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THE IMPACT OF INTERNATIONAL INVESTMENT LAW ON EFFORTS TO PROTECT THE ENVIRONMENT FROM CLIMATE CHANGE.

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TABLE OF CONTENTS

INTRODUCTION 1

CHAPTER I. THE RELATIONSHIP BETWEEN INTERNATIONAL INVESTMENT LAW AND CLIMATE CHANGE. 3

1.1 Defining climate change. 3

1.2 International Climate Change legal framework. 4

The United Nations Framework Convention on Climate Change (UNFCCC) 5

The Kyoto Protocol 7

The Paris Agreement 9

Conclusions 10

1.3 International Investment Law's negative impacts on climate change. 11

International investment treaties and climate change 11

Investment disputes, compensations, and their consequences 14

States' practice 17

1.4 The States' right to regulate and the fight against climate change. 18

The reform of International Investment Law to tackle climate change 18

Why focusing on energy-related investment cases? 22

CHAPTER II. THE ROLE OF ARBITRAL TRIBUNALS IN CLIMATE CHANGE-RELATED INVESTOR-STATE DISPUTES. 23

2.1 Introduction. 23

2.2 Investment cases in the renewable energy sector under the Energy Charter Treaty. 24

Renewable energy incentives, the 2008 crisis and the Energy Charter Treaty 24

The case of Spain 26

The case of Italy 30

The case of the Czech Republic 32

Classification of these three case studies and conclusions 34

2.3 Investment cases in the fossil fuel industry. 36

2.4 Conclusions. 42

CHAPTER III. IS THE REFORM OF INTERNATIONAL INVESTMENT LAW NECESSARY TO TACKLE CLIMATE CHANGE? 45

3.1 The positive aspects of International Investment Treaties in the context of the fight against climate change. 45

3.2 Compensation and the issue of "regulatory chill". 47

3.3 Systemic integration and the reform of International Investment Law. 49

CONCLUSIONS 51

CASE LAW INDEX 53

DOCUMENTS INDEX 55

BIBLIOGRAPHY 60

ABSTRACT

Il Diritto Internazionale dei Cambiamenti Climatici si è sviluppato soprattutto dopo l'adozione della Convenzione quadro delle Nazioni Unite sui cambiamenti climatici. Gli Stati parte dei trattati stipulati in seguito, in particolare l'Accordo di Parigi del 2015, si sono impegnati a limitare l'aumento della temperatura media globale al di sotto dei 2°C rispetto ai livelli preindustriali e a perseguire gli sforzi per limitare il riscaldamento globale a 1,5°C. Inoltre, gli Stati si sono anche impegnati ad azzerare le emissioni entro il 2050.

Anche se gli Stati hanno fissato obiettivi concreti per mitigare il cambiamento climatico attraverso il Diritto Internazionale, l'Accordo di Parigi non è ancora stato pienamente attuato e l'industria dei combustibili fossili assume un ruolo chiave in questo "fallimento".

Secondo l'Agenzia internazionale dell'energia, per raggiungere gli obiettivi dell'Accordo di Parigi, i combustibili fossili devono scendere dagli attuali 4/5 dell'approvvigionamento energetico totale ad appena 1/5 nel 2050. Ciò significa che non dovrebbero essere approvati nuovi investimenti nel settore dei combustibili fossili, cioè petrolio, gas e carbone.

Qual è il ruolo del Diritto Internazionale degli Investimenti in questo contesto? Questa tesi sostiene che questo sistema giuridico, così com'è oggi, ha alcuni effetti negativi sull'attuazione del Diritto Internazionale dei Cambiamenti Climatici. Un altro problema che viene analizzato è quindi se delle riforme sono necessarie e possibili.

INTRODUCTION

According to art. 1 of the United Nations Framework Convention on Climate Change (UNFCCC) “climate change” is the change that can be attributed «directly or indirectly to human activity that alters the composition of the global atmosphere, and which is in addition to natural climate variability observed over comparable time periods».

Although International Environmental Law grew rapidly in the 1970s and 1980s, this system initially did not take into account climate change.

Considering that this specific issue is a global problem, it requires global solutions. This is why since the late 1980s International Environmental Law began to develop even more, especially with the aim of finding ways to solve the climate change crisis.

International Climate Change Law especially evolved after the adoption of the United Nations Framework Convention on Climate Change. States Parties to the treaties stipulated thereafter, in particular the Paris Agreement of 2015, committed to limit temperature increase to «well below 2°C» compared to pre-industrial levels, and to pursue efforts to limit global warming to 1.5°C. Furthermore, States also called for net zero emissions by 2050.

Even if States set concrete goals to mitigate climate change through International Law, the Paris Agreement is far to be implemented, and the fossil fuel industry takes on a key role in this “failure”. In the International Energy Agency’s view, to meet the goals of the Paris Agreement, fossil fuels must decline from almost 4/5 of total energy supply today to just 1/5 in 2050. This means that no new oil, gas, or coal investments should be approved.

What role International Investment Law has on this issue?

Fighting climate change and promoting foreign investments should not be mutually exclusive goals, and International Investment Law also protects the investments made in the clean energy sector. However, this thesis argues that this legal system

as it is today has some negative impacts on International Climate Change Law implementation. Another problem that is analyzed is if reforms are necessary and feasible.

From the methodological point of view, this research is based mainly on primary sources, in particular on legal instruments on the promotion and protection of foreign investments, on arbitral tribunals' awards, and on the doctrine, with the aim of answering the initial research question, that is what are the impacts of International Investment Law in the fight against climate change.

Given the high impact of the energy sector on climate change, the arbitral tribunals' awards selected concern this industry. The awards are divided into two categories: those concerning the renewable energy sector and those regarding the fossil fuel industry. With respect to the first category the focus is on the cases concerning Spain, Italy and the Czech Republic. For the second category the cases taken into consideration are *Vattenfall v. Germany*, *Westmoreland v. Canada*, *RWE v. The Netherlands*, *Uniper v. The Netherlands* and *Rockhopper v. Italy*.

Chapter one introduces the relationship between International Investment Law and climate change. After an overview of the International Climate Change Law regime, the analysis continues raising the negative impacts of International Investment Law on climate change, the international community practice to reform this legal system and scholars' suggestions.

Chapter two analyzes the international arbitral tribunals' awards cited before.

Chapter three sums up the conclusions and answers the question of whether a reform of the International Investment Law legal framework is necessary to fight climate change.

CHAPTER I. THE RELATIONSHIP BETWEEN INTERNATIONAL INVESTMENT LAW AND CLIMATE CHANGE.

1.1 Defining climate change.

According to the United Nations Framework Convention on Climate Change (UNFCCC) "climate change" is the change that can be attributed «directly or indirectly to human activity that alters the composition of the global atmosphere, and which is in addition to natural climate variability observed over comparable time periods».[1] However, scientists often use the term "climate change" for any change in the climate, whether arising naturally or from human activities.[2] For the purposes of this thesis, from now on the term "climate change" will refer to the one arising from human activities.

When thinking about climate change the first thing that comes to mind is certainly global warming. Global temperatures have risen rapidly over the last few decades, and this is unfortunately unequivocal, as the Intergovernmental Panel on Climate Change (IPCC) stated.[3] The main cause for this phenomenon is greenhouse gas (GHG) emissions, especially carbon dioxide (CO_2), which capture solar energy and keep the Earth's surface warmer than it should be, causing, among other things, extreme weather events, migrations, conflicts, and the loss of biodiversity, but most of all, the gradual extermination of humans and other species on Earth.[4]

This phenomenon started with the industrial revolution of the late 18th century when States began burning fossil fuels. Since that time atmospheric concentrations of

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[1] *United Nations Framework Convention on Climate Change*, New York, 9th of May 1992, *United Nations Treaty Series*, vol. 1771, p. 107, art. 1.
[2] United Nations International Strategy for Disaster Reduction, *Climate Change and Disaster Risk Reduction*, 2008, briefing note No. 01, https://www.undrr.org/quick/10958.
[3] IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, p. 2, https://www.ipcc.ch/report/ar5/syr/. See also: IPCC, 2023: *Climate change 2023: Synthesis Report*, https://www.ipcc.ch/report/ar6/syr/.
[4] United Nations International Strategy for Disaster Reduction, *op. cit.*

carbon dioxide have risen from about 280 parts per million (ppm) to more than 400 ppm.[5]

Climate change is an extremely complicated issue, which is «planetary in scope and intergenerational in its impacts».[6] It is caused by numerous human activities connected to production and consumption practices.[7] For example, in 2019, approximately 34% of net global GHG emissions came from the energy sector, 24% from industry, 22% from agriculture, forestry, and other land use, 15% from transport and 6% from buildings.[8]

Considering that climate change is a global problem, it requires global solutions. This is why since the late 1980s a new sector of Public International Law began to develop: International Climate Change Law.[9]

1.2 International Climate Change legal framework.

International Climate Change Law is a sector of International Environmental Law, and both are part of the Public International Law regime. Although International Environmental Law grew rapidly in the 1970s and 1980s, this system initially did not take into account climate change.[10]

The sources of International Climate Change Law encompass mainly treaties, but also some customary international laws. Essential for the development of this legal system are also laws and policies implemented at the regional, national, and sub-national levels, and judicial decisions of national, regional, and international courts.[11]

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[5] Bodansky D., Brunée J., Rajamani L., 2017, *International Climate Change Law*, Oxford, Oxford University Press, p. 1, https://opil.ouplaw.com/.
In 2019, atmospheric CO_2 concentrations reached 410 ppm, IPCC, 2023: *Climate change 2023: Synthesis Report*, p. 6, https://www.ipcc.ch/report/ar6/syr/.
[6] Bodansky D., Brunée J., Rajamani L., *op. cit.*, p. 2.
[7] *Ibid.*
[8] IPCC, 2023, *op. cit.*, p. 10.
[9] Bodansky D., Brunée J., Rajamani L., *op. cit.*, p. 10.
[10] Ewelukwa Ofodile U., “International investment agreements, African States and the climate-change imperatives”, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 98.
[11] Bodansky D., Brunée J., Rajamani L., *op. cit.*, pp. 10-11.

This sector of law focuses on mitigating climate change ("mitigation"), adapting to climate change ("adaptation")[12] and on financial assistance and other types of support among countries. Much of this legal system concentrates on mitigation, therefore on GHG emissions reduction.[13]

Most rules under the International Climate Change Law regime are treaty-based and were adopted according to the 1992 UNFCCC.[14] Therefore the three legal instruments worth analyzing are:

1. The United Nations Framework Convention on Climate Change of 1992.
2. The Kyoto Protocol of 1997.
3. The Paris Agreement of 2015.

The United Nations Framework Convention on Climate Change (UNFCCC)

In 1990 the United Nations General Assembly initiated the negotiations that led to the entry into force of the UNFCCC in 1994. This convention has a broad scope, addressing, among other aspects, mitigation, adaptation, finance and technology transfer that concern the climate change issue.[15] It defines a system in which developed countries should have taken on the predominant role in climate change mitigation, as established by the principle of common but differentiated responsibilities and respective capabilities in article 3.[16] The ultimate objective of this legal instrument is enshrined in article 2, which is «the stabilization of GHG

[12] «Adaptation involves anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage they can cause. Some adaptation activities focus specifically on climate change impacts, such as developing heat-resistant crops and building sea walls. But many adaptation activities are aimed at improving the resilience of societies against risks generally, by building capacity, reducing poverty, and strengthening disaster preparedness». *Ivi*, p. 14.

[13] «Policies to reduce emissions include energy efficiency standards, subsidies for renewable energy, a carbon tax, an emissions trading system, funding of urban mass transit systems, and technology research and development». *Ivi*, pp. 11-12.

[14] *Ivi*, p. 10.

[15] With respect to adaptation there are relatively few provisions, namely artt. 3.3, 4.1 b)e), 4.4, 4.8, 4.9. *Ivi*, p. 135.

[16] *Ivi*, pp. 27, 96, 103, 120.

concentrations at a level that would prevent dangerous anthropogenic interference with the climate system».[17]

The Convention establishes four categories of States Parties to reach this goal:

1. Parties listed in Annex I (developed countries); These States have the most stringent obligations relating to mitigation: they have to «adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs»[18] with the aim of bringing back emissions to 1990 levels by the year 2000.
2. Parties listed in Annex II (a subgroup of Annex I that excludes the former Soviet bloc); These States have additional obligations regarding financial assistance and technology transfer (articles 4.3, 4.4, 4.5).[19]
3. Parties listed in Annex I but not Annex II (economies in transition);
4. Parties not listed in Annex I (developing countries). These States are subjected only to general pledges that apply to all Parties (namely to articles 4.1, 5, 6 and 12.1). The most important commitment concerns national inventories and reporting.[20][21]

States Parties did not yet specify the GHG concentration limit pursuant to article 2. Instead, in the following decades, they agreed on objectives regarding temperature levels, especially through the Paris Agreement.[22]

[17] *United Nations Framework Convention on Climate Change, op. cit.*
[18] *Ivi,* art. 4.2 a).
[19] Even if the UNFCCC establishes a financial mechanism, it is interesting to note that «most of the public funding for mitigation and adaptation activities has been provided not through the financial mechanism, but through bilateral channels, through regional institutions such as the European Investment Bank; and through multilateral funds administered by the World Bank». Bodansky D., Brunée J., Rajamani L., *op. cit.*, p. 147.
[20] States Parties shall «[…] develop, periodically update, publish and make available to the Conference of the Parties, in accordance with article 12, national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases […]». *United Nations Framework Convention on Climate Change, op. cit.*, art. 4.1 a).
[21] Bodansky D., Brunée J., Rajamani L., *op. cit.*, pp. 28, 103, 122, 130, 132.
[22] *Ivi*, p. 126.

The Kyoto Protocol

The Conference of the Parties (COP) established by the UNFCCC meets annually since 1995 to advance on the implementation of the Convention and to monitor its effectiveness. The Kyoto Protocol was adopted during COP3 of 1997 to address the Convention's lack of specific emission limitation targets.[23] This legal instrument, which entered into force in 2004, requires developed States (Annex I countries) to reduce their GHG emissions through specific targets and timetables.[24] In particular, according to art. 3, Annex I countries have to «[…] ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emissions limitation and reduction commitments inscribed in Annex B with a view to reducing their overall emissions of such gases by at least 5% below 1990 levels […]».[25] To reach its goal, the Protocol also established three market mechanisms: Joint Implementation, the Clean Development Mechanism and emission trading.[26]

This strong differentiation between developing and developed Parties is certainly controversial, and it contributed worsening the effectiveness of this legal instrument. Even if in 1997 the European Union (EU) and the United States of America (USA) were the world's largest emitters, already in 2006 China overtook the USA in annual emissions. As a result, by 2012, «global emissions had risen 44% from 1997 levels, driven predominantly by emissions growth in developing nations».[27] The USA rejection of this Protocol in 2001 was partially due to this controversial situation of differentiating commitments between developed and developing countries. Therefore, one of the main problems of the Kyoto Protocol is that although it counts 192 Parties, its emissions reductions obligations cover less than 24% of global GHG emissions. Moreover, these targets were set for just a five-

[23] «To create new legal obligations, the COP must adopt a protocol or amendment to the Convention, which then requires acceptance by States before it enters into force (articles 15–17)». *Ivi*, p. 143.
[24] *Ivi*, pp. 96, 105, 142, 163.
[25] *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, Kyoto, 11 December 1997, *United Nations Treaty Series*, vol. 2303, p. 162.
[26] Bodansky D., Brunée J., Rajamani L., *op. cit.*, p. 179.
[27] Bassetti F., "Success or failure? The Kyoto Protocol's troubled legacy", December 8 2022, in *Foresight*,https://www.climateforesight.eu/articles/success-or-failure-the-kyoto-protocols-troubled-legacy/.

year commitment period (2008-2012).[28] The second commitment period was adopted in 2012 at COP18 in Doha, and it ran from 2013 to 2020, but many developed countries opted out, including Japan, Russia, and Canada, consequently covering less than 12% of global GHG emissions. Even if Parties provided for its provisional application, the Doha amendment officially entered into force only on 31 December 2020.[29][30]

It is interesting to note that the Protocol actually achieved its ultimate goal: «Aggregate emissions reductions over the first commitment period are generally agreed to be between 7% and 12.5%, therefore comfortably exceeding the 5% pledge».[31] However, it is important to underline that a meaningful amount of the reductions is due to former Soviet Union States that used emission benchmarks from the Union of Soviet Socialist Republics (USSR).[32] Nonetheless, more recent data confirms this path. The COP's annual reviews for the second commitment period of the Kyoto Protocol ended in May 2023: «The review results confirm that the developed countries that ratified the Kyoto Protocol managed, as a group, to reduce average annual emissions by 17 percent compared to 1990 levels, with the European Union cutting emissions by 25 percent and countries like Germany by 30 percent».[33]

The main criticism made to this legal instrument is that global emissions are still increasing and much of this increase is driven by the Parties that were excluded from reduction targets under the Protocol. The truth is that this criticism refers to a problem that the Protocol itself formally did not plan to solve.[34]

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[28] Bodansky D., Brunée J., Rajamani L., *op. cit.*, pp. 21, 28, 29, 108.
[29] *Ivi*, pp. 24, 114, 204.
[30] UNFCCC website: https://unfccc.int/kyoto_protocol.
[31] Bassetti F., *op. cit.*
[32] «The issue with USSR countries is that the carbon credits assigned to them were larger than their expected business as usual emissions levels – what is known as 'hot-air' – which allowed them to sell the extra assigned amounts, without actually having to perform any reduction in emissions levels. This not only meant that they had no incentives to reduce emissions but also ends up inflating any analysis of the gains made under the Protocol if you include the former Soviet countries». *Ibid.*
[33] "Kyoto Protocol Paves the Way for Greater Ambition under Paris Agreement", 27 June 2023, https://unfccc.int/news/kyoto-protocol-paves-the-way-for-greater-ambition-under-paris-agreement.
[34] Bassetti F., *op. cit.*

Still, it is extremely important to note that «The Kyoto Protocol showed that it was possible to strike a global agreement on climate and that the world community could build a consensus on climate goals and even fulfill them» as stated by Ralph Winkler, an international climate negotiation expert at the University of Bern.[35]

In conclusion, the experts have different opinions on the effectiveness of this legal instrument. Some think that even with its problems and controversies, the Kyoto Protocol at least prevented a worse-off situation where developed countries might have had higher emission levels. Others consider that the targets were met by coincidence and the overall goal was not ambitious enough. Nonetheless, researchers agree on the fact that the Kyoto Protocol paved the way for future climate negotiations.[36]

The Paris Agreement

COP21 of 2015 adopted the Paris Agreement, through which States agreed to limit temperature increase to «well below 2°C»[37] compared to pre-industrial levels, and to pursue efforts to limit global warming to 1.5°C. Furthermore, States also called for net zero emissions by 2050.[38]

This new legal instrument differs from the others since it is a universal and long-term agreement that does not differentiate between developed and developing countries, permitting each Party to define its commitments. Every five years States Parties prepare and register their climate action plans, called Nationally Determined Mitigation Contributions (NDMCs or NDCs).[39]

In terms of ratifications, the agreement was a success. It currently has 195 States Parties, and it entered into force in 2016.[40] Nonetheless, according to a 2020 study which analyzed more than 290 scientific papers regarding this legal instrument, the

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[35] Bassetti F., Interview to Ralph Winkler "No, it wasn't successful: Failures and lessons from the Kyoto Protocol's ashes", December 8 2022, in *Foresight*, https://www.climateforesight.eu/interview/ralph_winkler_kyoto_protocol_failures/.
[36] Bassetti F., "Success or failure? The Kyoto Protocol's troubled legacy", *op. cit.*
[37] *Paris Agreement*, Paris, 12 December 2015, *United Nations Treaty Series*, vol. 3156, art. 2.
[38] Bodansky D., Brunée J., Rajamani L., *op. cit.*, pp. 6, 126.
[39] *Ivi*, pp. 29, 209, 210, 233.
[40] *Paris Agreement*, *op. cit.*

NDCs ambitions set till that time by the Parties generally fell far short of what was needed to achieve the Paris Agreement's goals.[41] Conversely, a recent study shows that if fully implemented, the national pledges made at COP26 in Glasgow would be enough to reach the commitments set by the Agreement.[42]

Therefore, today's real problem seems laying on the implementation of those pledges, since most States tend to declare ambitious NDCs and climate neutrality projects but are not capable of fully enforcing them to reach net zero emissions by 2050.[43]

Conclusions

As noted above, even if States set concrete goals to mitigate climate change through International Law, the Paris Agreement is far to be implemented.

According to the IPCC: «the world's governments have less than twelve years to take action to completely transform energy systems in order to avert catastrophic climate change».[44] During this twelve-year period, fossil fuels take on a key role. In the International Energy Agency (IEA)'s view, to meet the goals of the Paris Agreement, fossil fuels must decline from almost 4/5 of total energy supply today to just 1/5 in 2050. This means that no new oil, gas, or coal investments should be approved.[45]

What role International Investment Law has on this issue? This thesis argues that this legal system as it is today has some negative impacts on International Climate Change Law implementation. Another problem that is analyzed is if reforms of this

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[41] Raiser K., Kornek U., Flachsland C., Lamb W.F., "Is the Paris Agreement effective? A systematic map of the evidence", August 2020, in *Environmental Research Letters IOPscience*, https://iopscience.iop.org/article/10.1088/1748-9326/ab865c, pp. 12, 14.

[42] Aleluia Reis L., Tavoni M., "Glasgow to Paris-The impact of the Glasgow commitments for the Paris climate agreement", February 17 2023, in *iScience*, https://doi.org/10.1016/j.isci.2023.105933 p. 1.

[43] This website analyzes in depth the global situation on the implementation of the Paris Agreement: https://climateactiontracker.org/countries/.

[44] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 58.

[45] *Ibid.*

legal regime are necessary and feasible. The paragraphs that follow will introduce these two issues.

1.3 International Investment Law's negative impacts on climate change.

International investment treaties and climate change

The international investment agreements regime comprehends about 3300 treaties.[46] Old-generation ones from the 1980s until the early 2010s have little or no attention to host States' regulatory powers for environmental protection and climate action. New-generation ones signed since 2010 safeguard better this States' right. However, both old and recent treaties lack pro-active provisions to support climate action[47] since International Investment Law primarily aims to liberalize and protect international investment flows, with the final goal of bringing economic growth.[48][49]

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[46] Of which 2828 Bilateral Investment Treaties (BITs) and 442 other treaties with investment provisions. *The international investment treaty regime and climate action* (UNCTAD, 2022) *op. cit.*, p. 2. Investment Policy Hub, UNCTAD: https://investmentpolicy.unctad.org/international-investment-agreements.

[47] *The international investment treaty regime and climate action* (UNCTAD, 2022), *op. cit.,* p. 1.

[48] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 59.

[49] The «evidence that investment treaties have the effect of increasing investment flows is […] inconclusive. Studies on determinants of foreign direct investment (FDI) confirm that other factors – such as market size and growth, the availability of natural resources, and the quality of hard and soft infrastructure – tend to be far more important to investors than investment treaties when making the decision to invest». Coleman J., Guven B., Johnson L., Sachs L., "Costs and Benefits of Investment Treaties: Practical Considerations for States", 2018, Columbia Center on Sustainable Investment, pp.6-7, https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1080&context=sustainable_investment_staffpubs. Moreover, «investment flows do not automatically nor entirely translate into job creation or economic growth». "Submission of the Veblen Institute for Economic Reforms to the OECD consultation on investment agreements and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 233. Additionally States that have terminated investment treaties have not experienced any loss of FDI. Gallagher K., Simmons A., Thrasher R., Tienhaara K., "Submission to the OECD public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 218.

Over 2000 first generation investment treaties[50] remain in force, and these continue to be the basis of the vast majority of investor-States disputes.[51][52] International investment treaties do not differentiate between low-carbon and high-carbon investments, instead they cover all sectors and typically offer high levels of protection.[53]

As described in the third part of this paragraph, States are engaged on reforming this legal system, but one of the issues is that under the common non-derogation clauses investors are ensured the benefit of the most favorable provision among those applicable to them under existing international investment agreements, undermining the effectiveness of reform efforts. Therefore, when investors decide to start a proceeding against a State, they will be more likely to rely on non-reformed international investment agreements over reformed ones, to be guaranteed the best protection.[54]

Most investment treaties are bilateral treaties, but some multilateral treaties with investment clauses do exist. An example is the Energy Charter Treaty (ECT), particularly relevant for the climate change issue. The treaty was stipulated with the aim of protecting energy investments in States risking political instability. However, nowadays two thirds of the complaints concern European countries.[55]

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[50] Defined by the United Nations Conference on Trade and Development (UNCTAD) as those signed before 2012, Calvert J., "Reforming IIAs to Combat Climate Change: Lessons from Latin America", January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 38.

[51] Bonnitcha J., "Submission to the OECD Public Consultation on Investment Treaties and Climate Change", January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 30.

[52] More than one third of all international investment agreements currently in force (2574) were signed and entered into force before the year 2000. "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 65.

[53] *The international investment treaty regime and climate action*, September 2022, International Investment Agreements issues note, issue 3, UNCTAD, p. 1.

[54] Atanasova D., "Submission to the OECD Public Consultation on Investment Treaties and Climate Change", January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, pp. 22, 24, 25.

[55] Braoudakis N., Baldon C., Lickel S., Dupré M., "Protecting renewables with the Energy Charter Treaty: a false good idea Lessons learned from an analysis of renewable energy arbitrations under the ECT", July 2021, in *Veblen Institute for Economic Reforms*, p. 1, https://www.veblen-institute.org/IMG/pdf/renewables_ect_veblen_institute_050721.pdf

The necessity to reform the ECT is usually justified by affirming that this treaty protects the fossil fuel industry.[56] The reform is at a standstill, but even if the Treaty will be terminated or reformed, there are almost 500 international investment agreements in force among two or more of the ECT Contracting Parties that will provide similar protection to investors.[57]

It is interesting to note that approximately 60% of the cases brought under the ECT concern investors on the renewable energy sector that challenged States which stopped to "support them". Therefore, some scholars think that future reforms would be counterproductive and could actually help the fossil fuel companies.[58] Other scholars affirm that this theory is misleading, and «it is paramount and urgent to put an end to the investors' overprotection offered by the ECT, in all the sectors it covers».[59]

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[56] Meyer T., "Investment Agreements and Climate Change: Lessons from International Trade", January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 170.

[57] Atanasova D., *op. cit.*, pp. 23, 25, 26.

[58] Meyer T., *op. cit.*, p. 170. "Even more renewable energy investors rely on treaty protection: Updated statistics of investment arbitration cases under the Energy Charter Treaty.", 12 October 2020, https://www.energycharter.org/media/news/article/even-more-renewable-energy-investors-rely-on-treaty-protection-updated-statistics-of-investment-arb/. Vail T., "The Energy Charter Treaty supports investment in renewables", 27 February 2021, in *Euractiv*, https://www.euractiv.com/section/energy/opinion/the-energy-charter-treaty-supports-investment-in-renewables/. Beckman K., "Interview: A new Energy Charter Treaty as a complement to the Paris Agreement", 18 June 2020, in *Borderlex* interview to Energy Charter Treaty's secretary-general Urban Rusnák, https://www.energycharter.org/media/news/article/a-new-energy-charter-treaty-as-a-complement-to-the-paris-agreement/.

[59] Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 4. «[…] the development of renewable energies happens independently from subsidies as it has become economically attractive. But most importantly, the legal analysis provided in this note shows that maintaining the ECT and its ISDS provisions for the renewable energy sector could prove a costly option in terms of public money whereas it is not even a demand from the renewable industries. […] In a rapidly changing climate and variable economic context, governments need to have the agility to quickly adapt how public money is spent in order to encourage the ecological transition. The recent pandemic and financial crises showed how quickly contexts can evolve and the necessity for States to sometimes review their policies. In some cases, after a first moment of strong support for renewables through public expenditures, governments had to reduce the subsidies as the market appeared to be highly competitive or because the initial supporting schemes had become unsustainable due to the decline in electricity demand or the unexpectedly enthusiastic adoption of the incentives by producers». Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, pp. 2, 6.

Investment disputes, compensations, and their consequences

Many scholars agree on the fact that International Investment Law could be considered as one of the barriers to a rapid transition away from fossil fuels, especially since it increases the costs of the energy transition for States.[60] This is an effect called "regulatory chill" that has been recognized by States, international institutions, academics, and even arbitrators.[61]

This legal system currently discourages both policies required to limit emission-intensive investments and policies that support sustainable investments.[62] What usually happens is that investors in the fossil fuel industry sue States before international arbitral tribunals over climate change policies relying on treaty-based provisions[63] and gain compensations reaching hundreds of millions and even billions of US dollars after their winning.[64] This phenomenon should not be

[60] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, pp. 59, 62, 64. "Climate Action Needs Investment Governance, Not Investment Protection and Arbitration", Columbia Center on Sustainable Investment, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, pp. 75, 77, 78. Dehm J., "OECD Public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 84. "Submission to the OECD public consultation on Investment treaties and climate change", Global Justice Now, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 112. Johnson L., "Submission to the OECD's Public Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 139. Kahale G., "Submission to the OECD's Public Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 147.

[61] "Contribution to the Public Consultation on Investment Treaties and Climate Change, organized by the Organization for Economic Cooperation and Development (OECD) Investment Committee, submitted by the Centre for Research on Multinational Corporations (SOMO)", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 203. "Submission of the Veblen Institute for Economic Reforms to the OECD consultation on investment agreements and climate change", *op. cit.*, p. 235.

[62] Broude T., van Aaken A., "Ways of Reforming International Investment Agreements to Make them More Compatible with Climate Change Goals", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, pp. 6-7.

[63] Some examples of climate change policies are: bans and moratoria on fossil fuel extraction, emissions trading schemes, taxing carbon emissions, removing support for the fossil fuel industry such as subsidies and tax breaks, denying the approval of permits on a fossil fuel project. Gallagher K., Simmons A., Thrasher R., Tienhaara K., "Submission to the OECD public consultation on investment treaties and climate change", *op. cit.*, p. 215.

[64] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 72. The great majority of international investment agreements do not require the exhaustion of domestic remedies before filing a claim to an international arbitral tribunal. *The international investment treaty regime and climate action*, (UNCTAD, 2022) *op. cit.*, p. 11.

underestimated since fossil fuel companies account for «almost one-fifth of investment arbitrations, and they won about three of every four cases initiated».[65]

Sometimes, just the threat of having to deal with such investment disputes makes States change their climate policies and/or directly negotiate with foreign investors, the result being having to pay huge compensations and to choose a slower transition to net-zero emissions.[66][67][68]

These situations are highly controversial since they reflect a shift of resources from States (and therefore taxpayers) who already bear the costs associated with the energy transition to fossil fuel companies who represent some of the actors most responsible for climate change.[69][70]

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[65] "Climate Action Needs Investment Governance, Not Investment Protection and Arbitration", Columbia Center on Sustainable Investment, *op. cit.*, p. 79.

[66] Calvert J., *op. cit.*, p. 38. Dehm J., *op. cit.*, pp. 85-86.

[67] There are several cases of countries being sued for their climate policies, these include: the Netherlands (*Uniper vs Netherlands*, *RWE vs Netherlands*), Italy (*Rockhopper vs Italy*), Canada (*Westmoreland vs Canada*, *Lone Pine vs Canada*), Slovenia (*Ascent Resources Plc and Ascent Slovenia Ltd vs Slovenia*), the USA (*TC Energy Corporation and TransCanada Pipelines Limited vs USA*), and Germany (*Vattenfall AB, Vattenfall Europe AG, Vattenfall Europe Generation AG vs Germany*). Dehm J., *op. cit.*, pp. 85-86. "Submission to the OECD public consultation on Investment treaties and climate change", Global Justice Now, *op. cit.*, p. 111. "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 62.

[68] For example, during the Obama's administration TransCanada sued the United States over the rejection of the proposal to build the Keystone XL pipeline to transport oil produced from Alberta to the Gulf Coast. The case was discontinued following President Trump's decision to allow its construction. In 2021, after President Biden's termination of the permit, two new cases on the same pipeline began. Moreover, there are situations in which States' climate actions could have been influenced by the possibility of future claims. For example, in 2020 Germany provided «the operators of coal power plants with €4.35 billion in compensation as part of its plan to phase out coal power generation by 2038». In 2017, the Canadian oil and gas company Vermilion allegedly threatened to sue France if it approved a law to phase out fossil fuel extraction. "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, pp. 63-64. Bonnitcha, J., *op. cit.*, p. 29. Some States openly admitted identifying investment treaties and arbitration claims as a barrier to more ambitious climate measures (such as New Zealand, France and Denmark). Bonnitcha, J., *op. cit.*, p. 30. "Climate Action Needs Investment Governance, Not Investment Protection and Arbitration", Columbia Center on Sustainable Investment, *op. cit.*, p. 79. "Submission to the OECD public consultation on Investment treaties and climate change", Global Justice Now, *op. cit.*, p. 112.

[69] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 64. Dehm J., *op. cit.*, pp. 86-87.

[70] «90 companies are responsible for approximately 60% of greenhouse gas emissions since the Industrial Revolution […] Additionally, according to some scholars fossil-fuel companies should

Even if the State wins the case, there is always a cost just for participating in the trial, delaying climate action in the host State as well as in other countries.[71]

From the perspective of most arbitrators, Environmental Law does not seem relevant when analyzing an investor-State dispute. In fact, many arbitral tribunals consider environmental measures taken by States as forms of protectionism, making foreign investors protection prevail over these policies. The compensations awarded are usually high because tribunals often consider the investor's loss of future income. The standards of compensation remain unregulated in most investment treaties, leaving broad discretion to the arbitrators.[72]

The "fair and equitable treatment" (FET) clause is the most litigated provision in investor-State disputes, often raised in combination with indirect expropriation claims.[73] Investors usually complain that a climate policy violated the FET standard of protection, in which the legitimate expectations of the investor play a fundamental role.[74] 95% of all investment treaties in force contain a FET clause, and in more than 75% of them these provisions are unqualified, vague, and brief, giving arbitral tribunals broad interpretive discretion.[75] Therefore «tribunals have

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not be entitled to compensation from States for energy transition measures as such corporations are themselves subject to obligations to reduce their emissions. […] This was confirmed by the ruling by the Hague District Court in *Milieudefensie et al. v Dutch Royal Shell* where the court held the multinational corporation responsible under Dutch tort law for its contribution to climate change». Dehm J., *op. cit.*, pp. 86-87-88. Oil and gas producers make up two-thirds of these 90 companies. Mahdavi P., "Paving a Credible Investment Pathway to Net Zero for Oil and Gas", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 161.

[71] States spend an average of 4.7 million dollar per dispute in defense costs. "Submission of the Veblen Institute for Economic Reforms to the OECD consultation on investment agreements and climate change", *op. cit.*, p. 238.

[72] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, pp. 61, 64, 72. «As a result, the prevailing approach used by tribunals is to refer to the general international law standard of reparation for internationally wrongful acts, i.e., the "full reparation standard", which requires the responsible State to "wipe out all the consequences of the illegal act" and restore the injured party to the condition in which it would have found itself but for the State's wrongful conduct. […] The average amount awarded in known fossil fuel cases exceeds USD 600 million, more than five times the amount in non-fossil fuel cases». Calamita J., Zheng Y., "Climate Change and Investor-State Arbitration: The Essential Importance of Issues of Compensation and the Calculation of Quantum", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, pp. 256-257.

[73] *The international investment treaty regime and climate action* (UNCTAD, 2022), *op. cit.*, p. 10.

[74] Green F., "Submission to OECD Public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 119.

[75] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law

considered almost any change in government legislation or regulation that has a significant impact on an investor's future returns as not being "fair and equitable" because the change was not a "legitimate expectation" on the part of the investor.»[76][77]

Some authors defined investor-State disputes as some «inefficient form of subsidy because [they do] not provide any public benefit»[78], this is true especially taking into consideration fossil fuels investment disputes and their climate change consequences.

States' practice

Historically, the climate change issue did not play a role in International Investment Law.[79] Over recent years, there has been more awareness about the negative impacts of Investment Law on climate change policies. The global community is now engaged to reform this law system at the international, regional, and national levels.[80]

States have taken different kinds of actions in this matter:

(CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 65. Henckels C., "Submission: OECD public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 130.

[76] Wells L., "ISDS Constrains Government Actions to Reduce Climate Change: the OECD Can Do Something About It", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 243.

[77] For some authors, investors «should have prepared for and anticipated that national governments would take reasonable policy actions to prohibit the extraction of further fossil fuels or to transition away from fossil fuel infrastructures» Dehm J., *op. cit.*, p. 88.

[78] Gallagher K., Simmons A., Thrasher R., Tienhaara K., "Submission to the OECD public consultation on investment treaties and climate change", *op. cit.*, p. 218.

[79] "OECD Public Consultation on Investment Treaties and Climate Change Response paper", Cambridge Research Group on Foreign Investment and the Environment, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 54.

[80] «Efforts to reform aspects of investment policy and law are underway under the auspices of the United Nations Conference on Trade and Development (UNCTAD) (reform of IIAs), United Nations Commission on International Trade Law (UNCITRAL) Working Group III (ISDS reforms), the World Trade Organization (Joint Statement Initiative on investment facilitation), the UN Office of the High Commissioner for Human Rights, and now the Organisation for Economic Co-operation and Development (OECD)» "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, 65.

1. They terminated or amended some investment treaties.
2. They made joint interpretative statements.[81]
3. They negotiated new treaties which include provisions related to climate action. These kinds of provisions are usually found in Free Trade Agreements (FTAs) with investment chapters.[82]
4. A small number of countries decided to exclude investor-State dispute provisions from any newly signed treaties (for example Brazil).[83]

1.4 The States' right to regulate and the fight against climate change.

The reform of International Investment Law to tackle climate change

The appropriate balance between investor protection and the right to regulate is strongly contested.[84] This issue is still openly debated within the broader context of the International Investment Law reform. The supporters of the current International Investment Law system affirm that protecting the investors from abuse of the right to regulate is the primary goal of investment treaties, and there is no need to reform them.[85] Conversely, high-profile opponents have challenged what they consider to be a change in the goal of investment treaty clauses, including Nobel Prize-winning economist Joseph Stiglitz: «These critics suggest that treaty provisions are no longer designed to protect property rights in exchange for foreign direct investment. They have instead become a weapon to fight regulation».[86]

[81] «In the last 3 years, the number of treaty terminations entering into force has exceeded the number of newly concluded International Investment Agreements (IIAs), and in 2021 at least 78 IIAs were terminated» *Ivi*, p. 64.
[82] Examples include: preambular clauses (Turkey–UK FTA of 2020, EU–UK Trade and Cooperation Agreement of 2020, the 2016 Azerbaijan Model BIT), provisions directly related to climate action (Australia–UK FTA of 2021, Moldova–UK Trade and Cooperation Agreement of 2020, articles 275(4) and 286(e) of the EU-Colombia-Peru FTA, Belgium and Luxembourg Model BITs, the 2019 Morocco Model BIT), climate action as a general exception (Netherlands Model BIT of 2019). *The international investment treaty regime and climate action*, (UNCTAD, 2022) *op. cit.*, pp. 8, 9. "OECD Public Consultation on Investment Treaties and Climate Change Response paper", Cambridge Research Group on Foreign Investment and the Environment, *op. cit.*, p. 45, 52-54.
[83] *The international investment treaty regime and climate action*, (UNCTAD, 2022) *op. cit.*, p. 16.
[84] Gaukrodger D., "The balance between investor protection and the right to regulate in investment treaties: a scoping paper", 24 February 2017, in *OECD Working Papers on International Investment* https://dx.doi.org/10.1787/82786801-en, p. 3.
[85] *Ivi*, p. 7.
[86] *Ivi*, p. 6.

These critics virtually concern all kinds of public policies, but for the purpose of this thesis a focus will be given on the "chilling effect" which relates to climate change policies.

Therefore, how should States safeguard their regulatory powers and fight climate change? Many academics have reflected on this matter, and they shared their ideas with the public. This paragraph will illustrate the main proposals to reform this legal system.

In order to reform International Investment Law and limit its negative effects on States' regulatory powers related to climate change, scholars think that States should:[87]

1. Amend investment treaties (or entirely replace them with new ones)[88] with the aim of: inserting climate carve-outs, exceptions to specific provisions, right-to-regulate clauses, and investor-State dispute carve-outs;[89] specifying how compensation should be calculated to avoid shifting the cost of

[87] It is important to note that the academics that support the termination of the current investment treaties regime underline the lack of evidence that the increase of investment flows is due to investment treaties' protections. These scholars also doubt that the supposed benefits that States enjoy from these flows outweigh the actual costs. "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 60.

[88] The same approach applies to investment contracts. In particular, States should avoid including arbitration clauses with fossil fuel companies. "Submission to the Organization for Economic Co-operation and Development on investment agreements and climate change by PowerShift", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 192. There are a series of tools to help States through the reform of international investment treaties, such as: UNCTAD's IIA Reform Accelerator (2020), the IIA Reform Package (2018) and the Investment Policy Framework for Sustainable Development (2015). *The international investment treaty regime and climate action*, (UNCTAD, 2022), *op. cit.*, p. 3.

[89] For example, «carbon-intensive industry carve-outs similar to the Trans-Pacific Partnership's (TPP) rules on tobacco. The TPP carve-out allowed States to block tobacco companies from using ISDS to target tobacco control measures» Kucik J., Shepherd A., "Will an ISDS Appeals Process Promote Sustainability?", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 158. «For example, Van Harten has proposed a carve-out from ISDS covering: any measure adopted by a Party […] relating to the objective of stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system or relating to any of the principles or commitments contained in articles 3 and 4 of the United Nations Framework Convention on Climate Change of 1992». Paine J., "Submission to OECD Public Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 180. Sheargold E., "Submission to the OECD Public Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, pp. 194-196, 198, 199.

decarbonization from companies to States;[90] differentiating between low-carbon and high-carbon investments, especially with the aim of protecting those considered by the States as "green investments". Investors would have to report on their compliance with the chosen definition to be granted protection.[91] For example, green investments could be those consistent with countries' NDCs under the Paris Agreement.[92]

2. Terminate old treaties that disincentivize climate action and cannot be amended or that are still unratified.[93]
3. Provide climate science training for arbitrators and/or involve climate experts and *amicus curiae* in the dispute settlement process.[94]
4. Include Corporate Social Responsibility Clauses underlying the need for investors to pursue climate goals.[95]

Since replacing the majority of bilateral investment treaties would be extremely difficult if not impossible, especially in the short run, some academics suggested the «development of a multilateral "exit" agreement that allows for the coordinated termination of investment agreements and the invalidation of "sunset" clauses»[96],

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[90] "Climate Action Needs Investment Governance, Not Investment Protection and Arbitration", Columbia Center on Sustainable Investment, *op. cit.*, p. 79. *The international investment treaty regime and climate action*, (UNCTAD, 2022) *op. cit.*, p. 15, 17. For some authors: «compensation [should be] the lesser of the investor's loss and the host State's gain from the host State not having had the new regulatory framework in place when the investment was made» Atanasova D., *op. cit.*, p. 24.

[91] Johnson L., *op. cit.*, p. 138.

[92] "OECD Public Consultation on Investment Treaties and Climate Change Response paper", Cambridge Research Group on Foreign Investment and the Environment, *op. cit.*, p. 50.

[93] *The international investment treaty regime and climate action*, (UNCTAD, 2022) *op. cit.*, p. 15.

[94] "Climate Action Needs Investment Governance, Not Investment Protection and Arbitration", Columbia Center on Sustainable Investment, *op. cit.*, p. 79. "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 71. Monti A., Nordlander L., "OECD Public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 176.

[95] Stephenson M., Vieira Martins J.H., "Contribution to the OECD Public Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 212.

[96] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 69. There is an example of such a treaty, the one developed by the European Union: the Agreement for the termination of Bilateral Investment Treaties between the Member States of the European Union OJ L 169, 29.5.2020, http://data.europa.eu/eli/agree_eums/2020/529/oj. "Submission to the

or, as an alternative, «the development of a multilateral instrument for States to withdraw consent to investor-States disputes under existing investment agreements»[97], leaving only the possibility for domestic disputes or State-to-State disputes. Another option is that in this multilateral agreement countries could agree «on a list of carbon-intensive investments that would be excluded from the scope of investment agreements' application».[98] An additional interesting proposal concerns the negotiation of a «multilateral investment treaty which exclusively protects investments which qualify as contributing to the host State's NDCs under the Paris Agreement».[99] The problem is that a considerable number of States should ratify this new multilateral treaty, otherwise this international effort would be useless. Another multilateral perspective is the one adopted by The United Nations Commission on International Trade Law (UNCITRAL) Working Group III, which is considering the reform of investor-State dispute settlement. One proposal concerns the creation of an appellate mechanism. This new institution could help States to review tribunal decisions, including those concerning their climate policies, but it would certainly introduce additional costs in terms of the duration of the proceedings and legal fees.[100]

In conclusion, the reform of the International Investment Law system seems to have many obstacles, but States still have a number of options to at least make an effort in modifying this law system with the aim of protecting their right to regulate and seriously fight climate change.

Organization for Economic Cooperation and Development on investment agreements and climate change by PowerShift", *op. cit.*, p. 191.

[97] *Ibid.*

[98] *Ivi*, p. 70.

[99] Fowler R., Putra M., "Simplifying the Pathway to 2030; an investment treaty exclusively for climate-related investment", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 103.

[100] Kucik J., Shepherd A., *op. cit.*, pp. 153, 155.

Why focusing on energy-related investment cases?

The balance between investors' rights and the right to regulate is significantly impacted by international arbitral tribunals,[101] and sometimes the result being the restrain of States' policies aimed at fighting climate change.

That is the reason why, in the chapter that follows, a focus will be given to some international arbitral cases, particularly those relevant to the energy sector, since the latter is a large user of investor-State dispute settlement.[102] Other than being more frequent, energy-related investment cases involve more economic resources than other investment cases. Moreover, in these proceedings investors win at higher rates.[103] All these considerations are true especially for fossil fuel companies since: «All carbon majors have initiated investor-State claims. […] Awards in the fossil fuel sector are on average five times larger than in other economic areas».[104] Particularly concerning is the Energy Charter Treaty, under which were brought the largest number of lawsuits through the investor-State dispute settlement mechanism.[105] As of the end of 2021, the ECT was used to bring 145 investor-State claims out of an international amount of about 1100 cases.[106]

[101] Gaukrodger D., *op. cit.*, p. 3.
[102] Kucik J., Shepherd A., *op. cit.*, p. 153.
[103] «The median dollar amount claimed in an energy-related dispute is $238 million. For all other industries, it is $105 million. Investors generally win 42% of the disputes with formal decisions (212 of 502). However, in the energy sector, investors win 52% of the time» *Ivi*, p. 156.
[104] "Submission to the Organization for Economic Cooperation and Development on investment agreements and climate change by PowerShift", *op. cit.*, p. 187. «Some of the largest fossil fuel companies have been successful in investor-State cases, with eight out of the eleven largest known awards (all over US$1 billion) involving fossil fuel companies or shareholders» "Contribution to the Public Consultation on Investment Treaties and Climate Change, organized by the Organization for Economic Cooperation and Development (OECD) Investment Committee, submitted by the Centre for Research on Multinational Corporations (SOMO)", *op. cit.*, pp. 203-204.
[105] Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 6.
[106] "Trade Justice Movement Submission to the OECD Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*, p. 224.

CHAPTER II. THE ROLE OF ARBITRAL TRIBUNALS IN CLIMATE CHANGE-RELATED INVESTOR-STATE DISPUTES.

2.1 Introduction.

In the 1990s, investors started using investor-State dispute settlement to challenge environmental legislation. The relationship between environmental protection and International Investment Law has remained contentious ever since.[107] More recently, a new wave of investment disputes arose, those concerning specifically climate change-related policies.

Since the International Climate Change legal framework does not provide for a permanent dispute settlement mechanism, climate change-related disputes which concern International Investment Law have been brought before national jurisdictions and international arbitral tribunals. For the purpose of this thesis, the analysis will focus on some cases brought before international arbitral tribunals.

International arbitral tribunals have the potential to make a significant contribution to the development of International Investment Law as well as, although only indirectly, the development of climate change governance.[108] According to some scholars this happens because the consequences of a particular controversy extend beyond the parties involved and might influence government decision-making and exert pressure on firms to engage in (or refrain from engaging in) specific sector activities.[109]

Until today, two categories of investment-related claims have surfaced in terms of International Climate Change Law: first, investors in the renewable energy sector have contested before arbitral tribunals States' regulatory changes that supposedly had an impact on their investments. Second, investor-State arbitrations have been brought by companies in the fossil fuel industry. Those investors sued the States

[107] Di Salvatore L., "Investor–State Disputes in the Fossil Fuel Industry", December 2021, International Institute for Sustainable Development, p. 37, https://www.iisd.org/system/files/2022-01/investor%E2%80%93state-disputes-fossil-fuel-industry.pdf.
[108] Vadi V., "Beyond Known Worlds: Climate Change Governance by Arbitral Tribunals?", November 2015, in *Vanderbilt Journal of Transnational Law*, 48, no. 5, p. 1318.
[109] *Ivi*, p. 1317.

claiming that they have committed violations of International Investment Law resulted from the implementation of public policies aimed at fighting climate change. In both these situations, the companies used International Investment Law as a tool to protect their economic interests.[110]

The awards of international arbitral tribunals are final and binding but it is fundamental to note that these tribunals are not bound by precedent awards given by other arbitral tribunals, therefore the principle of *stare decisis* does not apply, this is also true for the Public International Law system in general. The negative effect of this situation relates to the different arbitral tribunals' decisions regarding similar cases that may lead to contradictory results, jeopardizing the principle of legal certainty.

The paragraphs that follow are dedicated to an analysis of the two categories of investment decisions previously mentioned: investment cases in the renewable energy sector and investment cases in the fossil fuel industry. In the second case, the analysis will especially highlight the investment arbitrations which concerned climate change policies.

2.2 Investment cases in the renewable energy sector under the Energy Charter Treaty.

Renewable energy incentives, the 2008 crisis and the Energy Charter Treaty

Many nations around the world have implemented policies that provide financial support for renewable energy sources as a means of pursuing the decarbonization of the energy sector and the objectives outlined in the treaties stipulated under the UNFCCC ranging from the Kyoto Protocol to the Paris Agreement. In this context, the European Union has established "packages" of Directives pertaining to decarbonization, energy efficiency, and the development of renewable energy sources. Specifically, the three regulatory frameworks that have characterized the European renewable energy strategy are Directive 2001/77 EC, Directive 2009/28

[110] *Ivi*, pp. 1318-1319.

EC, and Directive (EU) 2018/2001, together known as the "Renewable Energy Sources/RES Directives". Particularly important in establishing legally binding objectives for 2020 was Directive 2009/28 EC, which implicitly obliged European nations to establish support programs in order to meet the aim of 20% renewable energy production by the year 2020. Binding objectives were a notable advance since they finally gave more precise and specificity to the general commitments decided under the UNFCCC.[111]

Right before the 2008 financial crisis EU States implemented incentives to draw capital into the renewable energy industry and boost the output of clean energy. This happened for several reasons beyond the climate change issue and EU laws. Broadly speaking, public support for renewable energy is necessary since the cost of producing it is higher than that of producing energy from fossil fuels, since it is not yet competitive. Furthermore, diversifying energy sources away from conventional sources is necessary for energy security (as the EU has recently experienced with the war in Ukraine, for example).[112]

The financial and economic crisis which began in 2008 and the falling costs for renewable energy pushed States to take emergency interventions in an effort to avert a systemic collapse and restore economic stability. The renewable energy industry was impacted by some of these emergency measures since States began to reduce or eliminate those incentives. Because of the detrimental effects of such policies on those investors, there was a wave of litigations for alleged breaches of investment treaties, especially the Energy Charter Treaty.[113]

Therefore, since 2011 numerous arbitration claims based on the Energy Charter Treaty have targeted various EU Member States, particularly Spain, Italy and the Czech Republic, regarding their renewable energy policies.[114]

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[111] Di Vita M., "The uncertain destiny of support schemes to renewable energy – between international arbitration and domestic tribunals", February 7 2021, in *Iusinitinere*, https://www.iusinitinere.it/the-uncertain-destiny-of-support-schemes-to-renewable-energy-between-international-arbitration-and-domestic-tribunals-35195
[112] Vadi V., *op. cit.*, p. 1319.
[113] *Ibid.*
[114] Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 6.

In order to encourage investments in the field of renewable energy (solar, wind, hydraulic, and waste incineration), those nations established incentive programs in the 2000s. Yet, beginning at the end of the decade, in response to the financial and economic crisis, to a drop in the demand for power and to the unanticipated appeal of these incentive programs among producers, they instituted changes to address the programs' economic unviability. These emergency measures essentially reduced the investors' incentives based on their quantity, duration, or qualifying requirements.[115]

Numerous rulings under the context of the Energy Charter Treaty have given investors extensive protection against regulatory changes, even though some tribunals gave the State's right to regulate more weight in their analysis and attempted to balance the competing interests, ruling out any violation of the so-called fair and equitable treatment wherein investors were guaranteed a reasonable return.[116]

The case of Spain

The Royal Decree ("RD") 661/2007,[117] which established an incentive program in 2004 and 2007, allowed owners of renewable energy plants to sell electricity at a higher rate for the first 25 years and at a lower rate after that period. Other incentives included grants, tax breaks, loan guarantees, and, most importantly, fixed feed-in tariffs (FITs). Partially to address the financial and economic crisis, Spain implemented new decrees in 2010 and, more so, in 2013 and 2014.[118] These decrees limited the feed-in tariffs that investors could get and changed the requirements for eligibility. However, in keeping with the general idea set forth by the 1997 Law and

[115] *Ibid.*
[116] *Ivi*, pp. 6-7.
[117] Real Decreto 661/2007, de 25 de mayo, por el que se regula la actividad de producción de energía eléctrica en régimen especial, https://www.boe.es/eli/es/rd/2007/05/25/661/con.
[118] The sharp decline in solar module hardware costs, which occurred between 2008 and 2011, was another important driver. The capacity FITs and other assistance programs was strained in multiple nations as a result of the spike in investment brought on by these cost reductions. Consequently, the system failed to reduce compensation in response to the technology's rapidly declining costs and overcompensated solar photovoltaics. Tienhaara K., Downie C., "Risky Business? The Energy Charter Treaty, Renewable Energy, and Investor-State Disputes", in *Global Governance*, 2018, Vol. 24, No. 3 (2018), Brill, p. 458, https://www.jstor.org/stable/10.2307/26777583.

supported by Spanish Supreme Court case law, the new regime was designed to give investors a reasonable rate of return.[119] These regulatory changes provoked a wave of investment lawsuits against Spain under the Energy Charter Treaty. The alleged violations mainly concerned the standard of protection contained in art. 10(1).[120]

The first award involving Spain's FITs was rendered in January 2016. In the *Charanne v. Spain* case,[121] which started in 2012, the State won, and the investors were ordered to reimburse the government's legal expenses, which amounted to €1.3 million. The arbitrators decided (by majority) that investors could not have a "legitimate expectation" that the regulatory environment would remain unchanged since Spain had never given them a "specific commitment" about the stabilization of the FITs. The tribunal further pointed out that, prior to the corporations' investments in this case, the Spanish Supreme Court had already determined that modifications to the FIT were allowed under Spanish law. In July 2016, a second ruling regarding the case of *Isolux v. Spain*[122] was rendered. Two of the three arbitrators supported Spain, just like in *Charanne*.[123]

Nonetheless, it has been found that, in the instance of the ECT, investors are usually better off because in the awards the States' commitment to create stable frameworks for investments prevails over their freedom to regulate, even if there is a significant

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[119] Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, pp. 6-7. Tienhaara K., Downie C., *op. cit.*, p. 458.

[120] «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. Each Contracting Party shall observe any obligations it has entered into with an Investor or an Investment of an Investor of any other Contracting Party». The International Energy Charter consolidated Energy Charter Treaty with related documents Last Updated: 15 January 2016, https://www.energycharter.org/process/energy-charter-treaty-1994/energy-charter-treaty/.

[121]Charanne and Construction Investments v. Spain, SCC Case No. 062/2012, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/502/charanne-and-construction-investments-v-spain.

[122] Isolux v. Spain, SCC Case No. 2013/153, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/564/isolux-v-spain.

[123] Tienhaara K., Downie C., *op. cit.*, p. 459.

level of award unpredictability. This is aptly demonstrated by the disparate rulings in the lawsuits against Spain, where the arbitrators frequently arrived at conflicting conclusions for identical facts.[124]

Tribunals have determined that investors were given specific assurances of stability in a number of cases. For example, contrary to the ruling in *Charanne v. Spain*,[125] the tribunal in the *Masdar case* held that the requirement of registration with the Special Registry was «a very specific unilateral offer from the State».[126]

Several arbitral tribunals have also determined that the clauses in the Spanish decrees did in fact create explicit guarantees that the tariffs would not be changed in the future. For instance, the arbitrators in the *Cube Infrastructure case*[127] found that the laws establishing a unique regime amounted to a stabilization clause, the tribunal declared that whatever the reasoning behind the tariff and premium system outlined in RD 661/2007 it was evident that the provisions included a clear pledge to uphold the special regime according to its established conditions. Comparatively, some rulings have discovered that the identical national rules do not provide such a stability guarantee.[128]

At the same time, in the renewable energy cases, arbitrators have engaged in extensive debate regarding the legitimacy of investors' expectations. ECT tribunals have reiterated that: «not all expectations of a foreign investor are "legitimate" and only legitimate expectations are protected under the Fair and Equitable Treatment principle».[129]

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[124] Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 9.

[125] The tribunal in para. 493 stated that «to convert a regulatory standard into a specific commitment of the State, by the limited character of the persons who may be affected, would constitute an excessive limitation on power of States to regulate the economy in accordance with the public interest». *Ivi*, p. 11. Masdar Solar v. Spain, ICSID Case No. ARB/14/1, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/593/masdar-v-spain.

[126] *Masdar v. Spain*, para. 512. In the *Masdar case* Dutch investors had sued Spain over reforms carried out between 2012 and 2014. Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 9.

[127] Cube Infrastructure and others v. Spain, ICSID Case No. ARB/15/20, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/627/cube-infrastructure-and-others-v-spain.

[128] *Stadtwerke v. Spain*, para. 261; *FREIF Eurowind v. Spain*, para. 557; *Eiser Infrastructure and Energía Solar v. Spain*, paras 363 and 387; *Charanne v. Spain*, para. 503; *Isolux v. Spain*, paras 774 and 787; *Foresight and Greentech v. Spain*, para. 366; *NextEra v. Spain*, para. 591. Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 10.

[129] *RREEF v. Spain*, para. 261. Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 13.

Tribunals typically apply an objective assessment of legitimacy as a means of overcoming the inherent subjectivity of expectations. That is, rather than to determine whether the investor subjectively expected a particular behavior from the State, they determine whether it was reasonable to rely on it. One important factor that is typically employed to impartially evaluate whether an investor's expectations were realistic is the amount of research the investor did before making the investment; this relates to the so-called due diligence principle. However, some tribunals have included subjective factors while determining whether or not expectations were legitimate. The *Masdar* award, for instance, considered the fact that the investor «believed that it had a legitimate expectation that the laws would not be modified, as they included stabilization clauses».[130] At the same time, as a dissenting opinion noted, the majority of the tribunal in the *Cube Infrastructure case* appeared to accept too quickly the plaintiff's argument, which maintained (without providing additional evidence) that the risk of radical change was merely residual, ignoring what appeared to be blatant negligence on the part of the investor in his risk analysis. The tribunal acknowledged that it had not discovered any particular examination of the regime's stability in the reports submitted by the plaintiff, but it believed that the burden of proof should be on the defendant (Spain) with the aim of demonstrating how a more thorough examination of the risks would have produced a different result.[131]

Therefore, while a significant number of decisions indicate the existence of a due diligence duty, other rulings have maintained that investors' right to rely on State commitments was not subject to a formal or comprehensive previous evaluation of the regulatory system.[132]

A sizable portion of plaintiffs in the Spanish cases were private equity funds rather than energy corporations at all,[133] this is true for example in *The PV Investors v. Spain* case, where a group of investors claimed that several changes to the previous energy regime (such as a 7% tax on power generators' profits and a decrease in

[130] *Masdar v. Spain*, para. 499. Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 14.
[131] Braoudakis N., Baldon C., Lickel S., Dupré M., *op. cit.*, p. 16.
[132] *Ibid.*
[133] Tienhaara K., Downie C., *op. cit.*, p. 458.

subsidies for producers of renewable energy) violated art. 10(1) of the Energy Charter Treaty. After reaching a decision in the investors' favor, the tribunal granted them damages totaling about $100 million.[134]

The case of Italy

In order to more accurately represent the declining costs of producing renewable energy, Italy gradually decreased the FIT subsidies through a series of decrees known as "Conti Energia", or Energy Accounts.[135] A three-year FIT reduction was instituted by the Third Energy Account of 2010. The Third Energy Account's term was shortened by the "Romani Decree" of 2011,[136] which also established new requirements for PV facilities to meet in order to be eligible for FITs. Producers who received incentive tariffs under any of the energy accounts were required to pay an annual administration charge, as per the Fifth Energy Account of 2012. Italy

[134] Bradfield M., Devenish P., Egerton-Vernon J., Gharibian C., Stear Gorsline M., Habib F., Tonova S., "Climate Change and Investor-State Dispute Settlement", February 28 2022, in *JDSUPRA*, https://www.jdsupra.com/legalnews/climate-change-and-investor-state-9102431/. The PV Investors v. Spain, PCA Case No. 2012-14, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/435/the-pv-investors-v-spain.

[135] Primo conto energia: decreto 28 luglio 2005 Criteri per l'incentivazione della produzione di energia elettrica mediante conversione fotovoltaica della fonte solare. (GU Serie Generale n.181 del 05-08-2005) www.gazzettaufficiale.it/eli/id/2005/08/05/05A07837/sg e decreto 6 febbraio 2006 (GU Serie Generale n. 38 del 15-02-2006) www.gazzettaufficiale.it/eli/id/2006/02/15/06A01351/sg. Secondo conto energia: decreto 19 febbraio 2007 Criteri e modalita' per incentivare la produzione di energia elettrica mediante conversione fotovoltaica della fonte solare, in attuazione dell'articolo 7 del decreto legislativo 29 dicembre 2003, n. 387. (GU Serie Generale n.45 del 23-02-2007) www.gazzettaufficiale.it/eli/id/2007/02/23/07A01710/sg. Terzo conto energia: decreto 6 agosto 2010 Incentivazione della produzione di energia elettrica mediante conversione fotovoltaica della fonte solare. (10A10236) (GU Serie Generale n.197 del 24-08-2010), www.gazzettaufficiale.it/eli/id/2010/08/24/10A10236/sg. Quarto conto energia: decreto 5 maggio 2011 Incentivazione della produzione di energia elettrica da impianti solari fotovoltaici. (11A06083) (GU Serie Generale n.109 del 12-05-2011), www.gazzettaufficiale.it/eli/id/2011/05/12/11A06083/sg. Quinto conto energia: decreto 5 luglio 2012 Attuazione dell'art. 25 del decreto legislativo 3 marzo 2011, n. 28, recante incentivazione della produzione di energia elettrica da impianti solari fotovoltaici (c.d. Quinto Conto Energia). (12A07629) (GU Serie Generale n.159 del 10-07-2012 - Suppl. Ordinario n. 143), www.gazzettaufficiale.it/eli/id/2012/07/10/12A07629/sg.

[136] Decreto legislativo 3 marzo 2011, n. 28 Attuazione della direttiva 2009/28/CE sulla promozione dell'uso dell'energia da fonti rinnovabili, recante modifica e successiva abrogazione delle direttive 2001/77/CE e 2003/30/CE. (11G0067) (GU Serie Generale n.71 del 28-03-2011 - Suppl. Ordinario n. 81), www.gazzettaufficiale.it/eli/id/2011/03/28/011G0067/sg.

finally revised its incentive payments in 2014 when it passed the "Spalma-incentivi" Decree.[137]

The ICSID received the first-known complaint against Italy for alleged ECT violations on February 21, 2014, followed by many others. The plaintiffs were investors involved in solar energy production businesses which complained that Italy breached the FET enshrined in the ECT. The cases related to the infamous "Spalma-incentivi", therefore the government's decision to reduce the incentives previously given to producers of renewable energy.[138]

The ECT disputes that Italy encountered were marked by uneven outcomes. For example, the arbitrators in *Belenergia*[139] and *Blusun*[140] determined that the "Spalma-Incentivi" decree's modification of incentives did not amount to an indirect expropriation or a breach of the legitimate expectations of the companies who had invested in Italian PV power plants. Therefore, there had been no violation of either article 10 or article 13 of the ECT. In contrast, the case of *Greentech Energy Systems*, *Novenergia* and *CEF Energia BV* resulted in a breach of article 10.[141]

Italy withdrew from the ECT in 2015 due to budgetary constraints. The withdrawal became effective one year following the date of notification in accordance with

[137] "ECT tribunal finds Italy's modifications to its renewable energy incentive scheme reasonable, foreseeable, and proportionate", October 7 2021, in *Investment Treaty News International Institute for Sustainable Development*, https://www.iisd.org/itn/en/2021/10/07/ect-tribunal-finds-italys-modifications-to-its-renewable-energy-incentive-scheme-reasonable-foreseeable-and-proportionate/. Decreto legge 24 giugno 2014 n. 91, Disposizioni urgenti per il settore agricolo, la tutela ambientale e l'efficientamento energetico dell'edilizia scolastica e universitaria, il rilancio e lo sviluppo delle imprese, il contenimento dei costi gravanti sulle tariffe elettriche, nonche' per la definizione immediata di adempimenti derivanti dalla normativa europea. (14G00105) (GU Serie Generale n.144 del 24-06-2014). Decreto-Legge convertito con modificazioni dalla L. 11 agosto 2014, n. 116 (in S.O. n. 72, relativo alla G.U. 20/8/2014, n. 192). www.gazzettaufficiale.it/eli/id/2014/06/24/14G00105/sg.

[138] Vadi V., *op. cit.*, p. 1324. Di Vita M., *op. cit.*

[139] Belenergia v. Italy, ICSID Case No. ARB/15/40, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/670/belenergia-v-italy.

[140] Blusun v. Italy, ICSID Case No. ARB/14/3, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/575/blusun-v-italy.

[141] Di Vita M., *op. cit.* Greentech and NovEnergia v. Italy, SCC Case No. 2015/095, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/634/greentech-and-novenergia-v-italy. CEF Energia v. Italy, SCC Case No. 158/2015, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/770/cef-energia-v-italy.

article 47 of the ECT. For a further twenty years, however, investments made prior to that date will still be covered by the ECT.[142]

The case of the Czech Republic

The Czech Republic committed to harmonizing its legal system with European Union law upon its accession to the EU on May 1, 2004. This legal system includes the laws in the field of renewable energy, therefore the State was required to incorporate the pertinent EU Directives into its national legislation.[143]

Act No. 180/2005 Coll., on Support of the Electricity Production from the Renewable Energy Sources ("RES Act"), which offered a support program for RES producers, was adopted by the Czech Republic on March 31, 2005.[144] By modifying the degree of support to account for the unique costs associated with each RES, the incentives were created to encourage investments in every RES and, in theory, make them all profitable. The RES Act provided RES producers with a number of incentives, including feed-in tariffs, green bonuses, and preferential treatment from grid operators, to enable them to realize a 15-year payback on their investments (steady revenue per unit of electricity, a predicted 7% rate of return, and a 20-year lifespan).[145]

Starting in 2008 and 2009 applications to connect new solar installations to the electrical grid significantly increased as a result of the notable decline in solar panels' prices. This resulted in an unanticipated chance for higher returns on solar plants. Consumer electricity prices increased because the fast expansion of solar implants caused the grid to be more instable. These problems were accompanied by a political crisis that delayed the government's introduction of legislation until

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[142] Vadi V., *op. cit.*, p. 1324.
[143] Bilanová, A., Kudrna J., "Solar Arbitrations against the Czech Republic: Glimpse of Hope for Investor-State Arbitration", September 10, 2021, in *Arbitration Journal by the Arbitration Association*,https://journal.arbitration.ru/analytics/solar-arbitrations-against-the-czech-republic-glimpse-of-hope-for-investor-state-arbitration/.
[144] No. 180/2005 Coll. ACT of 31 March 2005 on the promotion of electricity production from renewable energy sources and amending certain acts (Act on Promotion of Use of Renewable Sources), https://www.mpo.cz/assets/dokumenty/26665/28468/312170/priloha001.pdf.
[145] Bilanová, A., Kudrna J., *op. cit.*

2010. In 2010 and 2011 the State addressed this issue, and among other modifications, it decreased the FIT. After these new measures were put into place, some investors began to express their displeasure. Eventually, they brought their cases to international arbitration, arguing that the FET standard had been violated and that they were entitled to protection from arbitrary and discriminatory actions under the ECT and applicable bilateral investment treaties.[146]

In six cases,[147] the arbitral tribunals found in favor of the Czech Republic and concluded that the challenged measures did not violate any treaty. They concluded that the Czech Republic's measures were reasonable, falling within the State's regulatory space and not going against the legitimate expectations of the claimants. The claimants' argument that the Czech Republic could have responded sooner with its regulations was rejected by the tribunals. The tribunals also determined that it was crucial that the RES Act had no stabilization provision, meaning that there was no assurance of a fixed feed-in-tariff or that the support system could not be adjusted. These arbitral tribunals also observed that even after the challenged measures were put into effect, the claimants were still receiving support in the amount that guaranteed a 7% rate of return and a 15-year payback on their investments. Additionally, since the foreign investors received the same treatment as all other domestic investors, there was no discriminatory aspect present in these cases.[148]

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[146] *Ibid.* Vadi V., *op. cit.*, p. 1322.

[147] JSW Solar and Wirtgen v. Czech Republic, PCA Case No. 2014-03, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/559/jsw-solar-and-wirtgen-v-czech-republic. Antaris and Göde v. Czech Republic, PCA Case No. 2014-01, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/558/antaris-and-g-de-v-czech-republic. I.C.W. Europe Investments Limited v. The Czech Republic, PCA Case No. 2014-22, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/531/i-c-w-v-czechia. WA Investments-Europa Nova Limited v. The Czech Republic, PCA Case No. 2014-19, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/528/europa-nova-v-czechia. Voltaic Network GmbH v. The Czech Republic, PCA Case No. 2014-20, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/530/voltaic-network-v-czechia, Photovoltaik Knopf Betriebs-GmbH v. The Czech Republic, PCA Case No. 2014-21, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/529/photovoltaik-knopf-v-the-czech-republic.

[148] Bilanová, A., Kudrna J., *op. cit.*

Compared to the other six tribunals, the *Natland* tribunal[149] did not have the same vision on the functioning of the RES support scheme. According to its findings, the Czech Republic failed to fulfill its FET duties to the claimants, especially by changing an apparently irreversible guarantee included in the RES Act. In this particular case, it is unclear if the Czech Republic will have to pay damages and, if so, how much.[150]

Classification of these three case studies and conclusions

The renewable energy laws that the three States enacted featured two main characteristics: 1. the framework rules promised investors "reasonable profitability rates" (Spain), a "fair return" (Italy), or a set payback period (Czech Republic). 2. implementing legislation detailed the precise feed-in tariffs that were at the core of the incentive programs. Those countries then limited their incentive programs. The feed-in tariffs were lowered by the Czech Republic and Italy. Spain, on the other hand, opted for a two-phase approach: the actions taken before the first half of 2013 were rather prudent adjustments, while the actions taken after July 2013 eliminated the fixed feed-in tariffs.[151]

The investors claimed that the three States had violated the fair and equitable treatment criteria by not meeting their legitimate expectations, leading to a flurry of arbitral proceedings based primarily on article 10(1) of the Energy Charter Treaty. What legitimate expectations can general legislation create was the central legal question in these cases. There was no consistent response to this query in the arbitral rulings made from the *Charanne case* to the *PV Investors case*. The researcher Schmidl used three classifications to categorize these awards:[152]

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[149]Natland and others v. Czech Republic, PCA Case No. 2013-35, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/555/natland-and-others-v-czech-republic.

[150] Bilanová, A., Kudrna J., *op. cit.*

[151] Schmidl M., "The Renewable Energy Saga from Charanne v. Spain to The PV Investors v. Spain: Trying to See the Wood for the Trees", February 2021, in *Kluwer Arbitration Blog*, https://arbitrationblog.kluwerarbitration.com/2021/02/01/the-renewable-energy-saga-from-charanne-v-spain-to-the-pv-investors-v-spain-trying-to-see-the-wood-for-the-trees/.

[152] He refers to the awards rendered till February 2020.

1. The *Masdar v. Spain* reasoning: the tribunal and those that followed its ruling compared two investment scenarios, one where the stability of the legal context was guaranteed by a specific commitment, and the other without it. An investor may reasonably expect that the legal framework wouldn't be changed in violation of the host State's commitment if it had made a particular one. In contrast, an investor might only hope that the host State would not make irrational or unjustifiable modifications in the absence of a clear commitment. The tribunals[153] examined the wording, intent, and purpose of the laws in question and established that they had been purposefully enacted to attract the investors, and they equated those generally applicable pieces of legislation with a specific commitment. Therefore, the result was a violation of art. 10(1) of the Energy Charter Treaty.
2. Only the latest Spanish measures violated art. 10(1) of the ECT: Some tribunals contended that the regulatory framework alone lacked a clear commitment. As a result, investors had no right to foresee that the legal system would be fixed. Investors may, however, anticipated that a State would not act "unreasonably, disproportionately, or contrary to the public interest" when modifying the rules, or that changes would not be "total and unreasonable".[154] Other tribunals contended that pledges to maintain regulatory stability might be included in general law. But the legitimate expectations of the investors were only disappointed by a host State if it significantly modified the economic foundation of investments undertaken in reliance on such legislation.[155]
3. The only legitimate expectation was a reasonable return, as the national laws mandated: the tribunals[156] contended that the investors were not entitled to

[153] *9REN v. Spain*; *OperaFund v. Spain*; *Greentech v. Italy*; *Antaris v. Czech Republic*; *Wirtgen v. Czech Republic*.
[154] *Charanne v. Spain*; *Blusun v. Italy*; *SolEs v. Spain*; *Antin v. Spain*; *Eiser v. Spain*; *Foresight v. Spain*; *Novenergia II v. Spain*; *NextEra v. Spain*.
[155] *Cube v. Spain*; *Watkins v. Spain*.
[156] The tribunals in *Isolux v. Spain*, *Antaris v. Czech Republic*, and *Belenergia v. Italy* shared the logic of the second group that general legislation could give rise to legitimate expectations, but the investors in these cases had invested late, when the unsustainability of the incentives was clear and they could only expect a reasonable return, which they had received. The tribunals in *The PV Investors v. Spain*, *Stadtwerke v. Spain*, *BayWa v. Spain* and *Wirtgen v. Czech Republic*, *RWE v. Spain*

> receive the fixed feed-in tariffs as stipulated in the implementing legislation. Instead, they could only reasonably expect a reasonable return, as guaranteed by the framework legislation. The host State had not violated their legitimate expectations as long as the investors were given such a return.[157]

In conclusion, it is difficult to predict how similar future trials will turn out. Equally complex is the interpretation of the ECT requirements, particularly the fair and equitable treatment found in article 10.[158]

2.3 Investment cases in the fossil fuel industry.

The issue that this paragraph tackles is the fact that foreign investors may file investment claims under an applicable investment treaty in response to public action to phase out fossil fuels.[159] These claims may have a negative impact on climate change policies.

It is important to note that to date, most investment disputes involving the fossil fuel industry have not focused on climate change policies. However, a small number of relevant cases[160] on this matter have been threatened or initiated, which could be precursors to a new wave of cases as government policies to address climate change become more severe. At the same time, even disputes that do not concern climate change policies may have indirect implications for climate change mitigation efforts, especially those that concern environmental measures.[161]

Some foreign investors have contended that certain climate change-related policies adopted by host States breached the norms envisaged by a number of international

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other than the reasonable return (which was the only legitimate expectation) also considered the fact that the amendments could not be unreasonable, arbitrary or disproportionate. Schmidl M., *op. cit.*

[157] Schmidl M., *op. cit.*

[158] Di Vita M., *op. cit.*

[159] Cotula L., Tienhaara K., "Raising the cost of climate action? Investor-state dispute settlement and compensation for stranded fossil fuel assets", 2020, in *International Institute for Environment and Development*, p. 13 https://www.iied.org/sites/default/files/pdfs/migrate/17660IIED.pdf.

[160] A list can be found here: table S1 of Tienhaara K., Thrasher R., Simmons A., Gallagher K., "Investor-state disputes threaten the global green energy transition", 5 May 2022, in *Science*, DOI:10.1126/science.abo4637.

[161] Cotula L., Tienhaara K., *op. cit.*, p. 16.

investment treaties, such as the prohibition of unlawful expropriation, the FET standard, and non-discrimination.[162] The most emblematic cases are *Vattenfall v. Germany*, *Westmoreland v. Canada*, *RWE v. The Netherlands*, *Uniper v. The Netherlands* and *Rockhopper v. Italy*.

The *Vattenfall v. Germany* case of 2009 regarded a Swedish company which sued Germany under the ECT to overturn a new law regarding the investor's construction of a coal-fired power plant near Hamburg on Elbe's riverbanks. This new regulation was imposed by the German Green Party which took power in coalition with other political parties after the 2008's local elections. Vattenfall claimed that following the 2007 project's temporary approval, more environmental limits were placed with this new regulation, which went against the investors' right to fair and equitable treatment.[163] Moreover, Vattenfall considered that local opposition[164] to the project over worries about climate change caused a delay in the final awarding of the necessary permits for water use and emissions control and sought US$1.4 billion in damages. The City of Hamburg asserted that the terms of the water permit were appropriate in accordance with European law and aligned with the limitations imposed on all industries situated along the Elbe River. Hamburg clarified that by 2015, all EU Member States were expected to provide specific standards of water quality in rivers, lakes, estuaries, coastal waters, and groundwater. This was mandated by the EU's Water Framework Directive. On the other hand, Vattenfall argued that the water limitations would render the plant unfeasible and unprofitable, going beyond what was stipulated in the 2007 contract with the City of Hamburg. The parties reached a settlement in August 2010, at which point the arbitral

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[162] Vadi V., *op. cit.*, p. 1326.

[163] September 2008 saw the granting of final approval, which came with more limitations on the power plant's impact on the Elbe River. (For example, effects on temperature, oxygen content, and water volume). These extra steps regarding the Elbe River's water quality seemed to be the crux of the disagreement. Bernasconi-Osterwalder N., "Background paper on Vattenfall v. Germany arbitration", July 2009, International Institute for Sustainable Development Foreign Investment for Sustainable Development Program, p. 1 https://www.iisd.org/publications/report/background-paper-vattenfall-v-germany-arbitration.

[164] Several issues have been raised by the project since Vattenfall initially revealed its intention to construct the coal-fired power plant in 2004. According to a coalition of political and environmental organizations, the plant would have required far more space than was necessary to supply Hamburg's energy needs and would have an unduly negative environmental impact. There was a claim that there were numerous more affordable, greener options. About 12,000 people signed a petition against the power facility in October 2007. *Ibid.*

tribunal's proceedings were discontinued. In addition to relieving the corporation of its prior obligations to the Hamburg Government to lessen the plant's environmental impact on the Elbe River, the Government also promised to award the necessary permits.[165]

Despite being resolved in the end, the controversy is frequently used to highlight the tension between States' regulatory authority to enact climate change policies and in general to pursue their own public policies, and the pre-existing international investment protections.[166]

Even more climate-change related is the *Westmoreland v. Canada* case, which pertains to the lawsuit filed against the Canadian government by a US coal mining corporation (called Westmoreland Coal Company, WCC). WCC owned and ran a number of coal mines in the Canadian province of Alberta that supplied coal directly to coal-fired power plants. As part of its Climate Leadership Plan, Alberta decided in 2015 to phase out coal-fired power by 2030. Local thermal coal mining was effectively phased out as a result of the Climate Plan because there was no infrastructure to export coal. Transition funds were given to the province's major electricity companies (coal-fired generation units), all of which are Canadian-owned, in order to smooth the transition to gas and renewable energy sources and assure support for the plan. In November 2018, the Climate Leadership Plan and Alberta's transition payments were contested by Westmoreland in a notice of arbitration filed under the North American Free Trade Agreement (NAFTA) Chapter Eleven.[167] This happened even if the original company (WCC) filed for

[165] Vadi V., *op. cit.*, p. 1327. Gehring M.W., Hepburn J., "Climate, Trade and Investment Law in the Global Green Economy", in *Climate Change: International Law and Global Governance Volume I: Legal Responses and Global Responsibility*, 2013, Nomos Verlagsgesellschaft, Baden-Baden, p. 388, https://doi.org/10.5771/9783845242781_1. Lamb S.J., Leslie N.K., Rivkin D.W., "The future of investor-state dispute settlement in the energy sector: engaging with climate change, human rights and the rule of law", in *Journal of World Energy Law and Business*, 2015, Vol. 8, No. 2, Oxford University Press, p. 136, doi:10.1093/jwelb/jwv013. Bernasconi-Osterwalder N., *op. cit.*, pp. 1-2. *Vattenfall v. Germany*, ICSID Case No. ARB/09/6, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/329/vattenfall-v-germany-i-.

[166] Lamb S.J., Leslie N.K., Rivkin D.W., *op. cit.*, p. 136.

[167] The claim was later withdrawn in July 2019 and then it was filed again in August 2019. "NAFTA tribunal in Westmoreland v. Canada declines jurisdiction, finding that the claimant did not own or control the investment at the time of the alleged breach", July 4 2022, in *Investment Treaty News*, International Institute for Sustainable Development, https://www.iisd.org/itn/en/2022/07/04/nafta-tribunal-in-westmoreland-v-canada-declines-jurisdiction-finding-that-the-claimant-did-not-own-or-control-the-investment-at-the-time-of-the-alleged-breach/.

bankruptcy in the United States in October 2018, since some of its assets were acquired by Westmoreland. According to the claimant its exclusion from the transition payments amounted to discrimination and unfair treatment in violation of the NAFTA. Conversely, the Canadian administration pointed out that those funds were intended for electricity providers rather than for coal mine owners.[168]

The tribunal did not analyze the case on the merits since it declined its jurisdiction. Whether Westmoreland should have owned or controlled the investment at the time of the alleged treaty violation in order to file a claim under the NAFTA was an essential issue that the tribunal considered in light of Canada's temporal objections. According to the tribunal's interpretation of article 1116 and 1117 of the NAFTA, only the party impacted by the alleged treaty breach could file a claim. The tribunal declared that «only the party which owned the investment at the time of the alleged treaty breach has jurisdiction *ratione temporis* to bring a claim».[169] In the case of Westmoreland, the tribunal to render its decision took into account that:

1. The US Bankruptcy Court determined that because the assets of WCC were transferred to Westmoreland at arm's length, the parties' interests could not be deemed to be aligned.
2. There was neither an internal reorganization nor a form change, nor was Westmoreland separated from WCC. Westmoreland described the process by which it entered the assets as an "intermediate" stage without any significant duration. For US tax purposes, Westmoreland was limited to determining for itself whether a continuity of interest existed.
3. Westmoreland neither acquired all of WCC's assets nor assumed any successor responsibility with regard to WCC.

[168] Cotula L., Tienhaara K., *op. cit.*, pp. 23-24. "NAFTA tribunal in Westmoreland v. Canada declines jurisdiction, finding that the claimant did not own or control the investment at the time of the alleged breach", International Institute for Sustainable Development, *op. cit.*

[169] *Westmoreland v. Canada*, ICSID Case No. UNCT/20/3, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/1016/westmoreland-v-canada-ii-, para. 209. "NAFTA tribunal in Westmoreland v. Canada declines jurisdiction, finding that the claimant did not own or control the investment at the time of the alleged breach", International Institute for Sustainable Development, *op. cit.*

Based on the aforementioned, the tribunal determined that the claimant was a different company and not WCC's legitimate successor. Therefore, it lacked jurisdiction.[170]

To date, maybe the most significant climate-change related investment cases are *RWE v. The Netherlands and Uniper v. The Netherlands*. In 2021, the German energy corporations Uniper and RWE filed for arbitration against The Netherlands, claiming that the government's 2030 coal phaseout legislation of 2019 breached the ECT because of alleged *de facto* expropriations without sufficient compensation. This legislation had the aim of accomplish climate change targets set forth in the Paris Agreement through the reduction of greenhouse gas emissions by 49% from 1990 levels before 2030.[171] In the view of some scholars, the corporations should have been well aware of the risks they were taking since their coal-power facilities were constructed at a time when the science was already settled. In addition, the Dutch government was providing €351 million for Uniper and €512 million for RWE as compensation for the phaseout. But the firms thought this was insufficient, so they decided to sue the State for €1.4 billion and €1 billion, respectively.[172]

Foreign investors may use investment disputes to challenge States over plans to phase out coal power if no compensation is granted or if they feel the compensation offered is insufficient, as the cases of Uniper and RWE show. The prospect of recourse to investment disputes, whether explicit or implicit, can strengthen the business' position in discussions with States, even in the absence of legal proceedings.[173] At the time of writing, the *RWE* case is still pending while the

[170] *Ibid.*
[171] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 63. *RWE v. The Netherlands*, ICSID Case No. ARB/21/4, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/1145/rwe-v-netherlands. *Uniper v. The Netherlands*, ICSID Case No. ARB/21/22, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/1129/uniper-v-netherlands.
[172] "Submission to the OECD public consultation on Investment treaties and climate change", Global Justice Now, *op. cit.*, p. 112.
[173] Tienhaara K., "We need to rethink investment treaties to ensure a rapid and just energy transition", 21 April 2021, International Institute for Environment and Development, https://iied.org/we-need-rethink-investment-treaties-ensure-rapid-just-energy-transition.

Uniper case was officially discontinued in March 2023 after the Parties agreed so in July 2022, no decisions on either jurisdiction or the merits had been reached.[174]

Till nowadays, these two cases are the best illustration of a theory that legal scholars have long predict: the use of investor rights protected by International Law to hamper or increase the cost of climate action.[175]

Another important case concerning a climate change related policy is *Rockhopper v. Italy* of 2017. The ultimate goal of the claimants was to drill into and subsequently extract liquid and gas hydrocarbons from *Ombrina Mare*, a shallow water area off the coast of Italy.[176] Under the terms of the ECT, the UK-based oil and gas company Rockhopper Exploration filed a claim for damages against the country in the amount of US$275 million. It claimed that the Italian government's 2015 ban[177] on all oil and gas projects within 12 nautical miles of the Italian coast and consequently its rejection of the Rockhopper's project without fair compensation violated article 13 of the ECT.[178] The fundamental counterargument of the Respondent was that «reasonable regulatory measures that a State passes to pursue societal policies without discriminating among its addresses constitute the legitimate exercise of police powers and, therefore, any economic impact that they might cause on investors is not compensable.»[179] The arbitral tribunal was not persuaded by this invocation of policy powers, and in August 2022, it ruled that Italy's ban constituted

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[174] «The formal request for discontinuance has been made by the Claimants in fulfilment of a request made by the German government as part of its bailout of Uniper SE, as a result of which the German government acquired more than 99% of Uniper SE» Order Taking Note of the Discontinuance of the Proceeding and Decision on Costs, 17 March 2023, para. 55, https://www.italaw.com/cases/9146.

[175] Darby M., "Coal generator uses investment treaty to fight Netherlands coal phaseout", 21 May 2020, in *Climate home news*, https://www.climatechangenews.com/2020/05/21/uniper-uses-investment-treaty-fight-netherlands-coal-phaseout/.

[176] *Rockhopper v. Italy*, ICSID Case No. ARB/17/14, para. 90, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/800/rockhopper-v-italy.

[177] Law No. 208 of 2015: https://www.gazzettaufficiale.it/eli/id/2015/12/30/15G00222/sg.

[178] Dehm J., "OECD Public consultation on investment treaties and climate change", *op. cit.*, pp. 85-86. The regional and local government, along with environmental, religious, and civic organizations, successfully pushed for a referendum on the issue, which led to the adoption of the ban. Marzal T., "Polluter Doesn't Pay: The Rockhopper v. Italy Award", January 19 2023, EJIL:Talk! Blog of the European Journal of International Law, https://www.ejiltalk.org/polluter-doesnt-pay-the-rockhopper-v-italy-award/.

[179] *Rockhopper v. Italy*, para. 195.

an «immediate and complete deprivation»[180] of the company's investment and that this amounted to a direct and unlawful expropriation, awarding to the investor a compensation of about US$190 million plus interest.[181]

Italy applied to the ICSID on October 28, 2022, requesting the annulment of the award and a temporary stay of its enforcement in accordance with article 52 of the ICSID Convention. Therefore, for the time being, Rockhopper is unable to pursue legal action in any country to enforce the award. The request for annulment is still pending.[182] A definitive victory for Rockhopper would have serious consequences for the Italian State, as declared by the Respondent's attorney Giacomo Aiello: «[…] it would give other companies whose 12-miles extraction projects have been blocked the desire to emulate Rockhopper».[183]

2.4 Conclusions.

In the previous paragraphs the analysis focused on two categories of investment disputes: those concerning the renewable energy sector and those regarding the fossil fuel industry and climate change-related policies.

Considering the first category, some scholars, including the former President of the International Bar Association David W. Rivkin, think that investment disputes incentivize renewable energy policies by reducing risks for investors. During a 2015 side event at the Paris COP21, a large part of Rivkin's statement was devoted to a forceful defense of the investor-State dispute settlement. He declared that: «It is

[180] *Ivi*, para. 194. Before the December 2015 legislation Rockhopper had passed all the necessary tests so in the tribunal's view before the adoption of this new legislation it had the right to be given the permission for its project. *Ivi*, para. 191. Marzal T., *op. cit.*

[181] Gillespie T., Volkmer S., "Energy Transition and the Modernized Energy Charter Treaty", 23 September 2022, in *White&Case*, https://www.whitecase.com/insight-alert/energy-transition-and-modernized-energy-charter-treaty. *Rockhopper v. Italy*, para. 97, para. 190 ff.

[182] "Tribunal orders Rockhopper & Italy to mitigate the risk of non-recoupment by Italy with the anticipation of the Stay being lifted", 25 April 2023, https://rockhopperexploration.co.uk/2023/04/update-on-arbitration/#:~:text=A%20final%20hearing%20in%20relation,that%20date%20remains%20in%20place.

[183] Maggiore M., "Giacomo Aiello, Italian State Attorney: Private arbitration is becoming a Russian roulette", 23 February 2021, in *Investigate Europe*, https://www.investigate-europe.eu/en/posts/italian-state-attorney-giacomo-aiello.

vital that a neutral, effective mechanism exist for resolving disputes between investors and States, particularly in order to incentivize foreign investment in renewable energy».[184]

The premise that investor-State dispute settlement serves as both an insurance policy for investors and a disincentive to States is the foundation for this scholars' belief that the system is an effective countermeasure to cope with political risk, which according to them is one of the main barriers to foreign investments. This States' disincentive is due to the fact that in an investment dispute, the investor may be entitled to monetary compensation if a State modifies the rules of the game violating the investor's rights. In certain situations, a State may be sufficiently discouraged from implementing reforms by the fear of such action. All renewable investors would profit from deterrence, but only large foreign investors with the means to file a lawsuit and the legal standing to do so are effectively covered by the system. Nonetheless, the assumption that international investment treaties and therefore their investor-State dispute clauses attract foreign investors should in theory work, but till today there is no reliable evidence that this represents the reality.[185]

Moreover, the analysis of the cases on renewable energy concerning Spain, Italy and the Czech Republic under the ECT proved one of the main critics addressed to the investor-State dispute settlement, namely the fact that many times similar cases result in different and inconsistent awards. In those cases, some tribunals declared that the host State violated the investor's rights and others did not, even if the facts were similar or even identical. Additionally, the tribunals' awards also differ because of the legal reasoning at the basis of their decision in favor of the investor or the State. This inconsistency highlights the fact that investors and States cannot be sure of the trials' outcome.

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[184] Tienhaara K., Downie C., *op. cit.*, p. 453, 455. Rivkin D., "COP21: Climate Change Related Disputes: A Role for International Arbitration and ADR," 7 December 2015, p. 8, https://www.debevoise.com/-/media/files/insights/news/2015/david-w-rivkin-speech-climate_change_arbitration-(2).pdf?la=en&rev=6fae5ef27fe04983b7d5f2b8a0cef182&hash=FD65EDFE831ED78059C04818E97767BB. See also: Vadi V., *op. cit.*, p. 1350.

[185] Tienhaara K., Downie C., *op. cit.*, pp. 458, 461.

In the cases analyzed concerning the fossil fuel industry, the tribunals' interpretation reflects what International Investment Law mandates: States have the sovereign right to regulate the fossil fuel industry to reach climate change goals, but they still shall compensate the foreign investors affected by this right. The main issue is that increasing the costs of maintaining fossil fuels underground may contribute to the extraction of more fossil fuels, which is precisely what shall not happen in order to limit global warming to 1.5 °C.[186] This controversial issue is linked to the hypothetical costs which are represented by the high compensations awarded and the procedural expenses, the result being what the scholars call "regulatory chill". A clear example analyzed in the previous paragraphs is *Vattenfall v. Germany*, where the host State changed its climate-change related decision to avoid additional costs of an investor-State dispute.

[186] Marzal T., *op. cit.*

CHAPTER III. IS THE REFORM OF INTERNATIONAL INVESTMENT LAW NECESSARY TO TACKLE CLIMATE CHANGE?

3.1 The positive aspects of International Investment Treaties in the context of the fight against climate change.

It is quite evident that in order for States to advance in their fight against climate change private investments are fundamental, since they may support for funding the implementation of low-carbon technologies.[187] In this private effort, foreign investments may have a role too.

As already discussed, the issue is that having specific laws to protect foreign investors, whether through domestic legislation or an international treaty, does not incentivize per se foreign investments. Or, at least, this has not been proven by scientific evidence.

If we assume that investment treaties do attract foreign investors also in the renewable energy sector, it would be so because usually they give more guarantees than domestic legislation. For example, many times investment treaties include arbitral clauses, something that is not always true for domestic legislations.

Arbitral tribunals are seen from the point of view of investors as more impartial and independent than domestic tribunals.[188] Moreover, if these climate change-related investment disputes could be litigated at the domestic level, they would be subject to considerable judicial deference in national courts since they concern a State's authority to regulate behavior within its territory in the interest of the public at large.[189] Whilst, as explained in the second Chapter, through arbitral clauses foreign investors can challenge the State public policies and receive high compensations for the State's action. In addition, the fact that arbitral awards may be inconsistent is not always a disadvantage. Inconsistency also means more flexibility.

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[187] Gehring M.W., Hepburn J., *op. cit.*, p. 398.
[188] Even if some scholars affirm the contrary: Tienhaara K., Downie C., *op. cit.*, p. 456.
[189] Lamb S.J., Leslie N.K., Rivkin D.W., *op. cit.*, p. 136.

One of the issues of investor-State arbitration is the supposedly lack of transparency. In the past (but sometimes even today) investor-State arbitration has typically prohibited the release of material before the award was delivered, including public access to hearings and written records and the ability to take part in the proceedings as a third party. This is because investment arbitration is modeled after private commercial arbitration, where the only relevant interests are those of the parties.[190]

However, investment dispute resolution rulings may have a substantial effect on the interests of third parties, a situation that is particularly true in investments affecting climate change issues. A system that prevents these parties from being heard is open to harsh criticism. In any case, promoting the rule of law is better achieved with greater transparency.[191]

Even if the system did improve,[192] enhancing transparency and third parties' participation in the resolution of disputes between investors and States is crucial, particularly in cases when investments have a noteworthy influence on the general public, such as when they affect climate change. Treaty-based arbitrations have seen some advancements in transparency; nonetheless, investor-state disputes arising under national laws and investment contracts are still primarily confidential.[193]

Although the majority of investment treaties are old-generation ones, there is a wave of States' new BITs and FTAs that show an increased commitment to balance

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[190] *Ivi*, pp. 145-146.
[191] *Ivi*, p. 146.
[192] In recent years, the NAFTA Parties have taken the lead in campaigns to increase arbitration processes' transparency. The NAFTA Free Trade Commission's Notes of Interpretation of Certain Chapter Eleven Provisions now mandate that NAFTA parties make all documents submitted to or issued by a Chapter Eleven Tribunal promptly available to the public, subject to redactions of confidential or otherwise protected information.
The parties to the NAFTA released a statement in 2004 that made it clear that the NAFTA did not restrict a tribunal's authority to consider written submissions from parties not involved in the dispute.
The International Centre for Settlement of Investment Disputes (ICSID) of the World Bank changed its regulations in 2006 to allow tribunals to enable amicus curiae to file briefs without party consent and to publish extracts of all awards with fewer restrictions.
The 2014 Rules on Transparency in Treaty-based Investor-State Arbitration by UNCITRAL, which are frequently included in ISDS clauses, mandate that all hearings under future BITs be public, that awards be published, and that tribunals have the authority to request contributions from third parties. Lamb S.J., Leslie N.K., Rivkin D.W., *op. cit.*, pp. 16-18.
[193] Di Salvatore L., *op. cit.*, p. 41.

investment obligations with other policy goals, such as addressing climate change.[194] States have taken different kinds of actions, they terminated and amended treaties, negotiated new ones with references to climate action and/or excluded investor-State dispute provisions. As seen in Chapter one, some scholars suggested for the stipulation of multilateral treaties that tackle the issue in an easier way since amending the majority of bilateral investment treaties is practically impossible. Nonetheless, even stipulating a multilateral treaty is surely not easier, given that States may have different views and negotiations would surely be long and difficult.

Though no legal system is without flaws, including the International Investment Law system, change is already starting to take place.[195]

3.2 Compensation and the issue of "regulatory chill".

Fighting climate change and promoting foreign investments should not be mutually exclusive goals. They should be advantageous to each other in the framework of the global economy.[196] Nonetheless, throughout this research project some aspects of the International Investment Law system have been highlighted as controversial and could be seen as obstacles for the fight against climate change. A summary of these aspects will be given in the following paragraph.

The protection granted to fossil fuel investors under the current International Investment Law system may hamper the States' efforts to fight climate change, including the phase out of non-renewable energy.[197] There are two main issues which are intertwined: first, there is the argument, often presented as the "regulatory chill" problem, that States will postpone taking action on climate change (also) due to the implied or explicit fear of the costs of investment disputes. States would

[194] Gehring M.W., Hepburn J., *op. cit.*, 413.
[195] Lamb S.J., Leslie N.K., Rivkin D.W., *op. cit.*, p. 151.
[196] Gehring M.W., Hepburn J., *op. cit.*, p. 381.
[197] Di Salvatore L., *op. cit.*, p. iii.

modify their climate policies and/or engage in direct negotiations with foreign investors due to the mere prospect of having to handle those disputes.

A second issue is that investment treaties and their interpretation by arbitral tribunals raise the compensation that fossil fuel investors may receive, increasing the cost of the transition and decreasing the amount of public funds available for green investments.[198] These circumstances are quite contentious because they show a transfer of funds from States (and thus taxpayers), who already bear the costs for the energy transition, to fossil fuel corporations, who are among the main players contributing to climate change. Even in the event that the State prevails, the trial itself always comes at a cost, which delays action on climate change both in the host State and abroad.[199]

It is a complicated problem as to whether investors in fossil fuels should receive compensation when the actions made to address the climate emergency have a detrimental effect on them.[200] Whether investment arbitration is the right forum to decide when and how much compensation is appropriate may be a simpler question to answer, especially in light of tribunals' propensity to use highly speculative techniques like discounted cash flows that frequently produce high awards,[201] since it «locates value in an asset's future profitability (rather than historic costs)».[202] The fact is that in situations where national laws would not, International Investment

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[198] Tienhaara K., "We need to rethink investment treaties to ensure a rapid and just energy transition", *op. cit.*

[199] "Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", *op. cit.*, p. 64. Dehm J., *op. cit.*, pp. 86-87. "Submission of the Veblen Institute for Economic Reforms to the OECD consultation on investment agreements and climate change", *op. cit.*, p. 238.

[200] For example, according to the "police powers" doctrine non-discriminatory rules that are imposed bona fide to safeguard the public's health or safety or in general that pursue societal policies do not constitute expropriation and are not subject to compensation. This was the counterargument of Italy in the *Rockhopper case*. Vadi V., *op. cit.*, p. 1327.

[201] Tienhaara K., "We need to rethink investment treaties to ensure a rapid and just energy transition", *op. cit.*

[202] Marzal T., *op. cit.* This method also takes into account the risks. Usually States defend a "sunk costs approach" based on the costs incurred by the investor, or a "market-based approach" that focuses on the borne costs at the time of the acquirement of the investment, these are the methods that Italy preferred in the *Rockhopper* case. The compensation that Rockhopper may receive is almost nine times more than its initial investment of US$29 million. Press release "Outrage as Italy ordered to pay out millions to oil investor over Energy Charter Treaty claim", 24 August 2022, Climate Action Network Europe, https://caneurope.org/outrage-as-italy-ordered-to-pay-out-millions-to-oil-investor-over-energy-charter-treaty-claim/.

Law may mandate compensation for investors, and tribunals tend to award it with methods that have been criticized. Additionally, it is impossible to anticipate future rulings since the principle of *stare decisis* does not apply to International Law and given the highly fragmented nature of International Investment Law in particular.[203]

3.3 Systemic integration and the reform of International Investment Law.

Recognizing that the International Investment Law system has its peculiarities and positive aspects, the negative ones may weigh more in a world where climate needs are developing really fast.

Even though there is this urgent necessity to switch over to renewable energy sources quickly, the world's energy systems still rely heavily on fossil fuels.[204] According to the Statistical Review of World Energy of 2023, in 2022 «fossil fuel consumption as a percentage of primary energy remained steady at 82%».[205]

International Investment Law as it is constructed today may not help with this necessary shift. Nonetheless, States seem aware of the problem and are already trying to reform this legal framework. As negotiators, policymakers, scholars, and tribunals continue to work through the difficulties that climate change has raised, the final outcomes of this discussion are still up for debate.[206]

Apart from modifying the investment treaties regime for example by clarifying how compensation should be awarded, an approach that directly the tribunals may adopt when evaluating investment disputes that have an impact on climate change policies is the so-called systemic integration. This means that tribunals in their analysis should consider that climate change policies that States adopt are the manifestation of the International Climate Change Law framework. By taking into account this

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[203] Bernasconi-Osterwalder N., *op. cit.*, p. 6.
[204] Di Salvatore L., *op. cit.*, p. 1.
[205] 2023 Statistical Review of World Energy, Energy Institute, https://www.energyinst.org/statistical-review.
[206] Gehring M.W., Hepburn J., *op. cit.*, p. 382.

fact, calculating compensations through discounted cash flows may not be the best option.[207]

The development and reforms of International Investment Law that are still ongoing may not be sufficiently quick and satisfactory. Drastic change will be necessary to achieve the goals of the Paris Agreement: keeping global warming below 2°C means a future without fossil fuels. There will be delays in climate policy as long as there is uncertainty in the substantive provisions of investment agreements, allowing disputes to take several years to resolve and costing millions or even billions of dollars. We just cannot afford these delays if we want to seriously fight climate change.[208]

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[207] This approach is in line with art. 31 of the Vienna Convention on the Law of Treaties. Vadi V., *op. cit.*, p. 1348.
[208] Tienhaara K., "Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement", 22 December 2017, in *Transnational Environmental Law*, Cambridge University Press doi:10.1017/S2047102517000309, p. 250.

CONCLUSIONS

The main issue of the International Climate Change legal framework seems laying on the implementation of States' pledges under the Paris Agreement, the so-called Nationally Determined Contributions (NDCs). This is the fundamental problem since most States tend to declare ambitious NDCs and climate neutrality projects but are not capable of fully enforcing them to reach net zero emissions by 2050. Therefore, even if concrete goals to mitigate climate change set by International Law do exist, the pathway to reach them seems difficult and too long for the time the world has left.

In this context, International Investment Law does play a role, especially since this legal framework's complexity results in more than 3000 bilateral investment treaties. The old generation ones do not consider the climate change problem since their aim was purely to increase foreign direct investment flows and enhance economic growth. Conversely, new generation ones are more careful and take into account States' regulatory powers also in the context of the fight against climate change. Nonetheless, the efforts that States are putting into amending and withdrawing from investment treaties and negotiating new ones are not enough to tackle this complex environmental issue. Some scholars suggested multilateral solutions, but still, it is up to the States in the international community to negotiate multilateral treaties that could better tackle the weaknesses of the International Investment legal framework.

Through this research analysis the main problematic of the International Investment Law system that pertains to the context of climate change was found in the issue of compensation and the so-called "regulatory chill" effect. This effect pertains to the fear of investment disputes' costs that may push States to postpone taking action on climate change.

It is interesting to note that recent investment disputes that have come to the attention of arbitral tribunals concerned renewable energy, fossil fuels and climate policies.

The awards of the analyzed disputes sometimes were different even if they concerned the same facts, especially in the case of the renewable energy sector. Some scholars argue that the investment cases regarding the clean energy sector may promote sustainable investments. Nonetheless, as already discussed, the issue is that having specific laws to protect foreign investors, whether through domestic legislation or an international treaty, does not incentivize per se foreign investments. Or, at least, this has not been proven by scientific evidence. Therefore, it is difficult to say that investment arbitral tribunals decisions on the renewable energy sector may promote those "clean" investments.

In the fossil fuel cases some tribunals awarded compensation using the discounted cash flows method, increasing the costs of the energy transition for the host States. Other cases were discontinued because the States negotiated directly with the investors to avoid arbitral tribunals' awards, proving that the "regulatory chill" effect does exist.

After having examined the relevant literature and the investment disputes the main issue that arose throughout this research project is that the International Investment Law regime should be reformed to help the international community to tackle climate change and assist States to comply with the commitments envisaged by International Climate Change Law.

At the same time, reforming this system is not simple and would take too much time that the world does not have, since the climate crisis is something that is happening now and rapidly. Nevertheless, the international community is engaged on reforming this legal system and every effort is a step forward the implementation of the commitments contemplated by International Climate Change Law.

In addition to amending investment treaties, for example by clarifying how compensation should be awarded, an approach that directly the tribunals may adopt when evaluating investment disputes that have an impact on climate change policies is the systemic integration approach. What is certain is that the efforts to rethink International Investment Law should be common and should come from various actors, such as policymakers, negotiators, academics and arbitrators.

CASE LAW INDEX

Vattenfall v. Germany, ICSID Case No. ARB/09/6, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/329/vattenfall-v-germany-i-.

The PV Investors v. Spain, PCA Case No. 2012-14, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/435/the-pv-investors-v-spain.

Charanne and Construction Investments v. Spain, SCC Case No. 062/2012, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/502/charanne-and-construction-investments-v-spain.

Natland and others v. Czech Republic, PCA Case No. 2013-35, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/555/natland-and-others-v-czech-republic.

Isolux v. Spain, SCC Case No. 2013/153, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/564/isolux-v-spain.

Antaris and Göde v. Czech Republic, PCA Case No. 2014-01, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/558/antaris-and-g-de-v-czech-republic.

Masdar Solar v. Spain, ICSID Case No. ARB/14/1, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/593/masdar-v-spain.

Blusun v. Italy, ICSID Case No. ARB/14/3, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/575/blusun-v-italy.

JSW Solar and Wirtgen v. Czech Republic, PCA Case No. 2014-03, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/559/jsw-solar-and-wirtgen-v-czech-republic.

WA Investments-Europa Nova Limited v. The Czech Republic, PCA Case No. 2014-19, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/528/europa-nova-v-czechia.

Voltaic Network GmbH v. The Czech Republic, PCA Case No. 2014-20, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/530/voltaic-network-v-czechia

Photovoltaik Knopf Betriebs-GmbH v. The Czech Republic, PCA Case No. 2014-21, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/529/photovoltaik-knopf-v-the-czech-republic.

I.C.W. Europe Investments Limited v. The Czech Republic, PCA Case No. 2014-22, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/531/i-c-w-v-czechia.

Cube Infrastructure and others v. Spain, ICSID Case No. ARB/15/20, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/627/cube-infrastructure-and-others-v-spain.

Belenergia v. Italy, ICSID Case No. ARB/15/40, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/670/belenergia-v-italy.

Greentech and NovEnergia v. Italy, SCC Case No. 2015/095, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/634/greentech-and-novenergia-v-italy.

CEF Energia v. Italy, SCC Case No. 158/2015, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/770/cef-energia-v-italy.

Rockhopper v. Italy, ICSID Case No. ARB/17/14, para. 90, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/800/rockhopper-v-italy.

Westmoreland v. Canada, ICSID Case No. UNCT/20/3, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/1016/westmoreland-v-canada-ii-

RWE v. The Netherlands, ICSID Case No. ARB/21/4, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/1145/rwe-v-netherlands.

Uniper v. The Netherlands, ICSID Case No. ARB/21/22, https://investmentpolicy.unctad.org/investment-dispute-settlement/cases/1129/uniper-v-netherlands.

Order Taking Note of the Discontinuance of the Proceeding and Decision on Costs, 17 March 2023, para. 55, https://www.italaw.com/cases/9146.

DOCUMENTS INDEX

United Nations Framework Convention on Climate Change, New York, 9th of May 1992, *United Nations Treaty Series*, vol. 1771, p. 107.

Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 11 December 1997, *United Nations Treaty Series*, vol. 2303, p. 162.

No. 180/2005 Coll. ACT of 31 March 2005 on the promotion of electricity production from renewable energy sources and amending certain acts (Act on Promotion of Use of Renewable Sources), https://www.mpo.cz/assets/dokumenty/26665/28468/312170/priloha001.pdf.

Decreto 28 luglio 2005 Criteri per l'incentivazione della produzione di energia elettrica mediante conversione fotovoltaica della fonte solare. (GU Serie Generale n.181 del 05-08-2005) www.gazzettaufficiale.it/eli/id/2005/08/05/05A07837/sg

Decreto 6 febbraio 2006 (GU Serie Generale n. 38 del 15-02-2006) www.gazzettaufficiale.it/eli/id/2006/02/15/06A01351/sg.

Decreto 19 febbraio 2007 Criteri e modalita' per incentivare la produzione di energia elettrica mediante conversione fotovoltaica della fonte solare, in attuazione dell'articolo 7 del decreto legislativo 29 dicembre 2003, n. 387. (GU Serie Generale n.45 del 23-02-2007) www.gazzettaufficiale.it/eli/id/2007/02/23/07A01710/sg.

Real Decreto 661/2007, de 25 de mayo, por el que se regula la actividad de producción de energía eléctrica en régimen especial, https://www.boe.es/eli/es/rd/2007/05/25/661/con.

United Nations International Strategy for Disaster Reduction, *Climate Change and Disaster Risk Reduction*, 2008, briefing note No. 01, https://www.undrr.org/quick/10958.

Terzo conto energia: decreto 6 agosto 2010 Incentivazione della produzione di energia elettrica mediante conversione fotovoltaica della fonte solare. (10A10236) (GU Serie Generale n.197 del 24-08-2010), www.gazzettaufficiale.it/eli/id/2010/08/24/10A10236/sg.

Decreto legislativo 3 marzo 2011, n. 28 Attuazione della direttiva 2009/28/CE sulla promozione dell'uso dell'energia da fonti rinnovabili, recante modifica e successiva abrogazione delle direttive 2001/77/CE e 2003/30/CE. (11G0067) (GU Serie Generale n.71 del 28-03-2011 - Suppl. Ordinario n. 81), www.gazzettaufficiale.it/eli/id/2011/03/28/011G0067/sg.

Decreto 5 maggio 2011 Incentivazione della produzione di energia elettrica da impianti solari fotovoltaici. (11A06083) (GU Serie Generale n.109 del 12-05-2011), www.gazzettaufficiale.it/eli/id/2011/05/12/11A06083/sg.

Decreto 5 luglio 2012 Attuazione dell'art. 25 del decreto legislativo 3 marzo 2011, n. 28, recante incentivazione della produzione di energia elettrica da impianti solari fotovoltaici (c.d. Quinto Conto Energia). (12A07629) (GU Serie Generale n.159 del

10-07-2012 - Suppl. Ordinario n. 143), www.gazzettaufficiale.it/eli/id/2012/07/10/12A07629/sg.

Decreto legge 24 giugno 2014 n. 91, Disposizioni urgenti per il settore agricolo, la tutela ambientale e l'efficientamento energetico dell'edilizia scolastica e universitaria, il rilancio e lo sviluppo delle imprese, il contenimento dei costi gravanti sulle tariffe elettriche, nonche' per la definizione immediata di adempimenti derivanti dalla normativa europea. (14G00105) (GU Serie Generale n.144 del 24-06-2014). Decreto-Legge convertito con modificazioni dalla L. 11 agosto 2014, n. 116 (in S.O. n. 72, relativo alla G.U. 20/8/2014, n. 192). www.gazzettaufficiale.it/eli/id/2014/06/24/14G00105/sg.

IPCC, 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, https://www.ipcc.ch/report/ar5/syr/.

Law No. 208 of 2015: https://www.gazzettaufficiale.it/eli/id/2015/12/30/15G00222/sg.

Paris Agreement, Paris, 12 December 2015, *United Nations Treaty Series*, vol. 3156.

The International Energy Charter consolidated Energy Charter Treaty with related documents Last Updated: 15 January 2016, https://www.energycharter.org/process/energy-charter-treaty-1994/energy-charter-treaty/.

The Agreement for the termination of Bilateral Investment Treaties between the Member States of the European Union OJ L 169, 29.5.2020, http://data.europa.eu/eli/agree_eums/2020/529/oj.

Beckman K., “Interview: A new Energy Charter Treaty as a complement to the Paris Agreement”, 18 June 2020, in *Borderlex* interview to Energy Charter Treaty’s secretary-general Urban Rusnák,

https://www.energycharter.org/media/news/article/a-new-energy-charter-treaty-as-a-complement-to-the-paris-agreement/.

"Even more renewable energy investors rely on treaty protection: Updated statistics of investment arbitration cases under the Energy Charter Treaty.", 12 October 2020, https://www.energycharter.org/media/news/article/even-more-renewable-energy-investors-rely-on-treaty-protection-updated-statistics-of-investment-arb/.

"ECT tribunal finds Italy's modifications to its renewable energy incentive scheme reasonable, foreseeable, and proportionate", October 7 2021, in *Investment Treaty News International Institute for Sustainable Development*, https://www.iisd.org/itn/en/2021/10/07/ect-tribunal-finds-italys-modifications-to-its-renewable-energy-incentive-scheme-reasonable-foreseeable-and-proportionate/.

"Climate Action Needs Investment Governance, Not Investment Protection and Arbitration", Columbia Center on Sustainable Investment, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"Contribution to the Public Consultation on Investment Treaties and Climate Change, organized by the Organization for Economic Cooperation and Development (OECD) Investment Committee, submitted by the Centre for Research on Multinational Corporations (SOMO)", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"OECD Public Consultation on Investment Treaties and Climate Change Response paper", Cambridge Research Group on Foreign Investment and the Environment, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"Submission of the Veblen Institute for Economic Reforms to the OECD consultation on investment agreements and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"Submission to the OECD public consultation on Investment treaties and climate change", Global Justice Now, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"Submission to the Organization for Economic Cooperation and Development on investment agreements and climate change by PowerShift", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"Submission to the Organisation for Economic Cooperation and Development on Investment Agreements and Climate Change Contributed by the Center for International Environmental Law (CIEL), ClientEarth, and the International Institute for Sustainable Development (IISD)", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"Trade Justice Movement Submission to the OECD Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

"NAFTA tribunal in Westmoreland v. Canada declines jurisdiction, finding that the claimant did not own or control the investment at the time of the alleged breach", July 4 2022, in *Investment Treaty News*, International Institute for Sustainable Development, https://www.iisd.org/itn/en/2022/07/04/nafta-tribunal-in-westmoreland-v-canada-declines-jurisdiction-finding-that-the-claimant-did-not-own-or-control-the-investment-at-the-time-of-the-alleged-breach/.

Press release "Outrage as Italy ordered to pay out millions to oil investor over Energy Charter Treaty claim", 24 August 2022, Climate Action Network Europe, https://caneurope.org/outrage-as-italy-ordered-to-pay-out-millions-to-oil-investor-over-energy-charter-treaty-claim/.

The international investment treaty regime and climate action, September 2022, International Investment Agreements issues note, issue 3, UNCTAD.

Bassetti F., Interview to Ralph Winkler "No, it wasn't successful: Failures and lessons from the Kyoto Protocol's ashes", December 8 2022, in *Foresight*, https://www.climateforesight.eu/interview/ralph_winkler_kyoto_protocol_failures/.

IPCC, 2023: *Climate change 2023: Synthesis Report*, https://www.ipcc.ch/report/ar6/syr/.

"Tribunal orders Rockhopper & Italy to mitigate the risk of non-recoupment by Italy with the anticipation of the Stay being lifted", 25 April 2023, https://rockhopperexploration.co.uk/2023/04/update-on-arbitration/#:~:text=A%20final%20hearing%20in%20relation,that%20date%20remains%20in%20place.

"Kyoto Protocol Paves the Way for Greater Ambition under Paris Agreement", 27 June 2023, https://unfccc.int/news/kyoto-protocol-paves-the-way-for-greater-ambition-under-paris-agreement.

2023 Statistical Review of World Energy, Energy Institute, https://www.energyinst.org/statistical-review.

UNFCCC website: https://unfccc.int/kyoto_protocol.

Investment Policy Hub, UNCTAD:

https://investmentpolicy.unctad.org/international-investment-agreements.

BIBLIOGRAPHY

Aleluia Reis L., Tavoni M., "Glasgow to Paris-The impact of the Glasgow commitments for the Paris climate agreement", February 17 2023, in *iScience*, https://doi.org/10.1016/j.isci.2023.105933.

Atanasova D., "Submission to the OECD Public Consultation on Investment Treaties and Climate Change", January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Bassetti F., "Success or failure? The Kyoto Protocol's troubled legacy", December 8 2022, in *Foresight*, https://www.climateforesight.eu/articles/success-or-failure-the-kyoto-protocols-troubled-legacy/.

Bernasconi-Osterwalder N., "Background paper on Vattenfall v. Germany arbitration", July 2009, International Institute for Sustainable Development Foreign Investment for Sustainable Development Program, https://www.iisd.org/publications/report/background-paper-vattenfall-v-germany-arbitration.

Bilanová, A., Kudrna J., "Solar Arbitrations against the Czech Republic: Glimpse of Hope for Investor-State Arbitration", September 10, 2021, in *Arbitration Journal by the Arbitration Association*,https://journal.arbitration.ru/analytics/solar-arbitrations-against-the-czech-republic-glimpse-of-hope-for-investor-state-arbitration/.

Bodansky D., Brunée J., Rajamani L., 2017, *International Climate Change Law*, Oxford, Oxford University Press, https://opil.ouplaw.com/.

Bonnitcha J., "Submission to the OECD Public Consultation on Investment Treaties and Climate Change", January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Bradfield M., Devenish P., Egerton-Vernon J., Gharibian C., Stear Gorsline M., Habib F., Tonova S., "Climate Change and Investor-State Dispute Settlement", February 28 2022, in *JDSUPRA*, https://www.jdsupra.com/legalnews/climate-change-and-investor-state-9102431/.

Braoudakis N., Baldon C., Lickel S., Dupré M., "Protecting renewables with the Energy Charter Treaty: a false good idea Lessons learned from an analysis of renewable energy arbitrations under the ECT", July 2021, in *Veblen Institute for Economic Reforms*,

https://www.veblen-institute.org/IMG/pdf/renewables_ect_veblen_institute_050721.pdf.

Broude T., van Aaken A., "Ways of Reforming International Investment Agreements to Make them More Compatible with Climate Change Goals", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Calamita J., Zheng Y., "Climate Change and Investor-State Arbitration: The Essential Importance of Issues of Compensation and the Calculation of Quantum", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Calvert J., "Reforming IIAs to Combat Climate Change: Lessons from Latin America", January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Coleman J., Guven B., Johnson L., Sachs L., "Costs and Benefits of Investment Treaties: Practical Considerations for States", 2018, Columbia Center on Sustainable Investment,

https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1080&context=sustainable_investment_staffpubs.

Cotula L., Tienhaara K., "Raising the cost of climate action? Investor-state dispute settlement and compensation for stranded fossil fuel assets", 2020, in *International Institute for Environment and Development*, p. 13 https://www.iied.org/sites/default/files/pdfs/migrate/17660IIED.pdf.

Darby M., "Coal generator uses investment treaty to fight Netherlands coal phaseout", 21 May 2020, in *Climate home news*, https://www.climatechangenews.com/2020/05/21/uniper-uses-investment-treaty-fight-netherlands-coal-phaseout/.

Dehm J., "OECD Public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Di Salvatore L., "Investor–State Disputes in the Fossil Fuel Industry", December 2021, International Institute for Sustainable Development, https://www.iisd.org/system/files/2022-01/investor%E2%80%93state-disputes-fossil-fuel-industry.pdf.

Di Vita M., "The uncertain destiny of support schemes to renewable energy – between international arbitration and domestic tribunals", February 7 2021, in Iusinitinere, https://www.iusinitinere.it/the-uncertain-destiny-of-support-schemes-to-renewable-energy-between-international-arbitration-and-domestic-tribunals-35195.

Ewelukwa Ofodile U., "International investment agreements, African States and the climate-change imperatives", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Fowler R., Putra M., "Simplifying the Pathway to 2030; an investment treaty exclusively for climate-related investment", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Gallagher K., Simmons A., Thrasher R., Tienhaara K., "Submission to the OECD public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Gaukrodger D., "The balance between investor protection and the right to regulate in investment treaties: a scoping paper", 24 February 2017, in *OECD Working Papers on International Investment* https://dx.doi.org/10.1787/82786801-en.

Gehring M.W., Hepburn J., "Climate, Trade and Investment Law in the Global Green Economy", in *Climate Change: International Law and Global Governance Volume I: Legal Responses and Global Responsibility*, 2013, Nomos Verlagsgesellschaft, Baden-Baden, https://doi.org/10.5771/9783845242781_1.

Gillespie T., Volkmer S., "Energy Transition and the Modernized Energy Charter Treaty", 23 September 2022, in *White&Case*, https://www.whitecase.com/insight-alert/energy-transition-and-modernized-energy-charter-treaty.

Green F., "Submission to OECD Public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Henckels C., "Submission: OECD public consultation on investment treaties and climate change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Johnson L., "Submission to the OECD's Public Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Kahale G., "Submission to the OECD's Public Consultation on Investment Treaties and Climate Change", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Kucik J., Shepherd A., "Will an ISDS Appeals Process Promote Sustainability?", March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Lamb S.J., Leslie N.K., Rivkin D.W., "The future of investor-state dispute settlement in the energy sector: engaging with climate change, human rights and the rule of law", in *Journal of World Energy Law and Business*, 2015, Vol. 8, No. 2, Oxford University Press, p. 136, doi:10.1093/jwelb/jwv013.

Maggiore M., "Giacomo Aiello, Italian State Attorney: Private arbitration is becoming a Russian roulette", 23 February 2021, in *Investigate Europe*, https://www.investigate-europe.eu/en/posts/italian-state-attorney-giacomo-aiello.

Mahdavi P., “Paving a Credible Investment Pathway to Net Zero for Oil and Gas”, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Marzal T., “Polluter Doesn’t Pay: The Rockhopper v. Italy Award”, January 19 2023, EJIL:Talk! Blog of the European Journal of International Law, https://www.ejiltalk.org/polluter-doesnt-pay-the-rockhopper-v-italy-award/.

Meyer T., “Investment Agreements and Climate Change: Lessons from International Trade”, January-March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Monti A., Nordlander L., “OECD Public consultation on investment treaties and climate change”, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Paine J., “Submission to OECD Public Consultation on Investment Treaties and Climate Change”, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Raiser K., Kornek U., Flachsland C., Lamb W.F., “Is the Paris Agreement effective? A systematic map of the evidence”, August 2020, in *Environmental Research Letters IOPscience*, https://iopscience.iop.org/article/10.1088/1748-9326/ab865c.

Rivkin D., “COP21: Climate Change Related Disputes: A Role for International Arbitration and ADR,” 7 December 2015, p. 8, https://www.debevoise.com/-/media/files/insights/news/2015/david-w-rivkin-speech-climate_change_arbitration-(2).pdf?la=en&rev=6fae5ef27fe04983b7d5f2b8a0cef182&hash=FD65EDFE831ED78059C04818E97767BB.

Schmidl M., “The Renewable Energy Saga from Charanne v. Spain to The PV Investors v. Spain: Trying to See the Wood for the Trees”, February 2021, in *Kluwer Arbitration Blog*, https://arbitrationblog.kluwerarbitration.com/2021/02/01/the-renewable-energy-saga-from-charanne-v-spain-to-the-pv-investors-v-spain-trying-to-see-the-wood-for-the-trees/.

Sheargold E., “Submission to the OECD Public Consultation on Investment Treaties and Climate Change”, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Stephenson M., Vieira Martins J.H., “Contribution to the OECD Public Consultation on Investment Treaties and Climate Change”, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

Tienhaara K., Downie C., “Risky Business? The Energy Charter Treaty, Renewable Energy, and Investor-State Disputes”, in Global Governance, 2018, Vol. 24, No. 3 (2018), Brill, https://www.jstor.org/stable/10.2307/26777583.

Tienhaara K., “Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement”, 22 December 2017, in *Transnational Environmental Law*, Cambridge University Press doi:10.1017/S2047102517000309.

Tienhaara K., Thrasher R., Simmons A., Gallagher K., “Investor-state disputes threaten the global green energy transition”, 5 May 2022, in *Science*, DOI:10.1126/science.abo4637.

Tienhaara K., “We need to rethink investment treaties to ensure a rapid and just energy transition”, 21 April 2021, International Institute for Environment and Development, https://iied.org/we-need-rethink-investment-treaties-ensure-rapid-just-energy-transition.

Vadi V., “Beyond Known Worlds: Climate Change Governance by Arbitral Tribunals?”, November 2015, in Vanderbilt Journal of Transnational Law, 48, no. 5.

Vail T., “The Energy Charter Treaty supports investment in renewables”, 27 February 2021, in *Euractiv*, https://www.euractiv.com/section/energy/opinion/the-energy-charter-treaty-supports-investment-in-renewables/.

Wells L., “ISDS Constrains Government Actions to Reduce Climate Change: the OECD Can Do Something About It”, March 2022, in *Investment Treaties and Climate Change OECD Public Consultation*.

All websites have been consulted between January and October 2023.