Received: 5 August 2022 | Accepted: 6 December 2022

DOI: 10.1111/reel.12486

SPECIAL ISSUE ARTICLE

RECIEL Review of European, Comparative & International Environmental Law | WILEY

Harm to the global commons on trial: The role of the prevention principle in international climate adjudication

Leslie-Anne Duvic-Paoli[1] | Mario Gervasi[2]

[1]The Dickson Poon School of Law, King's College London, London, UK

[2]Department of Political Sciences, University of Bari, Bari, Italy

Correspondence
Leslie-Anne Duvic-Paoli, King's College London, Strand, London WC2R 2LS, UK.
Email: leslie-anne.duvic-paoli@kcl.ac.uk

Abstract

Although the climate crisis is the result of a failure to prevent environmental harm, the principle of prevention has thus far remained discrete in domestic climate litigation. Similarly, in the context of international climate adjudication, reliance on the prevention principle could seem limited by two main obstacles: its anchor in bilateralism and its normative indeterminacy. This article argues that, on the contrary, the prevention principle could serve important functions in international climate adjudication. First, it shows that climate change falls within the reach of the prevention principle, which aims to protect the environment per se as a community interest. Then it explores two argumentative scenarios that are based on different constructions of the prevention principle, conceived either as a customary duty or as a general principle of international law. In both cases, recourse to the prevention principle can offer numerous advantages, which vary depending on the objectives strategically pursued.

1 | INTRODUCTION

Fifty years since the adoption of the prevention principle in the 1972 Stockholm Declaration on the Human Environment,[1] environmental lawyers have come to the realization that the norm has not avoided the deepening of the environmental crisis. According to Principle 21 of the Stockholm Declaration, and as restated in Principle 2 of the 1992 Rio Declaration on Environment and Development,[2] States have 'the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction'. The importance of this foundational norm of international environmental law is being tested, particularly in the context of the climate crisis. Burgeoning calls for an advisory opinion from the International Court of Justice (ICJ)[3] or the International Tribunal for the Law of the Sea (ITLOS)[4] to foster climate action and seek justice raise questions about the role that the prevention principle could serve in such proceedings. Notably, the draft UN General Assembly resolution to request an advisory opinion of the ICJ, circulated by Vanuatu in November 2022, explicitly asks the Court to render an opinion on the obligations of States to ensure the protection of the climate system, having due regard, inter alia, to 'the principle of prevention of significant harm to the environment'.[5] The principle is presented in the text commentary to be part of 'the international laws to be examined by the Court in its advisory opinion'.[6]

[1]Declaration of the United Nations Conference on the Human Environment in 'Report of the United Nations Conference on the Human Environment' UN Doc A/CONF.48/14/Rev.1 (1973) (Stockholm Declaration) Principle 21.

[2]Rio Declaration on Environment and Development in 'Report of the United Nations Conference on Environment and Development' UN Doc A/CONF.151/26/Rev.1 (vol I) (1993) (Rio Declaration) Principle 2.

[3]See, e.g., A Gunia, 'Pacific Island Nations Are Bringing Their Climate Justice Fight to the World's Highest Court' (Time, 18 July 2022).

[4]See, e.g., CA Cruz Carillo, 'ITLOS Advisory Opinion on Climate Change and Oceans: Possibilities and Benefits' (Opinio Juris, 21 July 2021).

[5]'Draft Resolution: Request for an Advisory Opinion of the International Court of Justice on the Obligations of States in Respect of Climate Change' <https://www.vanuatuicj.com/resolution>.

[6]ibid ('resolution elements summary').

The application of the principle of prevention in international adjudication might initially appear limited. Its anchor in bilateralism and its normative indeterminacy are two central arguments against relying on the duty to prevent to seek accountability for environmental degradation in the global commons. This article argues that, on the contrary, the prevention principle could serve important functions in international climate adjudication, which we understand here to include both contentious and advisory proceedings.[7] Further clarity on how the prevention principle can be deployed is important for two reasons: symbolically, to understand the role that the foundational norm of international environmental law can play in the governance of the climate crisis; and practically, to evaluate how, despite some ambiguities, prevention has consolidated into a norm complementing climate treaty obligations. We consider that the prevention principle can be deployed in creative ways, either as a customary obligation of due diligence[8] or a general principle of international law.[9] Indeed, the role that prevention can play in international climate adjudication depends on how the norm and its functions in the international legal system are conceived. Although each of the authors of this article supports one of the two mentioned constructions, they are presented here on the same footing: they can be used in international climate adjudication as alternative arguments, each with its own advantages, with variations according to the legal questions at hand and the argumentative strategy pursued. In fact, the perspective adopted here is that of an applicant or complainant in climate litigation and, more generally, of a State or person advocating climate protection before an international court or tribunal, it being understood that it is always possible for the judge to accept and agree with the arguments put forward by the parties or those participating in the proceeding.

The article is structured as follows. It first looks at how the prevention principle has been used and conceptualized in domestic climate litigation to show that it has so far remained discrete (Section 2). It then responds to two main shortcomings of the prevention principle: its purported bilateral focus and its normative indeterminacy. We start by showing that, far from being ill adapted to the global commons, the prevention principle is aimed at the protection of the environment as a community interest (Section 3). To illustrate the role that the prevention principle could serve in international climate adjudication, the issue of its lack of normative density is addressed from two different viewpoints, depending on whether the prevention principle is understood as a customary obligation to act with due diligence (Section 4) or as a general principle of international law (Section 5). Section 6 concludes.

2 | THE DISCRETE ROLE OF THE PREVENTION PRINCIPLE IN DOMESTIC CLIMATE LITIGATION

Climate change is the result of a failure to prevent harm to the environment, and, as such, the prevention principle could be expected to play a central role in the litigation of the climate crisis. While international climate adjudication is in its early stages, the growing role of domestic litigation on climate change gives us some indications about how the principle can be used in an adjudicatory context. Several domestic climate litigation cases have relied on international norms, including environmental principles, to define the duty of care required by governments to reduce greenhouse gas emissions. Notably, in the *Urgenda* case, the Dutch Supreme Court considered that 'countries can be called to account for the duty arising from [the no-harm principle]', with the consequence that they 'can be called upon to make their contribution to reducing greenhouse gas emissions'.[10] The prevention principle also played a role in the *Atrato River* decision,[11] in which the constitutional court of Colombia considered that the Colombian government failed to protect the environment and ensure enjoyment of claimants' human rights by failing inter alia to consider climate change when developing mining and energy public policies. There, the court explicitly mentioned the principle of prevention grounded in international law, noting that it aims to avoid environmental damage per se, irrespective of its transboundary impacts, and thus dictates the adoption of administrative measures to prevent harm.[12] A final notable case is *PSB v Brazil*,[13] a case brought against the federal government of Brazil for failing to implement the national deforestation policy, and hence contributing to the climate crisis. In *PSB*, the Supreme Federal Court relied on the prevention principle, originating in both international and domestic law, to identify the duties of the State arising from its constitutional duty to protect the environment.[14]

Despite these precedents, the use of internationally recognized environmental principles in domestic climate litigation poses distinct challenges. One major difficulty arises from using principles aiming to govern inter-State relations in a domestic context. In the so-called *People v Arctic Oil* case, in which a coalition of environmental associations sought a declaratory judgement against Norway's Ministry of Petroleum and Energy, the Oslo District Court rejected the application of the prevention principle, considering that Norway could not be held responsible for the harm created by the exportation of its oil.[15] The Court of Appeal appeared more nuanced and noted that the no-harm rule could be a 'relevant element regarding actions based in Norway that also contribute to environmental harm outside Norway', but did

[7] This is the definition of international adjudication given by, for instance, A Paulus, 'International Adjudication' in S Besson and J Tasioulas (eds), *The Philosophy of International Law* (Oxford University Press 2010) 207, 213.

[8] On the concept of the prevention principle as a 'multifaceted norm' encompassing both the features of a customary rule and those of a guiding principle, see LA Duvic-Paoli, *The Prevention Principle in International Environmental Law* (Cambridge University Press 2018) 302–313.

[9] On the classification of the principle of prevention as a general principle of international law *rather than* an obligation established by a customary rule, see M Gervasi, *Prevention of Environmental Harm under General International Law: An Alternative Reconstruction* (ESI/Nomos 2021).

[10] *State of the Netherlands v Urgenda Foundation*, Supreme Court of the Netherlands (20 December 2019), ECLI:NL:HR:2019:2007 para 5.7.5.

[11] *Atrato River* case, Judgment T-622/16, Constitutional Court of Colombia (16 November 2016).

[12] ibid para 7.34.

[13] *PSB* et al *v Brazil* (on deforestation and human rights), Supreme Federal Court of Brazil, Vote of Minister Cármen Lúcia (4 June 2022).

[14] ibid paras 7–8.

[15] *Greenpeace Nordic Association and Nature & Youth v Norway's Ministry of Petroleum and Energy*, Oslo District Court, Judgement (4 January 2018), unofficial translation, 20–21.

not draw direct conclusions on that basis.[16] As for the Supreme Court, it concentrated on the domestic measures taken to prevent local environmental harm[17] and did not evaluate the applicability of the international principle of prevention in its decision that eventually rejected the appeal. It considered instead that 'each state is responsible for combustion on its own territory' and thus did not examine the legal implications of greenhouse gas emissions created by the combustion abroad of Norwegian petroleum exports.[18]

Overall, the role served by the prevention principle in domestic litigation has so far remained relatively discrete. Vilchez Moragues, in his review of 20 climate litigation cases, noted that environmental principles can be decisive in climate litigation by finding that the success of climate lawsuits can be correlated with references made to environmental principles in the judicial decision.[19] With regard more specifically to prevention, however, he notes that it is 'curious' that the principle of prevention has played so far a 'moderate role'.[20] While claimants regularly rely on the prevention principle, courts do not necessarily engage with the norm or consider it as inapplicable or too vague.[21] Instead, domestic climate litigation has so far made more use of the norm of precaution[22]—this is, however, conceptually problematic given the high levels of probability of harm evidenced by climate science, as well as potentially controversial since the principle has a debated legal status and does not mandate specific action.[23]

In the context of international adjudication on climate change, little attention has been paid to the role that environmental principles might play. The first wave of scholarship on international climate adjudication (dating back to the 2000s when plans to submit a request for an advisory opinion on climate change to the International Court of Justice (ICJ) were drawn)[24] concentrated mainly on discussing procedural hurdles, including jurisdiction and standing, and the limits of substantive duties on which to base a claim.[25] Two main hurdles are identified that limit the relevance of the prevention principle in international climate adjudication. First, the primarily bilateral logic of international law makes establishing a breach of an obligation to prevent difficult, due to obstacles related to inter alia attribution and standing.[26] Second, environmental principles are considered too open-textured to be used in litigation.[27] The inclusion of the prevention principle in the preamble of the United Nations Framework Convention on Climate Change (UNFCCC)[28] can, indeed, be interpreted as merely aspirational.[29] Moreover, while Article 3 of the UNFCCC lists applicable environmental principles, it does not reference prevention, only precaution, and it does not create specific duties of care towards climate change.[30]

As a result, one may be under the impression that environmental principles lack the specificity needed to solve a dispute. Although the *Trail Smelter* case was decided on the basis of the no-harm rule,[31] it is generally considered that bringing a claim on the basis of the prevention principle might not be strategically wise—a telling example is the withdrawal of the initial assertion made by Australia in the *Whaling* case that the prevention principle under Article 3 of the Convention on Biological Diversity (CBD)[32] (which reasserts Principle 21 of the Stockholm Declaration), interpreted in light of customary international law, had been breached.[33] As this example shows, the use of the prevention principle in international dispute settlement, at least as a primary obligation, can be side-lined to favour more specific treaty obligations. While violations of these might indeed be more straightforward to prove, such a litigation strategy also comes with limitations, as it makes it easier for the defendant to adapt its behaviour to comply with duties of a limited scope but not necessarily with their ultimate *raison d'être*.

Calls to rely on international courts and tribunals to offer legal responses to the climate crisis are gaining momentum,[34] and the functions that the prevention principle might serve have changed since the first wave of scholarship. First, the principle of prevention has gained in specificity, in particular thanks to judicial clarifications on the due diligence standard[35]; and second, the adoption of the Paris Agreement, and its preference for self-determined plans instead of

[16] *Greenpeace Nordic Association and Nature & Youth v Norway's Ministry of Petroleum and Energy*, Court of Appeal, Judgement (23 January 2020), unofficial translation, 22.
[17] *Greenpeace Nordic Association and Nature & Youth v Norway's Ministry of Petroleum and Energy*, Supreme Court, Judgement (22 December 2020), para 160.
[18] ibid para 159.
[19] P de Vilchez Moragues, *Climate in Court: Defining State Obligations on Global Warming Through Domestic Climate Litigation* (Edward Elgar 2022) 142–143.
[20] ibid 148.
[21] ibid, identifying four cases (out of the 20 studied) in which the prevention principle was used by the claimants but not considered in the decision (*Magnolia* in Sweden, *KlimaSeniorinnen* in Switzerland, *Plan B Earth* in the UK and *Klimaatzaak* in Belgium).
[22] ibid 167, explaining that the 'precautionary principle has become a common feature in recent climate litigation, becoming one of the most common environmental principles cited as a legal ground in these cases. Thus, precaution appears in 15 out of the 20 cases analysed in this study'.
[23] J Peel, 'Precaution' in L Rajamani and J Peel (eds), *The Oxford Handbook of International Environmental Law* (2nd edn, Oxford University Press 2021) 302, 306–307.
[24] B Carreon, 'Vanuatu to Seek International Court Opinion on Climate Change Rights' (The Guardian, 26 September 2001).
[25] See, e.g., K Boom, 'The Rising Tide of International Climate Litigation: An Illustrative Hypothetical of Tuvalu v Australia' in RS Abate and EA Kronk (eds), *Climate Change and Indigenous Peoples* (Edward Elgar 2013) 409; R Jacobs, 'Treading Deep Waters: Substantive Law Issues in Tuvalu's Threat to Sue the United States in the International Court of Justice' (2005) 14 Pacific Rim Law and Policy Journal 103; AL Strauss, 'The Legal Option: Suing the United States in International Forums for Global Warming Emissions' (2003) 33 Environmental Law Reporter 10185.
[26] See, e.g., C Campbell-Duruflé, 'The Significant Transboundary Harm Prevention Rule and Climate Change: One-Size-Fits-All or One-Size-Fits-None?' in B Mayer and A Zahar (eds), *Debating Climate Law* (Cambridge University Press 2021) 29.
[27] For a discussion of these limitations see, e.g., F Simlinger and B Mayer, 'Legal Responses to Climate Change Induced Loss and Damage' in R Mechler et al (eds), *Loss and Damage from Climate Change* (Springer 2019) 179, 186–190.
[28] United Nations Framework Convention on Climate Change (adopted 29 May 1992, entered into force 21 March 1994) 1771 UNTS 107.
[29] See M Hulme, 'Preambles in Treaty Interpretation' (2016) 164 University of Pennsylvania Law Review 1281.
[30] R Maguire, 'Incorporating International Environmental Legal Principles into Future Climate Change Instrument' (2012) 6 Carbon and Climate Law Review 101.
[31] *Trail Smelter (United States v Canada)* (Award) (1938/1941) 3 RIAA 1905.
[32] Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79.
[33] *Whaling in the Antarctic*, Application Instituting Proceedings (31 May 2010) para 38.
[34] See, e.g., A Savaresi, K Kulovesi and H van Asselt, 'Beyond COP26: Time for an Advisory Opinion on Climate Change?' (EJIL Talk!, 17 December 2021); N Nedeski, T Sparks and G Hernández, 'Judging Climate Change Obligations: Can the World Court Rise to the Occasion? Part I: Primary Obligations to Combat Climate Change' (Völkerrechtsblog, 30 April 2020).
[35] See, for a detailed analysis, J Viñuales, 'Due Diligence in International Environmental Law' in H Krieger, A Peters, and L Kreuzer (eds), *Due Diligence in the International Legal Order* (Oxford University Press, 2020) 111.

legally binding and precise targets and timetables, has arguably transformed the international climate regime.[36]

The exact role that the prevention principle could play in international climate adjudication has not been analysed systematically; however, the norm is regularly mentioned, and different conceptions of its functions appear in scholarship and practice. Some authors believe that the question of harm prevention ought to be placed at the heart of a climate case. For instance, Bodansky considers that 'a judicial opinion about the obligations of States to ensure that their greenhouse gas emissions do not cause serious damage to other States could potentially assist the negotiating process', because 'the elaboration of more specific criteria of due diligence by an international tribunal could be helpful in encouraging countries to put forward more ambitious [Nationally Determined Contributions (NDCs)] in the future'.[37] Similarly, Brunnée thinks that the principle could be 'consequential' in a climate case when used to show 'risk and lack of diligent preventive measures'.[38]

The prevention principle has also been deemed relevant, albeit more indirectly, in the context of international human rights law to evidence human rights violations in the context of the climate crisis. For instance, the 2005 Inuit Petition to the Inter-American Commission on Human Rights,[39] eventually declined, argued that the United States was violating its obligation to avoid transboundary harm, presented as a customary rule. Noting that the norm is 'relevant to the interpretation and application of the American Declaration', it alleged that a breach of the obligation of prevention 'reinforces the conclusion that the United States is violating rights protected by the American Declaration'.[40] A similar approach can be found in the more recent petition *Sacchi* et al *v Argentina, Brazil, France, Germany and Turkey*, in which it was argued that State parties to the Convention on the Rights of the Child[41] have an obligation 'to prevent foreseeable domestic and extraterritorial human rights violations resulting from climate change' arising from the prevention principle under international law.[42] While the communication was eventually held inadmissible, the Committee nevertheless considered, without relying on specific legal sources, that in the context of the climate crisis, 'States have heightened obligations to protect children from foreseeable harm' and that 'the impairment of [the authors'] Convention rights as a result of the State party's acts or omissions regarding the carbon emissions originating within its territory was reasonably foreseeable'.[43]

Conversely, some commentators are more sceptical regarding the use of the prevention principle in adjudication. An atypical approach finds issue with the applicability of the prevention principle to the climate regime, with its treaty norms considered to be *lex specialis* that displaces general rules of international environmental law.[44] This line of reasoning seems difficult to follow as there is no apparent conflict between existing climate treaty rules and the principles of international environmental law.[45] In reality, it is generally the vagueness and lack of normative determinacy of the prevention principle that explain a general lack of enthusiasm to rely on the norm in the context of adjudication. Indeed, given that the principle can only offer 'general guidance' but 'no definitive answer',[46] preference is generally given to more specific norms that are seen to offer better grounds for compelling arguments. Campbell-Duruflé, for instance, argues that it is 'highly improbable that the application of the [no-harm rule] to climate change in a contentious case, in a negotiated settlement, or even in an advisory opinion would be able to match the richness of a multilateral framework designed to adapt dynamically to new realities'.[47] Another reason for scepticism expressed by Mayer is that the indeterminacy of the norm means that a court would have 'no useful benchmark to determine, in any relatively specific and convincing manner what a state must do concerning climate change mitigation'.[48]

In the sections that follow, we explore further the role that the prevention principle might play in international climate adjudication, first by addressing the common assumption that, as an evolution of the no-harm rule and a corollary of the principle of territorial sovereignty of States, the principle is primarily applicable to transboundary environmental harm.[49]

[36]Paris Agreement (adopted 12 December 2015, entered into force 4 November 2016) 55 ILM 740. For a nuanced assessment of how transformational the new agreement is, see J Depledge, 'The "Top-down" Kyoto Protocol? Exploring Caricature and Misrepresentation in Literature on Global Climate Change Governance' (2022) 22 International Environmental Agreements: Politics, Law and Economics 673.

[37]D Bodansky, 'The Role of the International Court of Justice in Addressing Climate Change: Some Preliminary Reflections' (2017) 49 Arizona State Law Journal 689, 709. See also S Maljean-Dubois, 'The No-Harm Principle as the Foundation of International Climate Law' in Mayer and Zahar (n 26) 15, considering that the no-harm rule complements treaty duties; and J Cameron Glickenhaus, 'Potential ICJ Advisory Opinion Duties to Prevent Transboundary GHG Emissions' (2015) 22 New York University Environmental Law Journal 117.

[38]J Brunnée, 'Harm Prevention' in Rajamani and Peel (n 23) 269, 279.

[39]*Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States*, submitted by Sheila Watt-Cloutier, with the support of the Inuit Circumpolar Conference, on behalf of all Inuit of the Arctic Regions of the United States and Canada (7 December 2005) 99–100.

[40]ibid 97.

[41]Convention on the Rights of the Child (adopted 20 November 1989, entered into force 2 September 1990) 1577 UNTS 3.

[42]*Sacchi* et al *v Argentina, Brazil, France, Germany and Turkey*, communication to the Committee on the Rights of the Child (23 September 2019) paras 177–183, especially para 179.

[43]Committee on the Rights of the Child 'Decision adopted by the Committee on the Rights of the Child under the Optional Protocol to the Convention on the Rights of the Child on a communications procedure in respect of Communication No. 104/2019' UN Doc CRC/C/88/D/104/2019 (8 October 2021) respectively paras 10.13 and 10.14.

[44]A Zahar, 'Mediated versus Cumulative Environmental Damage and the International Law Association's Legal Principles on Climate Change' (2014) 4 Climate Law 217, 230.

[45]S Maljean-Dubois, 'The No-Harm Principle as the Foundation of International Climate Law' in Mayer and Zahar (n 26) 15, 18–19; B Mayer, 'The Relevance of the No-harm Principle to Climate Change Law and Politics' (2016) 19 Asia Pacific Journal of Environmental Law 79, 86.

[46]J Brunnée, 'Procedure and Substance in International Environmental Law' (2019) 405 Recueil des Cours 75, 108.

[47]Campbell-Duruflé (n 26) 38.

[48]B Mayer, 'International Advisory Proceedings on Climate Change' (2023 fc) 44 Michigan Journal of International Law <https://ssrn.com/abstract=4086761> 75.

[49]See, e.g., L Pineschi, 'I principi del diritto internazionale dell'ambiente: dal divieto di inquinamento transfrontaliero alla tutela dell'ambiente come *common concern*' in R Ferrara and CE Gallo (eds), *Trattato di diritto dell'ambiente. Le politiche ambientali, lo sviluppo sostenibile e il danno* (Giuffré 2014) 93, 140–147; and P Sands et al, *Principles of International Environmental Harm* (4th edn, Cambridge University Press 2018) 206–213; A Zahar, 'The Contested Core of Climate Law' (2018) 8 Climate Law 244.

3 | RELEVANCE OF THE PREVENTION PRINCIPLE FOR COLLECTIVE INTERESTS

According to the wording of Principle 21 of the Stockholm Declaration and Principle 2 of the Rio Declaration, the prevention principle refers to harm 'to the environment of other States or of areas beyond the limits of national jurisdiction'. It is evident that this expression is ill suited to climate change: as a global phenomenon, it regards the environment in its entirety, that is, the environment of other States *and* of international areas, as well as the environment of the State in which the harmful activity is carried out. Climate change causes widespread environmental damage, and its negative impacts vary from place to place around the world, from droughts to sea-level rise, from wildfires to extreme weather events and floods, to loss of biodiversity. Indeed, by reason of its global nature, climate change has been defined as a 'common concern of mankind' since the UNFCCC was adopted, and even before.[50]

However, the principle of prevention does not simply cover transboundary environmental harm: it is concerned with harm to the environment in and of itself, regardless of its location, provided that it is of international significance.[51] The discussion that follows explains that the prevention principle is based on an interest of the international community as a whole, that is, a collective or community interest in the form of the protection of the environment per se,[52] and that, therefore, climate change can be considered to fall within the reach of the prevention principle.

Since its affirmation in Principle 21 of the Stockholm Declaration, the prevention principle has been founded on protecting the environment per se as a community interest. Indeed, the reference to the 'human environment' in the name of the Stockholm Conference and Declaration, despite its anthropocentric flavour, denotes a new awareness of the collective relevance of environmental degradation. Moreover, the locus of environmental harm is immaterial to most of the provisions of the Stockholm Declaration, and the preparatory work of Principle 21 suggests that its final formulation was chosen to avoid possible abuses in the exercise of 'a right to protection of the environment' in defiance of territorial sovereignty; apparently, the original focus on the environment in its entirety was not questioned.[53]

Shortly after the Stockholm Conference, the collective nature of the interest underpinning the prevention principle was reaffirmed in the 1974 Charter of Economic Rights and Duties of States.[54] A restatement of the principle of prevention, as formulated in Stockholm Principle 21, was included in Chapter III concerning 'common responsibilities towards the international community'.[55] Another 2 years later, in 1976, the International Law Commission (ILC) provisionally adopted Article 19 of the Draft Articles on State Responsibility for Internationally Wrongful Acts,[56] and the Stockholm Declaration was mentioned in the commentary[57] to illustrate that 'a serious breach of an international obligation of essential importance for the safeguarding and preservation of the human environment, such as those prohibiting massive pollution of the atmosphere or of the seas' would amount to an international crime, that is, 'an internationally wrongful act which results from the breach by a State of an international obligation so essential for the protection of fundamental interests of the international community that its breach is recognized as a crime by that community as a whole'.[58]

Subsequent international practice further confirms the relevance of the principle of prevention for collective interests, including climate change. This is especially apparent in treaty practice. As already mentioned, the prevention principle is proclaimed in the preamble to the UNFCCC[59]: the contracting parties themselves have thus recognized the connection of the principle of prevention with the climate change regime. In addition, the principle has been given a prominent place in the preamble: while the Stockholm Declaration is generically referenced in one recital,[60] the prevention principle is specifically recalled in another, in which no explicit reference is made to the Stockholm Declaration, as if the prevention principle had emancipated itself from that soft law instrument.[61]

Other treaties also indicate that the principle of prevention is relevant for collective interests. Among them, the CBD is noteworthy, not only because protection of biodiversity certainly represents a community interest but also by reason of the special weight given to the prevention principle. As alluded to above, it is restated, according to the wording of Stockholm Principle 21 but without any explicit reference thereto, in a one-paragraph provision with the heading 'Principle'[62]: the prevention principle thus seems to be the main, if not the

[50]UNFCCC (n 28) first recital of the preamble ('change in the Earth's climate and its adverse effects are a common concern of humankind'). Before the adoption of the UNFCCC, see UNGA 'Protection of Global Climate for Present and Future Generation of Mankind' UN Doc A/RES/43/53 (6 December 1988) para 1.

[51]This implies the discontinuity between the no-harm rule and the principle of prevention; see Gervasi (n 9) 99–104.

[52]See P Picone, 'Obblighi reciproci ed obblighi *erga omnes* degli Stati nel campo della protezione internazionale dell'ambiente marino dall'inquinamento' in V Starace (ed) Diritto internazionale e protezione dell'ambiente marino (Giuffré 1983) 15, 28–32, reproduced in P Picone, *Comunità internazionale e obblighi 'erga omnes' – Studi critici di diritto internazionale* (3rd edn, Jovene 2013) 18–22; and Gervasi (n 9) 104–121.

[53]See LB Sohn, 'The Stockholm Declaration on the Human Environment' (1973) 14 Harvard International Law Journal 423, 488–489. According to the draft statements of the Working Group, as reported ibid 488, '[e]ach State has the responsibility to exercise its sovereignty over its natural resources in a manner compatible with the need to ensure the preservation and enhancement *of the human environment*' (emphasis added).

[54]UNGA 'Charter of Economic Rights and Duties of States' UN Doc A/RES/3281(XXIX) (12 December 1974).

[55]ibid art 30.

[56]'Report of the International Law Commission on the Work of Its Twenty-Eighth Session' UN Doc A/31/10 (1976) 75.

[57]ibid 109, para 32.

[58]ibid art 19(3)(d) of the Draft Articles on State Responsibility. As is known, the notion of 'international crime' was eventually abandoned and substituted, in the final text adopted by the ILC in 2001, with that of 'serious breaches of obligations under peremptory norms of general international law'. For a critique of this change in the ILC's approach, see P Picone, 'Obblighi *erga omnes* e codificazione della responsabilità degli Stati' (2005) 88 Rivista di diritto internazionale 893, reproduced in Picone, *Comunità internazionale* (n 52) 517–573. More recently, in its work on the protection of the atmosphere, the ILC left open the question as to 'whether or not the obligation to protect the atmosphere is an *erga omnes* obligation', having noted that this is 'a matter on which there are different views': see 'Report of the International Law Commission on the Work of Its Seventy-Second Session' UN Doc A/76/10 (2021) 26, para 5.

[59]UNFCCC (n 28) para 8 of the preamble.

[60]ibid para 7 of the preamble.

[61]Indeed, the wording of Principle 2 of the Rio Declaration was used, which had yet to be adopted then, in May 1992, as the Rio Conference was held the following month.

[62]CBD (n 32) art 3.

only, inspiring principle of the CBD. Further treaties dealing with global environmental issues that refer to the principle of prevention include the Vienna Convention for the Protection of the Ozone Layer[63] and the Convention to Combat Desertification.[64]

Beyond treaty practice, the principle of prevention has also been linked to collective interests in international case law. In the 1996 Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, the ICJ essentially restated the principle of prevention, as formulated in Stockholm Principle 21[65]: the connection of the prevention principle with a community interest is apparent from the considerations that 'the use of nuclear weapons could constitute a catastrophe for the environment' and that 'the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn'.[66] One year later, in the 1997 judgement in the case concerning the *Gabčíkovo-Nagymaros Project*, the Court confirmed the collective value of environmental protection by emphasizing that it attached 'great significance … to respect for the environment, not only for States but also for the whole of mankind'.[67] Immediately thereafter, it quoted the passage from the *Threat or Use of Nuclear Weapons* Advisory Opinion relating to the prevention principle. The connection between this principle and the protection of the environment as a community interest can also be observed in cases where bilateral interests have been preeminent. In the 2010 *Pulp Mills* judgement, the Court referred to the principle of prevention, as affirmed in the Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, in relation to a provision of the 1975 Statute of the River Uruguay that is founded on the interest in the protection of the environment per se[68]; it lays down the obligation to prevent pollution and preserve the aquatic environment, regardless of any bilateral interests of the riparian States.

Decisions of arbitral courts provide further evidence of the connection between the principle of prevention and the community interest in environmental protection. In the 2005 *Iron Rhine* arbitration,[69] the arbitral tribunal, when defining the duty of prevention as a 'principle of general international law', referred to 'significant harm *to the environment*',[70] without any qualifications. The dispute concerned environmental harm within the State in which the harmful activity would be carried out, which confirms that the scope of the prevention principle cannot be limited to transboundary environmental harm, and can be relevant to a collective interest—in this case biological diversity. Similarly, in the 2016 *South China Sea Arbitration*, the arbitral tribunal mentioned the principle of prevention, in relation to Article 192 of the UN Convention on the Law of the Sea[71] (UNCLOS),[72] after having clarified that 'the obligations in [UNCLOS] Part XII apply to all States with respect to the marine environment in all maritime areas, both inside the national jurisdiction of States and beyond it'.[73] Once more, a collective interest, in the form of marine biodiversity protection, was at stake.

4 | USE OF THE PRINCIPLE OF PREVENTION AS A CUSTOMARY DUTY TO ACT WITH DUE DILIGENCE

Having clarified that climate change falls under the scope of the principle of prevention, it is now necessary to turn to the concrete role it could play in international climate adjudication. This section looks at the advantages of understanding prevention, in a judicial context, as a customary duty to act with due diligence that requires acting proactively against risks of environmental harm.[74] This approach is justified by the widespread acceptance of the customary status of the prevention principle in the case law[75] and doctrine,[76] and views prevention as an obligation of conduct that can be discharged by taking reasonable action.[77]

The anticipatory rationale of the prevention principle concerned with the mitigation of risk rather than the avoidance of harm per se offers useful options for international dispute settlement in the context of climate change. If only conceived as a tool of 'State liability for any activities that harm another State',[78] the duty to prevent is of limited help to govern a problem like climate change for which proof of causality and determination of harm is complex. However, understood as a due diligence duty to anticipate harm, the prevention principle has an important role to play to assess the adequacy of past and current actions on climate change and their lawfulness, and, potentially, to request the adoption of more diligent measures, including through better designed and better implemented NDCs. Domestic climate

[63]Vienna Convention for the Protection of the Ozone Layer (adopted 22 March 1985, entered into force 22 September 1988) 1513 UNTS 293 para 2 of the preamble.
[64]United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (adopted 14 October 1994, entered into force 26 December 1996) 1954 UNTS 3 para 15 of the preamble.
[65]*Legality of the Threat or Use of Nuclear Weapons* (Advisory Opinion) [1996] ICJ Rep 226 para 29.
[66]ibid.
[67]*Gabčíkovo-Nagymaros Project (Hungary/Slovakia)* (Judgment) [1997] ICJ Rep 7 para 53.
[68]*Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judgment) [2010] ICJ Rep 14 para 193.
[69]*Iron Rhine Arbitration (Belgium v Netherlands)* (Award) (24 May 2005) [2008] 27 RIAA 35.
[70]ibid para 59 (emphasis added).
[71]United Nations Convention on the Law of the Sea (adopted 10 December 1982, entered into force 16 November 1994) 1833 UNTS 3.
[72]*South China Sea Arbitration (The Philippines v China)* (Merits) (Award) (12 July 2016) [2020] 33 RIAA 166 para 941.
[73]ibid para 940.
[74]As proposed in Duvic-Paoli (n 8).
[75]*Legality of the Threat or Use of Nuclear Weapons* (n 65) para 29; *Gabčíkovo-Nagymaros Project* (n 67) para 140; *Pulp Mills* (n 68) para 101; *Certain Activities Carried out by Nicaragua in the Border Area* (Costa Rica v Nicaragua) and *Construction of a Road in Costa Rica along the San Juan River* (Nicaragua v Costa Rica) (Merits) [2015] ICJ Rep 665 para 104; *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion) [2011] ITLOS Rep 10 paras 131–135; *Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana v Côte d'Ivoire)*, ITLOS Case No. 23 (Provisional Measures) (Order of 25 April 2015) para 71; *Iron Rhine* (n 69) paras 59, 222; *Indus Waters Kishenganga (Pakistan/India)* (Partial Award) (18 February 2013) [2018] 31 RIAA 55 paras 448–451; *South China Sea Arbitration* (n 72) paras 940–948; IACtHR, *The Environment and Human Rights (State Obligations in Relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity – Interpretation and Scope of Articles 4(1) and 5(1) of the American Convention on Human Rights)*, Advisory Opinion OC-23/17, Inter-American Court of Human Rights Series A No 23 (15 November 2017) paras 97–99.
[76]See, e.g., Brunnée (n 46) 115.
[77]*Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (n 75) para 110.
[78]Jacobs (n 25) 121.

litigation might be able to inspire international adjudication strategies to replicate one of its objectives—to direct governments to enhance their commitments. The focus would thus not be on the consequences of a failure to act on climate change but rather on defining the level of duty of care required to align State actions with scientific evidence. In *Urgenda*, the Hague District Court acknowledged that environmental principles 'determine to a great extent the framework for and the manner in which the State exercises its powers'.[79] Replicated at the international level, the custom-based prevention principle, defined as a positive duty to take active steps in the face of climate risks, can be deployed to sue governments for insufficient action to ensure that NDCs are met and to commit parties to more stringent mitigation targets. The focus on conduct instead of harm means that there is no need to wait for harm to have occurred as a result of an insufficient NDC to start adjudication.

A second advantage that reliance on the prevention principle in international climate adjudication can bring is that it complements the procedural nature of international climate law. As is now well established, the Paris Agreement is primarily driven by procedural duties of prevention, which transforms the assessment of compliance into an objective process—inter alia, one concerned with the regular communication of NDCs rather than their implementation and achievement.[80] While less politically charged, this approach to climate risk governance fails to offer adequate solutions to limit greenhouse gas emissions: indeed, preventive procedural duties might be met but harm not necessarily avoided or mitigated. However, the self-standing rule of prevention can be breached even if treaty-based procedural duties have been fulfilled; indeed, compliance with duties under climate treaties does not automatically mean compliance with general international law,[81] and a failure to act diligently in the face of risk could be established outside of the Paris Agreement.

Alternatively, a more legally cohesive proposal consists in relying on the interpretation principle of systemic integration to evaluate the reasonableness of State actions under the Paris Agreement in the light of the customary duty to prevent, understood as an obligation to exercise proactiveness in the face of risk.[82] Such was the approach taken in the 2016 award in the *South China Sea* arbitration that relied on the prevention principle, based on its customary status recognized by the ICJ and other tribunals, to inform 'the scope of the general obligation in Article 192' of UNCLOS.[83] Similarly, the prevention principle can be used to interpret the duty under article 3 of the Paris Agreement to 'undertake and communicate ambitious efforts' that represent 'a progression over time'.[84] On their own, climate treaty obligations give little guidance on the standards applicable to determine the duty of care and parties tend to self-analyse their commitments and proclaim their plans and actions to represent their 'highest possible ambition'.[85] The customary duty to prevent and its due diligence articulation can play a role in interpreting these climate treaty norms. In the past, international tribunals have understood the level of care emerging from the due diligence standard either as a question of fact (the riskier an activity, the more due diligence is required) or of law (based on a systemic approach to treaty interpretation).[86] In the context of climate adjudication, the high standard of care set by the Paris principle of 'highest possible ambition' calls for an assessment of the due diligence as a matter of law. It is not the risky character of activities producing greenhouse gas emissions as such that should be under scrutiny, but rather the reasonableness and appropriateness of measures taken to design an adequately ambitious NDC. In other words, the duty of care arising from the duty to act ambitiously is informed and clarified by reference to inter alia the customary duty to prevent, the content of which includes a duty to conduct an environmental impact assessment—covering greenhouse gas emissions[87] and to cooperate in good faith—including on financial assistance and technology transfer.[88] The prevention principle thus offers an opportunity to build on the normative richness of international environmental law to interpret the standard of care required by the Paris Agreement.

A final advantage to relying on the prevention principle in its customary form is that it offers an opportunity to move beyond the largely bilateral logic of international law. Indeed, prevention can be considered to be an *erga omnes* norm that could be invoked by any State without the need to justify an injury or a specific interest.[89] Admittedly, the identification of obligations owed to the international community as a whole is controversial and unsettled but prevention appears to fit the two approaches identified by Tams in his seminal study on the topic to identify *erga omnes* norms: either based on a structural assessment, applicable to obligations that are non-reciprocal, or a material one, based on the central role played by the norm in the international legal system.[90] Prevention qualifies under both methods: it is a non-bilateralizable norm that seeks to protect a common good shared by all (as illustrated in Section 3); and it embodies the fundamental concern of the international community for environmental protection.[91] The advantage of using the prevention principle

[79] *Urgenda Foundation v The Netherlands* [2015] HAZA C/09/00456689 (24 June 2015) para 4.63.
[80] Paris Agreement (n 36) art 4(2). On substance and procedure in the Paris Agreement, see Brunnée (n 46) 197–212.
[81] See B Mayer, *The International Law on Climate Change* (Cambridge University Press 2018) 86.
[82] Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331, art 31(3)(c).
[83] *South China Sea Arbitration* (n 72) para 941.
[84] Paris Agreement (n 36) art 3.
[85] Paris Agreement (n 36) art 4(3). See, e.g., L Rajamani, 'Due Diligence in International Climate Law' in H Krieger, A Peters and L Kreuzer (eds), *Due Diligence in the International Legal Order* (Cambridge University Press 2020) 163, 170.
[86] M Mbengue, 'The South China Sea Arbitration: Innovations in Marine Environmental Fact-Finding and Due Diligence Obligations' (2017) 110 AJIL Unbound 285, 286.
[87] See Benoit Mayer, 'The Emergence of Climate Assessment as a Customary Law Obligation' in Mayer and Zahar (n 26) 285.
[88] Draft Articles on Prevention of Transboundary Harm from Hazardous Activities (with Commentaries) in ILC, 'Yearbook of the International Law Commission, vol II, part 2' (2001) art 4.
[89] Draft Articles on the Responsibility of States for Internationally Wrongful Acts (with Commentaries) in ILC, 'Yearbook of the International Law Commission, vol II, part 2' (2001), arts 42 and 48.
[90] CJ Tams, *Enforcing Obligations Erga Omnes in International Law* (Cambridge University Press 2010) 128–156.
[91] For a detailed analysis of prevention as an *erga omnes* obligation, see Duvic-Paoli (n 8) 321–323.

in the context of climate adjudication is thus that, as an *erga omnes* duty, it confers standing to bring disputes in the collective interest.[92]

5 | USE OF THE PRINCIPLE OF PREVENTION AS A GENERAL PRINCIPLE OF INTERNATIONAL LAW

Invocation of the prevention principle as an obligation established by a customary rule might appear the most evident use of the norm as this is the classification accepted by the majority of legal scholars. Nevertheless, it is not without conceptual obstacles. First, it implies the identification of custom in relation to a proposition that aims to prevent environmental harm but has failed to do so—that is, the identification of custom in the absence of consistent State practice. Second, it proves difficult to determine the content and scope of a customary obligation of prevention that is expected to apply to disparate circumstances, ranging from pollution of international watercourses to climate change, from oil spills at sea to acid rain, or from radioactive pollution to loss of biodiversity, to name but a few. The due diligence standard, which entails a case-by-case approach, offers limited guidance regarding the conduct required. As such, an alternative argument that can be put forward in the context of international climate adjudication is to rely on the reconstruction of the prevention principle as a general principle of international law rather than a customary rule.[93] On that basis, it can be asserted that 'climate considerations' should be taken into account in policies and activities that may contribute to climate change.

A general principle of international law is here conceived, following Dworkin's definition of 'principle', as 'a consideration inclining in one direction or another': while rules apply 'in an all-or-nothing fashion', principles 'do not set out legal consequences that follow automatically when the conditions provided are met'.[94] This is because, as explained by Alexy, principles are '*optimization requirements*, characterized by the fact that they can be satisfied to varying degrees, and that the appropriate degree of satisfaction depends not only on what is factually possible but also on what is legally possible'.[95] This conception of general principles of international law implies the application of a theory concerning the nature of norms to the theory of the sources of international law.[96] Consequently, general principles of international law are not immediately binding: they do not themselves impose obligations. Instead, they inspire the formation of rules by indicating a value-driven or ideal direction: it is the rules embodying a principle that eventually create rights and obligations.[97] However, general principles of international law may still be considered a formal 'source of international law', provided a broad interpretation of the term 'source of law' is adopted that focuses on the relevance to the legal system rather than on the directly binding character.[98] Accordingly, they may also be subsumed under Article 38(1)(c) of the ICJ Statute, on condition that the expression 'general principles of law recognized by civilized nations' is meant to refer to both general principles drawn from domestic legal orders and general principles formed within the international legal system,[99] as seemingly confirmed by the recent work of the ILC.[100]

The notion of general principles of international law upheld here is certainly plausible, if only because their conceptualization remains an unsettled issue within legal scholarship.[101] As the ILC's work and the intense and ongoing debate among its members tellingly show,[102] different solutions are therefore possible. Moreover, the approach adopted here, based on the distinction between rules and principles, has the advantage of drawing a sharp dividing line between general principles of international law and customary rules, in terms of their function and effects. Thus there is no risk that recourse to general principles of international law may be reduced to an easy way to affirm the existence of a general obligation of international law, by circumventing the determination of practice and *opinio juris* as the traditional elements of customary international law.[103] That risk is inherent in the conception of general principles of international law as a source of general obligations (in the same way as customary law) and has raised concerns that customary international law may be undermined as a result.[104]

[92]On this question, and its limits, see P Urs, 'Obligations *Erga Omnes* and the Question of Standing before the International Court of Justice' (2021) 34 Leiden Journal of International Law 505.

[93]In addition to Gervasi (n 9), see also D Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press 2010) 191–204, who likewise concludes that the prevention principle amounts to a general principle rather than a customary rule.

[94]R Dworkin, 'The Model of Rules' (1967) University of Chicago Law Review 14, 25–26, reproduced in R Dworkin, *Taking Rights Seriously* (Harvard University Press 1977) 24–25.

[95]R Alexy, *A Theory of Constitutional Rights* (Oxford University Press 2010) 47–48 (emphasis in original).

[96]On their interaction, see L Gradoni, 'Consuetudine internazionale e caso inconsueto' (2012) 95 Rivista di diritto internazionale 704, note 2 and 718–720.

[97]See, more extensively, Gervasi (n 9) 162–175.

[98]See G Arangio-Ruiz, 'The Normative Role of the General Assembly of the United Nations and the Declaration of Principles of Friendly Relations, with an Appendix on the Concept of International Law and the Theory of International Organisations' (1972) 137 Recueil des Cours 419, 497; and R Kolb 'Principles as Sources of International Law (with Special Reference to Good Faith)' (2006) 53 Netherlands International Law Review 1, 1–13.

[99]It hardly needs mentioning, however, that Article 38 of the ICJ Statute is not a provision on the sources of international law, since it deals with the law applicable by the ICJ: the classification of general principles of international law as a source of law does not therefore ultimately depend on that provision or the meaning of its terms. The same is true, *a fortiori*, of the existence itself of general principles of international law as distinct from general principles of law drawn from domestic legal orders.

[100]Some members of the ILC expressed doubts over the category of general principles of law formed within the international legal system: see 'Report of the International Law Commission on the Work of Its Seventy-First Session' UN Doc A/74/10 (2019) 336, para 245; and 'Report of the International Law Commission on the Work of Its Seventy-Second Session' UN Doc A/76/10 (2021) 155, para 197, and 157, para 211. However, the Special Rapporteur, M Vázquez-Bermúdez, has endorsed the existence of the two categories of general principles of law since his 'First Report on General Principles of Law' UN Doc A/CN.4/732 (5 April 2019), and the Drafting Committee provisionally adopted the pertinent draft conclusions (namely, draft conclusions 3 and 7): UN Doc A/CN.4/L.971 (21 July 2022).

[101]Significantly, while in relation to general principles of international law draft conclusion 7, provisionally adopted by the ILC Drafting Committee (see n 100), only refers to principles recognized by 'the community of nations' as 'intrinsic to the international legal system' (para 1), it also makes it clear that this is 'without prejudice to the question of the possible existence of *other* general principles of law formed within the international legal system' (emphasis added).

[102]For an overview, see M Vázquez-Bermúdez and A Crosato, 'General Principles of Law: The First Debate within the International Law Commission and the Sixth Committee' (2020) 19 Chinese Journal of International Law 157, 168–171; and A Gianelli, 'The Notion of General Principles of International Law at the Time of Its Codification' (2021) 104 Rivista di diritto internazionale 965.

[103]For a lengthier discussion and references, see Gervasi (n 9) 187–194.

[104]See, in particular, M Wood, 'Customary International Law and the General Principles of Law Recognized by Civilized Nations' (2019) International Community Law Review 307, 316–321; and J Klabbers, *International Law* (3rd edn Cambridge University Press 2021) 38.

The essence of the principle of prevention as a general principle of international law is apparent from the influence that it has had on the making of international environmental law rules. The prevention principle has certainly inspired many treaty rules,[105] as is made explicit by the reference to it in the preamble to several environmental agreements or in the provisions expressly stating their guiding principles,[106] and possibly also some customary rules, including the obligation to conduct an environmental impact assessment.[107] Correspondingly, the prevention principle can be inferred by induction from those conventional and customary rules. With particular regard to climate change, the prevention principle has had a guiding role in the stipulation of treaty rules: as already underlined, it has been given special weight within the preamble to the UNFCCC, so much so that it seems to be one of the fundamental principles on which it is based.[108] Furthermore, the reconstruction of the prevention principle as a general principle of international law can also find support in international case law. Although the majority of scholars tend to regard international case law as indicating that the prevention principle amounts to a customary rule, it can be contended that, in international cases, the prevention principle has in fact operated as a general principle rather than a rule.[109] Specifically, as will be recalled below, the prevention principle has mainly given rise to 'environmental considerations' and, therefore, has basically served an inspiring function relevant to balancing acts.

It is submitted here that, in international climate adjudication, the most permeating effect of the operation of the principle of prevention as a general principle of international law lies in the inspiration of what might be called 'climate considerations', which can be relevant whenever there is a risk of significant contribution to climate change. An argument can be made that States should take climate change into account in their economic policies and ensure that it be taken into account when economic activities are carried out. Therefore, climate change should be accounted for in the balancing act between protection of the environment and competing economic interests.[110]

In an international case related to climate change, the argument that 'climate considerations' flow from the principle of prevention can be solidly grounded in international case law concerning 'environmental considerations'. If 'environmental considerations' derive from the principle of prevention, and if climate change falls within the principle's reach, then 'environmental considerations' cannot but include 'climate considerations'. In its Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, the ICJ stated on the basis of the prevention principle that 'States must take environmental considerations into account when assessing what is necessary and proportionate in the pursuit of legitimate military objectives'.[111] Then it went on to conclude that '[r]espect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality'.[112] The principle of prevention played the same guiding function in the judgement in the *Gabčíkovo-Nagymaros* case: the Court affirmed that new environmental norms and standards were 'to be taken into consideration' and 'given proper weight' respectively.[113] In the *Iron Rhine* award, the arbitral tribunal similarly evoked 'considerations of environmental protection'[114] building on that passage from the *Gabčíkovo-Nagymaros* judgement and in light of the prevention principle.[115]

Reliance on 'climate considerations' arising from the prevention principle operating as a general principle of international law offers two advantages, both relating to the pervasive influence of 'climate considerations'.[116] First, in the determination of State mitigation commitments, 'climate considerations' could provide general directions regardless of the application of more specific customary and treaty rules, including the Paris Agreement obligations on NDCs: in any case, climate change should be taken into account in relation to activities that may significantly contribute to it. Thus, 'climate considerations' could offset conflicting interests: this is typical of how general principles operate, which is characterized by balancing acts.[117] The invocation of the principle of prevention to this end could be particularly important in an advisory proceeding at the ICJ generically concerning State obligations in the field of climate change: then 'climate considerations' flowing from the prevention principle could exert the most penetrating effects, as they would refer to any activity that may have serious repercussions on climate (including, for instance, energy use in industry, transport, industrial processes producing greenhouse gases, deforestation, coal mining, or oil and gas production). In fact, in the aforementioned draft resolution presented by Vanuatu for the request for an advisory opinion of the ICJ, the question about State

[105] See Gervasi (n 9) 198–220.

[106] In addition to the examples provided in Section 2, see also: Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (adopted 29 December 1972, entered into force 30 August 1975) 1046 UNTS 120 para 3 of the preamble; Stockholm Convention on Persistent Organic Pollutants (adopted 22 May 2001, entered into force 17 May 2004) 2256 UNTS 119 para 10 of the preamble; ASEAN Agreement on Transboundary Haze Pollution (adopted 10 June 2002, entered into force 25 November 2003) art 3(1).

[107] Other customary rules might be the prohibition on dumping of radioactive wastes at sea, the obligation to ensure that prompt and adequate compensation for environmental damage is available, the prohibition on destruction of the environment as a weapon and the prohibition of nuclear weapon tests with a significant environmental impact; see Gervasi (n 9) 305–374.

[108] See Section 3.

[109] In addition, the ICJ referred to the prevention principle as a customary rule without any investigation of State practice and *opinio juris*. For such a critical reassessment of the pertinent international case law, see Gervasi (n 9) 245–296.

[110] Although the outcome of the operation of the prevention principle through the balancing act between protection of the environment and economic growth tends to flow into the concept of sustainable development, on closer look the prevention principle remains autonomous as it is centred on protection of the environment. What lies at the heart of the concept of sustainable development, on the other hand, is not environmental protection since its primary focus is on development; see Gervasi (n 9) 375–399.

[111] *Legality of the Threat or Use of Nuclear Weapons* (n 65) para 30.

[112] ibid.

[113] *Gabčíkovo-Nagymaros* (n 67) para 140.

[114] *Iron Rhine Arbitration* (n 69) para 223.

[115] ibid para 59.

[116] One may think, by way of comparison, of the wide-reaching effects of the 'considerations of humanity', famously evoked by the ICJ in the *Corfu Channel* (Merits) [1949] ICJ Rep 4, 22. In the *M/V 'SAIGA' (No. 2) (Saint Vincent and the Grenadines v Guinea)* judgment, the ITLOS held that '[c]onsiderations of humanity must apply in the law of the sea, as they do in other areas of international law' (1999 ITLOS Rep 10, para 155). See M Zagor, 'Elementary Considerations of Humanity' in K Bannelier, T Christakis and S Heathcote (eds), *The ICJ and the Evolution of International Law: The Enduring Impact of the* Corfu Channel *Case* (Routledge 2012) 264, and F Delfino, '"Considerations of Humanity" in the Jurisprudence of ITLOS and UNCLOS Arbitral Tribunals' in A Del Vecchio and R Virzo (eds), *Interpretations of the United Nations Convention on the Law of the Sea by International Courts and Tribunals* (Springer 2019) 421.

[117] See Alexy (n 95) 48–54.

obligations on climate protection is formulated in broad terms, without any reference to specific activities.[118]

The recognition of 'climate considerations' arising from the prevention principle could provide added value compared to Article 4(1)(f) of the UNFCCC, whereby 197 parties have already agreed to 'take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions'.[119] This provision appears to encourage a balancing act in favour of development and economic interests: not only are 'climate considerations' to be taken into account just 'to the extent feasible', but the parties are also required to 'employ appropriate methods … *with a view to minimizing adverse effects* [of climate projects and measures] *on the economy*'.[120] In sum, other interests, including of an economic nature, seem to take precedence over climate mitigation and adaptation measures. By contrast, reliance on 'climate considerations' in the purest form derived from the prevention principle would imply that they should always be included, when relevant, in policymaking, and that their balancing against competing interests could lead to different outcomes, with the former prevailing over the latter at least in certain circumstances. Indeed, one might wonder whether Article 4(1)(f) UNFCCC, dating back to 1992, should be critically re-evaluated in view of new scientific evidence and considering that the climate crisis has since worsened dramatically.

Second, when the interpretation and application of specific rules are at issue, the operation of the principle of prevention as a general principle of international law could serve an interpretative function. This would be particularly important were climate change disputes to be brought before international courts and tribunals called to apply environmental rules that do not specifically concern climate change or non-environmental rules.

When it comes to environmental obligations that the principle itself has informed, the interpretative function of the prevention principle is a corollary to the primary guiding function performed in law-making.[121] One may think, for instance, of the rules set out in UNCLOS Part XII dealing with the 'protection and preservation of the marine environment'. They do not expressly refer to climate change, which is no surprise considering when they were drafted. However, since Article 192 UNCLOS, which is the 'general obligation' of Part XII, is shaped by the prevention principle—as the arbitral tribunal held in the *South China Sea Arbitration*,[122] 'climate considerations' arising from it could not be ignored in the application of the other, more specific prevention obligations under UNCLOS, the scope of which could thus extend to the impact of climate change on the marine environment.[123] In other words, if the prevention principle underlies the prevention obligations under UNCLOS Part XII, and if 'climate considerations' stem from that principle, then 'climate considerations' could equally influence the interpretation of those UNCLOS obligations. This holds true also for the interpretation of other environmental obligations that do not address climate change but are based on the principle of prevention.

As for non-environmental obligations, 'climate considerations' can be subsumed under the systemic approach to interpretation, as enshrined in Article 31(3)(c) of the Vienna Convention on the Law of Treaties, which applies not only to rules but also to principles.[124] In particular, it may be argued that 'climate considerations' could amount to non-economic values to be included in the interpretation and application of trade and investment law.[125] Similarly, the prevention principle could be decisive in extending, through 'climate considerations', the scope of human rights obligations to climate change.[126] The same result could hardly be achieved by simply considering climate rules contained in treaties. Not only are 'climate considerations' broader and more flexible, but States might also be more prone to accept the operation of a general principle rather than the influence of specific climate rules that are not directly applicable to the case.

6 | CONCLUSION

Environmental principles are generally deemed to have a profound influence on the interpretation and application of environmental

[118] See Section 1.

[119] UNFCCC (n 28) art 4(1)(f).

[120] ibid (emphasis added).

[121] See Gervasi (n 9) 165–169.

[122] *South-China Sea Arbitration* (n 72) para 941. Leaving aside the issue of the classification of the prevention principle and the question as to how the arbitral tribunal understood it in that award, a connection was there established between this principle and Article 192 UNCLOS. On that basis, the argument was put forward in Section 4 that the prevention principle could strengthen the obligations under the Paris Agreement in the same way as it did with regard to UNCLOS obligations in the *South-China Sea Arbitration*. Here, in light of the said connection, an alternative argument is made that the prevention principle could be relied on in the interpretation of the prevention obligations under UNCLOS Part XII to include climate change in their reach.

[123] The most relevant provisions seem to be UNCLOS (n 71) arts 194(3)(a), 212 and 222, which refer to pollution from or through the atmosphere. See, more generally, C Redgwell, 'Treaty Evolution, Adaptation and Change: Is the LOSC "Enough" to Address Climate Change Impacts on the Marine Environment?' (2019) 34 International Journal of Marine and Coastal Law 440, 443–452; and A Boyle, 'Protecting the Marine Environment from Climate Change: The LOSC Part XII Regime' in E Johansen, SV Busch and IU Jakobsen (eds) *The Law of the Sea and Climate Change: Solutions and Constraints* (Cambridge University Press 2021) 81.

[124] See 'Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law. Report of the Study Group of the International Law Commission, Finalized by Martti Koskenniemi' UN Doc A/CN.4/L.682 (13 April 2006) 215, para 426(b). Indeed, although the term 'rules' is used in the provision, international practice suggests that it also extends to general principles; see O Dörr 'Article 31' in O Dörr and K Schmalenbach (eds), *Vienna Convention on the Law of Treaties: A Commentary* (Springer-Verlag 2012) 521, 563–564.

[125] The WTO dispute settlement system might play an important role in future international climate litigation; see H van Asselt, 'Trade and Climate Disputes before the WTO: Blocking or Driving Climate Action?' in I Alogna, C Bakker and JP Gauci (eds), *Climate Change Litigation: Global Perspectives* (Brill 2021) 433.

[126] As the *Sacchi* decision indicates (see Section 1), the application of international human rights obligations to climate change cases seems thus far to have been simply founded on the *factual* impact of global warming on the enjoyment of human rights. This is also confirmed, in general terms, by the 'Report of the Special Rapporteur on the Issue of Human Rights Obligations relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment' UN Doc A/HRC/31/52 (1 February 2016) paras 23–32, and the 'Statement on Human Rights and Climate Change' UN Doc HRI/2019/1 (14 May 2020) jointly adopted by different human rights treaty bodies. From this perspective, therefore, international environmental law, including the prevention principle, is merely instrumental in reinforcing human rights obligations; see the 'Report of the Special Rapporteur on the Issue of Human Rights Obligations relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment' UN Doc A/74/161 (15 July 2019) para 66. Reliance on the prevention principle through systemic integration, on the other hand, could strengthen the application of human rights obligations to climate change cases from a *legal* point of view. Indeed, a reference to the prevention principle based on systemic interpretation, albeit with regard to the relationship between human rights and environmental degradation in general and not climate change in particular, is found in the *Advisory Opinion OC-23/17* (n 75) para 125.

law,[127] but can, at the same time, fail to provide enough guidance for judicial decision-making. In this article, we reflected on how the principle of prevention could be deployed in international climate adjudication. After having first showed that the prevention principle is applicable to the specific context of climate change, two different roles were highlighted for the principle, understood as either a customary duty to act with due diligence or a general principle of international law.

Although the two conceptions remain distinct from a theoretical viewpoint, they both have assets that can be used strategically in international climate adjudication. The conception of the prevention principle as a customary rule could prove effective in reinforcing mitigation commitments under climate treaties and, in particular, the Paris Agreement. The due diligence duty established by the customary obligation of prevention places emphasis on harm anticipation and offsets the proceduralization of the climate regime. Thus, it can ensure reasonable and ambitious mitigation commitments under NDCs without the need for proving harm or a breach of procedural duties. The *erga omnes* nature of the principle could also usefully confer an extended right of standing. On the other hand, recourse to 'climate considerations' flowing from the operation of the prevention principle as a general principle of international law could be particularly useful in arguing that, beyond specific mitigation commitments, climate change cannot be ignored when economic activities that could be detrimental to the climate are at stake. Also, when applying non-environmental rules or environmental rules that do not focus on climate change, 'climate considerations' could broaden their scope to include climate concerns.

Overall, the motivations for submitting a climate case to an international tribunal will be varied; they might include seeking redress for historical and present injustices, pushing States to take more ambitious action to meet the objectives of the Paris Agreement set in its Article 2, or making sure that climate change is taken into consideration in economic activities. Irrespective of the aim pursued, the flexibility offered by the prevention principle makes it an important concept in the litigator's toolkit: as a foundational norm, it can be adapted to different adjudication strategies, either to find legal avenues for accountability for past and present harm or to steeply accelerate climate action.

[127]See e.g. E Scotford, 'Environmental Principles Across Jurisdictions: Legal Connectors and Catalysts' in E Lees and JE Viñuales (eds), *The Oxford Handbook of Comparative Environmental Law* (Oxford University Press 2019) 651.

ORCID

Leslie-Anne Duvic-Paoli https://orcid.org/0000-0001-5699-4161

AUTHOR BIOGRAPHIES

Leslie-Anne Duvic Paoli is Senior Lecturer in Environmental Law at The Dickson Poon School of Law, King's College London and Deputy Director of its Climate Law and Governance Centre. Her scholarship covers the ambiguous role played by environmental principles, the global legal implications of the clean energy transition and the role of citizens' assemblies in the making of climate law and policy. She is the author of *The Prevention Principle in International Environmental Law* (Cambridge University Press 2018) and co-editor (with Veerle Heyvaert) of the *Research Handbook on Transnational Environmental Law* (Edward Elgar 2020).

Mario Gervasi is an Assistant Professor of International Law at the Department of Political Sciences of the University of Bari. He has previously been a Research Fellow at the Faculty of Law of Sapienza University of Rome and a Visiting Scholar at the Max Planck Institute for Comparative Public Law and International Law, Heidelberg. He holds a PhD from Sapienza University and an LLM from the University of Essex. He is the author of the monograph *Prevention of Environmental Harm under General International Law: An Alternative Reconstruction* (ESI/Nomos 2021), as well as of several articles and book chapters in various fields of international law.

This article is a collaborative effort between the two authors and was jointly conceptualized. The drafting of Sections 2 and 4 is attributed to Leslie-Anne Duvic-Paoli, and that of Sections 3 and 5 to Mario Gervasi. Sections 1 and 6 were co-drafted.

How to cite this article: Duvic-Paoli L-A, Gervasi M. Harm to the global commons on trial: The role of the prevention principle in international climate adjudication. *RECIEL*. 2023; 32(2):226-236. doi:10.1111/reel.12486