' (adopted 18 March 1965, entered into force 14 October 1966) 575 UNTS 159, art 42(1).

¹²³ UNCITRAL Arbitration Rules (as revised in 2021), United Nations General Assembly (UNGA) Resolution 76/108 (9 December 2021) art 35(1); ICC Arbitration Rules (entered into force 1 January 2021) art 21(1).

¹²⁴ *Compañía del Desarrollo de Santa Elena v Costa Rica*, ICSID Case No ARB/96/1, Award (17 February 2000) paras 71–72.

¹²⁵ *Southern Pacific Properties (Middle East) Limited v Egypt*, ICSID Case No ARB/84/3, Award (20 May 1992) para 191.

¹²⁶ *Turgut and others v Turkey* App no 1411/03 (ECtHR, 8 July 2008), para 90; *Turgut and others v Turkey* App no 1411/03 (ECtHR, 13 October 2009), para 14.

¹²⁷ *Theodoraki and others v Greece* App no 9368/06 (ECtHR, 2 December 2010), paras 11–12.

¹²⁸ *Eg Técnicas Medioambientales Tecmed v Mexico*, ICSID Case No ARB(AF)/00/2, Award (29 May 2003) para 116 & 122.

emissions of greenhouse gases,¹²⁹ there is no binding obligation to phase-out fossil fuels.¹³⁰ Therefore, it is unclear whether the broadly formulated terms in relevant provisions require or fully authorize the phase-out measures, especially with the existence of other comparable sources of carbon emissions. However, it is well established that without reducing fossil fuel production and usage, it is impossible for States to fulfil the obligations of limiting carbon emissions and achieving the global climate goal as required in these treaties. Accordingly, relevant regulatory actions are clearly signalled in the agreements, and thus the link between the actions and States' climate change mitigation obligations can be proved.

Moreover, States' environmental obligations have only rarely been considered in investment arbitrations relating to the energy sector¹³¹ due to the reluctance of tribunals to rely on non-investment obligations. This can be caused by various reasons, like tribunals' lack of familiarity with non-investment instruments and awareness of public interest, and concerns about going beyond the tribunals' jurisdictional mandate.¹³² Moreover, the inclusion of a non-derogation clause providing that treaty provisions more favourable to the investor prevail over other treaties in the event of a conflict can also bar tribunals' consideration of States' other treaty obligations.¹³³ The first issue could be improved by procedural changes like enhanced transparency of the proceeding and public participation in investment arbitration.¹³⁴ As for the jurisdictional concern and non-derogation clauses, at the merit stage, they can bar the consideration of States' non-investment treaties and contribute to the establishment of violations. Conversely, after finding the violation, they should not be the reason for ignoring States' non-investment obligations at the remedy stage for the following reason. The determination of damage is in essence a distribution scheme that allocates financial risks and benefits between host States and investors.¹³⁵ Therefore, host States' ability to pay compensation and fulfil other treaty obligations should be considered, while it is also unreasonable for investors to reap the benefits from investments that are at odds with States' international obligations without sharing the burden to fulfil them. Accordingly, similar to the approach adopted by the *SPP* tribunal, compensation should be determined based on the value of investments after States have implemented measures to fulfil their other competing obligations.

Polluter pays and precautionary principles

Besides the abovementioned tendency to overlook States' non-investment obligations in investment arbitration, the imbalance of international investment law is also starkly reflected in its focus on investment protection rather than other public concerns like environmental protection. Consequently, a gap is left in the law of holding investors accountable for the impact of their activities on the environment of host States.¹³⁶ This injustice can be addressed by the obvious contender—the polluter pays principle, according to which those who pollute must make their

¹²⁹ Eg Kyoto Protocol to the UNFCCC (adopted 11 December 1997, entered into force 16 February 2005) 2303 UNTS 148 art 3(1).

¹³⁰ The UNFCCC decision concluded in 2023 explicitly urges governments, for the first time, to transition away from fossil fuels in their energy systems. However, this is not a binding obligation. UNFCCC, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement Fifth session 30 November to 12 December 2023 'First global stocktake' (13 December 2023) FCCC/PA/CMA/2023/L.17 II.A.28.(d).

¹³¹ Anja Ipp, Annette Magnusson and Andrina Kjellgren, 'The Energy Charter Treaty, Climate Change and Clean Energy Transition: A Study of the Jurisprudence' (2022) <https://www.climatechangelawcounsel.com/_files/ugd/f1e6f3_d184e02bf3d49e8144328e6c45215f.pdf> accessed 2 July 2024.

¹³² Moshe Hirsch, 'Conflicting Obligations in International Investment Law: Investment Tribunals' Perspective' in Tomer Broude and Yuval Shany (eds), *The Shifting Allocation of Authority in International Law: Considering Sovereignty, Supremacy and Subsidiarity* (Hart Publishing, Portland, USA 2008) 329, 323–44.

¹³³ Ipp, Magnusson and Kjellgren (n 131).

¹³⁴ Hirsch (n 132) 339.

¹³⁵ Oliver Hailes, 'Unjust Enrichment in Investor–State Arbitration: A Principled Limit on Compensation for Future Income from Fossil Fuels' (2022) 32 *Review of European, Comparative & International Environmental Law* 358, 359.

¹³⁶ Kate Miles, *The Origins of International Investment Law: Empire, Environment and the Safeguarding of Capital* (CUP 2013) 133–4.

best effort to restore the precedent equilibrium and pay for the damage caused.¹³⁷ The principle seeks to modify the behaviours of polluters by way of internalizing environmental costs that previously weighed on the community.¹³⁸ In so doing, it implements a principle of market economy, namely, that economic players should bear the cost generated by themselves, and thus exemplifies the employment of market mechanisms to address environmental problems.¹³⁹

The polluter pays principle has been included in various international instruments, such as the Rio Declaration on Environment and Development,¹⁴⁰ and has been recognized as a principle of international law.¹⁴¹ Therefore, it can be applied to the settlement of international investment disputes. The principle can be factored into the calculation of compensation in either of the following two ways. First, by holding that fossil fuel investors' losses due to phase-out policies are not compensable. According to the principle, polluters should bear the costs of measures aimed at pollution control and prevention. Otherwise, subsidies to polluters affected by these measures can distort competition in international trade and investment.¹⁴² Likewise, compensation for increased costs incurred by changing environmental regulations can frustrate the polluter pays principle since polluters are supposed to bear these costs.¹⁴³ Moreover, it would arguably be contrary to the principle if an investor were compensated for the lost opportunity to carry out environmentally harmful activities.¹⁴⁴ Some tribunals have followed this rationale in determining compensation despite the lack of explicit reference to the polluter pays principle. For instance, In *Unglaube v Costa Rica*, the tribunal incorporated the limitation on the usage of the property due to environmental concerns in the valuation process instead of adopting the anticipated revenue generated by the highest and best use of this property.¹⁴⁵

The second, and smoother, approach is to deduct the environmental damage from the compensation payable by States. This approach has also been adopted by some tribunals without explicitly invoking the principle. For instance, in *Metalclad v Mexico*, the amount of compensation was deducted to compensate the sum paid by the government for site remediation.¹⁴⁶ In *Tecmed v Mexico*, the cost of relocating the landfill for public concern was taken into account in the calculation of compensation, as the responsibility was assumed by the investor.¹⁴⁷

However, despite the consensus that carbon dioxide emissions from fossil fuel projects can damage the climatic conditions that life on Earth relies on, it can still be difficult to determine what constitutes degradation and identify the costs, especially when considering the cumulative effects on environment.¹⁴⁸ Scholars have recognized these challenges, although for some a precise and exhaustive accounting of damage and culpability is not the point of the polluter pays principle. Rather, according to Mayer, the principle intends to dissuade polluters from polluting simply by charging some fee instead of requiring them to 'pay all the costs in every circumstance'.¹⁴⁹ Besides, some approaches have been developed to establish a quantum value of environmental impact that an arbitral tribunal could apply to reduce compensation in a given

¹³⁷ Flavia Marisi, *Environmental Interests in Investment Arbitration: Challenges and Directions* (Kluwer Law International 2020) 59.

¹³⁸ Mizan R Khan, 'Polluter-Pays-Principle: The Cardinal Instrument for Addressing Climate Change' (2015) 4 *Laws* 638, 640.

¹³⁹ Thomas M Franck, *Fairness in International Law and Institutions* (OUP 1998) 361.

¹⁴⁰ UNGA (12 August 1992) A/CONF.151/26 (Vol. I) Principle 16.

¹⁴¹ International Convention on Oil Pollution Preparedness, Response and Cooperation (Adopted 30 November 1990, entered into force 13 May 1995) 1891 UNTS 77 Preamble.

¹⁴² Marisi (n 137) 49–50.

¹⁴³ David Hunter and Steve Porter, 'International Environmental Law and Foreign Direct Investment', in Daniel Bradlow and Alfred Escher (eds), *Legal Aspects of Foreign Direct Investment* (Kluwer Law International, the Hague, the Netherlands 1999) 161–204.

¹⁴⁴ Ole Kristian Fauchald, 'Property and Environmental Protection in Investor – State Arbitration' in Gerd Winter (ed), *Property and Environmental Protection in Europe* (Europa Law Publishing, Zutphen, the Netherlands 2015) 76–93.

¹⁴⁵ *Marion Unglaube v Costa Rica*, ICSID Case No ARB/08/1, Award (16 May 2012) para 309.

¹⁴⁶ *Metalclad Corporation v Mexico*, ICSID Case No ARB(AF)/97/1, Award (30 August 2000) para 127.

¹⁴⁷ *Tecmed* (n 128) para 193–5.

¹⁴⁸ Nicolas de Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (2nd edn, OUP 2020) 49–53.

¹⁴⁹ Benoit Mayer, *The International Law on Climate Change* (CUP 2018) 74.

case. One typical example is the social cost of carbon, which represents the economic cost related to climate change resulting from an additional tonner of carbon dioxide emission. A number of parameters are used to compute the price, including economic growth, climate sensitivity, and social discount rate. These parameters vary in different regions, while those at the country-level are also different from the global one, so as to reflect different extent of impacts of climate change.¹⁵⁰ The metric has already been adopted by some governments and domestic courts of the USA,¹⁵¹ and thus it has a relatively solid basis for being accepted in investment arbitration. In order to better understand domestic impacts that are essential for adaptation and compensation measures, country-level estimates of social cost of carbon should be used instead of the global value.¹⁵²

Another general principle of CIL, the precautionary principle,¹⁵³ can also be used in investment arbitration to incorporate environmental concerns. The principle counsels that the lack of conclusive evidence of harm should not be considered as a sufficient reason for postponing the adoption of environmental measures.¹⁵⁴ Operationally, this means that it is not the State's burden of proof to demonstrate the certainty of environmental harm, but rather it is the burden of the person intending to carry out an activity to show that the activity will be harmless to the environment.¹⁵⁵ Accordingly, potential polluters should share the burden caused by the risk of future environmental degradation, which includes precautionary measures adopted by the host State to avoid or reduce such risk.¹⁵⁶

The award in *Bilcon v Canada* provides a suggestion of how this principle might be applied to determine the compensation in investor–State disputes. There, the tribunal rejected the investors' claim for lost profits due to their failure to show that those profits would have been materialized given environmental concerns about the project and the possibility that there would be further tightening of environmental regulations in the future.¹⁵⁷ The tribunal's approach thus reduced the valuation of the investment by requiring the investors (ie the potential polluters) to bear the risk that the State would take precautionary measures in order to avoid or reduce future environmental harm. In the context of fossil fuel phase-out policies and the pursuit of net zero, a similar approach might be taken. No matter whether carbon reduction measures can be reasonably foreseen by fossil fuel investors when they make the investment decisions, the possibility of regulatory change can be treated as one of the general, fundamental risk factors in the valuation of an asset, which can lead to a significant reduction in compensation.¹⁵⁸

POSSIBLE INTERPRETATION DOCUMENT REGARDING THE MEANING OF 'FULL REPARATION' STANDARD IN INVESTMENT ARBITRATION TRIGGERED BY FOSSIL FUEL PHASE-OUT POLICIES

As noted at the outset, the most pressing concern faced by States with respect to investment treaties and fossil fuel phase-out programs is the potential for claims and exorbitant awards under

¹⁵⁰ Katharine Ricke and others, 'Country-Level Social Cost of Carbon' (2018) 8 *Nature Climate Change* 895, at 895.

¹⁵¹ Tienhaara, Johnson and Burger (n 89) Despite acknowledging the limitations of social cost of carbon estimates, the court upheld its adoption in the judgement. *Zero Zone, Inc, et al v United States Department of Energy, et al*, 832 F.3d 654 (United States Court of Appeals, Seventh Circuit. 8 August 2016).

¹⁵² Ricke and others (n 150).

¹⁵³ See Responsibilities and obligations of States with respect to activities in the Area, Advisory Opinion (1 February 2011) ITLOS Reports 2011, 10, para 135.

¹⁵⁴ UNGA, 'Rio Declaration on Environment and Development' (12 August 1992) A/CONF.151/26 (Vol I) Principle 15.

¹⁵⁵ Philippe Sands and others, *Principles of International Environmental Law* (4th edn, CUP 2018) 234.

¹⁵⁶ Tomoko Ishikawa, 'The Role of the Precautionary and Polluter Pays Principles in Assessing Compensation' (September 2015) RIETI Discussion Paper Series 15-E-107 <<https://www.rieti.go.jp/jp/publications/dp/15e107.pdf>> accessed 21 July 2024.

¹⁵⁷ *Bilcon of Delaware v Canada*, PCA Case No 2009–04, Award on Damages (10 January 2019) paras 276–9.

¹⁵⁸ Ishikawa (n 156).

the thousands of pre-existing investment treaties. Due to the lack of specific language addressing compensation in these treaties, the determination of compensation awarded in investment arbitration is subject to arbitral tribunals' wide discretion, which can be inconsistent and incoherent. This issue has drawn the attention of States and has been considered and discussed in the UNCITRAL Working Group III.¹⁵⁹ Meanwhile, some States seek to address the concerns about large awards through new treaty languages. For instance, the bilateral investment treaty between Belarus and India requires the calculation of damages to consider various contextual factors, such as the harm caused by investors to the environment;¹⁶⁰ the Southern African Development Community (SADC) proposes to include in the model bilateral investment treaty that compensation should reflect 'an equitable balance between the public interest and interest of those affected'.¹⁶¹ Moreover, some commentators have proposed other options for investment treaty reform to limit the amount of damage, like capping compensation at the total expenditure actually incurred by the investor,¹⁶² and choosing the lesser between the loss suffered by the investor and the gain the host State has obtained from the investment.¹⁶³ Besides the uncertainty regarding the feasibility and effectiveness of these proposals, their realization necessitates the conclusion of new investment treaties, or the amendment or replacement of existing ones, both of which will be prolonged and tortuous processes.¹⁶⁴ However, the need for effective climate action is urgent,¹⁶⁵ which means that fossil fuel phase-out measures need to be implemented as soon as possible, and the risk of subsequent investment claims challenging such measures is imminent. Therefore, the above time-consuming proposals may not be capable of addressing the concern.

Conversely, State parties to investment treaties can jointly issue instruments to clarify the meaning of the compensation standard in investment treaties.¹⁶⁶ Such instruments can ensure tribunals' proper consideration and incorporation of the abovementioned grounds at the remedy stage, and thus reduce the amount of compensation. However, two main obstacles may bar the usage of this approach. First, the significant number of investment treaties and other agreements containing investment provisions. Formulating instruments to interpret all treaties with all parties can still be a prolonged and burdensome process, involving numerous complicated consultations and negotiations. The other obstacle is the lack of relevant wording regarding compensation standards in investment treaties. An interpretative statement is intended to select among the possible meanings that an existing treaty norm may have. Thus, interpretative notes that do not specifically attach to a treaty norm can be considered as amendments rather than interpretation.¹⁶⁷ Accordingly, it may only bind investment arbitration cases initiated after its entry into force.

¹⁵⁹ See UNCITRAL, 'Possible reform of investor-State dispute settlement (ISDS): Assessment of damages and compensation' (Forty-third session, Vienna, 5–16 September 2022) A/CN.9/WG.III/WP.220.

¹⁶⁰ India–Belarus BIT (entered into force 5 March 2020) art 26.3.

¹⁶¹ SADC, 'SADC Model Bilateral Investment Treaty Template with Commentary' (July 12) <<https://www.iisd.org/itn/wp-content/uploads/2012/10/sadc-model-bit-template-final.pdf>> accessed 6 February 2023, art 6.

¹⁶² Bonnitche and Brewin (n 12).

¹⁶³ Emma Aisbett and Jonathan Bonnitche, 'A Pareto-Improving Compensation Rule for Investment Treaties' (2021) 24 *Journal of International Economic Law* 181, 183.

¹⁶⁴ Kathryn Gordon and Joachim Pohl, 'Investment Treaties over Time – Treaty Practice and Interpretation in a Changing World' (2015) OECD Working Papers on International Investment 2015/02 <<https://www.oecd.org/investment/investment-policy/WP-2015-02.pdf>> accessed 6 July 2024.

¹⁶⁵ Nathan Cooper and Amy White, 'IPCC Report: Urgent Climate Action Needed to Halve Emissions by 2030' (World Economic Forum, 6 April 2022) <<https://www.weforum.org/agenda/2022/04/ipcc-report-mitigation-climate-change/>> accessed 6 July 2024.

¹⁶⁶ Gordon and Pohl (n 164).

¹⁶⁷ Eleni Methymaki and Antonios Tzanakopoulos, 'Masters of Puppets? Reassertion of Control through Joint Investment Treaty Interpretation' in Andreas Kulick (ed), *Reassertion of Control over the Investment Treaty Regime* (CUP, New York, USA 2017) 155–81, at 177–8.

Alternatively, States can formulate instruments to interpret the 'full reparation' standard in CIL. Despite the scant State practice, there are neither international norms nor theories that can bar customary rules from being interpreted, which is also an important process to revitalize and maintain the relevance of rules throughout extensive periods of time.¹⁶⁸ When the customary rules on State responsibility were codified in ARSIWA in 2001, it would be difficult to foresee that crippling compensation awarded according to its compensation standard would be commonplace in investment arbitrations more than a decade later.¹⁶⁹ Such changes have raised the concern regarding whether the standard can still guide the investment arbitration system to deliver its asserted fairness, legality, and justice.¹⁷⁰ Interpretation can address the concern by articulating the most suitable meaning of the 'full reparation' standard under the current circumstances, and thus ensure the proper functioning of the international dispute settlement mechanism.

To formulate the interpretation instrument, two approaches can be considered. One approach is to tailor it specifically to investment arbitration cases involving the fossil fuel sector. This approach could specify that the award of compensation should take into account the aforementioned relevant circumstances and contextual factors, and caution tribunals against awarding investors windfall compensation. The other approach is to formulate an interpretation instrument applicable to more general investment arbitration cases. This approach could further elaborate on the application of relevant legal principles in quantifying compensation, such as causation and States' other international obligations, and specify preferred approaches for applying these legal principles, such as those for apportioning fault. The aforementioned circumstances can serve as one example in elaborating on these legal principles.

It can be seen that the contents of the interpretation instrument formulated through both approaches are derived from public international norms and existing arbitration practices, which can help to decide a fairer amount of compensation that fulfils the requirement of the 'full reparation' standard, rather than forming an alternative standard. Accordingly, it complies with the rule that the interpretation of CIL, like the interpretation of treaties, cannot fall outside the outer limits of possible meanings of the norm and thus become an impermissible revision/modification.¹⁷¹

The instrument can be initiated as a multilateral convention intending to clarify the meaning of the customary norm¹⁷² by international organizations actively participating in the reform of international investment law, such as the Organization for Economic Cooperation and Development (OECD)¹⁷³ and UNCITRAL.¹⁷⁴ After the adoption, the convention can be open to States

¹⁶⁸ Panos Merkouris, 'Interpreting Customary International Law: You'll Never Walk Alone' in Panos Merkouris, Jörg Kammerhofer and Jörg Kammerhofer (eds), *The Theory, Practice, and Interpretation of Customary International Law* (CUP, Cambridge, UK 2022) 347–69, 347, 354–61.

¹⁶⁹ Martins Paparinskis, 'Crippling Compensation in the International Law Commission and Investor-State Arbitration' (2022) 37 ICSID Review—Foreign Investment Law Journal 289, at 299–300.

¹⁷⁰ Matteo Fermeleglia, 'Cashing-In on the Energy Transition? Assessing Damage Evaluation Practices in Renewable Energy Investment Disputes' (2022) 23 The Journal of World Investment & Trade 982, at 1015.

¹⁷¹ Merkouris (n 168) 362–3.

¹⁷² Treaties can be used to define or interpret concepts and rules contained in CIL. Marina Fortuna, 'Different Strings of the Same Harp: Interpretation of Rules of Customary International Law, Their Identification and Treaty Interpretation' in Panos Merkouris, Jörg Kammerhofer and Jörg Kammerhofer (eds), *The Theory, Practice, and Interpretation of Customary International Law* (CUP, Cambridge, UK 2022) 393–413, 410–2.

¹⁷³ One recent work programme of the OECD is The Future of Investment Treaties, which concerns various issues including investment treaties and climate change. OECD, 'The Future of Investment Treaties' <<https://www.oecd.org/investment/investment-policy/investment-treaties.htm>> accessed 1 July 2024.

¹⁷⁴ UNCITRAL Working Group III has proposed provisions on procedural and cross-cutting issues, including provisions on assessment of damages and compensation. UNCITRAL, 'Possible reform of investor-State dispute settlement (ISDS): Draft provisions on procedural and cross-cutting issues' (Forty-sixth session, Vienna, 9–13 October 2023) A/CN.9/WG.III/WP.231.

for signatures. Upon entry into force, it would apply when parties to the relevant investment treaties agree to its application. Otherwise, the ILA, which aims to codify CIL and has codified customary rules on State responsibility, can update the Commentary on the ARSIWA to unify the application of the 'full reparation' standard in investment arbitration. Given the need for an urgent solution, instead of formulating a comprehensive instrument, a pragmatic approach could be to initially include the most widely accepted interpretation of the 'full reparation' standard and consider further supplements later.

Lastly, the General Assembly and the Economic and Social Council can request the ICJ to issue advisory opinions to clarify the meaning of the 'full reparation' standard in investment arbitration, pursuant to Article 96 of the Charter of the United Nations.¹⁷⁵ Although ICJ advisory opinions are not binding,¹⁷⁶ they have significantly influenced the understanding of CIL¹⁷⁷ and can provide important support for States raising the abovementioned defences in investment arbitrations.

The proposal to interpret the 'full reparation' standard does not preclude other treaty reform efforts; instead, it aims to provide a potentially quicker solution to the problem. Additionally, it is important to note that States can always raise the proposed grounds in their defence during investment arbitration, even if the abovementioned efforts have not yet been successful, because these grounds are derived from existing international law rules.

CONCLUSION

The application of the 'full reparation' standard in investment arbitration is supposed to resume a fair situation between the host State that violates its treaty obligations, and the investors that have incurred loss due to the treaty violation. However, the recent instances of crippling compensation awarded pursuant to this standard have raised the concern about the fairness of the standard, especially when considering the possibility of resulting in windfall or unjust enrichment for the investors. The concern is especially true in energy investment arbitrations, where most of the largest compensation hitherto is awarded. Such substantial legal risks can dissuade States from adopting fossil fuel phase-out policies, which are necessary for decarbonization and climate change mitigation, as such policies may be found to violate investment treaties and trigger States' liability.

After reviewing public international law norms and existing arbitration practices, this paper argues that there are four legal grounds under which the amount of compensation awarded in investment arbitrations triggered by fossil fuel phase-out policies can be reduced: depressed energy prices, unviability of fossil fuel projects, international environmental obligations, as well as the polluter pays and the precautionary principles. The application of these grounds can reach a fairer result in tribunals' calculation of compensation while complying with the requirements of the 'full reparation' standard. Moreover, these grounds can also help to strike a better balance between investment protection and the consideration of public interest at the remedy stage of investment dispute settlement.

Currently, the application of these grounds in investment arbitration is inconsistent. An approach to solving the issue is the formulation of an interpretation instrument that can specify the meaning and the application of the 'full reparation' standard in investment arbitration in the fossil fuel sector. The issuance and application of this instrument can enhance the consistency of

¹⁷⁵ Entered into force 24 October 1945, 1 UNTS XVI.

¹⁷⁶ See Statute of the International Court of Justice, 59 Stat 1055 (1945) TS No 993 art 59.

¹⁷⁷ For an overview of the influence of ICJ advisory opinions on CIL, see Teresa F Mayr and Jelka Mayr-Singer, 'Keep the Wheels Spinning: The Contributions of Advisory Opinions of the International Court of Justice to the Development of International Law' (2016) 76 *Zeitschrift für ausländisches öffentliches Recht und Völkerrecht*, at 443–446.

arbitral awards and even push the development of CIL. Accordingly, the chilling effect imposed by energy investment arbitration on host States can be softened through the mitigation of the substantial legal risks of taking climate actions. The implementation of this proposal requires further research on the specific formulation of the instrument and more technical issues regarding the percentage or amount of damage that can be reduced based on each ground.