

Identifying the limits of climate change litigation

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Abstract: Climate change litigation is awakening a lot of interest and hope within both academia and civil society. While certainly chalking out an empowering avenue to force governments and companies to take more ambitious actions, it clashes with structural limits present in international law. These limits appear in litigation and impede the adoption of transformative measures with a universal reach. Without disregarding that the praxis of climate litigation can also contribute to solidify some of these very same limits, this article analyses the appearance of three of them: the primacy enjoyed by international investment law over international environmental law, the North-South divide, and the intricacies of implementation.

Keywords: climate change litigation limits international law Global North-South regime fragmentation

(A) INTRODUCTION

The unprecedented pace at which humans are dangerously altering the stable climate conditions on earth is extremely worrying¹. Because governments are not taking the urgent measures required in the remaining window of opportunity to avoid entering in uncharted waters², for the last ten years litigation has sought to influence the direction of climate change governance. To provide the necessary transformative change that would guarantee a transition matching the urgency of the situation, climate litigation is not only battling the passivity of (the most polluting) states, but it is also encountering structural limits embedded in international law. This article aims to assess how three relevant limits, visible once a critical approach towards international law is adopted, appear in climate litigation: the primacy of the investment regime over its environmental counterpart, the persisting discrimination of the Global South, and the complexity surrounding the always laborious task of implementation. Unpacking these three limits does not automatically imply that the result of climate change litigation is

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¹ Only under the most optimistic pledge-based scenario, run by the Intergovernmental Panel on Climate Change (IPCC), warming has stabilized by 2100 (to an increase of 1.9°C with a 66% change) [in United Nations Environmental Programme (UNEP), *Emissions Gap Report 2024: No more hot air... please! With a massive gap between rhetoric and reality; countries draft new climate commitments* (2024), at 33].

² As UNEP clearly states, “unless global emissions in 2030 are brought below the levels implied by existing policies and current [Nationally Determined Contributions], it will become impossible to reach a pathway that would limit global warming to 1.5°C [...] and strongly increase the challenge of limiting warming to 2°C” [*ibid.*, at XII].

performance determined; these limits are deeply-rooted and are difficult to overcome, but climate litigation can (consciously) engage with them, seeking to modify – or also to keep – the status quo and the role reserved to the regime that, at first sight, should be essential: international environmental law. Understanding how these limits appear in litigation is of utmost importance to gauge the feasibility of the expectations placed on a judiciary-led climate transition, to expose the existent imbalances in international law and to, most importantly, fine-tune the practice and strategies of this climate juridical phenomenon.

(B) THE LIMITS OF INTERNATIONAL (ENVIRONMENTAL) LAW

Identifying the limits of climate change litigation requires the unavoidable exercise, as it would happen with litigation of any other nature, of a prior diagnosis about the problem that this legal action aims to solve – in this case, climate change. Namely, this assessment has to expose the role that international law plays in the production and management of climate change. In this section, by initially resorting to Anne Orford's critical analysis of international law³, as well as the legalism she imbues it with, I explain three main limits through which international law fails to properly address climate change: the centrality of the investment regime, the inadequate differentiation of the Global South, and the complexity of implementation.

In dominant international law, built mostly from (and in order to foster an) international liberalism, the environmental question – as well as its social equivalent – is separated from the legal regimes of trade, security, investment and the use of force⁴. While addressing all these four regimes would unveil relevant international legal constraints that reduce the margin of maneuver to tackle climate change⁵, and

³ Orford's analysis is attentive to the concrete manifestations of politico-legal concepts and practices forming the backbone where international law is found (better said, along the lines of her work, 'made' when it is claimed to be 'found'), while also fleshing out its relation with political economy assumptions and preferences [see, *inter alia*, A. Orford, 'International Law and the Limits of History', in W. Werner, M. de Hoon, and A. Galán (eds.), *The Law of International Lawyers: Reading Martti Koskenniemi* (Cambridge University Press, Cambridge, 2017), at 312 and A. Orford, 'Food Security, Freed trade, and the Battle for the State', in *Journal of International Law and International Relations* (2015) 1-67, at 28-37]

⁴ A. Orford, 'International Law and the Social Question', 5 *Annual TMC Asser Lecture* (2020), 1-50, at 3 and 46. Orford does not clarify if this separation emanates from the legal practice by specialized international lawyers, that ends up creating such regimes – as it is implicitly chalked out in the first page of this footnote –, or if such practice forcefully takes place within pre-established boundaries resulting from sophisticated mechanisms of enforcement that create these regimes – which is suggested in the second page of this same footnote.

⁵ Some of the most illustrative restrictions can be mentioned. Regarding the regime of the use of force, under the Paris Agreement, it is voluntary for state parties to include the energy uses at their bases and military equipment (such as road transport, aviation and ships) in their nationally determined contributions, but other activities carried out during (the preparation of) an armed conflict or related with the military equipment procurement, among others, do not have to be included in case this voluntary reporting takes place [see R. E. Pezzot, 'The Silence of the Lambs and the Wartime GHGs Emissions', *EJIL: Talk!*, published 26 March 2024, available electronically at <https://opiniojuris.org/2024/03/26/the-silence-of-the-lambs-and-the-wartime-ghgs-emissions/>]. As to the security regime, the universal recognition of the right to a healthy environment by the UN General Assembly on July 2022 deleted the adjective *safe* while keeping the qualifiers *clean*, *healthy* and *sustainable* present in previous draft versions because of many state pressures [M. Limon, 'United Nations recognition of the universal right to a clean, healthy and

also acknowledging the existent relevant debate about the problematic and mutating function of such fragmentation⁶, the first limit is exclusively focused, for reasons of space, on the leading role of the investment regime.

International investment law is mainly centred on investment protection, being disengaged from its operating environmental context and traditionally indifferent to the detrimental effects of the activities it enables⁷. This regime presents an asymmetry between the wide range of rights investors enjoy and the reduced responsibilities based on social expectations they are subject to – far from amounting to clear-cut traditional obligations since they are not based exactly in law and hence cannot be qualified as legally binding; a decoupling imaginary, rooting this asymmetry, slows down heading towards finding (the extension of) investors' obligations under international law as some recent arbitration awards, without unanimity, have displayed⁸. Against this background, in interpreting international investment agreements that investors claim have been violated by states, “arbitrators tend to treat them as an autonomous and self-contained regime that prevails over other regulatory regimes”⁹. The simultaneous submission of states to the human rights and environmental regimes, on the one hand, and international investment law, on the other hand, can generate an incompatibility (in the fulfillment) of obligations, with the practice of arbitral tribunals as a key factor informing states' decisions in the midst of this dilemma¹⁰. Although the content of

sustainable environment: An eyewitness account', 31 *RECIEL* (2022) 155-170, at 168]. Moreover, the majority of the debates surrounding the *securitization* of climate change in the UN Security Council by expanding the interpretative reach of chapters VI and VII of the UN Charter “reveal a deep contradiction” in (not) identifying how the conditions that in first place permit climate change are brought about [E. Cusato, ‘Of violence and (in)visibility: the securitisation of climate change in international law’, 10 *London Review of International Law* (2022) 203–242, at 230]. Finally, the trade regime might present more willingness to interact with the environmental regime – meriting, the rationale of this interaction, a deeper analysis –, but even structural rules devised to make both compatible still present a notable interpretative stalemate [see G. Marín-Durán, ‘Securing compatibility of carbon border adjustments with the multilateral climate and trade regimes’, 72 *International and Comparative Law Quarterly* (2023) 73-103, at 95].

⁶ There are scholars who, with a less pessimist view, consider the existence of these different regimes as a stage in the development and application of international law. In this sense, the existence of these separate regimes is part of a dynamic process, not always temporally ordered, of law-creation and implementation in certain thematic areas which does not exclude fertilization and linkage between regimes [M. A. Young, ‘Introduction: The Productive Friction between Regimes’, in M. A. Young (ed.) *Regime Interaction in International Law: Facing Fragmentation* (Cambridge University Press, Cambridge, 2012), at 9-10]. Following this logic, it is believed that international courts might have started a process of regime harmonization, producing a coordination between norms and knowledge of the regimes that might collide [A. Peters, ‘The refinement of international law: From fragmentation to regime interaction and politicization’, 15 *International Journal of Constitutional Law* (2018) 671-704].

⁷ K. Miles, *The Origins of International Investment Law: Empire, Environment and the Safeguarding of Capital* (Cambridge University Press, New York, 2013), at 132-133.

⁸ N. Perrone, ‘Bridging the Gap between Foreign Investor Rights and Obligations: Towards Reimagining the International Law on Foreign Investment’, 7 *Business and Human Rights Journal* (2022) 375-396, at 392 and 394. Along these lines, see Working Group..., *infra* n. 9, at paragraphs 41, 63 and 65.

⁹ Working Group on the issue of human rights and transnational corporations and other business enterprises, ‘Human rights-compatible international investment agreements’, A/76/238, 27 July 2021, at paragraph 17.

¹⁰ Independent Expert on the effects of foreign debt and other related international financial obligations of States on the full enjoyment of all human rights, particularly economic, social and cultural rights, ‘Effects of foreign debt and other related financial obligations of States on the full enjoyment of all human rights, particularly economic, social and cultural rights’, A/79/153, 17 July 2017, at paragraph 8.

the award is bargained more often than what it is widely presumed – especially if it is not considered legitimate and it hides strong distributive concerns¹¹ –, it strongly influences the span of options states might adopt to meet their environmental duties. In the field of energy transition programmes, for example, investor-state dispute settlement mechanisms are producing a considerable level of inconsistency in the design and implementation of greener policies due to the (alleged) breach of contractual rights possessed by the investors behind the extractive sector¹².

It should be nuanced that this does not entail that the investment regime is inherently and inevitably contrary to progressive climate policies. Nevertheless, its current structure and practice quasi-exclusively focused on monetization leave aside the implementation of measures fostering an energetic transition and strengthens the payment of compensations to investors. This occurs even in proceedings where investors use arguments of environmental protection in relation to the benefits associated with the promotion of renewable energy initially sponsored by governments¹³.

The second limit is also, to a considerable extent, explained by the context of regime fragmentation. International environmental law's foundational purpose is to tackle the negative effects of the (trans)actions allowed by these other regimes, especially international trade law, being an added layer of (post)protective regulation over legal rules that have previously organized processes producing negative externalities to the environment¹⁴. In the ensuing small margin of maneuver it possesses, international environmental law has also been, at critical times, complicit in allowing and accentuating the injustice of these effects¹⁵, especially through the authoritative position acquired by market concepts¹⁶. Albeit this scenario might be progressively changing – in part thanks to climate litigation¹⁷, among these imbalances it stands out the incapacity that international environmental law presents to internalize the environmental problems that have an immediate and negatively differentiated impact over the Global South¹⁸. This economic-geographic divide is certainly more porous than the way it is often treated by critical scholars, but the environmental legal regime still confers a predominant position

¹¹ T. St John *et al.*, 'Bargaining in the Shadow of Awards', 35 *The European Journal of International Law* (2024) 603–622, at 615–616.

¹² Working Group on the issue of human rights and transnational corporations and other business enterprises, 'Extractive sector; just transition and human rights', A/78/155, 11 July 2023, at paragraphs 14–16 and 18.

¹³ N. Perrone, 'International Investment Agreements and Climate Change: What is the Role that International Investment Agreements Play in the Transition to a Green Economy?', Asia-Pacific Economic Cooperation Investment Experts' Group, July 2024, at paragraphs 133–135.

¹⁴ J. Viñuales, *The Organisation of the Anthropocene: In Our Hands?* (Brill, Leiden, 2019), at 9 and 26.

¹⁵ L. J. Kotzé, L. Du Toit, and D. French, 'Friend or foe? International environmental law and its structural complicity in the Anthropocene's climate injustices', 11 *Onati Socio-Legal Series* (2021) 180–206, at 191–192.

¹⁶ N. S. Ghaleigh, 'Thoughts on 'Theory'', International Law and Environmental Law Scholarship, 30 *Journal of Environmental Law* (2018) 543–555, at 552.

¹⁷ See, for example, how C. Voigt ['The Power of the Paris Agreement', 32 *RECIEL* (2023) 237–249, at 239] acknowledges that it is not impossible, even though she initially warns that it seems unlikely, that an international court requires more of states than the obligations they accepted to be subject to under the Paris Agreement.

¹⁸ S. Atapattu and C. G. Gonzalez, 'The North-South Divide in International Environmental Law: Framing the Issues', in S. Alam *et al.*, (eds), *International Environmental Law and the Global South* (Cambridge University Press, Cambridge, 2015), at 10.

to the North as the source of acceptable meaning¹⁹. The unfinished legal structure of *loss and damage* within international climate change law epitomizes such dominance.

Included as a climate pillar in the Paris Agreement, a COP decision clearly stated that the loss and damage of article 8 “does not involve or provide a basis for any liability or compensation”²⁰. Beyond the limited role that this confers to historical emissions by developed countries, focusing more on their current capabilities and taking the(ir) lead in the operationalization of funding²¹, its relative importance compared to other pillars is clear through its inclusion in the Paris Rulebook under the umbrella of adaptation²². Such flexible approach is primarily possible because there is no formal definition of loss and damage, which can be explained by international law’s difficulties to commensurate the different ways loss is experienced – let alone the deeper underlying issue of valuing loss to nature beyond its perception as a resource²³. Moreover, the interim trustee role conceded to the World Bank has not been welcomed by many countries of the Global South²⁴. Lastly, all this, together with the voluntary character of the fund²⁵, make the operationalization of a loss and damage adjusted to the real needs of the Global South cumbersome.

The ghost of implementation, always chasing international law, is the third limit. States, as the mainstream narrative goes, willingly disregard, on many occasions, the obligations they consented to be bound or the measures adjudicated by courts. Along these lines, the quandaries faced by international courts to enforce their rulings²⁶, the varied success of requesting organs in seeking the implementation of an advisory opinion by the ICJ²⁷ and the states’ intermittent compliance with international law are problematics at the core of the academic research unpacking implementation²⁸. This epistemological stance

¹⁹ U. Natarajan and K. Khoday, ‘Locating Nature: Making and Unmaking International Law’, 27 *Leiden Journal of International Law* (2014) 573–593, at 581 and 585.

²⁰ UNFCCC, ‘Decision 1/CP.21, Adoption of the Paris Agreement’, UN Doc FCCC/CP/2015/10/Add.1, 29 January 2016, at paragraph 51.

²¹ A. M. Blanco and P. Toussaint, ‘Addressing Loss and Damage at COP29 and Beyond’, *Völkerrechtsblog*, published 13 November 2024, available electronically at <https://voelkerrechtsblog.org/addressing-loss-and-damage-at-cop29-and-beyond/>.

²² V. Pekkarinen, P. Toussaint and H. van Asselt, ‘Loss and Damage after Paris’, 13 *Carbon & Climate Law Review* (2019) 31–49, at 36. In this sense, states are not obliged to include loss and damage in their NDCs.

²³ U. Natarajan, ‘Measuring the Immeasurable: Loss and Damage from Climate Change in International Law’, in S. L. Seck and M. Doelle (eds), *Research Handbook on International, National, and Transnational Responses to Loss & Damage* (Edward Elgar Publishing, Cheltenham, 2021).

²⁴ E. Shumway, ‘Observations from COP28 on the Loss and Damage Fund’, *A Sabin Center Blog*, published 20 december 2023, available electronically at <https://blogs.law.columbia.edu/climatechange/2023/12/20/observations-from-cop28-on-the-loss-and-damage-fund/>.

²⁵ See how decision 1/CP.28 “urge[s] developed country Parties to continue to provide support and encourage[s] other Parties to provide, or continue to provide support, on a voluntary basis, for activities to address loss and damage” [in UNFCCC, ‘Decision 1/CP.28, Operationalization of the new funding arrangements, including a fund, for responding to loss and damage referred to in paragraphs 2–3 of decisions 2/CP.27 and 2/CMA.4’, UN Doc FCCC/CP/2023/11/Add.1, 6 December 2023, at paragraph 12].

²⁶ See, analyzing the United Nations’ international law of enforcement and the ICJ, A. Tanzi, ‘Problems of Enforcement of Decisions of the International Court of Justice and the Law of the United Nations’, 6 *European Journal of International Law* (1995) 539–572.

²⁷ E. StHoeger, ‘How do States React to Advisory Opinions? Rejection, Implementation, and what Lies in Between’, 17 *AJIL Unbound* (2023) 292–297, at 294.

²⁸ For a detailed theorization of noncompliance, see J. K. Cogan, ‘Noncompliance and the International Rule of Law’, 31 *The Yale Journal of International Law* (2006) 189–210.

is normally taken to capture the application of legal regimes considered problem-solving such as human rights or humanitarian law. However, and accepting the intricacies fencing in what is implementation²⁹, this stance ignores the (more frequent) implementation of those regimes that enjoy primacy over others in a fragmented legal context. In addition, and getting considerable distance from classical positivist lenses, it also brushes aside international law's operation through every day practices, which are often ascribed to other normative orders of less extraordinary character; namely, by means of its universalization, international law has percolated into domestic and regional legal fields that are enframed as local autonomous affairs³⁰. As a result of the combination of these different observations, implementation is a limit not only because there are obligations not complied – which is certainly the case –, but also because discerning what measures are (to be) implemented is an elusive endeavour. In this article, especially in the fourth section, implementation is addressed through this latter version.

International environmental law has been historically based on the implicit assumption that it is enough to establish legal objectives, general principles and commitments in the agreements reached, containing few provisions on implementation and leaving to contracting states the implementation of measures in accordance with their national sovereignty on environmental matters³¹. This helps to explain the vast amount of governance gaps in the environmental regime³². To fill the void left by the lack of classical mechanisms of enforcement, reporting and supervision by international institutions of an intergovernmental character have been deployed and reckoned as a positive solution³³; at the end of the day, though, these institutions cannot enforce their findings. This procedural avenue to ensure effective implementation is also destabilized by the complexity to identify, especially in relation to climate change, concrete substantive obligations. In this sense, the silence of the United Nations Framework Convention on Climate Change³⁴ and the Paris Agreement³⁵ on key areas, such as fossil fuels, illustrate that their duties are not exhaustive³⁶. Certainly, finding obligations beyond what the text of the Paris Agreement does not mention cannot be entirely ruled out³⁷. In this direction, but in a more reformist fashion, it seems more likely that its existent ambiguous obligations can be strengthened and concretized if placed in the wide tapestry of inter-locking obligations at the international realm³⁸. That

²⁹ B. Kingsbury, 'The Concept of Compliance as a Function of Competing Conceptions of International Law', 19 *Michigan Journal of International Law* (1998) 345-372.

³⁰ L. Eslava, 'Istanbul vignettes: observing the everyday operation of international law', 2 *London Review of International Law* (2014): 3-47.

³¹ L. Krämer, 'The Time for lofty Speeches is Over – It Is Time for Implementation: The Problem of 50 Years of Application of International Environmental Law', 13 *Revista Catalana de Dret Ambiental* (2022) 1-25, at 4. Secretary General of the UN, 'Gaps in international environmental law and environment-related instruments: towards a global pact for the environment', A/73/419, 30 November 2018, at paragraphs 7 and 86.

³² A. E. Boyle, 'Saving the World? Implementation and Enforcement of International Environmental Law through International Institutions', 3 *Journal of Environmental Law* (1991) 229-245, at 231-232.

³³ United Nations Framework Convention on Climate Change, 1771 *UNTS* 107 (adopted 9 May 1992, entered into force 21 March 1994).

³⁴ Paris Agreement, 3156 *UNTS* 79 (adopted 12 December 2015, entered into force 4 November 2016).

³⁵ Centre for International Environmental Law, 'Obligations of States in Respect of Climate Change (Request for Advisory Opinion)', *Written Statement*, 20 March 2024, at paragraph 50.

³⁶ See C. Voigt, *supra* n. 17.

³⁷ L. Rajamani, 'Interpreting the Paris Agreement in its Normative Environment', 77 *Current Legal Problems* (2024) 167-200.

said, the operationalization of the measures – often adjectivized as ‘objective’ – through which these obligations would be fulfilled cannot be fathomed without looking at (national) courts. Their frequent usage due to the lack of sufficient action by states, paired with their dual especial role as creators of state practice and international law enforcers³⁹, makes them relevant in, first, delimiting what has to be implemented and, second, orienting the meaning of agreements. Nevertheless, courts’ internal legal constraints, the environmental distributive justice through which they gather elements from the set of inter-locking obligations⁴⁰, and the repetition of these very same inter-locking obligations in their findings without concretizing how they ought to be narrowed down, can provoke the adjudication of measures which remain rather superficial.

(C) CLIMATE CHANGE LITIGATION

Climate litigation is a growing phenomenon affecting, unconsciously or on purpose, the governance of climate change. Namely, it has a regulatory impact in so far as it shapes the development, on one side, of the aggregate behavior of different subjects and, on the other side, the design and implementation of policies related with mitigation and adaptation⁴¹. The promotion of citizen’s engagement in the management of the environment by means of access rights⁴², wherein access to justice – and hence litigation – is the right most mobilized as well as culturally dominant⁴³, helps to explain the notoriety it has acquired.

Quantitative analyses seem to show that in the last decade climate litigation has been widely used. From the 2666 climate cases that the Sabin Center’s database has identified between 1986 and May 2024, 70% were initiated in 2015⁴⁴. The amount of cases is not *per se* an indicator of the intent to regulate by means of litigation, for just a case – or few – can have a considerable legal impact by reaching different economic systems and reorganizing the hierarchy between existent norms⁴⁵. Nevertheless, the wave of climate

³⁹ A. Roberts, ‘Comparative International Law? The role of National Courts in creating and enforcing international law’, 60 *International and Comparative Law Quarterly* (2011) 57-92, at 62-63.

⁴⁰ See P. Galvão-Ferreira, ‘Differentiation in International Environmental Law: Has Pragmatism Displaced Considerations of Justice’, in N. Craik *et al.* (eds.) *Global Environmental Change and Innovation in International Law* (Cambridge University Press, Cambridge, 2018).

⁴¹ J. Peel and H. M. Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, Cambridge, 2015), at 32-35.

⁴² Mainly established through these two agreements: Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (adopted 25 June 1998, entered into force 30 October 2001) and Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (adopted 4 March 2018, entered into force 22 April 2021).

⁴³ C. Abbot and M. Lee, ‘NGOs shaping public participation through law: the Aarhus Convention and Legal Mobilisation’, 36 *Journal of International Environmental Law* (2024) 85-106, at 93 and 103.

⁴⁴ J. Setzer and C. Higham, ‘Global trends in climate change litigation: 2024 snapshot’, Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy (2024) 1-55, at 10.

⁴⁵ This is the logic behind the cases motivated by the belief that there is a regulatory capture [J. Jaria-Manzano, ‘La Litigació Climàtica a Espanya: Una prospectiva’, IX *Revista Catalana de Dret Ambiental* (2018) 1-34, at 15-16]. Such strategy can also be used by certain (informal) actors who aim to keep such capture when the legislator or the executive pass ambitious laws or policies that run against their structural interests [see

cases initiated in 2015 suggests that tribunals have become more than exceptional *loci* of contestation; the combination of high-profile cases with their comparatively understudied but incremental low-profile counterparts can influence the climate legal ordering by means of a (coordinated or organic) butterfly effect⁴⁶. It should also be acknowledged, though, that investigations empirically assessing to what extent these cases have a meaningful impact remain in their infancy⁴⁷.

The direction and depth of this regulatory impact is strongly affected by the limits in international law explained in the previous section, true. All the same, they do not determine entirely the fate of litigation; a fair gauging of how litigation engages with them requires factoring in two preliminary considerations.

First, litigation is the second-best option to tackle climate change, with multilateral environmental agreements — as long as they are complete, with precise obligations and with compliance mechanisms — being the first option⁴⁸. While this perspective can lower the expectations placed on climate litigation⁴⁹, this is not incompatible with a positive perception regarding its potential and, consequently, it does not have to be confused with an overall skepticism as to its necessity. At the same time, the notion of success is a complex issue due to the multiplicity of results, contexts and strategies of social mobilization in which litigation takes place⁵⁰.

Second, the type of litigation, and how it is conceived, delineates the role played by international law's limits. Litigation, in the legal context of rights of access, can be understood as the correction of the asymmetries in the behavior (and exchange of information) of the private sector regarding the management and effect over the environment, but without calling into question the underlying market structures allowing such conducts⁵¹. If litigation aims to go beyond this friction-polishing role, it can try to play a catalyzing function with the objective of profoundly modifying existing systemic laws or setting watershed precedents⁵². National courts have witnessed quite

UNEP, 'Environmental Rule of Law: Tracking Progress and Charting Future Directions', Nairobi (2023), at 137-138].

⁴⁶ C. V. Piedrahíta and S. Gloppen, 'The Quest for Butterfly Climate Adjudication', in C. Rodríguez-Garavito (ed.) *Litigating the Climate Emergency: How Human Rights, Courts, and Legal Mobilization can Bolster Climate Action* (Cambridge University Press, Cambridge, 2022), at 117.

⁴⁷ See J. Peel, A. Palmer and R. Markey-Towler, 'Review of literature on impacts of climate litigation. Report', *Children's Investment Fund Foundation* (2022).

⁴⁸ L. Rajamani, 'Climate Litigation: The Second-Best Option for Governing Climate Change', *British Institute of International and Comparative Law, International Virtual Summit: Our Future in the Balance. The role of Courts and Tribunals*, filmed online 7 June 2021, available electronically at <https://www.youtube.com/watch?v=riS6baHuWrc>

⁴⁹ The urgency to avoid an extremely dangerous climate change might not be matched by the slow process behind obtaining and extending juridical victories to many jurisdictions. In this sense, an environmental agreement, with the features mentioned, could be operationalized faster. For a scrutiny of the pace and the drag in the implementation of the Paris Agreement, see L. Rajamani, *supra* n. 38, at 175-176.

⁵⁰ P. De Vilchez, 'Panorama de Litigios Climáticos en el Mundo', 26 *Anuario de la Facultad de Derecho de la Universidad Autónoma de Madrid* (2022) 349-381, at 361-362.

⁵¹ A. Gupta and M. Mason, 'A Transparency Turn in Global Environmental Governance', in A. Gupta and M. Mason (eds.) *Transparency in Global Environmental Governance: Critical Perspectives* (MIT Press, Cambridge, 2014), at 8 and 10.

⁵² S. Bookman, 'Catalytic Climate Litigation: Rights and Statutes', 43 *Oxford Journal of Legal Studies* (2023) 598-628, at 602-603. For a vision of what a transformative framing to overcome the limit of traditional

some cases of this type; a number of scholars argue that international climate change law has only been partially used (to present the case facts) due to the centrality conferred to human rights law, domestic law and the identification of an international consensus of a non-legal nature⁵³, while others argue that the domestic norms applied by domestic courts overlap with international laws, incorporating the substance of the latter and, hence, producing an implicit consubstantial alignment with them when invoked in a case⁵⁴. In this sense, litigation might aim at filling regulatory gaps⁵⁵ in a way that shakes the interpretation of what was settled-law, but it can also expose the inner problems in laws not containing any gap. Nonetheless, it also exists a defensive type of litigation non-aligned with climate objectives trying to obstruct the application of laws and policies adopted to reduce greenhouse gases emissions, primarily for financial and ideological reasons⁵⁶. These cases, initiated by actors who would lose the legal shelter allowing their privileged relation with nature, rely on the judiciary precedents developed in a socio-economic context that disregarded the realities of climate change⁵⁷. Albeit having passed unnoticed in academia, the (few) existent research point that non-climate-aligned litigation is significant within the states' environmental agencies concession of permits and issuing of concrete rules⁵⁸.

This second preliminary consideration is the most relevant to understand how the three limits in international law appear in climate change litigation. Litigation can try to erode the primacy of the investment regime — by means of high and low-profile cases — or keep it through legal argumentation seeking to maintain its hierarchy — such as non-aligned litigation or even the one centered on correcting asymmetries. This way, the praxis of litigation also chalks out its endogenous limits that relate with the external ones. While the (geographical) practice of litigation is pivotal for the limit dividing the Global North and South — hence being easy to attribute a big part of the blame for the lack of cases to the litigants —, the indeterminacy of international climate legal norms that would differentially benefit Global South countries creates a paralysis of potential climate national laws that could be justiciable. Moreover, and bearing in mind the first preliminary consideration, the context and strategies of social mobilization in the Southern countries provoke the overlook of certain cases that are not explicitly framed in climate (Northern) terms.

collective action could look like, *see* L. Mai, 'Navigating transformations: Climate change and international law', 37 *Leiden Journal of International Law* (2024) 1-22, at 6.

⁵³ A. Buser, 'National climate litigation and the international rule of law', 36 *Leiden Journal of International Law* (2023) 593-615, at 607-608.

⁵⁴ André Nollkaemper, 'International climate law in national courts: from avoidance to alignment', *Keynote talk at the ESIL Research Forum*, 18 April 2024.

⁵⁵ Secretary General of the United Nations, *supra* n. 32, at 7.

⁵⁶ J. Setzer and C. Higham, 'Global Trends in Climate Change Litigation: 2022 Snapshot', *Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy* (2022) 1-47, at 7.

⁵⁷ N. Rogers, 'Climate Change Litigation and the Awfulness of Lawfulness', 38 *Alternative Law Journal* (2013) 20-24.

⁵⁸ D. Markell and J. B. Ruhl, 'An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual', 64 *Florida Law Review* (2012) 25-86, at 66.

(D) THE APPEARANCE OF LIMITS IN CLIMATE CHANGE LITIGATION

In the vast number of existing climate cases, the appearance of any of the three limits can curtail the positive impact of litigation in different ways. This section tries to depict how they appear and their legal effect in litigation. Firstly, it is explained how the investment regime affects certain principles of international environmental law and the measures states can take. Secondly, the three forms the North-South divide adopts in climate litigation are presented: the subject-matter of the cases, their juridical geography and their partial extra-territoriality. And thirdly, the difficulty in identifying general measures and the static vision of science when filling the content of ‘necessary measures’ represent the limit of implementation.

The first limit unequivocally appears in the non-climate-aligned litigation⁵⁹. The last annual report from the *Grantham Research Institute* notes that from the 230 new cases registered in 2023, 21% were of this type⁶⁰. In this type of litigation, the fossil fuel industry, and its use of the investor-state dispute settlement, stands out by winning 72% of the cases at the merits stage and obtaining 77.000 million of dollars in compensation⁶¹. At the same time, the lack of information regarding the total amount of cases – especially those arbitrations that take place outside the International Centre for Settlement of Investment Disputes and the United Nations Commission on International Trade Law – and the partial disclosure or absolute seal of the arbitrations which are known to exist⁶² render the real impact of dispute settlement difficult to gauge. This uncertainty can contribute to the dissuasive effect that anti-climate arbitration around the world exerts over states, to the extent that it is not surprising that they lessen the ambition of climate measures in order to avoid facing similar disputes⁶³.

The autonomy conferred to (the adjudication of) international investment law alters the application of basic principles of international environmental law to the climate context. First of all, in recent years, the polluter pays principle has been reversed in investor-state dispute settlements, for polluters are getting paid⁶⁴. These compensations can frustrate a proper application of the principle given that investors should bear the costs associated with stopping their polluting activities; a flexible approach, in which losses for phasing-

⁵⁹ Up until 2018, in 35% of the cases accumulated at the international level, without counting the ones occurring in the United States, the applicants were corporations that wanted to stop projects and climate laws [see M. Nachmany and J. Setzer, ‘Global trends in climate change legislation and litigation: 2018 snapshot’, *Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy* (2018) 1-8, at 5.

⁶⁰ J. Setzer and C. Higham, *supra* n. 44, at 40. It should be nuanced that 21% of these are just transition cases, briefly explained [ibid., at 6].

⁶¹ Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, ‘Paying polluters: the catastrophic consequences of investor-State dispute settlement for climate and environment action and human rights’, A/78/168, 13 July 2023, at paragraph 5.

⁶² Lea Di Salvatore, ‘Investor-State Disputes in the Fossil Fuel Industry’, *International Institute of Sustainable Development* (31 December 2021), at 13.

⁶³ K. Tienhaara, ‘Regulatory Chill in a Warming World: The Threat to Climate Policy Posed by Investor-State Dispute Settlement’, 7 *Transnational Environmental Law* (2018) 229-250, at 233. This is known as *internalization of the regulatory chill*.

⁶⁴ Special Rapporteur, *supra* n. 61, at 41. See L. Cotula, *infra* n. 70, at 789.

out policies are treated as compensable, could allow the deduction of the environmental damage from the compensation to be paid by a state⁶⁵. Equally important is how the precautionary principle is related with the facts of the case. By way of illustration, in controversies where states adopt measures related with limiting the production of oil as part of – but not as the sole result of – public participation processes, arbitral tribunals can render these as politically motivated and far from reasonable environmental policies⁶⁶. Following this logic, as it happens in *Rockhopper v. Italy*, and because of its non-technical nature, civic engagement cannot scrutinize the stringency of an environmental impact assessment and the posterior governmental concession, even if it brings new information and concerns which are formalized through domestic law⁶⁷. Thereby, the principle of precaution only operates until the environmental impact assessment is carried out, not enabling a meaningful participatory information-gathering that can call attention to rigorous scientific data that might have been neglected⁶⁸.

Against this backdrop, it seems quite logic to expect that, once in the midst of arbitrations of this type, states resort to international climate change law to balance the advantage that investment treaties confers to investors. Nonetheless, at this moment in time, states seldom invoke the climate change regime, just using it to contextualize the factual background of the dispute but not to substantiate the (alleged) legal entitlement behind their pro-climate stabilization policies⁶⁹. This could indicate that the primacy of the investment regime is significantly embedded within the imaginary of (a part of) the state(s); it should not be forgotten that the power to reform the laws – in a more climate-friendly and less ambiguous direction – whereby such adjudication take place lies, formally, on states⁷⁰. Overall, this vision, and practice, of international investment law turns a blind eye on its belonging to the meta-regime of public international law, meaning that other obligations not contained in investment agreements should be born in mind by arbitrators⁷¹.

⁶⁵ Y. Zheng, ‘Rethinking the ‘Full Reparation’ Standard in Energy Investment Arbitration’, 27 *Journal of International Economic Law* (2024) 500-520, at 515.

⁶⁶ One of the most relevant legal reasons that can explain the difficulty by public state agencies to wind down production lies in the extraction-based emissions accounting of the international climate change regime, according to which greenhouse gas emissions will only be reflected in the national accounts of the state where they are combusted and not where these fossil fuels were extracted and produced [see UNEP, ‘The Production Gap: The discrepancy between countries’ planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C’ (2019), at 23].

⁶⁷ A. Arcuri, K. Tienhaara and L. Pellegrini, ‘Investment law v. supply-side climate policies: insights from *Rockhopper v. Italy* and *Lone Pine v. Canada*’, 24 *International Environmental Agreements* (2024) 193-216, at 201 and 205-206.

⁶⁸ Special Rapporteur on the promotion and protection of human rights in the context of climate change, ‘Access to information on climate change and human rights’, A/79/176 (18 July 2024), at 52-53.

⁶⁹ C. Martini, ‘From Fact to Applicable Law: What Role for the International Climate Change Regime in Investor-State Arbitration?’, *Canadian Yearbook of International Law/Annuaire canadien de droit International* (2024) 1-36, at 13.

⁷⁰ See how L. Cotula [‘International Investment Law and Climate Change: Reframing the ISDS Reform Agenda’, 24 *Journal of World Investment and Trade* (2023) 766-791, at 779] explains that the issue is not whether investors should receive compensation or access to remedy, but the special terms – such as an overall lack of differentiation between high and low-carbon activities or the dubious compatibility of acknowledging a potential environmental damage while allowing to obtain a compensation for that same activity – through which they operate.

⁷¹ Independent Expert on the effects of foreign debt, *supra* n. 10, at paragraph 22.

The second limit could intuitively be imputed to non-climate-aligned litigation, but applications submitted with a rather opposite intention also run the risk of entrenching structural problems of the Global South. From the miscellaneous of forms that this limit can adopt in these cases, the incoming paragraphs flesh three of them out. First, almost all climate litigation hinges upon mitigation and to a much lesser extent upon adaptation⁷². In this sense, litigation related with the third pillar of climate action – that is, loss and damage – is marginal and, being very generous, in its early stages⁷³. A possible explanation of the few loss and damage cases might be found in its legal underdevelopment, combined with its conceptual indeterminacy, in successive Conference of the Parties to the United Nations Framework Convention on Climate Change. Nevertheless, if litigation is conceived as an exercise to fill in legal gaps, it looks as if the progressive increase of loss and damage litigation foreseen in 2020⁷⁴ never came to fruition. This implies that, up until now, global climate-aligned litigation is not in a position to offer (effective) resources to citizens of states, or to states as subjects of international law, that have historically contributed the least to climate change and that are already suffering its consequences the most⁷⁵. At first sight, the pattern of climate change litigation in the Global South, which tends to use human rights and constitutional doctrines but rarely mobilizes national legislation on climate mitigation⁷⁶, could address this regulatory substantive disregard⁷⁷. However, only 15% of the 160 climate cases worldwide that are based on human rights contain arguments related with loss and damage⁷⁸. Therefore, the current meager loss and damage litigation can proffer bargaining power to citizens and states⁷⁹ but seems to fall short of providing a solid expectation of remedies to be followed by new applications.

The geographical location of the cases gives shape to the second form, with only 8% of them taking place in the Global South⁸⁰. On one hand, and without disregarding

⁷² It is crucial to point that mitigation obligations of the Paris Agreement do not carry the same urgency in the Global South as they do in the Global North [in K. Bouwer *et al.*, ‘Africa, Climate Justice and the Role of the Court’, in K. Bouwer *et al.* (eds) *Climate Litigation and Justice in Africa* (Bristol University Press, Bristol, 2024)], at 2.

⁷³ M. A. Tigre and M. Wewerinke-Singh, ‘Beyond the North South divide: Litigation’s role in resolving climate change loss and damage claims’, 32 *RECIEL* (2023) 439–452, at 440.

⁷⁴ M. Wewerinke-Singh and H. D. Salili, ‘Between negotiations and litigation: Vanuatu’s perspective on loss and damage from climate change’, 20 *Climate Policy* (2019) 681–692, at 688.

⁷⁵ Secretary-General of the United Nations, ‘Analytical study on the impact of loss and damage from the adverse effects of climate change on the full enjoyment of human rights, exploring equity-based approaches and solutions to addressing the same’, A/HRC/57/30 (28 August 2024), at paragraphs 24–25.

⁷⁶ J. Lin and J. Peel, *Litigating Climate Change in the Global South* (Oxford University Press, Oxford, 2024) at 63. Namely, these authors conclude that 62.5% of the 128 cases in the Global South are constitutional and human rights-based.

⁷⁷ R. B. Stewart, ‘Remedying Disregard in Global Regulatory Governance: Accountability, Participation, and Responsiveness’, 108 *The American Journal of International Law* (2014) 211–270, at 224.

⁷⁸ M. Wewerinke-Singh, ‘The Rising Tide of Rights: Addressing Climate Loss and Damage through Rights-Based Litigation’, 12 *Transnational Environmental Law* (2023) 537–556, at 542. Most of these 24 cases that constitute this 15% take place in domestic courts in the Global South or have been initiated by Southern countries before international courts.

⁷⁹ A. Shrivastava and F. Derler, ‘A Global South Perspective on Loss and Damage Litigation’, *Völkerrechtsblog*, published on 27 June 2024, electronically available at <https://verfassungsblog.de/a-global-south-perspective-on-loss-and-damage-litigation/>.

⁸⁰ J. Setzer and C. Higham, *supra* n. 44, at 13.

existing procedural barriers⁸¹ and epistemological restrictions provoking that potential climate litigation flies under the databases' radars⁸², this judiciary underrepresentation is problematic due to the scientific consensus pointing that these states will be disproportionately affected by climate change's effects. On the other hand, it seems that there is a growth of cases in the Global South, especially in certain states⁸³; in itself, this is not negative, on the contrary. Nevertheless, in cases where citizens accuse their Global South governments of climate inaction, if obligations of cooperation are not extended, the remedies adjudicated may be questionable from a climate justice standpoint⁸⁴; by defraying the compensation or measures ordered, the Global South would incur a much higher economic burden than what it is responsible in relation to its historic contribution of emissions. Certainly, climate litigation in the Global North could help, in a decentralized vein, to slowly ascertain and deepen obligations of cooperation before waiting for an international agreement to do so explicitly⁸⁵, while simultaneously wasting away certain assumptions often invoked before a judge representing the principle of competence⁸⁶. Yet, unless advisory opinions in international courts, soon to be decided, unravel obligations of cooperation rather rigorously, it is difficult to predict whether a wave of domestic sentences will confer centrality to these obligations.

The third form that the second limit adopts lies in the obstacles that citizens of the Global South face to initiate judiciary proceedings in the countries of origin of transnational corporations headquartered in the Global North. This creates a sort of partial extra-territoriality. Tribunals in the Global North can recognize the extra-territoriality of the emissions carried out by these companies, ordering a reduction of the emissions outside the borders of the state where the trial is occurring. However, this very same extra-territoriality does not confer standing to citizens from these very same countries where the reduction is applied⁸⁷. This is what happens in *Milieudefensie*

⁸¹ Among the different obstacles that citizens can face in the Global South, having a bank account or a tax declaration is a participation requirement not that easily met [Special Rapporteur on the promotion and protection of human rights in the context of climate change, 'Exploring approaches to enhance climate change legislation, supporting climate change litigation and advancing the principle of intergenerational justice', A/78/255 (28 July 2023), at paragraph 35].

⁸² See T. Field ['Towards a Risk-Thematic Approach for African Climate Litigation', in K. Bouwer *et al.*, 'Africa, Climate Justice and the Role of the Court', in K. Bouwer *et al.* (eds) *Climate Litigation and Justice in Africa* (Bristol University Press, Bristol, 2024), at 22 and 34], who holds that a visibility approach decides whether a case falls within the category of climate change. This approach does not take into account litigation in Africa gathering two criteria: first, litigation informed by climate-related risks but which does not, even tangentially, refer to climate change (such as cases about water security, drought, veldfire and flooding); second, this judiciary proceeding has implications for mitigation and adaptation.

⁸³ J. Setzer and C. Higham, *supra* n. 44, at 14.

⁸⁴ J. Auz, 'Two Reputed Allies: Reconciling Climate Justice and Litigation in the Global South', in C. Rodríguez-Garavito (ed.), *Litigating the Climate Emergency: How Human Rights, Courts, and Legal Mobilization Can Bolster Climate Action of Globalization and Human Rights* (Cambridge University Press, Cambridge, 2022), at 148.

⁸⁵ J. Jahn, 'Domestic courts as guarantors of international climate cooperation: Insights from the German Constitutional Court's climate decision', 21 *International Journal of Constitutional Law* (2023) 859-883, at 874.

⁸⁶ See G. Medici-Colombo, *La Litigación Climática sobre Proyectos: ¿Hacia un punto de inflexión en el control judicial sobre la autorización de actividades carbono-intensivas?* (Tirant Lo Blanch, Valencia, 2024), at 546.

⁸⁷ This occurs in a context, created by the current international climate legal regime, wherein emissions are attributed to the State where GHG emissions are emitted [see UNEP, *supra* n. 66]. However, recent climate litigation has been successful in including the extra-territorial emissions of some projects (such as the

v Shell, where the non-Dutch are not allowed to participate in the proceedings⁸⁸, or in *Neubauer*, where the cooperation aforementioned is not extended to confer standing to citizens from Nepal and Bangladesh⁸⁹. While in more classical human rights abuses by corporations, extra-territorial litigation by any damaged non-national is slowly making its way thanks to the expansion of the duty of care, standing in climate litigation is still linked to the interests of people within the domestic jurisdiction⁹⁰.

The third limit, concerning the implementation of climate change sentences, is not analysed from the standpoint of states' compliance with the remedies awarded, but by introducing two elements that pose problems in the endeavour of determining what is to be implemented. Litigation with positive outcomes is not always synonym of well-defined measures to follow. In cases challenging even if indirectly the overall climate policy of a state, the reluctance of certain courts to order measures indicating how to comply with a judgment – the so-called consequentialist measures – is an issue. This is what happens in a much awaited case such as *KlimaSeniorinnen*, where the European Court of Human Rights follows a declaratory approach in finding a violation of the obligation to regulate in relation to article 8 of the European Convention of Human Rights due to Switzerland's deficient mitigation action, but it does not prescribe as the claimants asked – any general measure setting detailed emissions pathways that could match the structural nature of climate change⁹¹. Taking into account the recognized wide margin of appreciation for the choice of means to further regulate its mitigation⁹², the multiple combinations of many paragraphs of the judgment can generate different general measures differing significantly⁹³.

An often forgotten point of contention lies in the static vision that law tends to confer to science. Tribunals often use the expression 'necessary measures' to give teeth to the obligations that states possess. To determine the objective content of these measures, the best available science "should be considered and weighed together with" other relevant factors, namely international rules and the available means and capabilities of

production of fossil fuels to be consumed elsewhere) when deciding about their impact, displaying that while this is not a mandatory requirement under international law, it is, at the same time, not forbidden [G. Medici-Colombo, *supra* n. 86, at 535-538].

⁸⁸ *Vereniging Milieudéfensie and others v. Royal Dutch Shell*, District Court of the Hague, May 26, 2021, ECLI:NL:RBDHA:2021:5339 *Royal Dutch Shell*, paragraphs 4.2.1-4.2.6].

⁸⁹ J. Jahn, *supra* n. 85, at 881.

⁹⁰ D. Palombo, 'Business, Human Rights and Climate Change: The Gradual Expansion of the Duty of Care', 44 *Oxford Journal of Legal Studies* (2024) 889-919, at 902 and 915. Having said that, two active cases can expand the extra-territorial reach of climate litigation: *Luciano Lliuya v RWE AG* (initiated in 2015 in the District Court of Essen, Germany, by a Peruvian farmer and currently ongoing in the Higher Regional Court of Hamm) and *Asamania and others v Holcim* (starting the proceedings in 2022 by four inhabitants of Indonesia in the Cantonal Court of Zug, Switzerland, which has granted free legal aid to the plaintiffs).

⁹¹ C. Heri, 'Too Big to Remedy? What Climate Cases Tell Us About the Remedial Role of Human Rights', 5 *European Convention on Human Rights Law Review* (2024) 400-422, at 407 and 408. Heri also lays out whether the lack of any explicit general measure under article 46 of the ECHR can be counterbalanced by prescriptive paragraphs in the merits of the judgment [at 417].

⁹² *Verein KlimaSeniorinnen and Others v Switzerland* [gc] 53600/20 (ECtHR, 9 April 2024), at paragraph 543.

⁹³ B. Çali and C. Bhardwai, 'Watch this space: Executing Article 8 Compliant Climate Mitigation Legislation in Verein KlimaSeniorinnen v. Switzerland' *EJIL: Talk!*, published 13 November 2024, available electronically at <https://www.ejiltalk.org/watch-this-space-executing-article-8-compliant-climate-mitigation-legislation-in-verein-klimasenioreninnen-v-switzerland/>.

the state concerned⁹⁴. The logic is that what science requires is not outright translated into a battery of laws and policies; international commitments and the socio-economic reality of each state restrict what can be done. This equation contains an assumption whereby what tribunals find that science requires is only bargained with social factors (international law and the situation of a state). Nevertheless, this balance between science and other factors does not only take place once certain knowledge meets the scientific standards and it is formalized as such; previously, its creation can also be mediated by social categories assumed to be natural⁹⁵, can be crossed by possible data imbalances⁹⁶, and hence it can incorporate certain normative visions which will be legally treated as science. These normative visions will incorporate a concrete political economy establishing a (continuing) framework, distributing natural and economic resources, within which *objective* measures will be found. For example, the large use and scalability of negative emission technologies is an essential assumption in IPCC scenarios employed to determine the remaining carbon budget to avoid a 2°C increase of the temperature⁹⁷. While some climate cases have (passively) problematized the use of these technologies⁹⁸, when (article 2.1.a of) the Paris Agreement is invoked so as to force or compel a state to improve its climate policies, this assumption is activated as a scientific truth not to be weighted in itself but against other social factors.

An exciting recipe to open the playing field for making the juridical identification of science more dynamic, representative and democratic, and hence more scientific, is citizen sensing. In certain matters and under concrete circumstances, citizen sensing aims to make citizens part of the data collection process not only to expand the access to information but also its underlying source⁹⁹. While this could widen the spectrum of what is *objective* under the best available science, and attach it closer to the need for progress¹⁰⁰, one cannot stop wondering whether many market-based mechanisms, with

⁹⁴ *Request for Advisory Opinion submitted by the Commission of Small Island States on Climate Change and International Law*, Advisory Opinion, 21 May 2024, ITLOS Reports 2024, at paragraphs 213 and 207.

⁹⁵ *See*, for example, how the international biodiversity legal regime initially understood exclusively the manipulation of germplasm through the intervention of breeders and scientists, treating the millennial labour of indigenous people as non-manipulation – hence considering that their work did not amount to a scientific manipulation [see M. Fredriksson, ‘Dilemmas of protection: decolonising the regulation of genetic resources as cultural heritage’, 27 *International Journal of Heritage Studies* (2021) 720–733, at 724 and 725]. It is true, that later, with the Convention on Biological Diversity and the Nagoya Protocol, this was partially addressed. For a more general overview, see J. Wilkens, A. R. C. Datchoua-Tirvaudey, ‘Researching climate justice: a decolonial approach to global climate governance’, 98 *International Affairs* (2022) 125–143, at 132.

⁹⁶ *See* how Africa is under-represented in many datasets behind climate change attributions and projections, which can be resorted in cases [T. L. Field, *supra* n. 82, at 26–27].

⁹⁷ A. Larkin *et al.*, ‘What if negative emission technologies fail at scale? Implications of the Paris Agreement for big emitting nations’, 18 *Climate Policy* (2018) 690–714, at 697 and Neubauer *et al. versus Germany*, Bundesverfassungsgericht [BVerfG] [Federal Constitutional Court], Order of the First Senate, March 24, 2021, Case No. BvR 2656/18/1, [official English translation provided by the Court], at paragraph 33.

⁹⁸ *Urgenda Foundation v. the Netherlands*, Dutch Supreme Court [Hoge Raad], Judgment of December 20 2019, No. 19/00135, ECLI:NL:HR:2019:2006. *Urgenda*, at paragraph 7.25; and *Milieudefensie*, *supra* n. 88, at paragraph 4.4.30.

⁹⁹ A. B. Suman, ‘Citizen Sensing from a Legal Standpoint: Legitimizing the Practice under the Aarhus Framework’, 18 *Journal for European Environmental & Planning Law* (2021) 8–38.

¹⁰⁰ UN Special Rapporteur, *supra* n. 68, at paragraph 52.

the mounting evidence about their impact¹⁰¹, could merit the adjective of *objective* if analyzed *in toto* and thoroughly.

(E) CONCLUSIONS

Mapping the international legal landscape where climate change litigation develops is key to fathom what can be expected from such unrelenting phenomenon. In doing so, structural limits of international law appear, affecting the possibilities of ambitious litigation to bring about its desired change and allowing conservative demands to perpetuate the status quo. This article has analyzed the effects of three of these limits. First, the primacy attributed to international investment law prevents relying on the environmental principles of polluter pays and precaution in arbitration between investors and states, watering down the progressive measures (deemed doable to be) adopted by states due to the fear of facing an opposing dispute settlement in which international environmental law would be conspicuous by its absence. Second, the North-South divide is quite visible in climate litigation. While international climate change law does not provide a detailed and operationalizable framework for loss and damage, the praxis of climate litigation, by honing in on mitigation and by presenting obstacles in furthering obligations of cooperation in the Global North, does not seem to alter this second limit. A full recognition of extra-territorial jurisdiction could be of significant help in that regard, but unless pending cases provoke a radical jurisprudential change, extra-territoriality will remain partial. Last but not least, climate change litigation can produce positive outcomes together with generic findings that can admit the application of multiple measures, some more diluted than others. In this sense, while the best available science should illuminate the objective content that these measures ought to have, its balance with other socio-economic factors and the implicit normative charge that it can contain run the risk of mobilizing a static, and at times conservative, vision of these measures.

Outlining the appearance of these limits in climate litigation is compatible with acknowledging the success of certain cases within a structural international legal context restraining the scope of these very same victories. In the light of the receptivity shown by a non-negligible number of courts to advance in climate governance, fleshing out how these limits appear in climate cases can help to reveal how less moderated rulings could be moulded.

¹⁰¹ See P. Greenfield, 'Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows', *The Guardian*, 18 January 2023, electronically available at <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>.