

ARTICLE

TOWARDS A PEREMPTORY DUTY TO CURB GREENHOUSE GAS EMISSIONS?

*Ottavio Quirico**

ABSTRACT

Is international law developing towards the recognition of a peremptory obligation for States and international organizations to stabilize anthropogenic greenhouse gas (“GHG”) emissions, so as to collectively attain a sustainable global average temperature increase? Do States have an obligation to cooperate and achieve this objective? Does such an obligation extend to non-State subjects? This Article explores the possibility that a new peremptory norm is progressively emerging in international law to contain global average temperature increase within sustainable limits, currently well below 2°C and possibly even 1.5°C above pre-industrial levels under the Paris Agreement, as well as its nature and scope. Arguably, the international and domestic practice of sovereign entities, civil society and NGOs is supportive, including the quasi-universal participation of States and international organizations in the UNFCCC and related instruments. Furthermore, the fundamental and shared nature of the atmosphere and climate, which cannot be adequately protected via conventions, compels thinking in terms of a goal-oriented erga omnes duty akin to an obligation of result, triggering universal invocation of responsibility, sanctions, and enforcement. In light of the evolution of international law, the obligation to achieve sustainable anthropogenic GHG emissions could also address non-State natural and legal persons as both duty-bearers and right-holders, waiving immunity and triggering universal jurisdiction.

* Associate Professor, University of New England, Law School, Australia; Adjunct, Australian National University, Centre for European Studies; Alumnus, European University Institute. Email: oquirico@une.edu.au; ottavio.quirico@anu.edu.au; ottavio.quirico@eui.eu. With the support of the Erasmus+ Programme of the European Commission: 620604-EPP-1-2020-1-AU-EPPJMO-PROJECT. Contents reflect the view of the Author only.

ABSTRACT	923
I. INTRODUCTION	924
II. CRITERIA IDENTIFYING A PEREMPTORY NORM... ..	926
III. THE EMERGENCE OF AN ERGA OMNES OBLIGATION TO ACHIEVE SUSTAINABLE GREENHOUSE GAS EMISSIONS.....	929
A. International Treaties: The UNFCCC and Related Instruments	929
B. Other International Initiatives.....	933
C. Domestic Practice	939
D. Practice of non-State Natural and Legal Persons	943
IV. STRUCTURE OF THE OBLIGATION.....	945
A. Content and Configuration	945
B. A Goal-Oriented Cooperative Duty Akin to an Obligation of Result.....	949
V. CONSEQUENCES OF A BREACH: DISPUTE SETTLEMENT, SANCTIONS AND ENFORCEMENT	954
VI. SCOPE OF THE OBLIGATION: EXTENDING THE DUTY TO NON-STATE SUBJECTS?	960
VII. CONCLUSION	963

I. INTRODUCTION

Scientific evidence demonstrates that climate change is a reality that threatens the environmental stability of the earth, with serious implications for life. According to recent data, the world is on track to experience an average increase in air temperature of more than 2°C above pre-industrial levels.¹ The latest studies prove that, whilst periodic warming has taken place on earth through the ages, significant warming has only happened on a

1. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS, AR5, LONG-TERM CLIMATE CHANGE: PROJECTIONS, COMMITMENTS AND IRREVERSIBILITY 1031 (2013); Xiaoxin Wang, Dabang Jiang & Xianmei Lang, *Climate Change of 4°C Global Warming above Pre-industrial Levels*, 35 *ADVANCES ATMOSPHERIC SCI.* 757, 758 (2018); Alan Buis, *Study Confirms Climate Models Are Getting Future Warming Projections Right*, NASA (Jan. 9, 2020), <https://climate.nasa.gov/news/2943/study-confirms-climate-models-are-getting-future-warming-projections-right> [<https://perma.cc/R8KH-HABP>].

global scale since the industrial revolution.² In absolute terms, major emitters of greenhouse gas (“GHG”) include the United States, Canada, China, India, Russia, and Japan.³ Major per capita emitters include Australia, the United States, Canada, and Saudi Arabia.⁴

Global warming causes phenomena such as sea-level rise, changing ocean currents, weather patterns, and desertification, which affect the foundations of society, including the enjoyment of basic claims such as the rights to self-determination, life, health, and culture.⁵ The threat is impelling and not much time remains to take action to avert it.⁶ According to a classical model of multilateral environmental agreements (“MEAs”) based on a framework convention and additional protocols, the international community addresses the issue of anthropogenic GHG emissions essentially via obligations established under the United Nations Framework Convention on Climate Change (“UNFCCC”)⁷ and related regulatory instruments. In light of such a premise, this Article sets out to assess the nature of the obligation to achieve sustainable anthropogenic GHG concentrations in the atmosphere. More specifically, the analysis focuses on the question whether this duty is emerging as a peremptory international obligation. This is a critical step and

2. Raphael Neukom, Nathan Steiger, Juan José Gómez-Navarro, Jianghao Wang & Joannes Werner, *No Evidence for Globally Coherent Warm and Cold Periods over the Preindustrial Common Era*, 571 NATURE 550 (2019), <https://www.nature.com/articles/s41586-019-1401-2>; *The Great Climate Conundrum*, 12 NATURE GEOSCIENCE 581 (2019), <https://www.nature.com/articles/s41561-019-0428-1.pdf> [<https://perma.cc/5694-8832>].

3. Hannah Ritchie & Max Roser, *CO₂ and Other Greenhouse Gas Emissions – Cumulative CO₂ Emissions* (Aug. 2019), <https://ourworldindata.org/co2-and-other-greenhouse-gas-emissions> [<https://perma.cc/V88T-7YAZ>].

4. *Id.*

5. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, GLOBAL WARMING OF 1.5°C – SUMMARY FOR POLICYMAKERS 9 (2018); INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE AND LAND – SUMMARY FOR POLICYMAKERS 7 (2019); INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, THE OCEAN CRYOSPHERE – SUMMARY FOR POLICYMAKERS 10 (2019).

6. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, GLOBAL WARMING OF 1.5°C – MITIGATION PATHWAYS COMPATIBLE WITH 1.5°C IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT 112 (2018).

7. United Nations Framework Convention on Climate Change, June 4, 1992, 1771 U.N.T.S. 107 [hereinafter UNFCCC].

arguably the only way to develop a compelling universal framework to address the problem of global warming.

Part II of this Article outlines the criteria that identify a peremptory norm, particularly in light of recent work of the International Law Commission (“ILC”).⁸ Against this background, Part III considers the normative emergence of an *erga omnes* obligation for States and international organizations to curb anthropogenic GHG emissions via an essential analysis of the domestic and international practice of sovereign and non-sovereign subjects. Part IV addresses the structure of the obligation in light of its content, notably as an *erga omnes* goal-oriented cooperative duty akin to an obligation of result. Part V focuses on procedural implications, with respect to invocation of responsibility, sanctions, and enforcement. Part VI explores the possibility that, besides sovereign entities, the obligation at issue also addresses non-State natural and legal persons as both duty-bearers and right-holders. Each Part defines a theoretical framework concerning the relevant aspects of an international obligation and contextualizes such theoretical elements by applying them to the obligation to achieve a sustainable concentration of anthropogenic GHG emissions in the atmosphere.

II. CRITERIA IDENTIFYING A PEREMPTORY NORM

There are no universal criteria to establish a peremptory norm.⁹ Article 53 of the Vienna Convention on the Law of Treaties (“VCLT”)¹⁰ provides:

Treaties Conflicting with a Peremptory Norm of General International Law (*Jus Cogens*)

A treaty is void if, at the time of its conclusion, it conflicts with a peremptory norm of general international law. For the purposes of the present Convention, a peremptory norm of general international law is a norm accepted and recognized

8. ILC, Peremptory Norms of General International Law (*Jus Cogens*), Text of the Draft Conclusions and Draft Annex Provisionally Adopted by the Drafting Committee on First Reading, 1-2, U.N. Doc. A/CN.4/L.936 (May 29, 2019) [hereinafter Peremptory Norms]

9. ALEXANDER ORAKHELASHVILI, PEREMPTORY NORMS IN INTERNATIONAL LAW 43 (2006).

10. Vienna Convention on the Law of Treaties, May 22, 1969, 1155 U.N.T.S. 331.

by the international community of States as a whole as a norm from which no derogation is permitted and which can be modified only by a subsequent norm of general international law having the same character.¹¹

Under VCLT Article 64 (Emergence of a New Peremptory Norm of General International Law (“*Jus Cogens*”), “[i]f a new peremptory norm of general international law emerges, any existing treaty which is in conflict with that norm becomes void and terminates.” The same rules are embedded in Articles 53 and 64 of the Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations (“VCLTIO”).¹² On this basis, the ILC assumes that there are two criteria for identifying a peremptory norm: its general nature (1) and its universal acceptance as a non-derogable rule (2).¹³ Indeed, acceptance of non-derogability is considered the distinguishing feature of *jus cogens* with respect to other general obligations.¹⁴

More specifically, peremptory norms are indivisible general obligations, that is, duties owed by legal persons to the international community as a whole, which are also classified as “*erga omnes*” obligations.¹⁵ These are indivisible general duties: since they are non-severable, such obligations are necessarily non-derogable by means of bilateral or multilateral agreements, as general consensus is required for derogation. In other words, an *erga omnes* obligation jointly binds a subject vis-à-vis all the other subjects of the international legal system as a unitary duty, embedding a set of interdependent claim-obligation relations, whereby there is a “fusion” of inter-personal duties.¹⁶ Consequently, a sovereign entity cannot regulate such a duty without the consent of all the sovereign entities enjoying

11. See also Peremptory Norms, *supra* note 8, at 1.

12. Vienna Convention on the Law of Treaties between States and International Organizations, Mar. 21, 1986, U.N. Doc. A/CONF.129/15.

13. Peremptory Norms, *supra* note 8, at 1-2, Conclusion 4.

14. *Id.* at 2, Conclusion 6.

15. *Id.* at 4, Conclusion 17; see also Prosecutor v. Furundžija, IT-95-17/1-T, Judgment, ¶ 151 (Int’l Crim. Trib. for the Former Yugoslavia, Dec. 10, 1998); ILC, Rep. to the General Assembly on the Work of the Seventy-First Session, 190-192, U.N. Doc. A/74/10 (2019) [hereinafter ILC Report].

16. Willem Riphagen, *State Responsibility: New Theories of Obligation in Interstate Relations*, in THE STRUCTURE AND PROCESS OF INTERNATIONAL LAW 581, 609-10 (Ronald St. John MacDonald & Donald Johnston eds., 1983).

correlative rights. In other words, if an obligation is *erga omnes*, it is necessarily *cogens*.¹⁷

In light of the univocal correspondence between duties and rights, the *erga omnes* obligations of A vis-à-vis B and C, B vis-à-vis A and C, as well as C vis-à-vis A and B entail correlative *erga omnes* rights.¹⁸ In fact, the *erga omnes* obligation of A and B vis-à-vis C matches the *erga omnes* right of C vis-à-vis A and B, who also enjoy the same position. Indeed, Hohfeld underscored that “a duty is the invariable correlative of that legal relation which is most properly called a right or claim.”¹⁹ More specifically, Keslen pointed out that the “‘right’ or ‘claim’ of an individual is merely the obligation of the other individual or individuals,” since “if one designates as ‘right’ the relation of one individual toward whom another individual is obligated to a certain behaviour, then this right is merely a reflection of the obligation.”²⁰ *Erga omnes* obligations are different from severable universal duties and rights, such as the freedom of the high seas, which is bilaterally and multilaterally negotiable, hence only theoretically generally applicable.

Peremptory norms are identified particularly based on the content of an obligation, that is, the interest protected, which requires a case-by-case assessment.²¹ The interest protected is indeed the element that makes an obligation universal and indivisible, hence non-derogable.²² Against this analytical background, the ILC has outlined principal and subsidiary sources to identify peremptory norms. Among principal sources, there are domestic and international acts of States, such as public statements, diplomatic correspondence, legislation, decisions of national courts and treaty provisions, as well as resolutions

17. THOMAS WEATHERALL, *JUS COGENS: INTERNATIONAL LAW AND SOCIAL CONTRACT* 11, 352 (2015); DANIEL COSTELLOE, *LEGAL CONSEQUENCES OF PEREMPTORY NORMS IN INTERNATIONAL LAW* 42 (2017). The opposite, however, is not necessarily true, because States might agree on the peremptory nature of an obligation for reasons other than its non-severable structure.

18. See HUGH THIRLWAY, *THE SOURCES OF INTERNATIONAL LAW* 165 (2d ed. 2019).

19. Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 *YALE L.J.* 16, 30-33 (1913); Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 *YALE L.J.* 710, 717 (1916).

20. HANS KELSEN, *PURE THEORY OF LAW* 127 (Max Knight trans., 1989).

21. ORAKHELASHVILI, *supra* note 9, at 43.

22. Christian Dominicé, *The International Responsibility of States for Breach of Multilateral Obligations*, 10(2) *EUR. J. INT'L L.* 353, 356-57 (1999).

adopted by an international organization or intergovernmental conference.²³ Subsidiary sources include the case law of international courts, particularly the ICJ, work of specialized bodies, such as the ILC itself, and scholarly opinions.²⁴ In light of this framework, it is legitimate to investigate whether there is a possible evolution of the obligation to curb anthropogenic GHG emissions into a peremptory norm of general international law, considering the key steps in this trajectory.

III. THE EMERGENCE OF AN ERGA OMNES OBLIGATION TO ACHIEVE SUSTAINABLE GREENHOUSE GAS EMISSIONS

A. International Treaties: The UNFCCC and Related Instruments

According to the typical structure of MEAs, the main regulatory instruments on GHG emissions are the UNFCCC and related regulation. The Preamble to the UNFCCC provides that “change in the Earth’s climate and its adverse effects” is of concern “to humankind.” This implies that the breach of the obligation to curb GHG emissions is of interest to the “international community as a whole,” hence *erga omnes*.²⁵ In this respect, it has been noted that the collective impact of climate change is much more serious than that of breaches of currently acknowledged peremptory norms.²⁶ Recent developments confirm such views: the World Health Organization (“WHO”) considers that climate change puts ecosystems and wildlife under stress, increasing the likelihood of pandemics, and diminishes the capacity of society to respond, for instance, by aggravating water scarcity.²⁷ In light of this premise, UNFCCC Article 2 provides:

23. Peremptory Norms, *supra* note 8, at 2-3, Conclusion 8; ILC Report, *supra* note 15, at 168-70.

24. Peremptory Norms, *supra* note 8, at 3, Conclusion 9; ILC Report, *supra* note 15, at 170-74.

25. Shinya Murase (Special Rapporteur), *Second Report on the Protection of the Atmosphere*, U.N. Doc. A/CN.4/681, at 31-32 (Mar. 2, 2015). Similar considerations have been developed as concerns crimes against humanity (M. Cherif Bassiouni, *International Crimes: Jus Cogens and Obligatio Erga Omnes*, 59 LAW & CONTEMP. PROBS. 63, 68 (1996)).

26. Mark Byrne, *Climate Crime: Can Responsibility for Climate Change Damage Be Criminalised?*, 4 CARBON & CLIMATE L. REV. 278, 280 (2010).

27. *Coronavirus Disease (COVID-19): Climate Change*, WORLD HEALTH ORG. (Apr. 22, 2020), <https://www.who.int/news-room/q-a-detail/q-a-on-climate-change-and-covid-19> [https://perma.cc/G6K5-VEND].

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.²⁸

This obligation is further spelled out in detail in UNFCCC Article 3, according to the precautionary principle: “[t]he Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.” Moreover, according to UNFCCC Article 4(1)(c), these obligations entail a cooperative effort, so that all Parties have to “[p]romote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases.”

Thus far, 197 Parties have ratified the UNFCCC. These include all Member States of the United Nations, as well as Palestine, Niue, the Cook Islands, and the European Union (“EU”).²⁹ Together with the Montreal Convention on the Protection of the Ozone Layer, the UNFCCC is the closest treaty to universal participation, given that the Vatican is the only non-party State.³⁰

Based on emission levels in 1990, the 1997 Kyoto Protocol outlined reduction targets for industrialized countries by 2012,³¹ aiming to reduce GHG emissions by at least five percent below 1990 levels (Article 3). Some industrial States extended Kyoto commitments up to 2020,³² whereas others agreed on voluntary

28. UNFCCC, *supra* note 7, art. 2.

29. *Id.*

30. *Treaties Deposited with the Secretary-General Close to Universal Participation*, UNITED NATIONS (May 27, 2016), https://treaties.un.org/doc/source/events/2016/Treaties/list_global_english.pdf [https://perma.cc/9SYC-2A3S].

31. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 2303 U.N.T.S. 162 [hereinafter Kyoto Protocol].

32. Doha Amendment to the Kyoto Protocol to the United Nations Framework Convention on Climate Change, U.N. Doc. C.N.718.201 (Dec. 8, 2012).

measures under the Copenhagen Accord.³³ Article 3(1) of the Kyoto Protocol established that developed countries, as indicated in Annex I to the UNFCCC, should “individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts.”³⁴ To date, 192 Parties have ratified the Protocol, although critical States are not parties, notably Canada and the United States.³⁵ Furthermore, the number of 144 States necessary for the entry into force of the Doha Amendment was reached on October 1, 2020, signaling “the willingness of the international community to deliver on key climate pledges.”³⁶

The Kyoto Protocol has been progressively replaced by the 2016 Paris Agreement,³⁷ which recognizes that climate change is “a common concern of humankind” (Preamble). The Agreement commits the Parties to “[h]olding the increase in the global average temperature to well below 2°C above pre-industrial levels” and “pursuing efforts to limit the temperature increase to 1.5°C” (Article 2).³⁸ Accordingly, Article 3 provides that, based on “nationally determined contributions, *all Parties* are to undertake and communicate ambitious efforts . . . with the view to achieving the purpose of this Agreement as set out in Article 2.”³⁹ In comparison with the Kyoto Protocol, the Paris Agreement involves a significant shift towards a collective effort to reduce anthropogenic GHG emissions. Thus far, 195 sovereign entities

33. United Nations Framework Convention on Climate Change, Rep. of the Conference of the Parties on Its Fifteenth Session, U.N. Doc. FCCC/CP/2009/Add.1 (Mar. 30, 2009).

34. Kyoto Protocol, *supra* note 31, art. 3(1).

35. *Id.*; see generally Jon Hovi, Detlef Sprinz & Guri Bang, *Why the United States Did Not Become a Party to the Kyoto Protocol: German, Norwegian, and US Perspectives*, 18 EUR. J. INT’L RELATIONS 129 (2010); CAMILLA V. RAMOS FJELLVANG, *WHY DID CANADA WITHDRAW FROM THE KYOTO PROTOCOL?* (2014).

36. Press Release, UNFCCC, Ratification of Multilateral Climate Agreement Gives Boost to Delivering Agreed Climate Pledges and to Tackling Climate Change (Oct. 2, 2020), <https://unfccc.int/news/ratification-of-multilateral-climate-agreement-gives-boost-to-delivering-agreed-climate-pledges-and> [<https://perma.cc/H2ER-KSET>].

37. Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104 [hereinafter Paris Agreement].

38. *Id.*

39. *Id.* (emphasis added).

have signed the Agreement and 191 have ratified it.⁴⁰ The United States announced its withdrawal under the Trump presidency on June 1, 2017,⁴¹ with effectiveness from November 4, 2020, but newly elected President Biden announced that the United States will rejoin the Paris Agreement early during his mandate.⁴²

The quasi-universal participation of States in key conventions is a critical indicator of the emergence of a universal obligation.⁴³ However, the presence of a persistent objector would exclude the subjection of a State or other sovereign entity to a customary rule,⁴⁴ rebutting the presumption of general acceptance and excluding universal application.⁴⁵ If the conduct of States that have resigned from UNFCCC instruments, such as the United States under the Trump administration, were to be interpreted as a form of persistent objection, the existence of a quasi-universal obligation would still provide a basis for the possible affirmation of a peremptory norm.⁴⁶ In fact, absolute universal acceptance is not necessary for the existence of *jus cogens*, which would be tantamount to establishing a power of veto;⁴⁷ rather, the consent of a majority of States is required, including powerful ones.⁴⁸ In this context, it can also be assumed that those States and other sovereign entities that do not take direct part in a given customary practice, but do not explicitly object to it, tacitly consent to such

40. *Paris Agreement - Status of Ratifications*, UNITED NATIONS CLIMATE CHANGE, <https://unfccc.int/process/the-paris-agreement/status-of-ratification> [<https://perma.cc/8XV2-RWYQ>] (last visited Mar. 13, 2021).

41. *Statement by President Trump on the Paris Climate Accord*, U.S. EMBASSY & CONSULATES IT. (June 1, 2017), <https://it.usembassy.gov/statement-president-trump-paris-climate-accord> [<https://perma.cc/LH95-XVM4>].

42. Quirin Schiermeier, *The US Left the Paris Climate Deal: What's Next?*, NATURE (Nov. 4, 2020), <https://www.nature.com/articles/d41586-020-03066-x> [<https://perma.cc/5FQJ-DD27>].

43. ILC, Rep. on the Work of Its Fifteenth Session, U.N. Doc. A15509, at 188, 189 (1963); CHRISTOS ROZAKIS, THE CONCEPT OF JUS COGENS IN THE LAW OF TREATIES 66 (1976); ORAKHELASHVILI, *supra* note 9, at 111.

44. Patrick Dumberry, *Incoherent and Ineffective: The Concept of the Persistent Objector Revisited*, 59 INT'L & COMP. L. Q. 779 (2010); THIRLWAY, *supra* note 18, at 102.

45. Fisheries (U.K. v. Nor.), Judgment, 1951 I.C.J. 116, 131, 138-39 (Dec. 2018).

46. Peremptory Norms, *supra* note 8, at 2, Conclusion 5.

47. South West Africa Cases (Eth. v. S. Afr.; Liber. v. S. Afr.), Judgment, 1966, I.C.J. 6, 250, 291 (July 18) (dissenting Opinion by J. Tanaka).

48. Dire Tladi, *Second Report to the ILC on Jus Cogens*, U.N. Doc. A/CN.4/706 34-35, ¶¶ 67-69 (2017).

a practice.⁴⁹ The existence of a peremptory rule compelling sustainable GHG emissions would override possible objections and ensure the universal application of the obligation.⁵⁰

B. Other International Initiatives

The UNFCCC system has been established within the context of significant international developments in environmental matters. As early as 1976, in his Fifth Report to the ILC, Professor Ago, First Rapporteur on the Draft Articles on State Responsibility (“DASR”), proposed a distinction between State “crimes” and “delicts.” Under Article 18, a crime was conceived of as a “serious breach by a State of an *international obligation* established by a *norm of general international law accepted and recognized as essential by the international community as a whole.*”⁵¹ State crimes included acts against “the conservation and the free enjoyment for everyone of a resource common to all mankind.”⁵² In 1980, the ILC approved the First Part of the DASR and included the notion of a State “crime” in Article 19, embedding the concept of “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.*”⁵³ Among other offenses, State crimes included “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.*”⁵⁴ This provision was later confirmed in the first complete version of the DASR approved by the ILC in 1996.⁵⁵

49. Delimitation of the Maritime Boundary in the Gulf of Maine Area (Can. v. U.S.), Judgment, 1984, I.C.J. 246, 305, ¶ 130 (Oct. 12) (holding that acquiescence is “equivalent to tacit recognition manifested by unilateral conduct which the other party may interpret as consent,” based on the principles of good faith and equity).

50. See *infra* Section IV.A.

51. Roberto Ago, *Fifth Report on State responsibility: The Internationally Wrongful Act of the State, Source of International Responsibility*, [1976] 2(1) Y.B. INT’L L. COMM’N 54, ¶ 155, U.N. Doc. A/CN.4/291/Add.1&2 (emphasis added).

52. *Id.*

53. *Report of the International Law Commission on the Work of Its Thirty-second Session*, [1980] 2(2) Y.B. INT’L L. COMM’N 32, UN Doc. A/35/10 (emphasis added).

54. *Id.* (emphasis added).

55. *Report of the International Law Commission on the Work of its Forty-Eighth Session*, [1996] 2(2) Y.B. INT’L L. COMM’N 60, U.N. Doc. A/51/10.

On this basis, the Third Rapporteur to the ILC on State Responsibility, Professor Arangio-Ruiz, proposed a procedural mechanism allowing any State to unilaterally resort to the International Court of Justice (“ICJ”). Article 17(1) included in his proposal for the Second Part of the DASR allowed any State to bring an alleged State crime to the attention of the UN Security Council or of the General Assembly. The Council or Assembly could then adopt a resolution at qualified majority, authorizing the complaining State to submit the case to the ICJ in order to obtain a consultative opinion or a judgment in a contentious procedure open to the intervention of all States. The ICJ would have been vested with the power to impose sanctions and to allow general countermeasures under Articles 16-18.⁵⁶

In light of the uncertainty of the notion of a State “crime,” the fourth Rapporteur on the DASR, Professor Crawford, proposed to replace this concept with the notion of a “serious breach of an *erga omnes* obligation,”⁵⁷ triggering general invocation of responsibility and countermeasures.⁵⁸ The final version of the DASR approved by the ILC in 2001 eventually replaced the concept of a State “crime,” including environmental offenses, with that of a “serious breach by a State of an obligation arising under a peremptory norm of general international law,”⁵⁹ entailing universal invocation of responsibility and countermeasures.⁶⁰ Prospectively, the DASR might become a binding treaty.⁶¹ The same approach is replicated in Article 41 of

56. Gaetano Arangio-Ruiz, *Fifth Report on State Responsibility*, [1993] 2(1) Y.B. INT’L L. COMM’N 42, ¶ 164, U.N. Doc. A/CN. 4/453/Add.3; Gaetano Arangio-Ruiz, *Seventh Report on State Responsibility*, [1995] 2(1) Y.B. INT’L L. COMM’N 24, ¶¶ 108–112, U.N. Doc. A/CN. 4/469.

57. James Crawford, *First Report on State Responsibility*, [1998] 2(1) Y.B. INT’L L. COMM’N 23, ¶¶ 92–93, U.N. Doc. A/CN. 4/490/Add.1–7; James Crawford, *Third Report on State Responsibility*, [2000] 2(1) Y.B. INT’L L. COMM’N 32, ¶ 96, U.N. Doc. A/CN.4/507/Add.1–4; *see also* James Crawford, *International Crimes of States*, in *THE LAW OF INTERNATIONAL RESPONSIBILITY* 405, 413 (James Crawford, Alain Pellet, Simon Olleson & Kate Parlett eds., 2010).

58. Crawford, *Third Report*, *supra* note 57, at 108, art. 51; JAMES CRAWFORD, *STATE RESPONSIBILITY: THE GENERAL PART* 390-94 (2013).

59. *Report of the International Law Commission on the Work of Its Fifty-Third Session*, [2001] 2(2) Y.B. INT’L L. COMM’N 112, U.N. Doc. A/56/10.

60. *Id.* at 113, 117, 126, 137.

61. G.A. Res. 71/33, *Responsibility of States for Internationally Wrongful Acts* (Dec. 13, 2016).

the 2011 Draft Articles on the Responsibility of International Organizations (“DARIO”).⁶²

These developments have taken place against the background of the concept of “sustainable development,” which in 1987 the Brundtland Report qualified as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs,” including environmental protection and eradication of poverty.⁶³ Therefore, the Report affirmed that “[*a*]ll human beings have the fundamental right to an environment adequate for their health and well being,”⁶⁴ thus referring to an *erga omnes* right, hence duty, to a sustainable environment. This approach is consistent with Article 2(3) of the 1986 UN Declaration on the Right to Development (“UNDRD”), which provides that “States have the right and the duty to formulate appropriate national development policies that aim at the constant improvement of the well-being of the *entire population* and of *all individuals*.”⁶⁵ Significantly, the UNFCCC Preamble and Articles 2, 3 and 4(1)(d) establish a link between sustainable development and climate change. In 2017, the ILC recognized that, given that the atmosphere has “limited assimilation capacity,” States must ensure a “sustainable utilization,” including “the need to reconcile economic development with protection of the atmosphere.”⁶⁶

Along these lines, the 1972 Stockholm Declaration on the Human Environment clearly recognized a “fundamental” right to a sustainable environment, which was couched in terms of a solemn commitment towards present and future generations for the protection of a globally common good.⁶⁷ Considering hard law, at the regional level Article 24 of the 1981 African

62. *Report to the General Assembly on the Work of the Sixty-Third Session*, [2011] 2(2) Y.B. INT'L L. COMM'N 82, U.N. Doc. A/66/10, 2(2).

63. World Comm'n on Env't and Dev., *Our Common Future*, Report ¶ 27 (1987).

64. *Id.* Annex 1: Summary of Proposed Legal Principles for Environmental Protection and Sustainable Development Adopted by the WCED Experts Group on Environmental Law, ¶ 1 (emphasis added).

65. G.A. Res. 41/128, Declaration on the Right to Development Art. 2(3) (Dec. 4, 1986) (emphasis added).

66. ILC, Rep. on the Work of Its Seventieth Session, U.N. Doc. A/73/10 159 (2018), Guidelines on the Protection of the Atmosphere, Guideline 5.

67. Report of the UN Conference on Human Environment, U.N. Doc. A/CONF.48/14/Rev.1 4 (1972), Declaration on the Human Environment, Principle 1.

Convention on Human and Peoples' Rights ("ACHPR") provides that "*all peoples* shall have the right to a general satisfactory environment favorable to their development." Whilst such a right has not yet been established under general international law, the 1994 UN Draft Principles on Human Rights and the Environment recognized that "[*a*]ll persons, individually and in association with others, have the duty to protect and preserve the environment."⁶⁸

In its work on *jus cogens*, the ILC has indicated a list of peremptory obligations.⁶⁹ The list does not include a duty to curb GHG emissions, but it is not exhaustive. In this regard, according to the First Rapporteur to the ILC on *jus cogens*, Professor Tladi, "it might seem obvious that norms that aim at protecting the environment (at least some of them) would have the status of *jus cogens*," but paradoxically "there is no strong evidence of non-derogability," notwithstanding "the empirical fact of the importance of environmental rules for the very survival of humanity and the planet."⁷⁰ Whereas this statement may be true as concerns the obligation to protect the environment, this does not necessarily adequately reflect the reality of the more specific obligation to curb GHG emissions. Indeed, the Rapporteur concedes that "[i]t may well be that some rules, like some relating to the environment, have the status of *jus cogens* which has yet to be accepted and recognized by the international community of States as a whole, with the result that the effects in law of *jus cogens* do not yet flow from such [rules]."⁷¹ Furthermore, the list drafted by the ILC includes two obligations that can be linked to an *erga omnes* obligation to curb GHG emissions, that is, the prohibition of crimes against humanity and the right to self-determination. Indeed, in 2018 the former Special Rapporteur on Human Rights and the Environment, Professor Knox, recommended that the UN General Assembly recognize the "human right to a healthy environment" in "a global instrument."⁷² In this regard, the ILC

68. ECOSOC, Review of Further Developments in Fields with Which the Sub-Commission Has Been Concerned: Human Rights and the Environment, U.N. Doc. E/CN.4/Sub.2/1994/9, Annex I, Principle 21 (1994) (emphasis added).

69. Peremptory Norms, *supra* note 8, at 5, Conclusion 23.

70. Dire Tladi, *Fourth Report to the ILC on Peremptory Norms of General International Law (Jus Cogens)*, U.N. Doc. A/CN.4/727, at 61-62, ¶ 136 (2019).

71. *Id.*

72. John Knox, *Report on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, U.N. Doc. A/73/188 13, 17 ¶¶ 37,

has pointed out that the rules of international law relating to the protection of the atmosphere must be interpreted harmoniously with other relevant norms of international law, including those on trade, investment and human rights.⁷³ Moreover, climate change particularly affects the right to self-determination of people, as acknowledged by the IPCC in the Fifth Assessment Report on Climate Change.⁷⁴ In fact, the ILC's 2018 Guidelines on the Protection of the Atmosphere highlight the "special situation of low-lying coastal areas and small island developing States due to sea-level rise."⁷⁵ More generally, the ILC has acknowledged that "the protection of the atmosphere from atmospheric pollution and atmospheric degradation is a pressing concern of the international community as a whole," including "the interests of future generations of humankind."⁷⁶ This formulation was adopted in light of "the gravity of the atmospheric problems"⁷⁷ and is a critical step in the recognition of the *erga omnes* nature of the obligation to curb GHG emissions.⁷⁸ Indeed, in their comments on the obligation to protect the atmosphere under the ILC's Guidelines, some States have underscored its *erga omnes* nature.⁷⁹

Turning to international case law, in *Gabčíkovo-Nagymaros*, the ICJ adjudicated upon the agreed construction of a barrier in the Danube River by Hungary and Slovakia, which Hungary

46 (2018); see also David Boyd, *Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment*, U.N. Doc. A/74/161 25, ¶ 96, (July 15, 2019). "A safe climate is a vital element of the right to a healthy environment and is absolutely essential to human life and well-being."

73. ILC, *supra* note 66, at 187, Guideline 9.

74. *Climate Change: Impacts, Adaptation, and Vulnerability, AR5, Chapter 29, Small Islands*, IPCC (2014), <https://www.ipcc.ch/report/ar5/wg2/> [<https://perma.cc/D3PZ-CGFV>].

75. ILC, *supra* note 66, at 158, Preamble.

76. *Id.*

77. *Id.* at 165, Commentary.

78. Topical Summary of the Discussion Held in the Sixth Committee of the General Assembly During Its Seventy-Third Session on the Work of the ILC of Its Seventieth Session (2018), U.N. Doc. A/CN.4/724 20, ¶¶ 104, 107 (2019) (underscoring the *erga omnes* nature of the obligation to protect the atmosphere in light of its relevance to the international community as a whole).

79. ILC, Protection of the Atmosphere: Comments and Observations Received from Governments and International Organizations, U.N. Doc. A/CN.4/735, at 21-22 (Feb. 11, 2020) (confirming the stance of the Special Rapporteur Shinya Murase, *Sixth Report on the Protection of the Atmosphere*, UN Doc. A/CN.4/736 18 (Feb. 11, 2020)).

unilaterally abandoned.⁸⁰ In the course of the dispute, Hungary argued that the “obligation not to cause substantive damage to the territory of another State” has evolved “into an *erga omnes* obligation of prevention of damage pursuant to the ‘precautionary principle,’” overriding a conventional obligation to construct a barrier in the Danube River.⁸¹ Slovakia objected that “none of the intervening developments in environmental law” has given “rise to norms of *jus cogens*.”⁸² The ICJ held that “[n]either of the Parties contended that new peremptory norms of environmental law had emerged,” and the Court was consequently not required to examine the scope of VCLT Article 64.⁸³ However, in light of its previous advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons*,⁸⁴ the Court considered whether Hungary could invoke necessity on environmental grounds and underscored “the great significance that it attaches to respect for the environment, not only for States but also for *the whole of mankind*.”⁸⁵ In his separate opinion in the case, Judge Weeramantry considered that a bilateral and multilateral approach to sustainable development and environmental protection “scarcely does justice to rights and obligations of an *erga omnes* character – least of all in cases involving environmental damage of a far-reaching and irreversible nature.”⁸⁶ Therefore, “[i]nternational environmental law will need to proceed beyond weighing the rights and obligations of parties within a closed compartment of individual State self-interest, unrelated to the global concerns of humanity as a whole.”⁸⁷ More specifically, in *Certain Activities Carried Out by Nicaragua in the Border Area*, Judge Dugard underscored that “[t]he obligation not to engage in wrongful deforestation that results in the release of carbon into the atmosphere and the loss

80. Gabčíkovo-Nagymaros Project (Hung. v. Slov.), Judgment, 1997 I.C.J. 7 (Sept. 25, 1997).

81. *Id.* at 62, ¶ 97.

82. *See id.*

83. *Id.* at 67. On VCLT Art. 64, see *supra* note 12 and accompanying text.

84. *See* Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 95, at 226, 241, ¶¶ 27-29 (1996).

85. Gabčíkovo-Nagymaros Project, *supra* note 80, at 41, ¶ 53.

86. *Id.* at 117 (separate opinion by Weeramantry, J.).

87. *Id.* at 118 (separate opinion by Weeramantry, J.).

of gas sequestration services is certainly an obligation *erga omnes*.”⁸⁸

Scholars are divided on the possibly peremptory nature of international environmental norms.⁸⁹ Birnie, Boyle, and Redgwell assume that there are no peremptory norms in international environmental law.⁹⁰ Taking a diametrically opposite stance, Orakhelashvili considers that norms prohibiting large-scale pollution, including the no-harm rule, have a peremptory nature, particularly because massive pollution affects the international community as a whole.⁹¹ Similarly, Ragazzi highlights the *erga omnes* nature of environmental obligations.⁹² The ILC has underscored that there is “support” for acknowledging the *erga omnes* nature of the obligations pertaining to global atmospheric degradation, but the legal consequences of such a recognition are not yet fully clear.⁹³ Whereas such a comprehensive approach cannot be easily reconciled with the restrictive perimeter of *jus cogens* rules, it is sensible to argue that there is a sufficiently consistent practice to consolidate the *opinio juris* that, as a sub-species of the right to environmental sustainability, the obligation to cooperate and curb GHG emissions is evolving as an *erga omnes* duty.⁹⁴

C. Domestic Practice

Currently, more than 178 States acknowledge the right to a sustainable environment via constitutions, statutes and court decisions.⁹⁵ More than 100 States recognize the right to a

88. See *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicar.)*, Compensation Owed by the Republic of Nicaragua to the Republic of Costa Rica, 2018 I.C.J. 15, 120 (Feb. 2, 2018) (dissenting Opinion by Dugard J., *ad hoc*).

89. See WEATHERALL, *supra* note 17, at 259-60; ILC, *supra* note 66, at 175, Guideline 3.

90. See PATRICIA BIRNIE, ALAN BOYLE & CATHERINE REDGWELL, *INTERNATIONAL LAW AND THE ENVIRONMENT* 109-10 (2009).

91. See *generally* ORAKHELASHVILI, *supra* note 9, at 65.

92. See *generally* MAURIZIO RAGAZZI, *THE CONCEPT OF INTERNATIONAL OBLIGATIONS ERGA OMNES* 157 (1997).

93. See *generally* ILC, *supra* note 66, at 175.

94. See ORAKHELASHVILI, *supra* note 9, at 114 (explaining the customary nature of peremptory rules).

95. See John H. Knox, *Preliminary Report on Human Rights and the Environment*, U.N. Doc. A/HRC/22/43 5, ¶ 12 (Dec. 24, 2012); DAVID BOYD, *THE ENVIRONMENTAL RIGHTS REVOLUTION: A GLOBAL STUDY OF CONSTITUTIONS, HUMAN RIGHTS, AND THE*

sustainable environment at the constitutional level;⁹⁶ for instance, this is the case of the Preamble to the French Constitution and Article 26 of the Chinese Constitution. It is therefore possible to conceive of the right to a sustainable environment as a general principle of law, that is, a principle inferred from the major legal systems of the world, according to ICJ Statute Article 38(2)(c). In fact, in his Preliminary Report on Human Rights and the Environment, Knox affirmed that “were the Universal Declaration [of Human Rights] to be drafted today, it is easy to imagine that it would include a right [to environment] recognized in so many national constitutions and regional agreements.”⁹⁷

This framework has provided domestic courts with a basis to develop consistent case law on the more specific right to a climatically sustainable environment. Notably, in *Urgenda*, a District Court in The Hague held the Netherlands responsible for excessive GHG emissions, based on a general duty of care.⁹⁸ According to the Court, since “the current global emissions and reduction targets of the signatories to the UN Climate Change Convention are insufficient to realise the 2° target,” the Netherlands “is obliged [under a duty of care] to take measures in its own territory to prevent dangerous climate change.”⁹⁹ On October 9th, 2018, the Appeals Court of the Hague confirmed the decision of the District Court, upholding the duty of the Netherlands to reduce GHG emissions by at least twenty-five percent by 2020 compared to 1990 levels.¹⁰⁰ However, the judgment of the Appeals Court shifts the focus from the duty of care to the rights to life and to private and family life under Articles 2 and 8 of the European Convention on Human Rights

ENVIRONMENT 45 (2012); see generally Marek Prityi et al., *Locating Environmental Law Functions among Legislative, Judicial and Implementation Bodies*, in ENVIRONMENTAL LAW ACROSS CULTURES: COMPARISONS FOR LEGAL PRACTICE 43, 48-72 (Kirk W. Junker ed., 2020).

96. Knox, *supra* note 95, at 5, ¶ 12. See also Louis Kotzé & Wendy Muzangaza, *Constitutional International Environmental Law for the Anthropocene?*, 27 RECIEL 278, 281-82 (2018) (discussing “global environmental constitutionalism”).

97. See Knox, *supra* note 95, at 6.

98. See *Urgenda Foundation v. The Neth.*, Case n. HAZA C/09/00456689, 1 (2015).

99. See *id.* ¶ 4.65.

100. See *Neth. v. Urgenda Foundation*, Case n. 200.178.245/01, The Hague Court of Appeal, ¶ 73 (2018).

(“ECHR”).¹⁰¹ On December 20th, 2019, the Dutch Supreme Court confirmed this approach.¹⁰² Although the nature of the right to life is subject to debate, different sources support its peremptory structure.¹⁰³ This has prompted a meaningful improvement in the climate policy of the Netherlands, triggering negotiations for a National Climate Act aiming to reduce GHG emissions by forty-nine percent compared to 1990 by 2030, and by ninety-five percent by 2050, including a completely carbon dioxide (“CO₂”)–neutral production of electricity.¹⁰⁴

In *Barragán v Colombia*, the Supreme Court of Columbia reversed the decision of a court of first instance and upheld the claim of twenty-five plaintiffs against the State and private corporations for depleting the Amazon rainforest and increasing CO₂ emissions.¹⁰⁵ The Court held the defendants in breach of the fundamental right to a safe environment, in violation of both the Colombian Constitution and the Paris Agreement.¹⁰⁶ This decision is consistent with the jurisprudence of the High Court of Lahore, which held that the State of Pakistan must reduce its GHG emissions based, *inter alia*, on the constitutional rights to life and to a sustainable environment.¹⁰⁷ More specifically, the Court held that “[f]rom environmental justice, which was largely localized and limited to our own ecosystems and biodiversity it is necessary to move to Climate Change Justice,” whereby “[f]undamental rights lay at the foundation of these two overlapping justice systems.”¹⁰⁸ In *Juliana v. United States*, the US

101. *Id.* at ¶¶ 40-43.

102. *See* *Neth. v. Urgenda Foundation*, Case n. 19/00135, Supreme Court of The Netherlands, ¶¶ 5.9.1, 8.3.5 (2019).

103. *See* Teraya Koji, *Emerging Hierarchy in International Human Rights and Beyond: From the Perspective of Non-Derogable Rights*, 12 EUR. J. INT’L L. 917, 927 (2001); Tladi, *supra* note 70, at 57, ¶ 128.

104. *See* *Climate Policy, Report*, <https://www.government.nl/topics/climate-change/climate-policy> [<https://perma.cc/HNZ4-4WKS>] (last visited Mar. 17, 2021); Letter to the House of Representatives about the Proposal for a National Climate Agreement from the Minister of Economic Affairs and Climate Policy (June 28, 2019); *Dutch National Climate Agreement, June 28, 2019*, <https://www.government.nl/documents/reports/2019/06/28/climate-agreement> [<https://perma.cc/KD2W-63NL>] (last visited Mar. 17, 2021).

105. *See* *Barragán et al. v. Colom. Presidency et al.*, STC-4360-2018, Case n. 11001-22-03-000-2018-00319-01, Supreme Court of Justice of Colombia 25-26 (2018).

106. *Id.* at 45-46, ¶ 14.

107. *See* Case WP n. 25501/2015, High Court of Lahore ¶ 12 (2015).

108. *Id.* at 7.

District Court for the District of Oregon rejected a motion to dismiss a claim asserting the insufficiency of the US government's policies to reduce GHG emissions, considering that "the right to a climate system capable of sustaining human life is fundamental to a free and ordered society."¹⁰⁹ Therefore, the Court determined that it can "make findings that define the contours of plaintiffs' *constitutional rights to life and a habitable atmosphere and climate*" and "declare the levels of atmospheric CO₂s which will violate their rights," thus being able to "direct the federal defendants to prepare and implement a national plan which would stabilize the climate system and remedy the violation of plaintiff's rights."¹¹⁰ The case is pending on appeal.¹¹¹

These developments can be interpreted as a sign of the emergence of a general principle of law, that is, a universal obligation, which compels the constraint of anthropogenic GHG emissions within sustainable limits, as a specific component of the broader obligation to achieve environmental sustainability. According to the views of Georges Scelle, internal practice can also be interpreted as a sign of reciprocal external recognition by States concerning the emergence of a customary international rule.¹¹² In this respect, Knox concluded that the "[r]ecognition of the right to a healthy environment by the United Nations would complement, reinforce and amplify the regional and national norms and jurisprudence developed over the past 45 years."¹¹³ Furthermore, the 2007 Malé Declaration on the Human Dimension of Climate Change invokes the "fundamental right to an environment capable of supporting human society and the full enjoyment of human rights," which is recognized in "the constitutions of over one hundred States and directly or indirectly in several international instruments."¹¹⁴ According to the ILC, the

109. See *Juliana v. United States*, 217 F. Supp. 3d 1224, 1250 (D. Or. 2016).

110. *Id.*

111. *Juliana v. United States*, 947 F.3d 1159, 1163 (9th Cir. 2020).

112. See generally GEORGES SCELLE, *PRECIS DE DROIT DES GENS: PRINCIPES ET SYSTEMATIQUE* (1932).

113. Knox, *supra* note 72, at 13-14, ¶ 39.

114. See *Malé Declaration on the Human Dimension of Climate Change*, ASS'N SMALL ISLAND STATES (2007), http://www.ciel.org/Publications/Male_Declaration_Nov07.pdf [<https://perma.cc/L39K-WBRP>].

general principles of law afford a common basis for the establishment of *jus cogens*.¹¹⁵

D. Practice of non-State Natural and Legal Persons

Customary norms develop not only via State practice, but also emerge in a purposive way through societal processes that can be largely informal and unconscious, involving claims and reactions to claims.¹¹⁶ Thus, grassroots movements and, more generally, the activity of non-governmental organizations (“NGOs”) invoking a sustainable climate policy worldwide can be interpreted as a further sign of the emergence of a peremptory norm.¹¹⁷

Various NGOs have contributed in a significant way to signaling and publicizing the importance and impact of climate change on present and future generations, backing the formation of the consciousness of humankind, which is the ultimate foundation of peremptory norms. NGOs have thus contributed to lobbying support for sustainable climate policies and have created decisive linkages between the scientific community and the public, as well as between global and local societies.¹¹⁸ Among innumerable initiatives, Friends of the Earth successfully led a campaign to prompt the UK government to pass the Climate Change Act 2008.¹¹⁹ The World Wildlife Fund (“WWF”) has tirelessly campaigned to prompt action against climate change, measure carbon footprints, and change life patterns.¹²⁰ As

115. Peremptory Norms, *supra* note 8, at 2, Conclusion 5; ILC Report, *supra* note 15, at 161-62.

116. Daniel Bodanskiy, *Prologue to a Theory of Non-Treaty Norms*, in LOOKING TO THE FUTURE, ESSAYS IN HONOUR OF MICHAEL REISMAN 119, 130 (Mahmounsh Arsanjani, Jacob Cogan, Robert Sloane & Siegfried Wiessner eds., 2011).

117. Jean D’Aspremont, *Non-State Actors and the Social Practice of International Law*, in NON-STATE ACTORS IN INTERNATIONAL LAW 11 (Math Noortmann, August Reinisch & Cedric Ryngaert eds., 2015); ILC Report, *supra* note 15, at 167.

118. Chiara Giorgetti, *The Role of Nongovernmental Organizations in the Climate Change Negotiations*, 9 COLO. J. INT’L ENV’T L. & POL’Y 115, 137 (1998); Christopher Rootes et al., *Climate Change, National Politics and Grassroots Action: An Introduction*, 21 ENV’T POL. 677, 686 (2012); BENOÎT MAYER, THE INTERNATIONAL LAW ON CLIMATE CHANGE 249 (2018).

119. Neil Carter, *What Has the UK Climate Law Achieved and Where Next?*, FRIENDS EARTH (Aug. 8, 2018), <https://friendsoftheearth.uk/climate-change/what-has-the-uk-climate-law-achieved> [<https://perma.cc/LT4Z-UY2U>].

120. World Wildlife Fund, *Who We Are*, <https://www.wwf.org.uk/who-we-are> [<https://perma.cc/58CB-AME5>] (last visited Feb. 4, 2021).

concerns grassroots movements, campaigners began protesting outside the Swedish Parliament in 2018 and have now become the image of future generations threatened by climate change.¹²¹ Businesses have also played an important role in supporting sustainable climate action. For instance, the World Business Council for Sustainable Development brings together around 200 chief executive officers to support the implementation of the Sustainable Development Goals.¹²² Often, NGOs collaborate with the public sector to foster sustainable climate initiatives. For example, the Renewable Energy and Energy Efficiency Partnership (“REEEP”) is a cooperative platform for governmental and non-governmental actors that has promoted multi-stakeholder cooperation on renewable energy, climate change, and sustainable development.¹²³ Normatively, UNFCCC Article 4(1)(i) acknowledges the critical role of NGOs in stimulating and increasing public awareness on climate change, as signatories must “[p]romote and cooperate in education, training and public awareness related to climate change,” encouraging “the widest participation in this process, including that of non-governmental organizations.”¹²⁴

Although they are not, strictly speaking, formally part of the acceptance and recognition of a norm as *jus cogens*,¹²⁵ NGOs have played an important role in the development of climate change regulation. Indeed, UNFCCC Article 7(2)(1) recognizes that the Conference of the Parties (“COP”) can rely, where appropriate, on the services and cooperation of competent international organizations and intergovernmental and non-governmental bodies, as well as information provided by them. Furthermore, UNFCCC Article 7(6) allows the participation of “[a]ny body, or agency, whether national or international, governmental or non-governmental” in the COP. NGOs have thus had frequent

121. See Ali Smith, *They See Us as a Threat because We’re Having an Impact*, *GUARDIAN* (July 21, 2019, 4:00 PM), <https://www.theguardian.com/culture/2019/jul/21/great-thunberg-you-ask-the-questions-see-us-as-a-threat> [https://perma.cc/EL69-C9VG].

122. *News & Insights*, WBCSD, <https://www.wbcsd.org> [https://perma.cc/9J9P-3U3X] (last visited Feb. 4, 2021).

123. Renewable Energy and Energy Efficiency P’ship, *About REEEP*, <https://www.reeep.org/about-reeep> [https://perma.cc/5J4K-PNQW] (last visited Feb. 4, 2021).

124. UNFCCC, *supra* note 7, art. 4(1)(i).

125. Peremptory Norms, *supra* note 8, at 2, Conclusion 7, ¶ 3.

contacts with governmental representatives and have been kept informed on the progress of climate negotiations. Non-profit organizations that have played a significant part in climate change negotiations include the WWF, Climate Action Network, Greenpeace, the Environmental Defense Fund and the World Watch Institute.¹²⁶ Among profit organizations, fossil-fuel-intensive energy industries, the chemical industry, renewable energy businesses, and insurance companies have participated in UNFCCC negotiations via organs such as the Climate Council, the Global Climate Coalition and the International Climate Change Partnership.¹²⁷ This means that the norms of the UNFCCC and related instruments that recognize the *erga omnes* importance of climate change for humankind also crystallize the societal consensus that NGOs have contributed to creating.

IV. STRUCTURE OF THE OBLIGATION

A. Content and Configuration

The atmosphere is a gaseous envelop surrounding the earth¹²⁸ and climate is average weather over a long period.¹²⁹ GHGs absorb infrared radiation and trap it in the atmosphere, causing global warming. The main sources of GHGs are CO₂, nitrous dioxide (“N₂O”), methane (“CH₄”), and chlorofluorocarbons (“CFCS”),¹³⁰ which are particularly emitted via fossil fuels (oil, coal and gas), agricultural activities, decaying organic matter, aerosol sprays, and air conditioning.¹³¹

The atmosphere and climate are “global commons,” more specifically, “shared resources,” which are different from

126. Giorgetti, *supra* note 118, at 127.

127. *Id.* at 131-32.

128. Laurent Cosineau, *Atmosphere – Definition*, CLIMATE CHANGE GUIDE, <https://www.climate-change-guide.com/atmosphere-definition.html> [<https://perma.cc/WV6M-6TZP>] (last visited Feb. 4, 2021); ILC, *supra* note 66, at 168, Guideline 1; Shinya Murase (Special Rapporteur), *First Report to the ILC on the Protection of the Atmosphere* 42, 47 ¶¶ 65, 69, U.N. Doc. A/CN.4/667 (2014).

129. *What Is Climate?*, WORLD METEOROLOGICAL ORG. (2019), http://www.wmo.int/pages/prog/wcp/ccl/faq/faq_doc_en.html [<https://perma.cc/4BNC-CWNC>].

130. Susan Solomon et al., *Technical Summary*, in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS 19, 23-24 (2007); Murase, *supra* note 128, at 51, ¶ 76.

131. LUDIVINE TAMIOTTI ET AL., TRADE AND CLIMATE CHANGE 3 (2009).

atmospheric airspace as a domain subject to appropriation:¹³² damage is of “common concern.”¹³³ Hence, if a State emits unsustainable GHGs, all other States of the international community are affected; furthermore, international organizations and non-State subjects are affected too. Climate change is also a specific case where all States of the international community are “directly injured” by the breach. In fact, although the negative effects of climate change vary in intensity in different States, it is impossible to distinguish between “directly” and “indirectly” injured States under DASR 48.¹³⁴ Given the shared interest protected, a bilateral derogation from the obligation to achieve sustainable emissions between States A and B would also affect States C, D and E. The same principle applies under DARIO 49.¹³⁵ On this basis, it is possible to develop relevant inferences on the nature of the obligation breached.

The debate over the legal protection of the atmosphere and climate as global commons leads to the conclusion that there is at least overlap between obligations protecting global commons, *erga omnes* duties and *jus cogens*.¹³⁶ The framework is nonetheless not fully clear, so that some scholars conclude that it is preferable to address the question from the angle of the particular effectiveness of treaties, in light of VCLT and VCLTIO Article 60, which entails the possibility of a unilateral or multilateral suspension of a convention by the injured States.¹³⁷ This approach is based on the concept of an “integral” or “interdependent” obligation, whereby the breach by a State or an international organization allows all other States and international organizations to withdraw from the obligation.¹³⁸ However, this view obviously entails the possibility of a dissolution of the UNFCCC and related instruments: as in 2017 the United States resigned from the Paris Agreement, all States could withdraw from the Agreement, with disastrous consequences for the

132. Murase, *supra* note 128, 52, 54, ¶¶ 79, 84.

133. Malgosia Fitzmaurice, *Liability for Environmental Damage Caused to the Global Commons*, 5 REV. EUR., COMPAR. & INT'L ENV'T L. 305 (1996); *Global Commons*, A DICTIONARY OF PUBLIC HEALTH (2d ed., 2018).

134. Report, *supra* note 59, at 126.

135. Report, *supra* note 62, at 89.

136. Fitzmaurice, *supra* note 133, at 306-07.

137. *Id.* at 310.

138. ORAKHELASHVILI, *supra* note 9, at 93.

international community as a whole. The answer to this impasse is the affirmation of the universally non-derogable nature of the obligation to curb GHG emissions under customary law. In other words, the shared nature of the protected interest and its importance make it necessary to move from an integral and derogable *erga omnes partes* obligation¹³⁹ to a universally non-severable *erga omnes* duty.¹⁴⁰ In light of the catastrophic consequences of the breach, a hypothetical bilateral or multilateral agreement allowing States and international organizations to exceed sustainable anthropogenic GHG emissions should be null and void. In fact, no treaty has thus far been concluded that derogates from the UNFCCC and related instruments; furthermore, the resignation of Canada from the Kyoto Protocol in 2011¹⁴¹ and that of the United States from the Paris Agreement in 2017 have not triggered significant withdrawal by other States. This signals that a collective consciousness is developing on the importance of the interest at stake as a universal and non-derogable one.

A critical element for establishing the peremptory nature of a norm is the fact that it protects a fundamental interest from which no one must deviate, essentially belonging to the international “public order.”¹⁴² Peremptory rules “reflect and protect fundamental values of the international community, are hierarchically superior to other rules of international law, and are universally applicable.”¹⁴³ In light of available scientific data,¹⁴⁴ it can be safely assumed that ensuring a sustainable climate is the most fundamental environmental challenge for the international community.¹⁴⁵ It is a classic case where the essential interests of the international community as a whole prevail over bilateral and multilateral interests.¹⁴⁶ This is confirmed by the normative

139. Crawford, *Third Report*, *supra* note 57, at 34-35, ¶¶ 106-07.

140. Christina Voigt, *State Responsibility and Climate Change Damage under International Law*, 77 *NORDIC J. INT'L L.* 5, 14 (2008).

141. *Canada Withdraws from Kyoto Protocol*, IISD (2011), <http://sdg.iisd.org/news/canada-withdraws-from-kyoto-protocol> [<https://perma.cc/T37C-NJAL>].

142. *Prosecutor v. Furundžija*, Case n. IT-95-17/1-T, Judgement, ¶ 153 (Dec. 10, 1998); ORAKHELASHVILI, *supra* note 9, at 36.

143. Peremptory Norms, *supra* note 8, at 1, Conclusion 3.

144. IPCC, *supra* notes 1, 5.

145. *See, e.g.,* Byrne, *supra* note 26, at 279-80.

146. ORAKHELASHVILI, *supra* note 9, at 67.

evolution of regulation in the matter, whereby environmental protection is progressively being established as a fundamental right under international law, which raises the further possibility of conceiving of a right to a sustainable climate (correlative of the duty to curb carbon emissions) as a human right *per se*.¹⁴⁷

The peremptory nature of the obligation to achieve sustainable GHG emissions would allow individual States and international organizations to be considered bound without and despite their agreement.¹⁴⁸ Indeed, according to the ILC, acceptance and recognition by “a very large majority of States” is necessary for the identification of a norm as a peremptory rule, but not absolute consensus by all States and international organizations.¹⁴⁹ In this regard, the recognition of the importance of the obligation to curb GHG emissions for “humankind” embedded in the Preamble to the UNFCCC can be read as a sign of such acceptance.¹⁵⁰ Critically, the persistent objector rule does not apply to *jus cogens*.¹⁵¹ Hence, even if the practice of a non-cooperative international organization or a State, notably the United States under the Trump administration, were to be regarded as a form of persistent objection, this would not exclude the universally binding nature of the obligation to achieve sustainable GHG emissions, particularly in light of the quasi-universal participation in the UNFCCC and related instruments.¹⁵² In any case, in light of its participation in the negotiation of the UNFCCC and related instruments, including the Copenhagen and Paris Agreements, the United States should not be considered a persistent objector to the formation of a universal rule compelling sustainable GHGs: no consistent

147. See discussion *supra* Sections III.B and III.C. On the possibility of conceiving of the right to a sustainable climate as a human right *per se*, see Francesco Francioni & Ottavio Quirico, *Untying the Gordian Knot: Towards the Human Right to a Climatically Sustainable Environment?*, in *CLIMATE CHANGE AND HUMAN RIGHTS: AN INTERNATIONAL AND COMPARATIVE LAW PERSPECTIVE* 133 (Ottavio Quirico & Mouloud Boumghar eds., 2016).

148. ORAKHELASHVILI, *supra* note 9, at 107.

149. Peremptory Norms, *supra* note 8, at 2, Conclusion 7; ILC Report, *supra* note 15, at 168.

150. See discussion *supra* Section III.A.

151. Peremptory Norms, *supra* note 8, at 4, Conclusion 14.

152. See discussion *supra* Section III.A.

contrary practice emerges,¹⁵³ but rather variations in practice based on the prevailing political majority.

B. A Goal-Oriented Cooperative Duty Akin to an Obligation of Result

Having established that thinking about the obligation to achieve sustainable GHG emissions as a peremptory duty is a realistic perspective, it is necessary to consider how it is possible to frame the obligation more analytically, in light of the complexity of the interest protected. The 2001 DASR only establishes under Article 12 that State conduct not in conformity with an international obligation entails a breach of that duty, regardless of its origin or character, without any further distinction between obligations of conduct and obligations of result. The same principle applies under DARIO 11. Conversely, the 1996 DASR took a more analytical approach to the question and outlined a clear distinction between international obligations of conduct and result. Article 20 identified as “obligations of conduct” those that must be implemented through means specifically determined by the international obligation itself, whereby the obligation is breached by the failure to adopt a particular course of conduct.¹⁵⁴ Article 21 outlined as “obligations of result” those that require a State to achieve a particular aim, leaving it to the State to achieve the objective by means of its own choice, whereby a State is in breach if it does not comply with the required outcome.¹⁵⁵ The difference therefore depends on whether an international obligation requires the positive or negative performance of specific conduct, rather than the establishment or maintenance of a particular situation. Assessing whether an obligation is of conduct or of result necessitates a case-by-case consideration of specific regulatory instruments.¹⁵⁶

Christina Voigt has qualified the duty to stabilize GHG emissions as an obligation of conduct. According to a complex argument, Voigt considers that “Article 4.2 UNFCCC in conjunction with Article 2 . . . obliges parties to take action to

153. Fisheries Case (U.K. v. Nor.), Judgement, 1951 I.C.J. 116, 138-39 (Dec. 1951).

154. Report, *supra* note 55, at 60.

155. *Id.*

156. See JAMES CRAWFORD, THE INTERNATIONAL LAW COMMISSION'S DRAFT ARTICLES ON STATE RESPONSIBILITY 124 (2002).

adopt policies and measures to secure the stabilization of atmospheric concentrations of greenhouse gases.”¹⁵⁷ More precisely, the Parties to the UNFCCC would have an obligation “not to ‘defeat’ the objective,” committing “to the stabilization target” and being “bound by an ‘obligation of conduct’ to prevent dangerous climate change under Article 2 UNFCCC.”¹⁵⁸ Scholars are divided on the nature of the more specific duty to “pursue domestic mitigation measures, with the aim of achieving the objectives of [nationally determined] contributions” under Article 4(2) of the Paris Agreement, as an obligation of conduct rather than result.¹⁵⁹ With respect to the broader obligation to protect the atmosphere, the ILC considers that “the States’ obligation ‘to ensure’ [that domestic activities do not cause significant harm] does not require the achievement of a certain result (obligation of result) but only requires the best available efforts so as not to cause significant adverse effects (obligation of conduct).”¹⁶⁰

Clearly, affirming that the obligation to curb GHG emissions is one of conduct would lead to significantly weakening the implications of its peremptory nature, because States and international organizations would not be compelled to achieve specific reduction targets, but only to pursue the best efforts to achieve them, regardless of the outcome. However, Wolfrum has meaningfully pointed out that international law encompasses goal-oriented obligations that compel States to implement an evolutionary process leading to no concrete result or to a concrete result in some (distant) future.¹⁶¹ Goal-oriented obligations without a concrete result would be similar to obligations of conduct, for instance, the duty to promote higher standards of full employment under UN Charter Articles 55(5). Goal-oriented obligations requiring the achievement of a

157. Voigt, *supra* note 140, at 6.

158. *Id.* at 6-7.

159. Benoît Mayer, *Obligations of Conduct in the International Law on Climate Change: A Defence*, 27 *REV. EUR. COMP. & INT’L ENVTL. L.* 130, 130-31 (2018); Jaap Spier, *There Is No Future Without Addressing Climate Change*, 37(2) *J. ENVTL. & NAT. RES. L.* 181, 195 (2019).

160. ILC, *supra* note 66, at 176.

161. Rüdiger Wolfrum, *Obligations of Result Versus Obligations of Conduct: Some Thoughts about the Implementation of International Obligations*, in *LOOKING TO THE FUTURE*, 363, 366-67 (Mahnoush H. Arsanjani et al. eds., 2010).

concrete result, however distant, would be akin to obligations of result. These would include duties such as the obligation to pursue “a comprehensive policy for the preservation and protection of the Alps by applying the principles of prevention, payment by the polluter and cooperation,” via the sustainable use of resources, such as energy, under Article 2 of the Convention on the Protection of the Alps.¹⁶²

Within the analytical framework outlined by Wolfrum, the duty to curb GHG emissions should be framed as a goal-oriented obligation. Indeed, UNFCCC Article 4(1) mentions the “*long-term temperature goal* set out in Article 2.”¹⁶³ UNFCCC Article 4(1)(c) requires the Parties to “[p]romote and cooperate” to “reduce or prevent anthropogenic emissions of greenhouse gases,” whereby the use of the word “promote,” in mandatory terms, identifies a goal-oriented duty.¹⁶⁴ Furthermore, the obligation to stabilize GHG emissions should be considered akin to an obligation of result, since it entails a commitment on the part of States to ensuring a sustainable global average temperature increase according to a defined standard, on a cooperative basis. Whilst they are classified as obligations of conduct, when they include a goal, cooperative duties are classified as obligations of result.¹⁶⁵ Based on Article 2(1)(a) of the Paris Agreement, the minimum standard is an average increase well below 2°C above pre-industrial levels, with an effort not to exceed 1.5°C.¹⁶⁶ The achievement of this objective definitely fulfils the decisive distinguishing criterion between goal-oriented obligations akin to duties of conduct rather than result, which is the focus of an international obligation to achieve “a specific and concrete change of facts.”¹⁶⁷ Once the result is achieved, there is an obligation not to revise the facts, that is, not to change the conditions that maintain GHGs within sustainable limits.¹⁶⁸

The language of relevant normative instruments, particularly the UNFCCC and related Agreements, is significant for classifying

162. Adopted November 7, 1991; in force March 6, 1995. See Wolfrum, *supra* note 161, at 367.

163. UNFCCC, *supra* note 7 (emphasis added).

164. Wolfrum, *supra* note 161, at 368.

165. *Id.* at 373.

166. Paris Agreement, *supra* note 37, art. 2(1)(a).

167. Wolfrum, *supra* note 161, at 367.

168. *Id.*

the obligation to achieve a sustainable global temperature increase as a goal-oriented duty akin to an obligation of result. Notably, UNFCCC Article 2 mentions “[t]he ultimate *objective* of this Convention and any related legal instruments . . . to *achieve* . . . stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”¹⁶⁹ The Preamble to the Kyoto Protocol highlights that its norms were adopted “[i]n pursuit of the *ultimate objective* of the Convention [UNFCCC] as stated in its Article 2” to achieve sustainable GHG emissions.¹⁷⁰ Article 2(1) of the Paris Agreement underscores that “in enhancing the implementation of the Convention [UNFCCC], including its *objective*,” the Agreement “aims to strengthen the global response to the threat of climate change, in the context of sustainable development.”¹⁷¹ Within this framework, Article 2(a) specifies that the Paris Agreement “pursue[s] efforts” to limit temperature increase to 1.5°C above pre-industrial levels, but “holds” temperature increase well below 2°C.¹⁷²

The goal-oriented approach to the duty to achieve a sustainable increase in global average temperature as an obligation akin to a duty of result also allows the understanding of the terms of the debate on the bindingness of the UNFCCC and related instruments. Most scholars support the binding nature of the UNFCCC and related instruments,¹⁷³ in line with the stance of the ILC, correctly in the view of the Author.¹⁷⁴ However, some scholars have argued that the UNFCCC and related instruments would only have a declaratory function,¹⁷⁵ whilst others have suggested that these instruments are soft law.¹⁷⁶

169. UNFCCC, *supra* note 7, art. 2 (emphasis added).

170. Kyoto Protocol, *supra* note 31 (emphasis added).

171. Paris Agreement, *supra* note 37, art. 2(1) (emphasis added).

172. *Id.* art. 2(1)(a).

173. See RODA VERHEYEN, CLIMATE CHANGE DAMAGE AND INTERNATIONAL LAW 135 (2005); Voigt, *supra* note 140, at 5-7 (arguing that the obligation to prevent climate change also entails procedural duties in terms of environmental impact assessment); see also DANIEL BODANSKY, JUTTA BRUNNÉE & LAVANYA RAJAMANI, INTERNATIONAL CLIMATE CHANGE LAW 119, 161, 212 (2017).

174. See ILC, *supra* note 66, at 160, Guideline 11.

175. See Reinhard Quick, ‘Border Tax Adjustment’ in the Context of Emission Trading: Climate Protection or ‘Naked’ Protectionism?, 3 GLOBAL TRADE & CUST. J. 163, 169 (2008).

176. See BIRNIE ET AL., *supra* note 90, at 359.

Such different stances can be explained by the fact that goal-oriented obligations seem to be somewhat “softer” than other types of duties, but States are compelled to comply, since a lack of performance would trigger responsibility.¹⁷⁷ Thus, if the result of containing global average temperature increase well below 2°C under the Paris Agreement is not achieved, States and international organizations should be considered liable: for the purpose of determining responsibility, only the result matters.¹⁷⁸ Otherwise, the 2°C objective would only be indicative, with catastrophic implications for the environment, according to scientific evidence. In this context, the objective is not specifically established for each State individually, but collectively for all States to achieve in a coordinated manner; therefore, States have a certain degree of constraint in the process leading to containing anthropogenic GHG emissions within sustainable limits.¹⁷⁹ In its Draft Guidelines on the Protection of the Atmosphere, the ILC has indeed underscored that States have an obligation to cooperate with each other and with relevant international organizations for the protection of the atmosphere from atmospheric pollution and degradation.¹⁸⁰ According to the Special Rapporteur on the Protection of the atmosphere, Professor Murase, “the concept of international cooperation is now built to a large extent upon the notion of the ‘common interests’ of the ‘international community as a whole’, rather than on the ‘arithmetic aggregate’ of bilateral collaborative relations in the traditional ‘international society.’”¹⁸¹

The quantum of the objective to be achieved varies, as the evolution from the Kyoto Protocol to the Paris Agreement demonstrates. The limits must be fixed according to scientific evidence, based on the precautionary principle.¹⁸² Currently, it is debatable whether a maximum increase in global average temperature well below 2°C compared to pre-industrial levels is sufficient. In fact, Article 2(1)(a) of the Paris Agreement entails a commitment to possibly reducing temperature increase to a

177. Wolfrum, *supra* note 161, at 368.

178. *Id.* at 372.

179. *Id.* at 373.

180. See ILC, *supra* note 66, at 160, Guideline 8.

181. Murase, *supra* note 25, at 37, ¶ 60.

182. ILC, *supra* note 66, at 173, Guideline 2.

maximum of 1.5°C, which, according to a recent Report of the IPCC, is a critical threshold for preventing extreme effects on resources, ecosystems, biodiversity, food security, cities, tourism and carbon removal.¹⁸³ According to scientific reports, only such an improved target will be sufficient to preserve the environment of the Arctic and the Antarctic, which would otherwise not be able to adapt, with serious implications in terms of ice melting, sea-level rise, change in ocean patterns, and loss of biodiversity.¹⁸⁴ However, there is no mention of the Polar Regions in the UNFCCC and related instruments: arguably, they have not been adequately taken into account in the negotiating process of climate change regulation.

V. CONSEQUENCES OF A BREACH: DISPUTE SETTLEMENT,
SANCTIONS AND ENFORCEMENT

There is no justification for a State in breach of a peremptory norm.¹⁸⁵ Considering that the obligation to curb GHG emissions is goal-oriented and cooperative, the question arises as to when responsibility actually arises. A possibility would be to assume that responsibility arises when the set threshold for temperature increase is not achieved. However, this would have catastrophic implications for the entire international community and could trigger a “race to the bottom,” with little possibility to achieve the set aim itself. In this respect, in *Gabčíkovo-Nagymaros* the ICJ noted “the often irreversible character of damage to the environment,”¹⁸⁶ stressing that “a ‘peril’ appearing in the long term might be held to be ‘imminent’ as soon as it is established, at the relevant point in time, that the realization of that peril, however far off it might be, is not thereby any less certain and inevitable.”¹⁸⁷ Furthermore, peremptory obligations entail for States a specific duty to prevent a violation.¹⁸⁸ The ILC has

183. IPCC, GLOBAL WARMING OF 1.5°C – IMPACT OF 1.5°C GLOBAL WARMING ON NATURAL AND HUMAN SYSTEMS (2018).

184. See generally IPCC, CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY, AR5 ch. 28, Polar Regions, 1570, 1572 (2014); GLOBAL WARMING OF 1.5°C, *supra* note 5, at 7; THE OCEAN CRYOSPHERE, *supra* note 5, at 6.

185. Peremptory Norms, *supra* note 8, at 5, Conclusion 18.

186. *Gabčíkovo-Nagymaros* Project, *supra* note 80, at 78, ¶ 140.

187. *Id.* at 42, ¶ 54; see also Joni Hersch & Kip Viscusi, *Allocating Responsibility for the Future of Global Warming Policies*, 155 U. PENN. L. REV. 1657, 1688 (2007).

188. WEATHERALL, *supra* note 17, at 356.

underscored that “States have the obligation to protect the atmosphere by exercising due diligence in taking appropriate measures, in accordance with applicable rules of international law, to prevent, reduce or control atmospheric pollution and atmospheric degradation.”¹⁸⁹

It should therefore be assumed that responsibility arises when a State or international organization does not comply with individually scheduled reduction targets.¹⁹⁰ Thus, the peremptory obligation to achieve a maximum increase well below 2 or 1.5°C in global average temperature would encompass a subset of peremptory obligations to achieve specific GHG reduction targets. However, a State or international organization that is not a Party to the UNFCCC and Paris Agreement will not be bound by such targets; thus, the problem arises of determining how the objectives can be established. The answer is that all injured States and international organizations should determine binding reduction targets proportionally to per capita emissions, along the lines of the decisions of the District Court, Appellate Court, and Supreme Court in the case of *Urgenda*.¹⁹¹ The Conference of the Parties to the UNFCCC could determine such measures on behalf of the international community as a whole.

When a State breaches a rule of *jus cogens*, specific procedural consequences apply under the ILC’s 2001 DASR and 2011 DARIO.¹⁹² In fact, if an obligation is owed to the international community as a whole and the breach of the obligation is of such a character as to radically change the position of all the other States and international organizations to which the obligation is owed with respect to the further performance of the duty, the latter can invoke responsibility.¹⁹³ Besides a State or international organization directly affected by the breach under DASR and DARIO 42(b) (i), all other indirectly affected States and international organizations can invoke the responsibility of the injurer under DASR and DARIO 42(b) (ii).¹⁹⁴

189. ILC, *supra* note 66, at 159, Guideline 3.

190. *See* Spier, *supra* note 159, at 196 (arguing that nationally determined contributions are minimum obligations).

191. *See supra* Section III.C; Spier, *supra* note 159, at 196.

192. DASR, *supra* note 59, art. 41; DARIO, *supra* note 62, art. 42.

193. DASR, *supra* note 59, art. 42(b) (ii); DARIO, *supra* note 62, art. 43(b) (ii).

194. Report, *supra* note 59, at 118-19, ¶¶ 11-12; *see also* Pierre-Marie Dupuy, *The Deficiencies of the Law of State Responsibility Relating to Breaches of ‘Obligations Owed to the*

Thus far, the special Rapporteur on the protection of the atmosphere has pointed out that “it may be too early at present to interpret the concept of common concern as giving ‘all States a legal interest, or standing, in the enforcement of rules concerning protection of the global atmosphere,’ in view of the absence of appropriate procedural law to implement such an interpretation.”¹⁹⁵ Because of the common interest protected, a breach of the peremptory obligation to achieve sustainable anthropogenic GHG emissions would affect all States and international organizations, triggering universal invocation of responsibility. In fact, the ILC’s Draft Conclusions on Peremptory Norms provide that “[a]ny State is entitled to invoke the responsibility of another State for a breach of a peremptory norm of general international law (*jus cogens*).”¹⁹⁶

Furthermore, under DASR 48 and DARIO 49 any State or international organization other than the injured ones can invoke responsibility, if the obligation breached is owed to the international community as a whole, including cessation, assurances of non-repetition, and reparation. According to the ILC, a State or international organization entitled to invoke responsibility under DASR 48 and DARIO 49 does not act based on individual damage, but rather as a member of the international community as a whole.¹⁹⁷ In the case of the obligation to curb GHG emissions, all States and international organizations are affected and should thus be entitled to invoke responsibility.

If a breach of *jus cogens* is “serious,” all States and international organizations have an obligation to cooperate and invoke responsibility, since DASR 41(b) and DARIO 42(1) provide that States and international organizations “*shall* cooperate to bring to an end through lawful means” such

International Community as a Whole: Suggestions for Avoiding the Obsolescence of Aggravated Responsibility, in *REALIZING UTOPIA: THE FUTURE OF INTERNATIONAL LAW* 210, 214-15 (Antonio Cassese ed., 2012).

195. Murase, *supra* note 128, at 57, ¶ 89.

196. Peremptory Norms, *supra* note 8, at 4, Conclusion 17, ¶ 2; ILC Report, *supra* note 15, at 192.

197. Report, *supra* note 59, at 126, ¶ 1; *see also* Crawford, *Third Report*, *supra* note 57, at 67.

violations,¹⁹⁸ whereby it is possible to interpret the expression “lawful means” so as to also encompass invocation of responsibility.¹⁹⁹ A breach is “serious” when it entails a “gross or systematic failure [to comply].”²⁰⁰ More specifically, “systematic” means “carried out in an organized and deliberate way.”²⁰¹ “Gross” refers to “the intensity of the violation or its effects” and “denotes violations of a flagrant nature.”²⁰² The “systematic” or “gross” nature of the violation is based on “the scope and number of individual violations” and “the gravity of their consequences for the victims.”²⁰³ Furthermore, the “seriousness” of a breach concerns “the intent to violate the norm.”²⁰⁴

According to DASR 59 and DARIO 67,²⁰⁵ the outlined procedures complement the UN Charter, and can therefore be followed by classical dispute resolution mechanisms,²⁰⁶ including inquiry, negotiation, mediation, conciliation, arbitration, and judicial settlement, according to Chapter VI of the Charter. Furthermore, it cannot be excluded that non-compliance with sustainable GHG emissions triggers centralized procedures centered on the Security Council under Chapter VII of the Charter.²⁰⁷ Indeed, in light of the catastrophic consequences predicted by scientific evidence, unsustainable GHG emission trends could qualify as a “threat to” or “breach of” the peace under UN Charter Article 39.²⁰⁸ Climate change can in fact increase conflicts on a global scale in several ways, for instance, by

198. DASR, *supra* note 59, art. 41(b); DARIO, *supra* note 62, art. 41(1) (emphasis added).

199. DASR, *supra* note 59, art. 41(b); DARIO, *supra* note 62, art. 42(1). See COSTELLOE, *supra* note 17, at 187-90.

200. Report, *supra* note 59, at 113, ¶ 7; see also Crawford, Third Report, *supra* note 57, at 380-81; Paola Gaeta, *The Character of the Breach*, in THE LAW OF INTERNATIONAL RESPONSIBILITY 425-26 (James Crawford et al. eds., 2010).

201. Report, *supra* note 59, at 113, ¶ 8.

202. *Id.*

203. *Id.*

204. *Id.*

205. Report, *supra* note 59, at 143; Report, *supra* note 62, at 104.

206. ILC, *supra* note 66, at 161, Guideline 12.

207. See generally SHIRLEY SCOTT & CHARLOTTE KU, *The UN Security Council and Global Action on Climate Change*, in CLIMATE CHANGE AND THE UN SECURITY COUNCIL 1, 11 (Shirley Scott & Charlotte Ku eds., 2018).

208. Christopher Penny, *Climate Change as a Threat to International Peace and Security*, in CLIMATE CHANGE AND THE UN SECURITY COUNCIL 25, 34 (Shirley Scott & Charlotte Ku eds., 2018).

causing loss of resources and territory and migrations.²⁰⁹ This possibility actually strengthens the view that the obligation to curb GHG emissions is a peremptory one, because only the most serious violations of concern to the international community as a whole trigger procedures under Chapter VII of the UN Charter.²¹⁰ Conversely, in light of the dismissal of the projects drafted by Gaetano Arangio-Ruiz,²¹¹ general invocation of responsibility does not entail the ability of injured and non-injured States and international organizations to bring a unilateral action in international jurisdictions (*actio popularis*), notably the ICJ.²¹² This would have afforded a useful remedy to implement a goal-oriented obligation and achieve the result of ensuring sustainable GHG emissions.

Sanctions include the classical duties of cessation, non-repetition and reparation, encompassing restitution, compensation and satisfaction under DASR and DARIO 30 and 31.²¹³ Cessation would entail an obligation to bring the excessive GHG emissions of a State or an international organization into conformity with required limits, and non-repetition would compel keeping GHG emissions within the required standard. Reparation should take place via *restitutio in integrum*, by adding excessive GHG emissions to a subsequent reporting period. Despite a lack of clarity in relevant normative texts, these are fundamentally the sanctions embedded in Articles 5-8 of the Kyoto Protocol, with an emphasis on both enforcement and facilitation of compliance,²¹⁴ and under the “global stocktake” procedure according to Articles 14 and 15 of the Paris

209. EU High Representative and European Commission, Climate Change and International Security, Doc. S113/08 (2008); HARALD WELZER, CLIMATE WARS: WHAT PEOPLE WILL BE KILLED FOR IN THE 21ST CENTURY (2012); Penny, *supra* note 208, at 30.

210. Pemmaraju Sreenivasa Rao, *International Crimes and State Responsibility*, INT’L RESP. TODAY 63, 77 (Maurizio Ragazzi ed., 2005) (outlining offences that breach *jus cogens* and trigger procedures under Chapter VII of the UN Charter); Nigel White, *Responses of Political Organs to Crimes by States*, SYS. CRIM. INT’L L. 314, 328–29 (2009).

211. *See supra* Section III.B.

212. Application of the Convention on the Prevention and Punishment of the Crime of Genocide (Bosn. & Herz. v. Serb. & Montenegro), 2007 I.C.J. 104, ¶ 147 (Feb. 26, 2007).

213. Report, *supra* note 59, at 88; Report, *supra* note 62, at 77.

214. Shinya Murase (Special Rapporteur on the Protection of the Atmosphere), Fifth Rep. on the Protection of the Atmosphere, U.N. Doc. A/CN.4/711 21-23, ¶¶ 39-40 (Feb. 8, 2018) [hereinafter Fifth Rep.].

Agreement, with an emphasis on facilitating compliance.²¹⁵ Of course, the peremptory nature of the obligation breached would allow such remedies to be extended to non-cooperative States and international organizations. Indeed, as concerns their scope, sanctions should be *erga omnes* and peremptory, thus binding a State or international organization vis-à-vis all other States and organizations of the international community.²¹⁶ In fact, according to DASR and DARIO 33, sanctions may be owed “to one or more States, to one or more other organizations, or to the *international community as a whole*, depending in particular on the character and content of the international obligation and on the circumstances of the breach.”²¹⁷ This approach is consistent with the ILC’s Draft Guidelines on the Protection of the Atmosphere, which, in case of “non-compliance”²¹⁸ due to a lack of capacity, require the adoption of facilitative procedures affording assistance to States to ensure compliance with relevant obligations.²¹⁹

If a State or an international organization emitting unsustainable GHG emissions does not comply with a sanction imposed by means of unilateral invocation of responsibility and ensuing procedures, that sanction can be enforced, notably via countermeasures, as established in 2001 DASR 49 and DARIO 51.²²⁰ Consistent with 2001 DASR and DARIO 33, DASR 54 and DARIO 57 establish the possibility of universal countermeasures in the case of a breach of a peremptory norm.²²¹ If the breach of a peremptory obligation is “serious,” DASR 41(1) and DARIO 42(1) create an obligation for States and international organizations to cooperate and end it.²²² DASR 41(1) and DARIO 42(1) compel the taking of general countermeasures, and are thus *lex specialis* with respect to DASR 54 and DARIO 57, which only establish a right. Countermeasures must be limited in time,

215. *Id.* at 23-24, ¶ 42.

216. Crawford, Third Report, *supra* note 57, at 106.

217. See Report, *supra* note 59, at 94; Report, *supra* note 62, at 78 (emphasis added).

218. Murase, *supra* note 128, at 15, 28, ¶¶ 26, 41.

219. ILC, *supra* note 66, at 160, Guideline 11(a).

220. Report, *supra* note 59, at 129; Report, *supra* note 62, at 92.

221. Report, *supra* note 59, at 137; Report, *supra* note 62, at 96.

222. Report, *supra* note 59, at 117; Report, *supra* note 62, at 83.

reversible and proportionate, since their purpose is bringing the breach of an international obligation to an end.²²³

A proportionate reaction to the breach of the peremptory obligation to curb GHG emissions is the adoption of economic countermeasures. Notably, border carbon adjustments (“BCAs”) are considered a viable solution,²²⁴ particularly in light of the jurisprudence of the WTO dispute settlement bodies on environmental exceptions to free trade.²²⁵ In other words, if a State or an international organization is not compliant with set GHG reduction targets (primary rules), that State or international organization is not paying for the environmental externality it causes, so that its products and services have a competitive advantage in the international market. All other States and international organizations should therefore not only be allowed to adopt proportionate BCAs under DASR 54 and DARIO 57, but could also be compelled to act so (secondary rules) under DASR 41(1) and DARIO 42(1), depending on the gravity of the breach. In light of their universal scope, the adoption of proportionate BCAs should be decided in a coordinated way by the COP to the UNFCCC. If unsustainable GHG emissions were to be considered a threat to or breach of the peace under UN Charter Article 39, in light of the priority established under 2001 DASR 59, DARIO 67, and UN Charter Article 103, general countermeasures, particularly trade sanctions, would complement collective enforcement via the UN Security Council under Chapter VII of the UN Charter.²²⁶

VI. SCOPE OF THE OBLIGATION: EXTENDING THE DUTY TO NON-STATE SUBJECTS?

As concerns attribution of responsibility, a State or an international organization must adopt effective domestic

223. Report, *supra* note 59, at 129-35; Report, *supra* note 62, at 92.

224. Quick, *supra* note 175, at 163.

225. Appellate Body Report, United States—Import Prohibition of Certain Shrimp and Shrimp Products, ¶ 164, WTO Doc. WT/DS58/AB/R (Adopted Oct. 12, 1998); Panel Report, European Communities—Measures Prohibiting the Importation and Marketing of Seal Products, ¶ 7.426, WTO Doc. WT/DS400/R, WT/DS401/R (Nov. 25, 2013); BODANSKY ET AL., *supra* note 173, at 334.

226. See Alan Boyle, Jacques Hartmann & Annalisa Savaresi, *The UN Security Council’s Legislative and Enforcement Powers and Climate Change*, in CLIMATE CHANGE AND THE SECURITY COUNCIL 101, 115 (Shirley Scott & Charlotte Ku eds., 2018).

legislation to constrain the conduct of natural and legal persons, such as energy corporations, and achieve collectively agreed international GHG reduction targets. A State's GHG emissions are indeed the result of aggregate emissions produced by all natural and legal persons in a given country. The overall emissions of an international organization, such as the EU, result from the aggregation of emissions within the Member States. Crucially, according to the judgment of the Appeals Court in *Urgenda*, as confirmed by the Dutch Supreme Court, in light of the commitment to limiting global warming well below 2°C under Article 2 of the Paris Agreement, the ECHR establishes an "obligation to protect the right to home and private life," which "applies to all activities, public and non-public."²²⁷ It should be considered that this is for a State and an international organization a goal-oriented obligation of result; in fact, if a State or an international organization is not able to prevent excessive GHG emissions by all subjects within its territory, that State or international organization must be considered in breach of a compulsory objective. Of course, non-State subjects are also responsible for not achieving established GHG reduction targets. The question is therefore whether or not it is possible to conceive of a peremptory obligation to achieve sustainable GHG emissions also with respect to persons other than sovereign entities.

According to the evolution of international law, general peremptory obligations address not only sovereign entities, but also non-State persons, including natural and legal persons. Notably, whilst the select circle of peremptory obligations is not clearly defined, the obligations that are undoubtedly peremptory address non-State persons as both right-holders and duty-bearers.²²⁸ In *Furundžija*, the International Criminal Tribunal for the Former Yugoslavia ("ICTY") clarified that the *jus cogens* nature of a prohibition has a preemptive effect, signaling "to all members of the international community and the individuals over whom they wield authority" an "absolute value from which nobody must

227. *Neth. v. Urgenda Foundation*, Case n. 200.178.245/01, The Hague Court of Appeal, ¶ 43 (2018); *Neth. v. Urgenda Foundation*, Case n. 19/00135, Supreme Court of The Netherlands, ¶ 5.6.2 (2019). See also Jonathan Verschuuren, *The State of the Netherlands v. Urgenda Foundation: The Hague Court of Appeal Upholds Judgment Requiring the Netherlands to Further Reduce Its Greenhouse Gas Emissions*, 28 RECIEL 94, 95 (2019).

228. WEATHERALL, *supra* note 17, at 340-41.

deviate.”²²⁹ Furthermore, according to UNDRD Article 2(3), the right to development incorporates external State–State and internal State–people and State–individual duty–right relations, which complement an individual right to be enjoyed by every person and a collective right belonging to all peoples and States.²³⁰

From the standpoint of attribution of liability, the peremptory nature of the obligation to curb GHG emissions would entail the responsibility of all GHG emitters in breach of sustainable thresholds in a given country. The peremptory nature of the obligation would allow these persons to be held responsible, regardless of whether they act *secundum* or *contra legem*. In fact, in *Furundžija*, the ICTY considered that conduct permitted by national law, but in breach of peremptory norms, remains internationally unlawful and is actionable in any State.²³¹ This stance can be questioned in the context of States that take a dualistic approach to international law. However, as peremptory norms always override domestic legislation, it should be considered that also in a dualistic context an individual can be held responsible for contributing to failing to achieve established GHG reduction targets.²³²

From the standpoint of the persons affected by the violation, the breach of a peremptory obligation damages all State and non-State subjects of the international community. Accordingly, in *Furundžija* the ICTY held that the individual breach of an international obligation has an “inherently universal character.”²³³ The breach of a peremptory obligation to curb GHG emissions would thus affect not only all other sovereign entities of the international community, but also all other non-State entities and natural persons.

The consequences of the breach of a peremptory norm for individuals have been mostly elaborated in the context of international criminal law, where the violation of an *erga omnes* obligation leads to universal and supranational prosecution

229. *Furundžija*, *supra* note 15, at 59, ¶ 154.

230. *See supra* Section III.B.

231. *Furundžija*, *supra* note 15, at 59, ¶ 155.

232. *Nulyarimma v. Thompson* (1999) FCA 1192, ¶ 160 (Austl.).

233. *Furundžija*, *supra* note 15, at 60, ¶ 156.

within the framework of international cooperation.²³⁴ Considering that the obligation to curb GHG emissions is peremptory not only for States and international organizations, but also for non-State natural and legal persons, would mainly entail consequences in the sphere of torts. Depending on the seriousness of the breach,²³⁵ a relevant implication would be the exclusion of jurisdictional immunity for responsible natural persons acting for a State in not ensuring compliance with agreed reduction targets.²³⁶ Possibly, the exclusion of jurisdictional immunity could also extend to a State or an international organization in breach of the obligation to stabilize anthropogenic GHG emissions, allowing adjudication by foreign courts.²³⁷ Another implication could be the establishment of universal civil jurisdiction. Whereas the principle of universal jurisdiction has fundamentally been developed in the context of criminal law, it is also progressively developing in the framework of civil claims.²³⁸ Thus, proceedings could be initiated by potential victims having *locus standi* “before a competent international or national judicial body with a view to asking it to hold the national measure to be internationally unlawful,” including “a civil suit for damage in a foreign court, which would therefore be asked *inter alia* to disregard the legal value of the national authorizing act.”²³⁹

VII. CONCLUSION

Peremptory norms (*jus cogens*) include *erga omnes* obligations, that is, indivisible duties owed by a subject to the international community as a whole, which are therefore non-derogable by means of bilateral or multilateral agreements. Several consistent practices at the international and domestic level allow the consideration that the obligation to achieve sustainable anthropogenic GHG concentrations in the

234. *Id.*

235. *See supra* Part V.

236. WEATHERALL, *supra* note 17, at 310; *Yousuf v. Samantar*, 699 F.3d 767 (4th Cir. 2012) cert. denied, 134 S. Ct. 897 (2014).

237. COSTELLOE, *supra* note 17, at 245. *But see* Jurisdictional Immunities of the State (Ger. v. It.), Judgment, 2012, I.C.J. 99 (Feb. 3).

238. *Sosa v. Alvarez-Machain*, 542 U.S. 692, 762-63 (2004); Donald Francis Donovan & Anthea Roberts, *The Emerging Recognition of Universal Civil Jurisdiction*, 100 A.J.I.L. 142 (2006); WEATHERALL, *supra* note 17, at 277.

239. Furundžija, *supra* note 15, at 60, ¶ 155.

atmosphere specified in UNFCCC Article 2 is evolving as a peremptory duty, as a sub-species of the universal obligation to achieve environmental sustainability.

First, the UNFCCC and related instruments register quasi-universal participation and there is no apparent persistent objection. Acceptance and recognition by a very large majority of States is necessary for the identification of a norm as a peremptory rule, not absolute consensus. The recognition of the importance of the obligation to curb GHG emissions for “humankind” embedded in the Preamble to the UNFCCC and Paris Agreement can be read as a sign of such acceptance. The Paris Agreement also significantly extends mitigation targets to all the Parties. Second, the evolution of the work of the ILC on the responsibility of States and international organizations, soft and hard law initiatives, particularly on human rights, as well as the jurisprudence of the ICJ, show that massive environmental pollution is evolving as a fundamental *erga omnes* norm. Third, domestic constitutional and statutory legislation, as well as the jurisprudence of domestic courts, allow the inference of a general principle of law compelling sustainable GHG emissions. This evidence is corroborated by the supportive practice of profit and non-profit NGOs and grassroots movements.

Considering the structure of the obligation, the atmosphere and climate are “global commons,” which clash with a relativist approach to the duty to curb GHG emissions. Non-compliance indeed affects all State and non-State subjects of the international community. The unilateral or multilateral suspension of a conventional obligation by the injured States and international organizations under VCLT and VCLTIO Article 60 discloses the possibility of a dissolution of the UNFCCC and related instruments. In light of available scientific data, ensuring a sustainable climate is emerging as the most fundamental environmental interest of the international community, overriding bilateral and multilateral interests. The shared and fundamental nature of the protected interest compels shifting the focus from an integral and derogable *erga omnes partes* obligation to a universal *erga omnes* duty. Within such a framework, even if a persistent objection were to arise, the peremptory nature of the obligation would override it.

In light of UNFCCC Article 2, it should be considered that all States and international organizations have a goal-oriented cooperative duty akin to an obligation of result. Article 2 of the Paris Agreement spells out in detail this obligation by outlining a maximum temperature increase well below 2°C above pre-industrial levels. The threshold of sustainability is debatable and should arguably be improved to a minimum of 1.5°C, given that a lower standard entails irreversible consequences for areas particularly affected by climate change, notably the Polar Regions, with further severe implications for the global climate. A State or an international organization should therefore be held in breach of the obligation to curb GHG emissions when it does not comply with set reduction targets aiming to achieve the collective goal. This should trigger universal invocation of responsibility, an obligation for a State or an international organization to bring excessive GHG emissions into conformity with required limits, and enforcement via universal countermeasures, notably BTAs, under the DASR and DARIO. Such procedures are subordinate to collective measures undertaken by the Security Council under Chapter VII of the UN Charter.

In light of the evolution of international law, the obligation to achieve a sustainable concentration of anthropogenic GHG emissions in the atmosphere could also address non-State natural and legal persons as both duty-bearers and right-holders, waiving immunity and triggering universal jurisdiction for particularly serious violations. It is therefore impelling to seize the ICJ of the question to deliver an authoritative opinion as to whether international law includes a peremptory obligation to achieve sustainable concentrations of GHGs in the atmosphere, and what its scope of application is.

