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Mapping Climate-Related Investment Arbitrations by M. Fermeglia, C. Higham, K. Silverman-Roati, and J. Setzer

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Mapping Climate-Related Investment Arbitrations

Matteo Fermeglia*, Catherine Higham**, Korey Silverman-Roati***, Joana Setzer****

Abstract

Recent years have seen increased attention on the impact that the global stock of over 3000 international investment agreements may play in disputes about the allocation of costs of the transition to net zero. The novelty of this area has raised concerns about the number of climate-relevant arbitrations under Investor-State Dispute Settlement (ISDS) systems, and the conceptual boundaries that could be used to determine which of these cases should be considered as part of the global body of “climate change litigation”. This paper updates and expands a preliminary mapping of climate-relevant arbitrations conducted by the authors in 2021. We conduct a comprehensive review of cases and classify these into a modified and improved version of the typology of cases initially developed. Case studies in each category are analysed and discussed alongside with reflections regarding the potential future growth and direction of litigation.

I. Introduction: Investment Law and Climate Change at the Crossroads

To implement the UNFCCC Paris Agreement’s objective of keeping global average temperature “well below 2°C” and ideally within 1.5°C will necessarily entail winners and losers. On the one hand, an unprecedented volume of investments is required to achieve a full and just energy transition away from fossil fuels to renewable energy generation. On the other hand, the global fossil fuel reserves that should not be exploited in light of the remaining global carbon budget would translate to USD 1.4 trillion in losses.¹ These reserves are mostly located in developing countries.

A remarkable share of the above fossil fuel assets is related to undertakings – either in the form of equity or greenfield investments² – made by companies operating in OECD countries.³ Many of these companies receive legal protection for a vast percentage of their fossil fuel investments through bilateral and multilateral International Investment Agreements (IIAs). In total, USD

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¹ See G. Semieniuk et al., Stranded fossil-fuels assets translate to major losses for investors in advanced economies, (2022) 12 Nature Climate Change, 532-538.

² As explained below, in greenfield investments, a parent company creates a subsidiary in the host State to build its operation from the ground.

³ *Id.*, at 535.

340 billion of these IIA-protected assets are at risk of being subject to domestic climate measures.⁴

In November 2021, at the 26th UNFCCC COP26 in Glasgow, both countries and companies acknowledged the need to phase-out fossil fuels, and in particular coal power generation.⁵ This commitment was reiterated at COP27 in Sharm el-Sheikh, including a specific stress on the phase-out of “inefficient fossil fuel subsidies”.⁶ Yet, despite broad agreement on the need to embrace stronger climate action, the potential for conflict between the climate regime on the one hand and existing investor protection on the other entails major consequences for the development of climate policies. Whilst there is little evidence that the IIA system is actually conducive to the uptake of foreign direct investments, the standards of investment protection as enshrined by IIAs and as enforced by ISDS adjudication may ultimately hamper host States’ responses to climate change, thus leading to regulatory chill.⁷

This trend has not been left unnoticed in the international arena. In its 6th Assessment Report, the Intergovernmental Panel on Climate Change (IPCC) Working Group III stressed the potential for IIAs to halt national legislation aimed at pursuing, among other things, the phase out of fossil fuels.⁸ Furthermore, as underscored by a recent far-reaching OECD initiative, there is a compelling need for alignment between the international climate change and international investment law regime in order to boost, and not hamper, climate action internationally.⁹

Such complexity was widely exposed by the contracting parties of the only multilateral IIA dealing with energy investments, the Energy Charter Treaty (ECT). In June 2022,¹⁰ the Parties to the ECT announced an “agreement in principle” for substantial amendments to the ECT, also referred to as “modernisation” of the ECT. Over two years of formal negotiations, the talks addressed the mounting concerns over the ECT’s excessive use by investors in disputes and record-breaking financial awards against governments.¹¹ The decision to adopt the modernised

⁴ See K. Tienhaara et al., *Investor-State disputes threaten the global energy transition*, (2022) 376 *Science*, 701-703.

⁵ See Decision 1/CMA.3, Glasgow Climate Pact, whereby all UNFCCC State Parties agreed to “[...] accelerate the development, deployment and dissemination of technologies, and the adoption of policies, to transition towards low-emission energy systems, including by rapidly scaling up the deployment of clean power generation and energy efficiency measures, *including accelerating efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies* [...]” (emphasis added).

⁶ UNFCCC, Report of the Conference of the Parties on its twenty-seventh session, held in Sharm el-Sheikh from 6 to 20 November 2022, FCCC/CP/2022/10/Add.1, Recital 16.

⁷ The concept has been crafted and further refined by the work of K. Tienhaara, *Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement*, (2017) 7(2) *Transnational Environmental Law*, 229-250.

⁸ IPCC Working Group III contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, *Climate Change 2022: Mitigation of Climate Change* (2022), Chapter 14, 73-74 (further noticing that “the realignment is far from complete, and there are still examples of international cooperation having a chilling effect on climate mitigation, particularly through financing and investment practices, including legal norms designed to protect the interests of owners of fossil assets”).

⁹ Notably, in 2020 the OECD launched a comprehensive initiative on the Future of Investment Treaties, which included a wide public consultation held between January and March 2022 more specifically to contribute to the ongoing reform process of IIAs in relation to their potential contribution to the fight against climate change and to achieve sustainable development. More information on the initiative is available at the following link: <https://www.oecd.org/investment/investment-policy/investment-treaties.htm>

¹⁰ Decision of the Energy Charter Conference, Agreement in principle for the modernisation of the Energy Charter Treaty, 24 June 2022, available at the following link: <https://www.energycharter.org/fileadmin/DocumentsMedia/CCDECS/2022/CCDEC202210.pdf>

¹¹ IISD, *Deal for Modernized Energy Charter Treaty Insufficient for Ambitious Climate Action*. June 27, 2022. <https://www.iisd.org/articles/statement/modernized-energy-charter-treaty-insufficient-climate-action>

ECT, however, was paused in November 2022. This followed several EU member states, including France, Germany, Spain and the Netherlands announcing plans to withdraw, leading to an impasse on the modernisation. In July 2023, the EU Commission called for a co-ordinated EU withdrawal. The EU is seeking a bloc-wide position, but upcoming European Parliament elections in 2024 raise the prospect of prolonged uncertainty.¹² Countries seeking the withdraw argue that the modernised ECT text falls short on its stated objective of making the deal better suited to achieving international climate goals.¹³ There are also concerns that the solution proposed in the modernization process – a carve-out that would essentially exclude fossil fuel investments from protection under the Treaty – would fundamentally undermine the system.¹⁴

As we underscore in this paper, a significant volume of ISDS cases dealing with host States' measures directly or indirectly related to climate action are now being filed. The apparent conflict between the standards of protection in IIAs and the climate change regime is particularly evident when we consider the nature of the measures adopted by host States to pursue climate action domestically. Investors may argue that measures such as revocation of subsidies, bans on oil and gas exploration, and the accelerated timeframes for implementation thereof are at odds with their legitimate expectations established through contractual agreements and representations made by governments in the pre-Paris agreement era.¹⁵

Our contribution seeks to take stock and provide a systematisation of the existing ISDS cases related to host States' climate action, which we categorise as "climate-related ISDS cases".¹⁶ In this respect, we aim to explore ISDS cases within the broader context of climate change litigation. Although in principle ISDS tribunals refrain from directly addressing climate change matters, our account unfolds a consistent pattern of arbitrations, which further substantiates the claim that ISDS is now playing a concrete and active role in the shaping of governmental responses to the climate crisis. As such, these arbitrations share commonalities with the wider body of climate litigation, and throughout this paper we use the term "investment arbitration" or "ISDS" to refer to arbitral proceedings under IIAs.

Furthermore, our contribution highlights the need for host States to ensure that future action, as required by their international commitments under the UNFCCC and the Paris Agreement framework, takes into consideration potential conflicts with ISDS protections. The cases

¹² IISD, Energy Charter Treaty Withdrawal Announcements Reflect Reform Outcome is Insufficient for Climate Action, 7 November 2022, available at the following link: <https://www.iisd.org/articles/statement/energy-charter-treaty-withdrawal-announcements>; European Parliament Resolution of 24 November 2022 on the outcome of the modernisation of the Energy Charter Treaty, 2022/2934(RSP). See also Energy Charter Treaty: Review of UK Membership. Volume 737: debated on Monday 4 September 2023, available at <https://hansard.parliament.uk/commons/2023-09-04/debates/23090428000015/EnergyCharterTreatyReviewOfUKMembership>.

¹³ <https://caneurope.org/eu-commission-turns-a-deaf-ear-to-multiple-calls-to-exit-the-energy-charter-treaty/>. An official communication on the decision of the Energy Charter Conference summarising the main elements of the ECT modernisation agreement can be accessed at the following link: <https://www.energycharter.org/fileadmin/DocumentsMedia/CCDECS/2022/CCDEC202210.pdf>.

¹⁴ Comments of Lauren Mandell, Debating immediate action: Cutting back the promotion of fossil fuel investment, OECD Conference Investment treaties, the Paris Agreement and Net Zero: Towards alignment?, 11 April 2023, available at <https://www.oecd-events.org/investment-treaty-conference/online-session/f042f0b8-7a79-457f-8b98-e636df4c785e>

¹⁵ A rather abstract, yet comprehensive overview of the kind of domestic measures as implemented by host States which could be subject to ISDS litigation is provided for by M Fermeglia and N Lobel, Investment Protection and Unburnable Carbon: Competing Commitments in International Investment and Climate Governance, *Diritto del Commercio Internazionale – The Law of International Trade* (2018) 4, 945-976.

¹⁶ See <https://www.lse.ac.uk/granthaminstitute/news/investor-state-dispute-settlement-as-a-new-avenue-for-climate-change-litigation/>

analysed here point to the need for States to “ISDS-proof” their mid to long-term climate policies, thus preventing future climate-related ISDS cases. This is of utmost importance given the long timeframes entailed in reforming the international investment system in a way that is consistent with – or at least mindful of – other policy interplays. Preventing future climate-related ISDS cases is also eminently possible, particularly in light of evolving standards of due diligence expected from companies and investors with regards to the assessment of climate transition risk.¹⁷

The structure of this paper is as follows. In Section 2, we outline the conceptual underpinnings of our categorisation of “climate-related ISDS cases”. Such categorisation draws on the objects of investment arbitration, namely the host State climate action measures challenged by investors, the investments subject to ISDS, and the standards of protection invoked by investors. In Section 3, we categorise all cases identified thus far according to a two-fold taxonomy based on the conceptual divide analysed in Section 2. In addition, we provide a brief analysis of existing cases to provide a blueprint of the underlying domestic regulatory and policy context that could lead to ISDS lawsuits by foreign investors, elucidating the categories further and exploring their connection with the wider body of climate litigation. Next, in Section 4 we summarize the quantitative findings of the taxonomy. Section 5 provides conclusions and policy recommendations for host States’ to craft specific measures to tackle climate change in a way that avoids ISDS, thus mitigating its “chilling effect”.

II. Scoping Climate-Related Investments: A Taxonomy

By the end of 2020, over 1,100 ISDS disputes had been filed, and at least 740 had been concluded (either decided, pending and settled or discontinued). Out of this total amount, almost one third (31%, 374 cases) related to investments made in energy infrastructures.¹⁸ Although energy-centred cases are likely to be climate-relevant, the scope of climate-related disputes stretches beyond this category.¹⁹

A recent survey by the United Nations Conference on Trade and Development (UNCTAD) maps out ISDS cases that challenge climate policies.²⁰ The survey charts 447 cases. However, it adopts a rather broad scope including, among others, all the cases related to measures aimed at environmental protection, all the cases targeting fossil fuel infrastructure, and regulation of renewable energy generation.²¹

Our analysis conceptually departs from that adopted by UNCTAD to follow a narrower material scoping rationale. More generally, we depart from the assumption that States’ climate action can be understood as a source of enhanced political and regulatory risk for investors.²² A certain degree of risk is a factor in any investment. However, IIAs (and ISDS as their

¹⁷ For discussion on this subject see Weber, R. H., & Hösli, A. (2020). Climate Change Liability: Comparing Risks for Directors in Jurisdictions of the Common and Civil Law, *Climate Law*, 10(2), 151-196. doi: <https://doi-org.gate3.library.lse.ac.uk/10.1163/18786561-01002002>.

¹⁸ See the recent quantitative study carried out in L. Di Salvatore, *Investor-State Disputes in the Fossil Fuel Industry*, International Institute for Sustainable Development 2021. Notably, in 2020 the Energy Charter Treaty stood out as the most invoked IIA (7 cases). See UNCTAD IIAs Issues Note 4/2021, *Investor-State Dispute Settlement Cases: Facts and Figures 2020*.

¹⁹ See discussion below.

²⁰ See UNCTAD, *Treaty-based Investor-State Dispute Settlement Cases and Climate Action*, IIAs Issues Note no. 4/2022, Geneva, UNCTAD, 2022.

²¹ *Ibid.*, at 2.

²² R. Dolzer and C. Schreuer, *Principles of International Investment Law* (2008), pp. 3-7, 207-211.

enforcement tool) ought not to play out as a full-fledged risk compensation instrument for investors. In the words of the *Waste Management* ISDS tribunal:

“... it is not the function of the international law of expropriation as reflected in Article 1110 [NAFTA] to eliminate the normal commercial risks of a foreign investor, or to place on Mexico the burden of compensating for the failure of a business plan which was, in the circumstances, founded on too narrow a client base and dependent for its success on unsustainable assumptions about customer uptake and contractual performance”.²³

Nonetheless, in practice, investors have taken up ISDS cases with regard to investments in both the fossil fuel and the renewable energy sector when their profitability is impacted by government action. In both cases, this may have significant impacts on the future developments of climate policy.

Although narrower than UNCTAD’s, the definition of “climate-related” ISDS claims that we adopt is broader than a common definition of climate change litigation. According to Markell and Ruhl, climate change litigation includes “lawsuits brought before administrative, judicial and other investigatory bodies, in domestic and international courts and organisations, that raise issues of law or fact regarding the science of climate change and climate change mitigation and adaptation efforts”.²⁴ This definition, which is widely adopted in the literature and closely mirrors the approach adopted by the Sabin Center for Climate Change Law in its climate litigation database, takes a broad approach to the term “litigation” including not just disputes between parties submitted to a court or tribunal, but a broader range of legal proceedings. We follow this approach to “climate change litigation” throughout this paper. As such, we understand arbitral proceedings to be part of the broader “climate change litigation” phenomenon, even though they might not be considered examples of litigation *per se*. While it might be more accurate to use the term “climate change disputes” we adopt the term that is most widely adopted in the literature.

However, we acknowledge that there are challenges in defining investment arbitration disputes as climate change litigation. First, ISDS as a means of adjudication does not necessarily deal with climate change directly as its core material scope. In fact, across all the cases analysed in our research, the actual climate change mitigation and/or adaptation objectives of the challenged host States’ measures were sidelined, if not utterly unaddressed by arbitral tribunals in the proceeding and in their awards. Nor – to the best of our knowledge – has climate science

²³ *Waste Management v. United Mexican States* (No. 2), ICSID Case No. ARB/AF/98/02, 30 April 2004, para. 177. See also See, e.g., *Salini v. Kingdom of Morocco*, para. 155: ‘an investment protection treaty cannot be used to compensate an investor deceived by the financial results of the operation undertaken, unless he proves that his deception was a consequence of the behavior of the receiving State acting in breach of the obligations which it had assumed under the treaty’, quoting *Consortium RFCC v. Kingdom of Morocco*, ICSID Case No. ARB/00/6, Award, 22 December 2003, (2005) 20 ICSID Rev – FILJ 391 (French original), para. 108, available in English at: <http://icsid.worldbank.org/ICSID/>. See also, *Joy Mining v. Arab Republic of Egypt*, para. 72: ‘a basic general distinction can be made between commercial aspects of a dispute and other aspects involving the existence of some forms of State interference with the operation of the contract involved’. This Tribunal concluded that all claims were contractual and that the claimant had not ‘credibly alleged that there was Egyptian State interference with the Company’s Contract rights’, see para. 82.

²⁴ D. Markell and J.B. Ruhl (2012) An Empirical Assessment of Climate Change in the courts: A New Jurisprudence or Business as Usual? *Florida Law Review* (64)15.

ever been used in arguments by investors seeking to either uphold or put into question the rationale for a given climate change-driven measure adopted by host States.²⁵

Second, generally IIAs and ISDS are not strictly related to the legal validity of a given domestic mitigation or adaptation effort. Admittedly, when judging the merits of a dispute (e.g., to assess a host State's expropriatory conduct), ISDS panels refer to due process requirements enshrined in domestic law.²⁶ Equally, serious inconsistency of State action with domestic administrative law can be seen as an indication of abusive treatment, arbitrariness, discrimination, or fundamental breach of due process for the purpose of establishing a breach of Fair and Equitable Treatment (FET).²⁷ However, ISDS tribunals consistently hold that domestic law should be treated as a pure matter of fact when deciding upon the asserted breaches of any of the standards of treatment afforded to investors by IIAs – unless otherwise stated by the same relevant IIAs.²⁸

This type of engagement with domestic climate policy as part of a fact pattern within which a set of international legal standards should be interpreted does not necessarily fall within the broader definition of climate litigation outlined above. Nonetheless, it is clear that these disputes do relate to climate law, even if in fairly unique ways. As such, we argue that investment arbitration claims should be understood to fit within the broader body of climate change litigation based on two key considerations: (i) the *kind of investment* protected by IIAs – the likely impacts of which must be considered against the backdrop of the latest climate science (whether positive or negative) – and (ii) the *kind of measure* adopted by host States and challenged by foreign investors before ISDS tribunals – which must be understood as being a part of the State's climate policy response (whether it involves an increase or a decrease in the ambition of that response).

Understanding cases with reference to these two elements is in line with the core features of ISDS. ISDS inevitably involves a focus on investments as its material scope, and host States' measures (actions or omissions) as sources of liability for the violation of standards of treatment. We therefore use both the kind of investment and the kind of measures challenged to develop our understanding and categorisation of climate-related investment arbitration cases as part of the broader body of climate change litigation.

1. Understanding the Kind of Investments Involved in Climate-Related ISDS Cases

When examining the *kind of investments* falling under the scope of our inquiry, we draw from the general definition of investment crafted by the ISDS tribunal in *Salini v. Morocco*. Accordingly, investments as defined under Article 25 of the ICSID Convention must entail: a

²⁵ J Peel, The use of science in environment-related investor-state arbitration, in K Miles (ed.), *Research Handbook on Environment and Investment Law*, Edward Elgar, 2019, 244-263.

²⁶ See G Della Cananea, *Due Process of Law Beyond the State*, OUP 2016 (moreover pointing to the role of ISDS panels in upholding traditional concepts of domestic administrative law, such as the requirement to carry out a procedure, the right to be heard, and the requirement to provide motivated reasoning and enshrining them as general, transnational principles of law).

²⁷ A recent and far-reaching account on this issue is provided in A Reinisch and C Schreuer, *International Protection of Investments: Substantial Standards*, CUP 2020, 251-535.

²⁸ See, for a comprehensive account, J Hepburn, *Domestic Law in International Investment Arbitration*, OUP 2017, who moreover observed that arbitrators are normally appointed for their expertise in international law, but are likely to be unfamiliar with the laws of the jurisdictions at issue in the disputes, including that of the respondent host State (*Ibid.*, at 108).

financial or asset contribution by the investor(s), a certain duration, a risk, and a contribution to the economic development of the host State.²⁹

On top of these conditions that apply generally to all kinds of investments protected by IIAs, two additional constitutive elements are likely to be relevant in the context of climate-related ISDS cases. First, the acquisition of companies operating in the energy sector or other high greenhouse gas (GHG) emitting sector, including the agricultural and transport sectors, or any company whose operations may lead to significant land-use change which may result in increased emissions. Second, direct investments in energy infrastructures for all energy sources, including fossil fuels (coal, oil, natural gas, LNG, etc.) and renewable energy sources, and more broadly in any infrastructure or service related to GHG-emitting sectors (e.g., agriculture, transport, residential sector, land use and forestry etc.).

Furthermore, our definition of *investment* comprises greenfield and brownfield investments, as well as foreign portfolio investments, in mergers and acquisitions, as well as in other financial operations. In greenfield investments, a parent company creates a subsidiary in the host State to build its operation from the ground. In brownfield investments, a company purchases or leases existing production facilities to launch a new production activity. Foreign portfolio investments, in turn, includes securities and other financial assets owned by investors in the host State.

2. Understanding the Kind of Measures Involved in Climate-related ISDS Cases

The *kind of measures* challenged in climate-related ISDS cases ranges from local regulations or investment-specific decisions by host States (e.g., authorizations or concessions) to rules of general application. The reason for such a broad range of measures is that investment protection standards as designed in IIAs are meant to provide a leeway to investors and arbitrators as to their scope of inquiry.³⁰ In a review of a total of 158 ISDS cases up to the spring of 2010, approximately half of the cases were found to have involved challenges to decisions that were general in their application in that they appeared likely to affect other constituencies, such as other companies, employees, unions, consumers, or sub-national levels of government. Several ISDS cases neatly engaged matters of general policy or discretion, such as in the review of measures that banned the export of a hazardous waste, regulated exploitation of natural resources, auctioned rights for a telecommunications network, or managed water use for a major river.³¹

This in turn suggests that a vast spectrum of host States measures may fall into the material scope of climate-related ISDS cases. At the same time, it is also clear that a certain array of

²⁹ *Salini v. Morocco*, notably, where the Salini tribunal stressed that these four elements must be assessed interdependently and globally and must be met cumulatively. However, ISDS tribunals have often departed from this setup by modifying, removing and/or adding more criteria. This approach is contrasted with the intuitive approach recently adopted by inter alia, the *Philip Morris v. Uruguay* tribunal. The *Philip Morris* tribunal stated that the criteria for an investment as stipulated by the Salini tribunal “are typical features of investments under the ICSID Convention, not ‘a set of mandatory legal requirements’”. As such, they may assist in identifying or excluding in extreme cases the presence of an investment but they cannot defeat the broad and flexible concept of investment under the ICSID Convention to the extent it is not limited by the relevant treaty, as in the present case.” (*Philip Morris v. Uruguay*, ICSID Case No. ARB/10/7, Decision on Jurisdiction, Para. 206).

³⁰ See G Van Harten, “Interpretive Discretion in Investment Treaty Arbitration” (2016) *Osgoode Hall Law Journal*; K Tienhaara, *The Expropriation of Environmental Governance: Protecting Foreign Investors at the Expense of Public Policy*, CUP, 2009.

³¹ *Ibid*, pp. 82.

measures which are required to foster climate action are at odds with the different standards of protection. More analytically, we can frame the scope of the measures under two main elements. First, measures that may impact (directly or indirectly) the investment carried out on the territory of the host State (*objective* element). Second, measures that may either deprive (totally or partially) the investor of its investment or violate its legitimate expectations (*subjective* element).

3. The Potential for Host States Counterclaims

Last, but not less importantly, we can also anticipate that in future the material scope of ISDS climate-related claims may also include host States' counterclaims, as long as they relate to the same objective scope of the original investor claim and/or are grounded on climate change policy considerations (e.g., a request for compensation from investors due to their exceedance of domestic GHG emissions reduction requirements). Host States counterclaims have been allowed for traditional environmental damage in at least two instances in *Perenco v. Ecuador* and *Burlington v. Ecuador*. The *Perenco* Tribunal stated:

“Proper environmental stewardship has assumed great importance in today’s world. The Tribunal agrees that if a legal relationship between an investor and the State permits the filing of a claim by the State for environmental damage caused by the investor’s activities and such a claim is substantiated, the State is entitled to full reparation in accordance with the requirements of the applicable law.”³²

Although such a scenario remains far-fetched, provided that all the legal requirements to allow for such a counterclaim are met, the violation of host States' domestic rules regulating GHG emissions could be invoked by the same host States in this context.

III. Categories of Climate-related ISDS Claims

In addition to mapping climate-related ISDS cases according to the types of investment underlying the dispute, we can also understand this type of cases on the basis of the type of government action (i.e. the measure) that underlies the claim. We identify two categories as major sub-sets of climate-related ISDS arbitration: (1) *Stranded Asset claims*, which in turn are further broken down as claims arising from *measures of general application* and claims resulting from *environmental permitting* decisions; and (2) *Roll-back of climate legislation claims*. Both sub-sets of ISDS climate-related claims are in turn analytically described in the following sub-Sections by providing examples from past or ongoing ISDS cases.

1. Stranded Assets Claims

This first category consists of claims for compensation following the introduction of climate-justified policy measures which reduce the value of existing investments. These claims may be brought at different stages in the life cycle of an asset, from the initial scoping and permitting

³² *Perenco v. Ecuador*, Interim Decision on Counterclaims, p. 34. As widely underscored by legal scholarship, however, the ultimate admissibility of such claims largely depends, among other things, on the wording of the relevant IIA as applied by ISDS tribunals. Relevant for climate-related disputes, Article 26(1) of the Energy Charter Treaty displays a rather narrowly tailored language in this respect. For an in-depth analysis of this and all the named “grey areas” of environmental counterclaims, see more recently T Gleason, Examining host-State counterclaims for environmental damage in investor-State dispute settlement from human rights and transnational public policy perspectives, (2021) 21 International Environmental Agreements, 427-44.

phases of development right through to fully operational assets. In our original commentary, we separated such cases into two categories, which we referred to as “compensation cases” and “environmental permitting claims”.³³ Compensation claims were those cases involving requests for compensation following the introduction of policy measures of general application, which nonetheless affected protected investments. Environmental permitting claims were those involving claims of unfair treatment during individual, project-specific environmental processes. However, compensation for losses incurred due to the stranding of assets may be a feature of claims regarding environmental permitting processes, and individualised permitting processes may be affected by the introduction of measures of general application. In response to this overlap and ambiguity, we have since merged these into one overarching category, which we refer to as *stranded assets* claims,³⁴ and then sub-divided the category into two overlapping groups: (i) claims following measures of *general* application, including bans, limits, or moratoria on high emitting activities,³⁵ and (ii) environmental permitting claims.

1.1 Claims Following Measures of General Application

Most current and anticipated claims in this sub-category relate to fossil fuel infrastructure. Claims may relate to both the extraction and production of fossil fuels, as well as fossil fuelled energy generation facilities such as coal-fired power stations.³⁶ This sub-category of cases includes several high-profile claims filed in early 2021 against the Netherlands, following the introduction of legislation requiring the phase out of coal fired power stations.³⁷ The first of these claims was filed by German company RWE in February 2021 and the second by Uniper, also a German company, in April of the same year.³⁸ Both cases concern climate-justified measures, requiring the reduction in capacity and phase out of coal power generation by 2025 and 2030, which affect two power plants owned and operated by RWE and one owned by Uniper. Of the two further plants in the Netherlands, the oldest, *Hemweg 8*, owned and operated by Vattenfall and built in the early 1990s was closed in 2020, with Vattenfall receiving significant compensation from the Dutch government in relation to the early closure.³⁹ It was announced in November 2021 that a final plant owned by Onyx Power, which was affected by the same legislation, would receive a significant subsidy to permit early closure following further measures introduced by the Dutch Government, although recent reports suggest that the

³³ Ibid.

³⁴ The term “stranded assets” has been widely used in climate policy discourse for many years. Carbon Tracker defines the term as follows: “Stranded assets are now generally accepted to be those assets that at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return (i.e. meet the company’s internal rate of return), as a result of changes associated with the transition to a low-carbon economy (lower than anticipated demand / prices). Or, in simple terms, assets that turn out to be worth less than expected as a result of changes associated with the energy transition.” See Carbon Tracker (2017), *Stranded Assets*, available at: <https://carbontracker.org/terms/stranded-assets/>

³⁵ While there are a limited number of cases in this category at present, many commentators expect this to be a growth area since energy supply side measures focused on fossil fuels are becoming more common. See Higham C and Koehl A (2021), *Domestic limits to fossil fuel production and expansion in the G20* (Grantham Research Institute Policy Series: London).

³⁶ G Moon, *Arrested ambition? Foreign investor protections, stabilisation clauses, and fossil-fuel power generation in developing countries*. Review of European Community & international environmental law, 2021-11, Vol.30 (3), p.313-326.

³⁷ The ban was introduced through the “Law banning coal in electricity production” in 2019, available at (last accessed 01/04/2022)

³⁸ *RWE AG and RWE Eemshaven Holding II BV v. Kingdom of the Netherlands* (ICSID Case No. ARB/21/4), and *Uniper SE, Uniper Benelux Holding B.V. and Uniper Benelux N.V. v. Kingdom of the Netherlands* (ICSID Case No. ARB/21/22).

³⁹ See <https://group.vattenfall.com/press-and-media/newsroom/2019/vattenfalls-last-coal-power-plant-in-the-netherlands-is-closing>.

deal may be at risk.⁴⁰ Media reports have explicitly connected the negotiations regarding the plant to the need to meet the climate targets imposed by the Dutch courts in the ground-breaking climate litigation case of *Urgenda Foundation v State of the Netherlands*.⁴¹

Full details of RWE and Uniper's requests for arbitration are not publicly available. However, from press releases and evidence submitted to the Dutch parliament prior to the introduction of the law, the companies appear to argue that although they support the Netherlands efforts to transition to a low carbon economy, the lack of compensatory measures in the legislation damages the investment security of the company in the Netherlands. The companies also appear to argue that the law constitutes a violation of the provisions of the ECT, to which both Germany and the Netherlands are parties, presumably relying on the FET standard set out in Article 10(1) of the ECT.⁴² It also appears that RWE may seek to run an argument based on legitimate expectations, since some of the documentation refers to the fact that the Dutch government encouraged the company's investment in at least one power plant.⁴³ It is also possible that the companies could allege that the measures amount to "indirect expropriation" by the Dutch government, although this is less likely given the relatively high threshold required for such claims to meet with success.⁴⁴

The Dutch government has signalled its intention to oppose the claims on both jurisdictional and substantive grounds. On the question of jurisdiction, it has already filed anti-arbitration cases before the German courts contesting the applicability of arbitration clauses in investment treaties in intra-EU disputes.⁴⁵ A foreshadowing of the substantive arguments the government may run can be found in a communication from the Dutch Minister for Economic Affairs and Climate to the House of Representatives from April 2021 notifying the House of the requests for arbitration. The letter refers to the fact that the coal phase out legislation was "carefully drawn up and is the result of sound democratic decision-making". It also notes that there is a broad transition period under the legislation, allowing for the potential conversion of the facilities to other fuels, and that Article 4 of the legislation allows a plant operator to request compensation if it can show that it is "disproportionately affected" by the ban. Finally, the letter also suggests that the government's substantive defence may rely on arguments regarding investor due diligence, as it notes "Given long-term developments, owners of coal-fired

⁴⁰ See <https://www.reuters.com/business/energy/dutch-coal-fired-power-plant-remain-operational-longer-than-planned-2022-03-31/>

⁴¹ See <https://www.reuters.com/markets/commodities/onyx-coal-fired-power-plant-shut-with-dutch-government-support-2021-11-30/>

⁴² See <https://www.rwe.com/en/press/rwe-generation/2021-02-11-rwe-expressly-supports-dutch-co2-reduction-targets> and <https://www.internetconsultatie.nl/kolencentrales/reactie/3dda782f-da83-4a04-9e7e-0627e142e550>; for further analysis see: <http://arbitrationblog.kluwerarbitration.com/2021/08/24/the-netherlands-coal-phase-out-and-the-resulting-rwe-and-uniper-icsid-arbitrations/>. According to parliamentary documents, claims have also been initiated by the two companies before the Dutch domestic courts, see Letter from the Minister of Economic Affairs and Climate to Parliament, 17 May 2021, DGKE-E / 21124843, available at: <https://open.overheid.nl/repository/ronl-a1f3212d-d60b-4305-a39c-b4be883551b2/1/pdf/Kamerbrief%20over%20start%20anti-arbitrageprocedures%20bij%20Duitse%20rechter%20door%20Staat%20tegen%20RWE%20en%20Uniper.pdf>

⁴³ See <https://www.rwe.com/en/press/rwe-generation/2021-02-11-rwe-expressly-supports-dutch-co2-reduction-targets>

⁴⁴ See Pelc (2017), On the decreasing success of such claims in the last two decades: <https://www-jstor-org.gate3.library.lse.ac.uk/stable/44653874?seq=1>

⁴⁵ Ibid.

production installations could not assume that no government measures would be taken in the long term that aim to drastically reduce CO₂ emissions in the Netherlands”.⁴⁶

These proceedings effectively underscore why a better understanding of climate-related ISDS claims is crucial for scholars working on climate change litigation and policy-makers in general. They demonstrate the way in which complex interactions between pro and anti-regulatory interests are playing out in climate change litigation. The threads of the investment arbitration story can be traced from the (at least indirect) connection between the *Urgenda* litigation before Dutch domestic courts and the phase out legislation, given evidence of the “*Urgenda effect*” on Dutch climate policy since 2015.⁴⁷ The requests for arbitration filed by RWE and Uniper – and indeed the domestic litigation filed at the same time before Dutch courts – therefore suggest that the phenomenon documented by Peel in the US context that “for every advance brought about by pro-regulatory cases, there is an equal and opposite reaction through antiregulatory litigation” is now playing out in the Dutch context.⁴⁸ The Dutch government’s own aggressive strategy in response to the requests for arbitration, may also show that the inverse is starting to be true – that the equal and opposite reaction cuts both ways.

These proceedings also show the way in which the question of investor due diligence in the determination of legitimate expectation claims may take on particular salience in the context of the transition to low-carbon economies. Since the mid-2000s, arbitral tribunals in ISDS proceedings have started to use the concept of investor due diligence as a way to limit the scope of host State duties to protect investor’s legitimate expectations as part of the FET standard.⁴⁹ To date, however, arbitral decisions in this area have been inconsistent and lacking in coherent reasoning, with some arbitrators treating the requirement of due diligence as a subjective requirement and others taking a more objective approach.⁵⁰ Developments in corporate practice regarding the assessment and reporting of climate change risk, including transition risk, are rapidly moving from the realm of voluntary commitments to that of mandatory requirements.⁵¹ As expectations for companies become more concrete, this may also provide a clear basis on which to assess what a reasonably prudent investor “ought” to have known about the potential for climate-related changes in the regulatory environment in a host State, creating momentum behind the more objective approach to the issue. This is just one of the areas in which climate-related ISDS cases may have a significant impact on arbitral practice.

1.2 Environmental Permitting Claims

Stranded assets claims may also arise in relation to intangible assets, such as concessions, licenses, and permits. Even in the absence of defined assets, investors may bring claims for compensation on the basis that they have invested considerable time and money in the permitting processes – often at the behest of governments – and yet suffered losses when these

⁴⁶ <https://zoek.officielebekendmakingen.nl/kst-32813-681.html> Translated via google translate.

⁴⁷ Wonneberger A and Vliegthart R (2021), *Agenda-Setting Effects of Climate Change Litigation: Interrelations Across Issue Levels, Media, and Politics in the Case of Urgenda Against the Dutch Government*, Environmental Communication, 15:5, 699-714, DOI: 10.1080/17524032.2021.1889633.

⁴⁸ Peel J and Osofsky H (2015), *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, Volume 116 of Cambridge Studies in International and Comparative Law

⁴⁹ Matos S (2021), Investor Due Diligence and Legitimate Expectations. Journal of World Investment and Trade. doi:10.1163/22119000-12340231

⁵⁰ Ibid.

⁵¹ The assessment of transition risk was first popularised by the FSB’s Task Force for Climate-Related Financial Disclosures. Mandatory climate-related risk reporting is also becoming increasingly popular, with new measures already adopted in New Zealand and the UK. See https://climate-laws.org/legislation_and_policies?q=TCFD

processes ultimately do not result in the granting of a license or permit. The question of whether such claims will be successful again depend on the standard of treatment that the company should have been able to expect from the government during the permitting process.

In the case of *Eco Oro Minerals Corp. v. Republic of Colombia*, the tribunal determined that a mining concession could be treated as an “acquired right” under an investment treaty, even where it might in practice be valueless.⁵² The case concerned Canadian company Eco Oro’s investment in exploration activities related to the development of a mining concession in a Colombian *páramo* eco-system, provides one such example.⁵³ As in the case of the above-mentioned Dutch saga, the *Eco Oro* proceedings also reflect the complex interactions between pro-regulatory climate litigation and investment arbitration proceeding that may be classed as anti-regulatory in effect even if the anti-regulatory intent of the parties cannot always be confirmed.

In 2007, Eco Oro entered into a concession contract with Colombian authorities to conduct mining activities in an area of the *páramo*. Despite the Colombian government’s signals of support for the mining project envisioned by the company, and attempts to exempt it from a ban on mining within the area, the project was abandoned following a judgment from the Colombian Constitutional Court that struck down the legal provisions allowing for the exemption.⁵⁴ The Court determined that given important services rendered by the *páramos* such as their role in the provision of drinking water and carbon sequestration, they merited a higher form of protection than that which could be offered by legislation that allowed for environmentally harmful activities to continue in certain circumstances. The company initiated arbitral proceedings shortly after the issuance of the judgment under a bi-lateral Free Trade Agreement between Canada and Colombia. Despite a significant dissent, the tribunal found that Colombia’s conduct in the negotiations had breached the minimum standard of treatment (MST) required under Article 805 of the FTA by an arbitrary frustration of Eco Oro’s legitimate expectations in the case.

In the U.S., an unresolved ISDS permitting claim has followed and influenced political developments in the fight over the Keystone XL pipeline, where activists aligned with Democratic presidents have objected to the pipeline on climate grounds. In November 2021, TC Energy Corp. (formerly TransCanada) filed a claim against the U.S. government over President Biden’s cancellation of a permit to build the Keystone XL pipeline to transport oil from Canada to the U.S.⁵⁵ TC Energy seeks USD 15 billion in compensation for the U.S.’s alleged violation of NAFTA and its replacement, the U.S.-Mexico-Canada Agreement (USMCA), for unfairly and inequitably revoking the permit.⁵⁶ The filing is the latest development in a long-running dispute between the company and the U.S. In 2015, President Obama rejected Keystone’s permit on climate grounds. The company responded by filing the

⁵² *Eco Oro Minerals Corp v. Republic of Colombia*, ICSID Case No. ARB/16/41, Final Award.

⁵³ *ibid*

⁵⁴ Decision C-035/16 of February 8, 2016, available at https://climate-laws.org/geographies/colombia/litigation_cases/decision-c-035-16-of-february-8-2016

⁵⁵ See *TC Energy Corporation and TransCanada Pipeline Limited v. United States of America*, ICSID Case No. ARB/21/63, Request for Arbitration, available at: <https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/21/63>.

⁵⁶ Dlouhy J A, *Keystone Pipeline Developers Seek \$15 Billion from U.S. for Cancellation*, Bloomberg (22 November 2021), <https://www.bloomberg.com/news/articles/2021-11-22/keystone-developers-seek-15-billion-from-u-s-for-cancellation>.

first ISDS case, also based on NAFTA and seeking USD15 billion in compensation, in 2016.⁵⁷ After the Trump Administration agreed to reconsider the permit application, the company dropped its first claim in 2017. The second, 2021 filing renews some of its claims from the first filing.⁵⁸

A further example of the challenges posed by environmental permitting processes in which the interaction of government efforts to attract foreign investment has come into conflict with public campaigns against fossil fuels and the associated environmental damage can be found in the case of *Rockhopper v. Italy*, in which proceedings commenced in 2017 and led to a EUR 240 million compensation award against Italy in 2022.⁵⁹ In 2014, Rockhopper, a UK company, acquired, through the purchase of another UK company, an interest in the *Ombrina Mare* oil field off the coast of Abruzzo, for which a production concession had been requested in 2008. The approval process for the concession was subject to a series of delays, in part thanks to significant public debate about the exploitation of fossil fuels in Italian coastal waters.⁶⁰ This resulted in the introduction of a ban on fossil fuel expansion in coastal waters in 2010, its repeal in 2012, and its ultimate reintroduction in 2015.⁶¹ While the protests against exploitation of the oil field have been hailed as a “win” by environmental justice campaigners, campaigners have also raised concerns about the potential for the threat of arbitration to hamper the effectiveness of similarly coordinated civil society movements to achieve their ends in future.⁶²

2. Roll-back of Climate Legislation Claims

The second category consists of cases concerning the roll-back or amendment of legislation or policy originally introduced to meet host States’ climate goals. Although these cases are generally less widely known than stranded assets claims, they make up the majority of climate-related investment disputes to date. These claims are so far predominantly filed by renewable energy investors against governments after the government has changed its climate policy in a way that negatively affects the renewable energy investment. Most of these cases concern changes to policies or schemes introduced by European governments providing remuneration schemes to support investment in renewable energy generation in order to meet EU-level climate targets. Where European governments have lowered incentives to deploy renewable energy in response to greater competition or changing budget realities, some renewable energy investors have filed claims to recoup investment losses. The cases in this category are not exclusive to Europe, as key examples in Canada and elsewhere have also seen renewable investors filing in response to changed climate policy.

Developments in roll-back of climate legislation claims may have a growing impact on ISDS cases for two reasons. First, any changes in current trends in carbon market activity and associated asset creation may lead to an associated uptick in these types of claims. According

⁵⁷ See *TransCanada Corporation and TransCanada Pipelines Limited v. United States of America*, ICSID Case No. ARB/16/21.

⁵⁸ See *supra*, note 55.

⁵⁹ See *Rockhopper Italia SpA, Rockhopper Mediterranean Ltd. And Rockhopper Exploration Plc. v. Italian Republic*, ICSID Case no. ARB/17/14, Final Award.

⁶⁰ For a discussion of the civil society movement see Cernison M, *The No Ombrina/No Triv protests in Abruzzo: organisational models and scales of action*, Cosmos Working Paper, 2016, 10-11.

⁶¹ <https://climate-laws.org/geographies/italy/laws/law-221-of-28-december-2015-on-environmental-provisions-to-promote-green-economy-measures-and-to-limit-the-excessive-use-of-natural-resources>

⁶² The *Environmental Justice Atlas*, cites the case as a success for the environmental justice movement – see: <https://ejatlas.org/conflict/estrazione-di-idrocarburi-ombrina-mare>; Friends of the Earth Europe and others (2019) *Dirty Oil Attacks on Action on Fossil Fuels: Rockhopper vs Italy*.

to the World Bank's State and Trends of Carbon Pricing 2021 Report, net zero commitments are leading to increasing carbon market activity, with 64 carbon pricing instruments in operation in 2021.⁶³ Changing incentives under these schemes may lead to increased claims filed against governments for unfairly undercutting renewables investments. Second, developments in these cases could inform arbitration in stranded assets cases, especially those concerning measures of general application. Arbitrators in stranded assets cases may look to due diligence obligations imposed on governments in these roll-back cases in order to assess an investor's legitimate expectations in any type of energy investment.

Examples from European cases include those in which investors successfully challenged roll-backs of renewable incentives for breaching legitimate investment expectations. In *PV Investors v. Spain*, a group of European investors filed a claim for compensation arising out of a series of energy reforms undertaken by the Spanish Government affecting the renewables sector.⁶⁴ The measures, implemented in 2010, introduced changes to a previous regime established in 2007, and included a tax on revenues and a reduction in subsidies for renewable energy producers. The investors argued that Spain had breached Article 10(1) of the ECT on FET, which provides that investors should be provided with stable and fair treatment and freedom from discrimination by encouraging them to invest in the Spanish renewable energy sector on the basis of the 2007 scheme and under the expectation that the scheme would remain in force. The Permanent Court of Arbitration sided with the investors and awarded them USD 99.8 million. In *CEF Energia v. Italy*, a Dutch company filed a similar claim against the Italian government arising out of changes to Italy's incentive schemes for renewable energy.⁶⁵ The company had invested in three solar energy installations in Italy under the terms of an earlier version of the scheme. The company alleged that the changes to the scheme violated the FET provisions of the ECT. Despite Italy's claims that the company's own due diligence reports showed that it was aware of the potential for changes to the scheme, the majority of the tribunal held that Italy's actions had breached a legitimate expectation on the part of the company and awarded the company USD 10.7 million in damages.⁶⁶

More recent cases in Romania illustrate that some disputes between renewable projects and European governments over the roll-back of renewables incentives continue. Both *EP Wind v. Romania*⁶⁷ and *Fin.Doc. and others v. Romania*⁶⁸ involve claims filed by renewable investors before an International Centre for Settlement of Investment Disputes (ICSID) tribunal. They arose out of the Romanian government's roll-back of incentives for renewables projects, starting in 2013, that the investors allege violate obligations under the ECT. Both cases were pending at the time of writing.

Two cases from Canada illustrate that similar roll-back of climate legislation claims exist outside of the European context, and may increase as outside-Europe carbon markets increase.

⁶³ World Bank, *State and Trends of Carbon Pricing 2021* p. 12, 21. <https://openknowledge.worldbank.org/handle/10986/35620>.

⁶⁴ See *The PV Investors v. Spain*, PCA Case no. 2021-14, available at <http://climatecasechart.com/climate-change-litigation/non-us-case/the-pv-investors-v-spain/>.

⁶⁵ See *CEF Energia BV v. Italian Republic*, SCC Case no. 158/2015, available at: <http://climatecasechart.com/climate-change-litigation/non-us-case/cef-energia-v-italy/>.

⁶⁶ See *ibid.*, Award, 16 January 2019.

⁶⁷ See *EP Wind v. Romania*, ICSID Case No. ARB/20/15, available at: <https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/20/15>.

⁶⁸ See *Fin.Doc. S.r.l., Domenica Gazineo, En. Doc. Srl and others v. Romania*, ICSID Case No. ARB/20/35, available at: <https://icsid.worldbank.org/cases/case-database/case-detail?CaseNo=ARB/20/35>.

In *Windstream Energy v. Canada*,⁶⁹ a U.S. company in 2012 filed a claim alleging that the Government of Ontario's decision to defer offshore wind development frustrated its ability to obtain the benefits of a contract it had signed to provide wind energy for a fixed price. Windstream Energy alleged that the government's deferral of offshore wind until the completion of necessary scientific research violated its NAFTA obligations on minimum standard of treatment, Most Favoured Nation (MFN) treatment, expropriation and others. In 2016, a NAFTA tribunal sided with Windstream, awarding the company about USD 375 million on the grounds that the government's failure to do the scientific work necessary to address regulatory uncertainty breached their minimum standard of treatment obligations. In *Koch v. Canada*, a U.S. petrochemical conglomerate filed a USD 30 million claim arising out of Ontario's 2018 cancellation of its cap-and-trade program.⁷⁰ Koch alleges that its carbon emissions allowances purchased under the program were made worthless by the cancellation, in violation of NAFTA minimum standard of treatment of expropriation obligations. The case was pending at the time of writing.

The interactions between roll-back of climate legislation claims and domestic climate policy may not be as immediately obvious as those of the stranded assets claims discussed above. Nonetheless, commentators have pointed out that such claims may have two impacts. On the one hand, the threat of such claims may prevent States from backtracking from ambitious renewable energy policies.⁷¹ On the other hand, such cases may also have a chilling effect on the introduction of new subsidies and incentives, should States fear that they may be locked-in to the ongoing provision of such support even where prevailing market conditions have changed and such subsidies may no longer be deemed necessary.

IV. A Comprehensive Mapping of Climate-related ISDS Cases

Against the above conceptual backdrop and the two key sub-sets of cases described, this Section summarizes the quantitative findings of our mapping of climate-related ISDS cases. All cases have been drawn from the UNCTAD Investment Policy Hub database. The mapping of cases is ongoing and new cases will be duly assessed and included in the scope on a rolling basis.

The total number of climate-related ISDS cases identified is 69. Out of these 69 cases, 12 have been classified as stranded assets cases, while 57 we have classified as roll-back of climate legislation claims. Among decided cases, 20 have been decided in favour of investors, whereas 13 have been decided in favour of host States and 3 have been settled or discontinued.

Annex I summarises the ISDS cases mapped under our research. ISDS cases are categorized by kind of investment, kind of host-State measure subject to challenge, standard of treatment

⁶⁹ See *Windstream Energy LLC v. Government of Canada*, PCA Case No. 2013-22, available at: <https://www.international.gc.ca/trade-agreements-accords-commerciaux/topics-domaines/disp-diff/windstream.aspx?lang=eng#:~:text=On%20October%2017%2C%202012%2C%20Windstream,in%20damages%20to%20their%20investment>.

⁷⁰ See *Koch Industries Inc. and Koch Supply & Trading LP v. Canada*, ICSID Case No. ARB/20/52, available at: <https://www.international.gc.ca/trade-agreements-accords-commerciaux/topics-domaines/disp-diff/koch.aspx?lang=eng>.

⁷¹ See Pang H H, *The role of investor-State arbitration in promoting climate change mitigation: from "shield" to "sword" through renewable energy disputes?*, EUI AEL, 2022/05, European Society of International Law Paper - <http://hdl.handle.net/1814/74450>.

invoked by investors, sub-set of climate-related ISDS, respondent host State, and final outcome (or current pending status).

Taking stock of the key elements underscored in Section 2 above, Table 1 below displays a list of potential measures that can trigger climate-related ISDS disputes based on the two above basic criteria.

Table 1. List of measures potentially triggering climate-related ISDS.

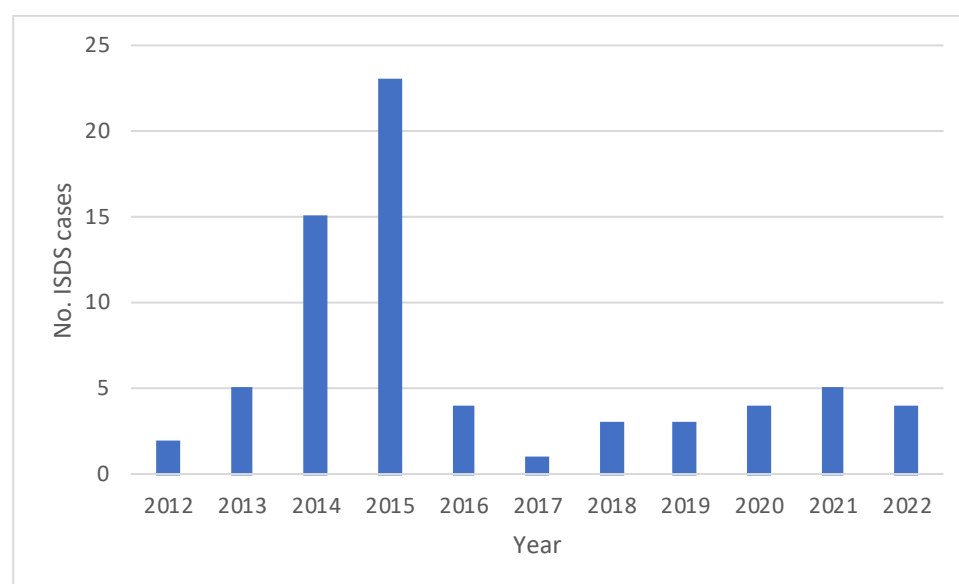
Kind of measure	Standard(s) of treatment invoked	Category of climate-related ISDS
Tax levies on fuels production and distribution	FET; Expropriation	Stranded Assets (Measures of general application)
Application, extension or revocation of cap-and-trade systems (e.g., emission trading) to GHG-emitting sectors	FET	Stranded Assets (Measures of general application) Roll-back of climate legislation
Phase-out of subsidies/grants to GHG-emitting companies	FET	Stranded Assets (Measures of general application)
Roll-back of support schemes for RES generation	FET	Roll-back of climate legislation
Moratoria on existing and/or future hydrocarbons exploration	FET; Expropriation	Stranded Assets (Measures of general application and Environmental permitting)
Penalisation of GHG-intensive activities in tendering procedures	MFN; NT; FET	Stranded Assets (Measures of general application)
Revocation/denial of permits for GHG-emitting activities	FET; Expropriation	Stranded Assets (Environmental Permitting)
Labelling and other consumption-based initiatives against GHG-intensive products and fuels	FET; NT; MFN	Stranded Assets (Measures of general application)

Source: Authors own elaboration

Legenda: FET = Fair and Equitable Treatment; MFN = Most Favoured Nations Provision; NT = National Treatment

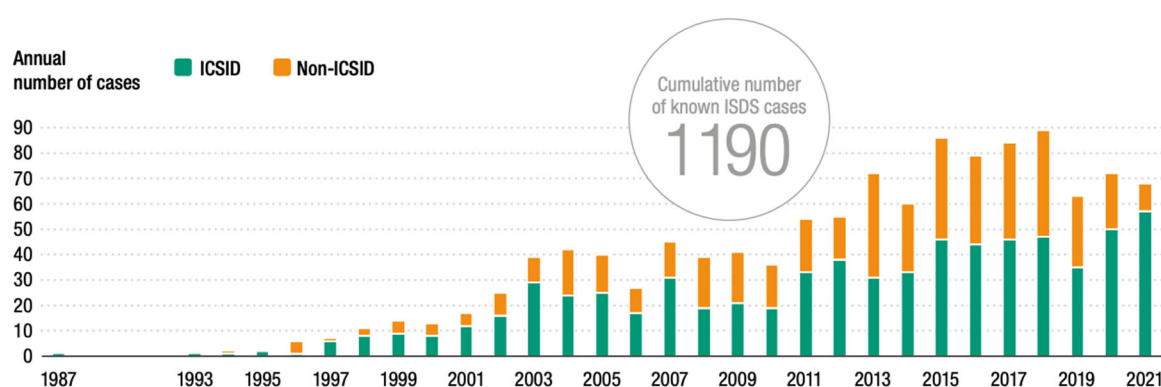
Figure 1 below sets out the yearly trend of cases analysed in the survey and listed in Annex I. The chart shows a steadfast increase in climate-related ISDS cases over the last 10 years. Where the 2014 and 2015 spike are largely due to the wave of arbitration related to RES support schemes roll-back in Spain and Italy, the cases filed over the last five years mostly account for stranded assets claims under our categorization. Such trend is in line with the more general trend as graphically shown in Figure 2.

Figure 1. Number of climate-related ISDS cases since 2012.



Source: Authors, based on UNCTAD Investment Policy Hub data

Figure 2. Trends in known treaty-based ISDS cases, 1987-2021.

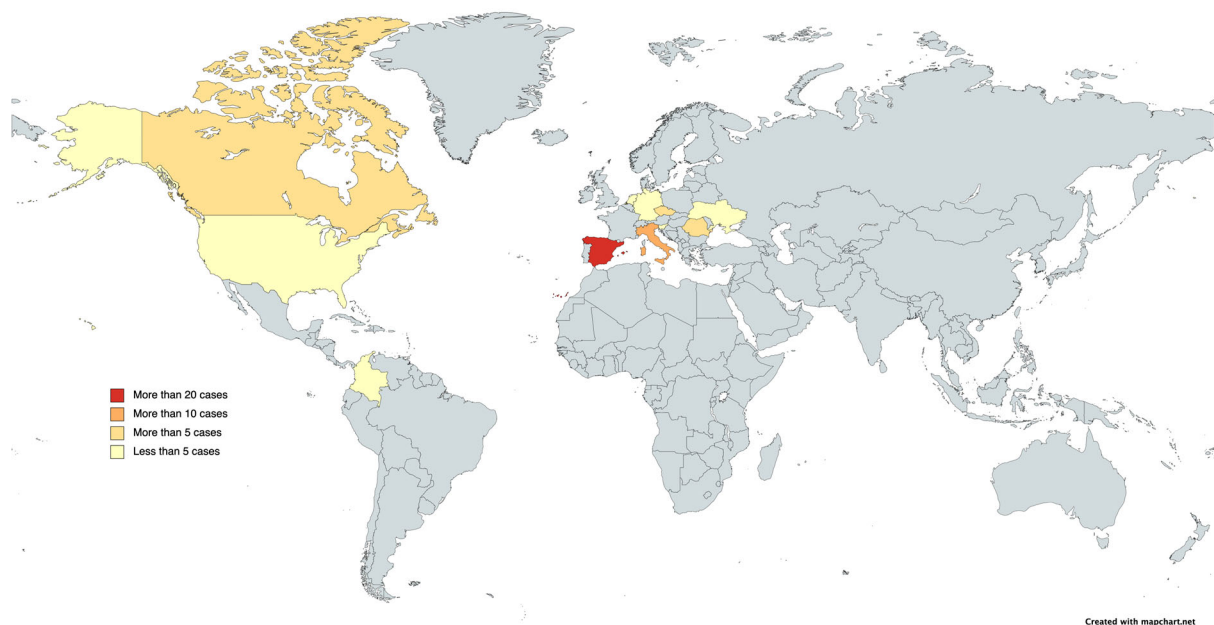


Source: UNCTAD (2022)

Last, yet not less importantly, Figure 3 displays the climate-related ISDS cases identified in our research based on their geographic spread. Accordingly, the emergence of climate-related ISDS is thus far mostly concentrated in the European and North-American continents. Depending on how these ISDS cases related to climate-related policies and regulations are

decided, they could provide host states with reassurance that their regulatory efforts are consistent with international investment norms and standards. Moreover, these climate-related ISDS cases could potentially bolster the credibility of investment tribunals. Historically, the ISDS system has faced criticism for prioritizing investor interests over public policy objectives, including those related to environmental protection. A balanced approach that acknowledges the importance of both investor protection and the need for responsible environmental practices could help rebuild public trust in investment tribunals in resolving disputes related to foreign investment.

Figure 3. Map of climate-related ISDS cases by host State.



Source: Authors, based on UNCTAD Investment Policy Hub data

V. Conclusion: Lessons Learned for Future Climate Policymaking and the Way Forward

The ongoing IIAs and ISDS reform processes are progressing at a pace and in a direction that is not consistent with the climate action needed under the Paris Agreement. At the same time, the conflict between the climate change regime and the investment protection regime is intensifying, with ISDS claims constituting an important factor in delaying the global efforts to address climate change. It might not be a coincidence that in the final stages of the negotiation of a modernised ECT there was a significant overlap between countries that were seeking full withdrawal from the ECT and countries where climate-related ISDS claims have been filed.⁷² However, as it stands, it is unlikely that the text of the modernised ECT will address this problem. The agreed text establishes that fossil fuel investments that already exist will only stop benefitting from investment protections starting ten years after the new treaty enters into force. That means that fossil fuel investors will still be able to file ISDS claims for

⁷² See <https://caneurope.org/eu-commission-turns-a-deaf-ear-to-multiple-calls-to-exit-the-energy-charter-treaty/>.

over ten years, a timeline that is likely to undermine governments' ability to address the climate crisis.⁷³

In addition to contributing to an understanding of the landscape of climate-related ISDS, we suggest practical recommendations for host States, for arbitration tribunals, as well as for investors. While literature shows that ISDS tribunals rarely engage with climate change considerations in their reasoning, this paper has shown that the number of climate-related ISDS cases is growing, threatening host States' ability to pursue climate action.⁷⁴ The paper discusses the significance of these cases for governments and policies. Governments increasingly find themselves between the hammer and the anvil of investment and climate protection. The examples of the Dutch stranded assets claims and the RES roll-back claims in Italy and Spain illustrate how the legitimate pursuit of climate change objectives through legislation or litigation domestically on the one hand may fuel ISDS cases on the other. This risk will only be enhanced as sovereign States need to foster an ambitious and rapid transformation of their fossil-fuels based economy. This body of climate-related ISDS claims is also likely to interact with domestic climate policy in different ways. As such, these cases should be understood as part of the wider body of climate change litigation, which can influence the outcome and ambition of climate policy.

Second, the categorization of climate-related ISDS cases outlined in this contribution brings to the fore the measures and investments that are most likely to be exposed to ISDS, providing an indication of the consequences that this entails in terms of budgetary and policy space restraints. Awareness of such risks can be translated into preventative action. Before implementing climate policies, host States should carefully appraise all previous representations provided to foreign investors. This includes an assessment of the *nature*, the *profitability* and the *duration* of the investment, as well as the total *market value* of the assets owned and/or exploited by foreign investors. More generally, when assessing existing and future foreign investments, host States should bear in mind that there may be value in ensuring – to the greatest extent possible - predictability and stability for investors as long as the IIAs system is in place. Where possible, transition measures should avoid abrupt, unforeseeable changes that entail “an act which shocks, or at least surprises, a sense of juridical propriety”.⁷⁵ Likewise, before putting in place regulatory schemes for remuneration of energy generation, host States must consider the cost and market trajectories of such technologies, as well as the ‘transition risk’ for investors. This type of assessment, coupled with fair and prompt out-of-court settlement and compensation to investors, could help mitigate the risk of ISDS and future impact on national public budgets.

However, while these are important factors to consider, they should not be taken as sufficient reason to reduce the ambition of urgently needed transition measures. Where there is an unavoidable trade-off between investor protection and climate action, the system of IIAs must be reformed to ensure that it is reinforcing climate protection. Such reform is ongoing within several *fora*, including UNCITRAL and the OECD. Moreover, there is widespread proclivity

⁷³ See <https://www.iisd.org/articles/statement/modernized-energy-charter-treaty-insufficient-climate-action>.

⁷⁴ See A Dimopoulos, Climate change and investor-state dispute settlement: identifying the linkages, in P Delimatsis (ed.), Research Handbook on Climate Change and Trade Law, Edward Elgar, 2016, 415-433; For a more open approach to climate change in ISDS, see also F Baetens, Combating Climate Change through the promotion of green investment: From Kyoto to Paris without regime-specific dispute settlement, in K Miles (ed.), Research Handbook on Environment and Investment Law, Edward Elgar, 2019, 107-130.

⁷⁵ This is the notorious quotation from the ICJ's judgment in the *Asylum* case, ICJ Reports 1950, p. 284, as repeatedly quoted by ISDS tribunals to frame the standard of Fair and Equitable Treatment (FET) against abrupt and arbitrary measures by host States.

across sovereign states to revise their foreign direct investment policy while considering or operationalising termination from their existing IIAs. A full discussion of the best approach to achieving those reforms – whether through fossil fuel carve outs or even withdrawal from existing IIAs – is, however, beyond the scope of this paper.⁷⁶

Third, the conceptual breakdown of case types developed in this paper (i.e., stranded assets claims and roll-back of climate legislation claims) can help policymakers to better understand the different types of claims that could be levelled against them, and therefore support efforts to “ISDS-proof” their climate change mitigation and adaptation action. When dealing with stranded assets claims, measures of general application can be considered by host States and courts. Particularly, focusing on investors due diligence may limit the scope of host State duties to protect investor’s legitimate expectations. In fact, as the assessment and reporting of climate change risks becomes mandatory, there is a higher threshold of what a prudent investor should know beforehand. In environmental permitting claims, host States might be able to develop systems that more adequately incorporate public participation in environmental decision-making, an additional layer of accountability which investors must in turn factor in. Finally, when it comes to roll-back of climate legislation claims, States might be able to build flexibility in carbon markets so that changing incentives under these schemes not necessarily lead to new claims. Once again, investors due diligence may constitute a legitimate defence when assessing an investor’s legitimate expectations in any type of energy investment in roll-back of climate legislation claims.

This paper has provided a conceptual framework to chart the waters of ISDS to frame it within the broader umbrella of climate change litigation and to pinpoint the main elements that characterizes it as anti-regulatory climate change litigation. As climate change is now at the doorsteps of ISDS tribunals, prompt and effective action to reconcile protection of property rights and climate action is needed to foster mutual reinforcement of all domains of international law against the climate crisis. While ideally we would see less climate-related investment arbitration cases, an explicit uptake of climate change arguments by ISDS tribunals could be beneficial to ensure host States’ regulatory space in enacting climate-related measures, and at the same time enhance the credibility of investment tribunals.

⁷⁶ See further J. Paine and E. Sheargold, A Climate Change Carve-Out for Investment Treaties, *Journal of International Economic Law*, 2023; jgad011, <https://doi.org/10.1093/jiel/jgad011>.

Annex I. List of climate-related ISDS

Case name	Full name	Kind of investment protected	Category of climate-related ISDS	Outcome/Status
Koch v. Canada	ICSID Case No. ARB/20/52	ETS emissions allowances trading	Roll-back of climate legislation	Pending
Greentech and Novenergia v. Italy	SCC Case No. 2015/095	RES plant	Roll-back of climate legislation	Decided (for investor)
Eskosol v. Italy	ICSID Case No. ARB/15/50	RES plant	Roll-back of climate legislation	Decided (for State)
CEF Energia v. Italy	SCC Case No. 2015/158	RES plant	Roll-back of climate legislation	Decided (for investor)
9REN Holding v. Spain	ICSID Case No. ARB/15/15	RES plant	Roll-back of climate legislation	Decided (for investor)
Isolux v. Spain	SCC Case No. 2013/153	RES plant	Roll-back of climate legislation	Decided (for State)
Charanne and Construction Investments v. Spain	SCC Case No. 062/2012	RES plant	Roll-back of climate legislation	Decided (for State)
Infrastructure Services and Energia Termosolar v. Spain	ICSID Case No. ARB/13/31	RES plant	Roll-back of climate legislation	Decided (for investor)
CSP Equity Investment v. Spain	SCC Case No. 2013/094	RES plant	Roll-back of climate legislation	Pending
Eiser and Energia Solar v. Spain	ICSID Case No. ARB/13/36	RES plant	Roll-back of climate legislation	Decided (for investor)
RREEF v. Spain	ICSID Case No. ARB/13/30	RES plant	Roll-back of climate legislation	Decided (for investor)
InfraRed and others v. Spain	ICSID Case No. ARB/14/12	RES plant	Roll-back of climate legislation	Decided (for investor)
Masdar v. Spain	ICSID Case No. ARB/14/1	RES plant	Roll-back of climate legislation	Decided (for investor)
NextEra v. Spain	ICSID Case No. ARB/14/11	RES plant	Roll-back of climate legislation	Decided (for investor)
RENERGY v. Spain	ICSID Case No. ARB/14/18	RES plant	Roll-back of climate legislation	Pending
RWE Innogy v. Spain	ICSID Case No. ARB/14/34	RES plant	Roll-back of climate legislation	Decided (for investor)
Alten Renewable v. Spain	SCC Case No. 2015/036	RES plant	Roll-back of climate legislation	Pending
BayWa r.e. v. Spain	ICSID Case No. ARB/15/16	RES plant	Roll-back of climate legislation	Decided (for investor)
Cavalum SPGS v. Spain	ICSID Case No. ARB/15/34	RES plant	Roll-back of climate legislation	Pending
Cube Infrastructures and others v. Spain	ICSID Case No. ARB/15/20	RES plant	Roll-back of climate legislation	Decided (for investor)
E.ON SE and others v. Spain	ICSID Case No. ARB/15/35	RES plant	Roll-back of climate legislation	Pending

Case name	Full name	Kind of investment protected	Category of climate-related ISDS	Outcome/Status
Foresight and others v. Spain	SCC Case No. 2015/150	RES plant	Roll-back of climate legislation	Decided (for investor)
Hydroenergy 1 and Hydroxana v. Spain	ICSID Case No. ARB/15/42	RES plant	Roll-back of climate legislation	Decided (for investor)
JGC v. Spain	ICSID Case No. ARB/15/27	RES plant	Roll-back of climate legislation	Decided (for investor)
Kruck and others v. Spain	ICSID Case No. ARB/15/23	RES plant	Roll-back of climate legislation	Pending
KS and TLS Invest v. Spain	ICSID Case No. ARB/15/25	RES plant	Roll-back of climate legislation	Pending
Landesbank Baden-Wurttemberg and others v. Spain	ICSID Case No. ARB/15/45	RES plant	Roll-back of climate legislation	Pending
Novenergia v. Spain	SCC Case No. 2015/063	RES plant	Roll-back of climate legislation	Decided (for investor)
OperaFund and Schwab v. Spain	ICSID Case No. ARB/15/36	RES plant	Roll-back of climate legislation	Decided (for investor)
Solarpark v. Spain	SCC Case No. 2015/163	RES plant	Roll-back of climate legislation	Discontinued
WOC Photovoltaic and others v. Spain	ICSID Case No. ARB/22/12	RES plant	Roll-back of climate legislation	Pending
Encavis and others v. Italy	ICSID Case No. ARB/20/39	RES plant	Roll-back of climate legislation	Pending
Veolia propreté v. Italy	ICSID Case No. ARB/18/20	RES plant	Roll-back of climate legislation	Pending
CIC Renewable v. Italy	ICSID Case No. ARB/16/39	RES plant	Roll-back of climate legislation	Pending
ESPF and others v. Italy	ICSID Case No. ARB/16/5	RES plant	Roll-back of climate legislation	Decided (for investor)
Sun Reserve v. Italy	SCC Case No. 132/2016	RES plant	Roll-back of climate legislation	Decided (for State)
Belenergia v. Italy	ICSID Case No. ARB/15/40	RES plant	Roll-back of climate legislation	Decided (for State)
Silver Ridge v. Italy	ICSID Case No. ARB/15/37	RES plant	Roll-back of climate legislation	Decided (for State)
Blusun v. Italy	ICSID Case No. ARB/14/3	RES plant	Roll-back of climate legislation	Decided (for State)
Antaris v. Czech Republic	PCA Case No. 2014-01	RES plant	Roll-back of climate legislation	Decided (for State)
Europa Nova v. Czech Republic	PCA Case No. 2014-19	RES plant	Roll-back of climate legislation	Decided (for State)
I.C.W. V. Czech Republic	PCA Case No. 2014-22	RES plant	Roll-back of climate legislation	Decided (for State)
JSW Solar v. Czech Republic	PCA Case No. 2014-03	RES plant	Roll-back of climate legislation	Decided (for State)
Natland and others v. Czech Republic	PCA Case No. 2013-35	RES plant	Roll-back of climate legislation	Pending
Photovoltaik Knopf v. Czech Republic	PCA Case No. 2014-21	RES plant	Roll-back of climate legislation	Decided (for State)
Voltaic Network v. Czech Republic	PCA Case No. 2014-20	RES plant	Roll-back of climate legislation	Decided (for State)

Case name	Full name	Kind of investment protected	Category of climate-related ISDS	Outcome/Status
Modus Energy v. Ukraine	SCC Case no. 2021/039	RES plant	Roll-back of climate legislation	Pending
SREW v. Ukraine	ICSID Case No. ARB/21/52	RES plant	Roll-back of climate legislation	Pending (suspended)
Fin.Doc and others v. Romania	ICSID Case No. ARB/20/35	RES plant	Roll-back of climate legislation	Pending
EP Wind v. Romania	ICSID Case No. ARB/20/15	RES plant	Roll-back of climate legislation	Pending
LSG Buildings Solutions and others v. Romania	ICSID Case No. ARB/18/19	RES plant	Roll-back of climate legislation	Pending
Aderlyne v. Romania	ICSID Case No. ARB/22/13	RES plant	Roll-back of climate legislation	Pending
The PV Investors v. Spain	PCA Case No. 2012-14	RES plant	Roll-back of climate legislation	Decided (for investor)
Windstream Energy v. Canada	PCA Case No. 2013-22	RES plant	Roll-back of climate legislation	Decided (for investor)
Tennant Energy v. Canada	PCA Case No. 2018-54	RES plant	Roll-back of climate legislation	Pending
Strabag and others v. Germany	ICSID Case No. ARB/19/29	RES plant (Offshore wind)	Roll-back of climate legislation	Pending
Mainstream Renewable Power Ltd and others v. Federal Republic of Germany	ICSID Case No. ARB/21/26	RES plant (Offshore wind)	Roll-back of climate legislation	Pending
Westmoreland v. Canada (I)	ICSID Case No. UNCT/20/3	Coal mine	Stranded assets (Measure of general application)	Discontinued
Westmoreland v. Canada (II)	ICSID Case No. UNCT/20/3	Coal mine	Stranded assets (Measure of general application)	Pending
RWE v. Kingdom of the Netherlands	ICSID Case No. ARB/21/4	Coal plant	Stranded assets (Measure of general application)	Pending
Ascent Resources v. Slovenia	ICSID Case No. ARB/22/21	Hydraulic Fracturing	Stranded assets (Measure of general application)	Pending
TC Energy and Transcanada v. United States	ICSID Case no. ARB/21/63	Fossil fuel infrastructure	Stranded assets (Measure of general application)	Pending

Case name	Full name	Kind of investment protected	Category of climate-related ISDS	Outcome/Status
Nord Stream 2 v. EU	PCA Case No. 2020-07	Fossil fuel infrastructure	Stranded assets (Measure of general application)	Pending
Uniper v. Kingdom of the Netherlands	ICSID Case No. ARB/21/22	Coal power plant	Stranded assets (Measure of general application)	Pending
TransCanada v. USA	ICSID Case No. ARB/16/21	Fossil fuel infrastructure	Stranded assets (Measure of general application)	Discontinued
Eco Oro v. Colombia	ICSID Case No. ARB/16/41	Mining	Stranded assets (Environmental permitting)	Pending
Lone Pine v. Canada	ICSID Case No. UNCT/15/2	Oil and gas exploration permits	Stranded assets (Environmental permitting)	Pending
Rockhopper v. Italy	ICSID Case No. ARB/17/14	Oil platform	Stranded assets (Environmental permitting)	Pending
Clara Petroleum v. Romania	ICSID Case No. ARB/22/10	Oil exploration permit	Stranded assets (Environmental Permitting)	Pending